# Rubric Development for Assessment

Prof. Dr. Wong Su Luan Faculty of Educational Studies suluan@upm.edu.my



Upon completion of the training, the participants will be able to:

- differentiate the various types of rubrics;
- evaluate the suitability of rubrics for the intended assessment tasks;
- design and develop a rubric



Topics that will be covered include:

- Definition of rubrics
- Types of rubrics
- Identify criteria and rating scales for rubrics
- Design and develop rubrics

# What



a tool comprising a set of criteria (with possible levels of performance quality on the criteria) developed to assess any kind of student work, from written to oral to visual.

### **Types of performance**

Type of Performance	Examples
Processes     Physical skills     Use of equipment     Oral communication     Work habits	Playing a musical instrument     Doing a forward roll     Preparing a slide for the microscope     Making a speech to the class     Reading aloud     Conversing in a foreign language     Working independently
Products Constructed objects Written essays, themes, reports, term papers Other academic products that demonstrate understanding of concepts	Wooden bookshelf     Set of welds     Handmade apron     Watercolor painting     Laboratory report     Term paper on theatrical conventions in Shakespeare's day     Written analysis of the effects of the Marshall Plan     Model or diagram of a structure (atom, flower, planetary system, etc.)     Concept map

### **Analytics rubric**

Ratings scale

Criteria that describe the product —

		Low	М	oderate	High
	Criterion A	4		\	7
$\rightarrow$	Criterion B			/	
	Criterion C				
,					

Indicators

### Rubric for scientific report

	Beginning 1	Developing 2	Accomplished 3	Exemplary 4	Score
Introduction	Does not give any information about what to expect in the report.	Gives very little information.	Gives too much informationmore like a summary.	Presents a concise lead-in to the report.	
Research	Does not answer any questions suggested in the template.	Answers some questions.	Answers some questions and includes a few other interesting facts.	Answers most questions and includes many other interesting facts.	
Purpose/ Problem	Does not address an issue related to tide pools.	Addresses a tide pool issue that is unrelated to research.	Addresses an issue somewhat related to research.	Addresses a real issue directly related to research findings.	
Procedure	Not sequential, most steps are missing or are confusing.	Some of the steps are understandable; most are confusing and lack detail.	Most of the steps are understandable; some lack detail or are confusing.	Presents easy-to- follow steps that are logical and adequately detailed.	

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#### **Rubric for Lesson Plan Development**

Name \_\_\_\_\_ Date \_\_\_\_

	Beginning	Developing	Accomplished	Exemplary	Score
	0-5	6-10	11-15	16-20	
Instruction Goals and Objectives 15%	Instructional goals and objectives are not stated. Learners cannot tell what is expected of them. Learners cannot determine what they should know and be able to do as a result of learning and instruction.	Instructional goals and objectives are stated but are not easy to understand. Learners are given some information regarding what is expected of them. Learners are not given enough information to determine what they should know and be able to do as a result of learning and instruction.	stated. Learners have an	Instructional goals and objectives clearly stated. Learners have a clear understanding of what is expected of them. Learners can determine what they should know and be able to do as a result of learning and instruction.	
Instructional Strategies 40%	Instructional strategies are missing or strategies used are inappropriate.	Some instructional strategies are appropriate for learning outcome(s). Some strategies are based on a combination of practical experience, theory, research and documented best practice.	Most instructional strategies are appropriate for learning outcome(s). Most strategies are based on a combination of practical experience, theory, research and documented best practice.	Instructional strategies appropriate for learning outcome(s). Strategy based on a combination of practical experience, theory, research and documented best practice.	
Assessment 15%	Method for assessing student learning and evaluating instruction is missing.	Method for assessing student learning and evaluating instruction is vaguely stated. Assessment is teacher dependent.	Method for assessing student learning and evaluating instruction is present. Can be readily used for expert, peer, and/or self-evaluation.	Method for assessing student learning and evaluating instruction is clearly delineated and authentic. Can be readily used for expert, peer, and/or self-evaluation.	
Technology Used 20%	Selection and application of technologies is inappropriate (or non- existent) for learning environment and outcomes.	Selection and application of technologies is beginning to be appropriate for learning environment and outcomes. Technologies applied do not affect learning.	Selection and application of technologies is basically appropriate for learning environment and outcomes. Some technologies applied enhance learning.	Selection and application of technologies is appropriate for learning environment and outcomes. Technologies applied to enhance learning.	
Materials Needed 5%	Material list is missing.	Some materials necessary for student and teacher to complete lesson are listed, but list is incomplete.	Most materials necessary for student and teacher to complete lesson are listed.	All materials necessary for student and teacher to complete lesson clearly listed.	
Organization and Presentation 5%	Lesson plan is unorganized and not presented in a neat manner.	Lesson plan is organized, but not professionally presented.	Lesson plan is organized and neatly presented.	Complete package presented in well organized and professional fashion.	
				Total Points	Total/2

Retrieved from- http://www.k12.hi.us/~paia/int/rubtem.html

#### Digital Storytelling Assignment: Rubric Example

Student Name/Date/Course:

CATEGORY	Excellent (2 points)	Good (1.8 points)	Fair (1.5 points)	Poor (1 point)
Point of View - Awareness of Audience	Strong awareness of audience in the design. Students can clearly explain why they felt the vocabulary, audio and graphics chosen fit the target audience.	Some awareness of audience in the design. Students can partially explain why they felt the vocabulary, audio and graphics chosen fit the target audience.	Some awareness of audience in the design. Students find it difficult to explain how the vocabulary, audio and graphics chosen fit the target audience.	Limited awareness of the needs and interests of the target audience.
Dramatic Question	Realization is dramatically different from expectation.	Realization differs noticeably from expectation.	Realization barely differs from the expectation.	Realization and expectation do not differ.
Voice - Pacing	The pace (rhythm and voice punctuation) fits the story line and helps the audience really "get into" the story.	Occasionally speaks too fast or too slowly for the story line. The pacing (rhythm and voice punctuation) is relatively engaging for the audience.	Tries to use pacing (rhythm and voice punctuation), but it is often noticeable that the pacing does not fit the story line. Audience is not consistently engaged.	No attempt to match the pace of the storytelling to the story line or the audience.
Soundtrack - Emotion	Music stirs a rich emotional response that matches the story line well.	Music stirs a rich emotional response that somewhat matches the story line.	Music is ok, and not distracting, but it does not add much to the story.	Music is distracting, inappropriate, OR was not used.

Your Date

### **Holistic rubric**

Criteria and descriptors are written here

Rating scale

Score Descriptions

1 point

2 points

3 points

5	Develops a methodical, powerful, and thorough plan for solving the problem. The approach and answers are explicitly detailed and reasonable throughout (whether or not the knowledge used is sophisticated or accurate). The student justifies all claims with compelling evidence and argument: counter-arguments, questionable data, and implicit premises are explored.
4	Develops fully a methodical plan for solving the problem. The approach taken is appropriate, well-thought out, and based on reasonable data and strategies. The student provides evidence and argument for most claims, and the quality of the argument is high. All important reasoning is explicit and logical, though the student may not have considered one or two implicit variables or premises. Even when there is limited mathematical knowledge and a failure to come up with the right answer by the preferred methods, all the answers and methods are reasonable.
3	Grasps the problem adequately and develops an acceptable plan for solving it. All important variables have been considered, though the arguments may be incomplete. The problem-solving plan may be inefficient. These papers provide some evidence that the student had difficulty devising an appropriate strategy. The final write-up of the data and analysis may have gaps or illogical organizations of steps. Some answers or strategies along the way may not be reasonable ones, but the work provides evidence that the student was able to recognize questionable answers and re-think the reasoning.
2	Provides a barely adequate plan for solving the problem, and/or fails to consider certain critical aspects of the problem in the overall strategy. Even when work is thorough, the answers and strategies along the way may not be reasonable or sound, suggesting that the student is "number crunching" with limited understanding of the meaning of the results and the logic of proving a point. There is a semblance of sequential steps and organization of data into a meaningful result, but no clear overall strategy or logic of working out an approach based on the needs of the problem.
1	The student has failed to come up with any clear, appropriate, and/or reasonable strategy for solving the problem. There is a semblance of proof or logic only: randomness or inappropriate step after step characterize the work provided. These papers never get much beyond random calculations, hunches, and/or drawings and notes.

### PENAKSIRAN 2 [D] | | Learning outcome 1 (C6/CTPS) ePortfolio

WEIGHTAGE 10

ePortfolio is an individual assignment throughout the semester. You may use any platform to sign-up for an ePortfolio account (e.g. Blogspot, Wixsite, Wordpress, GoogleSites etc.). In the ePortfolio, you must post updates and progress of your project, and write reflections based on the activities done throughout the semester. You must update your ePortfolio at least once a week and may update it as often as you wish.

**DEADLINE** Week – 14

#### MODE OF SUBMISSION

Upload the URL on PutraBlast by week 2

### <u>ePORTFOLIO</u>

#### **Analytic Rubric**

Standards	Adequate	Developing	Competent	Excellent
Criteria	(1)	(2)	(3)	(4)
Communication of reflection	Learner is merely reporting and summarization of events and/or learning activities.	Learner translates the learning activity to his/her own knowledge construction. Includes some examples and supporting evidence like pictures.	Reflection is somewhat comprehensive and learner is able to generate some new ideas from the learning activities. Includes examples and supporting evidence like pictures and/or videos for each post.	Reflection shows originality and is comprehensive. Learner is able to generate new ideas from the learning activities. Includes examples and supporting evidence like pictures and/or videos for each post, including caption that explains the appended materials.
Content Knowledge	Learners show limited ability to connect the theories of Diffusion of Innovation to the learning activities.	Learner shows an emerging ability throughout the portfolio on how he/she connects the theories of Diffusion of Innovation to the learning activities.	Learner shows concretizing ability throughout the portfolio on his/her comprehension of the theories of Diffusion of Innovation, relate them to the learning activities, and translate to their own situation.	Learner shows evident and/or remarkable ability throughout the portfolio on his/her new knowledge construction from the interplay off the theories of Diffusion of Innovation, learning activities, own situation and realworld problem.
Effort	Portfolio has less than 14 updates.	Portfolio has at least 14 updates.	Portfolio has some additional updates that somewhat reflects the learning activity and journey.	Portfolio has several updates that elaborately reflects the learning activity and journey.

Developed by Dr Mas Nida Md Khambari

### **Holistic Rubric**

Adequate ≤ 49%	Learner is merely reporting and summarization of events and/or learning activities.  Learners show limited ability to connect the theories of Diffusion of Innovation to the
_ 1070	learning activities. Portfolio has less than 14 updates.
Developing (50-69%)	Learner translates the learning activity to his/her own knowledge construction. Includes some examples and supporting evidence like pictures. Learner shows an emerging ability throughout the portfolio on how he/she connects the theories of Diffusion of Innovation to the learning activities. Portfolio has at least 14 updates.
Competent (70-84%)	Reflection is somewhat comprehensive and learner is able to generate some new ideas from the learning activities. Includes examples and supporting evidence like pictures and/or videos for each post. Learner shows concretizing ability throughout the portfolio on his/her comprehension of the theories of Diffusion of Innovation, relate them to the learning activities, and translate to their own situation. Portfolio has some additional updates that somewhat reflects the learning activity and journey.
Excellent ≥85%	Reflection shows originality and is comprehensive. Learner is able to generate new ideas from the learning activities. Includes examples and supporting evidence like pictures and/or videos for each post, including caption that explains the appended materials. Learner shows evident and/or remarkable ability throughout the portfolio on his/her new knowledge construction from the interplay off the theories of Diffusion of Innovation, learning activities, own situation and real-world problem. Portfolio has several updates that elaborately reflects the learning activity and journey.

Developed by Dr Mas Nida Md Khambari

### ANALYTIC RUBRIC

Each of the criteria is scored individually





### HOLISTIC RUBRIC



Apply all the criteria at once to get an overall judgement

### Desired characteristics of criteria

Characteristics	Explanation	
Appropriate	Each criterion represents an aspect of a standard, curricular goal, or instructional goal or objective that students are intended to learn.	
Definable	Each criterion has a clear, agreed-upon meaning that both students and teachers understand.	
Observable	Each criterion describes a quality in the performance that can be perceived (seen or heard, usually) by someone other than the person performing.	
Distinct from one another	Each criterion identifies a separate aspect of the learning outcomes the performance is intended to assess.	
Complete	All the criteria together describe the whole of the learning outcomes the performance is intended to assess.	
Able to support descriptions along a continuum of quality	Each criterion can be described over a range of performance levels.	

Source: Brookhart, S. M. (2013). How to create and use rubrics for formative assessment and grading. Alexandria, VA: ASCD.

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# Desired characteristics of Descriptions of levels of Performance

Characteristics	Explanation		
Descriptive	Performance is described in terms of what is observed in the work.		
Clear	Both students and teachers understand what the descriptions mean.		
Cover the whole range of performance	Performance is described from one extreme of the continuum of quality to another for each criterion.		
Distinguish among levels	Performance descriptions are different enough from level to level that work can be categorized unambiguously. It should be possible to match examples of work to performance descriptions at each level.		
Center the target performance	The description of performance at the level expected by the standard, curriculum goal, or lesson objective is placed at the intended level on the rubric.		
Feature parallel descriptions from level to level	Performance descriptions at each level of the continuum for a given standard describe different quality levels for the same aspects of the work.		

Source: Brookhart, S. M. (2013). How to create and use rubrics for formative assessment and grading. Alexandria, VA: ASCD.

# Purpose



Assess performance

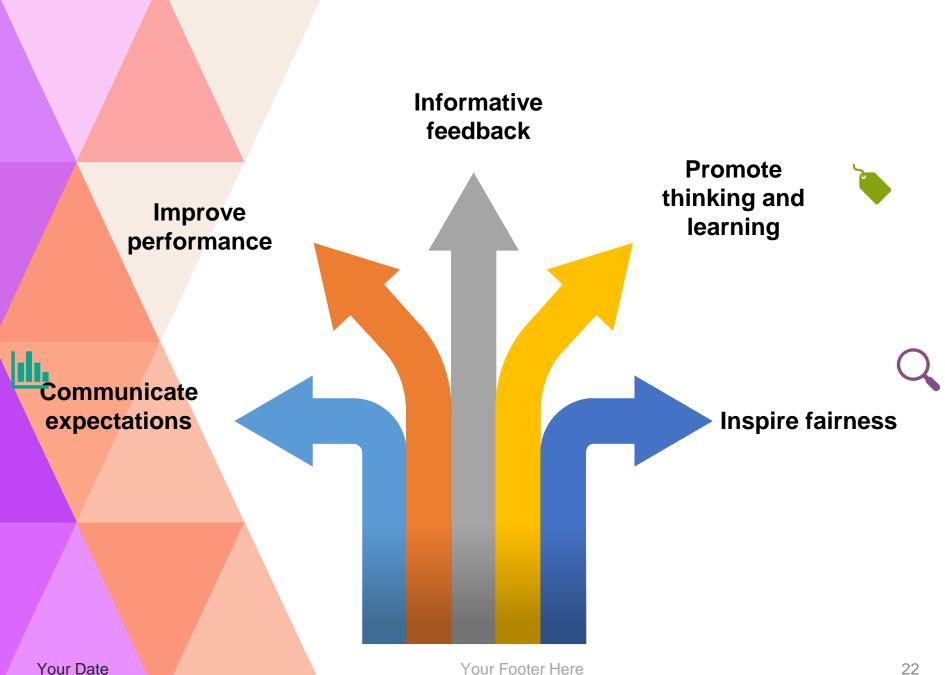
Aligns with Learning Outcome

LO indicated by performance — things students able to do, make, say, write

Your Date

### Benefits





### **Summary**

https://www.youtube.com/watch?v=2NyJ3HlLdLY

### More examples:

### More examples

### Kemahiran berkomunikasi (CS)

Attribute	Subattribute	Level of Applicability	Very Weak	Weak	Fair	Good	Very Good	Example of Assessment Tasks
	Clear delivery of ideas	All levels of study	Not able to deliver ideas clearly and require major improvements	Able to deliver ideas and require further improvements	Able to deliver ideas fairly clearly and require minor improvements	Able to deliver ideas clearly	Able to deliver ideas with great clarity	Presentation, critique, role play, drama, demonstration
	Confident delivery of ideas	All levels of study	Not able to deliver ideas confidently	Able to deliver ideas with limited confidence and require further improvements.	Able to deliver ideas fairly confidently and require minor improvements	Able to deliver ideas confidently	Able to deliver ideas with great confidence	Presentation, critique, role play, drama, demonstration
Verbal Communication	Effective and articulate delivery of ideas	All levels of study	Not able to deliver ideas effectively	Able to deliver ideas with limited effect and require further improvements	Able to deliver ideas fairly effectively and require minor improvements	Able to deliver ideas effectively and articulately	Ability to deliver ideas with great effect and articulate	Presentation, critique, role play, drama, demonstration

LO	Delivery Methods	Assessment Methods
CS	PBL, case study, field visit, field work	Seminar, group work, scenario based case study/debate

Source: Rubrik PNGK Bersepadu: Panduan Pentaksiran Hasil Pembelajaran, https://www.mohe.gov.my/en/download/public/penerbitan/icgpa/124-rubrik-icgpa

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### Kemahiran sosial dan bertanggungjawab (TS)

Attribute	Subattribute	Level of Applicability	Very Weak	Weak	Fair	Good	Very Good	Example of Assessment Tasks
	Foster good relationship	All levels of study	No clear evidence of ability to foster good relationships and work together effectively with other group members towards goal achievement.	Able to foster relationship and work together with other group members towards goal achievement but with limited effect and require improvements	Able to foster relationship and work together with other group members towards goal achievement with some effect(s) and require minor improvements	Able to foster good relationship and work together with other group members towards goal achievement	High ability to foster good relationship and work together effectively with other group members towards goal achievement	Group Tasks (Presentation, Discussion, Project)
Teamwork	Alternate roles	All levels of study	No clear evidence of ability to assume alternate roles as a group leader and group members demonstrated in practice	Attempt to demonstrate in practice the ability to alternate roles as a group leader and group members but with limited effect and require improvements	Able to demonstrate in practice the ability to assume alternate roles as a group leader and group members with some effect(s) and require minor improvements	Able to demonstrate in practice the ability to assume alternate roles as a group leader and a group member to achieve the same goal	Show clear evidence to assume alternate roles as a group leader and a group member demonstrated in practice	Group Tasks (Presentation, Discussion, Project)

LO	Delivery Methods	Assessment Methods
TS	Group work, industrial visit, practical/clinical training	Report, observation, supervisory report, clinical examination, case study

### Profesionalisme, nilai, sikap dan etika (EM)

Attribute	Subattribute	Level of Applicability	Very Weak	Weak	Fair	Good	Very Good	Examples of Assessment Task
	Moral	Initial Phase of Academic Programme	Does not practice good values or does not behave decently in any situation as it should be	Practice good values or behave decently only in some situation	Practice good values and behave decently in many situations	Practice good values and behave decently in most situations.	Always practice good values and behave decently in any situation	Demonstration / Presentation / Group Work / Reflection / Case Study
Values and	Identity	Demonstrate no interest in preserving preserving dignity	mixed attitude in preserving dignity of the nation-state and religion in	Demonstrate an attitude of willingness to preserve dignity of the nation-state and religion in many situations	Demonstrate an attitude of willingness to preserve dignity of the nation-state and religion in most situations	Always demonstrate an attitude of willingness to preserve dignity of the nation-state and religion in any situation	Role Play / Case Study / Reflection	
and Attitudes	Proactive	Initial Phase of Academic Programme	Not able to demonstrate active attitude in all situations	Demonstrate limited active attitude in many situations.	Demonstrate positive and active attitude in many situations	Demonstrate positive and active attitude in most situations	Always demonstrate positive and active attitude in all situations even if it is critical	Internship / Assignment / Project / Group Work / Reflection

LO	Delivery Methods	Assessment Methods
EM	Group work, industrial visit, practical/clinical training	Report, observation, supervisory report, clinical examination, case study

### Pendidikan sepanjang hayat dan pengurusan informasi

Attribute	Subattribute	Level of Applicability	Very Weak	Weak	Fair	Good	Very Good	Example of Assessment Tasks
Information Retrieval and Management	List of References	All levels of study	Fail to fulfil the required number of references	Minimally fulfil the required number of references	Partially fulfil the required number of references	Fulfil the required number of references	Exceed the required number of references	Self-reflection / Assignment / Demonstration / Case analysis
	Relevance	All levels of study	No appropriaten ess and relevance of reference	Limited appropriatene ss and relevance of reference	Sufficient appropriateness and relevancy of reference	Good appropriateness and relevance of reference	Excellent appropriatene ss and relevance of reference	Self-reflection / Assignment / Demonstration / Case analysis / Group work
	Optimisation	All levels of study	Not able to retrieve information	Able to retrieve information from minimal references	Able to retrieve information from sufficient reference	Able to retrieve information from many references	Able to retrieve information from maximum references	Presentation / Self- reflection / Assignment / Demonstration / Case analysis / Group work

LO	Delivery Methods	Assessment Methods
LL	PBL, case study, project based-problem solving	Assignment, industrial/practical/clinical training, final year project, case study

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### Kemahiran pengurusan dan keusahawanan

Attribute	Subattribute	Level of Applicability	Very Weak	Weak	Fair	Good	Very Good	Very Good (Intermediate)	Very Good (Advanced)	Assessment/ Tasks
Entrepreneurial Skills	Entrepreneurial Opportunity	All level	No entrepreneurial idea for value adding/solving customer needs.	Has unclear entrepreneurial idea for value adding/ solving customer needs and is not relevant to customer needs.	Business idea is clear but does not fulfil the realistic customer needs.	Business idea is clear and fulfils the customer needs.	Able to mobilise the idea to become opportunity according to the business strategy and fulfil the customer needs.	Able to conduct the business according to the business strategy and fulfils the customer needs.	Able to conduct the business globally according to the business strategy and fulfils the customer needs.	Pitching / Written report / Product exhibition and sales
	Entrepreneurial Experience	All level	Not able to write a reflection report for an entrepreneurial activity that he/she attends.	Able to write a poor reflection report for an entrepreneurial activity that he/she attends.	Able to write a satisfactory reflection report for an entrepreneurial activity that he/she attends.	Able to write a good reflection report for an entrepreneurial activity that he/she attends.	Able to write an excellent reflection report for an entrepreneurial activity that he/she attends.	Able to write a clear, detailed and high impact reflection report for an entrepreneurial activity that he/she attends.	Able to write a clear, detailed and very high impact reflection report for an entrepreneurial activity that he/she attends.	Entrepreneurial Reflective Report, Engagement

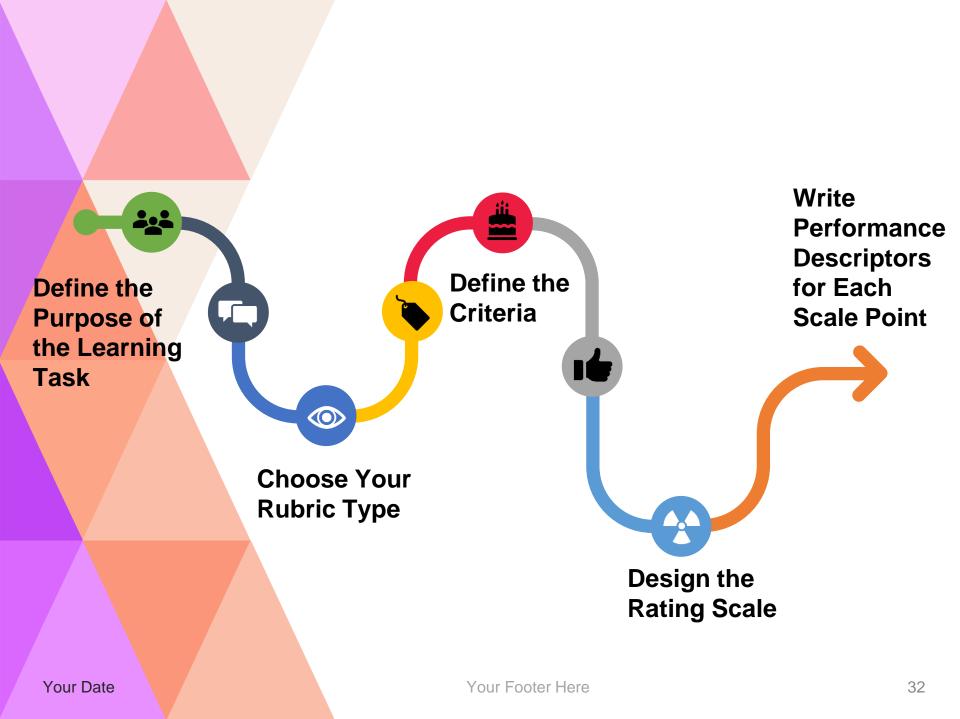
	LO	Delivery Methods	Assessment Methods
k	Κ	Group work, lecture, practical, project work, industrial/clinical training, self-directed learning	Seminar, group work presentation, class participation, industrial training performance and report, case study

### Kemahiran kepemimpinan

Attribute	Subattribute	Level of Applicability	Very Weak	Weak	Fair	Good	Very Good	Example of Assessment Tasks
Leadership	Knowledge and skills in leadership	All levels of study	No clear evidence of knowledge and understanding demonstrated in practice	Able to demonstrate knowledge and understanding in practice but require improvements	Able to demonstrate knowledge and understanding in practice and require minor improvements	Able to demonstrate knowledge and understanding in practice well	Very clear evidence of knowledge and understanding demonstrated in practice	Group Tasks (Presentation, Discussion, Project)
Leadership	Effective leadership	All levels of study	No clear evidence of ability to lead self and/or others	Able to lead self and/or others towards goal achievement but with limited effect and require further improvements	Able to lead self and/or others towards goal achievement with some effect and require minor improvements	Able to lead effectively self and/or others towards goal achievement	High ability to lead effectively self and/or others towards goal achievement.	Group Tasks (Presentation, Discussion, Project)

LO	Delivery Methods	Assessment Methods
LS	Group work, lecture, practical, project work, industrial/clinical training, self-directed learning	Seminar, group work presentation, class participation, industrial training performance and report, case study

# Hands-on Activities Step-by-step



### Thank You!

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