

Formative Assessment 1

Assessment Title	Fluency assessment
Grade Level	11
Subject Area	Design Technology
<p>Skills or Content Knowledge: <i>What information or ideas will be evaluated with this formative assessment? In other words, what data are you aiming to gather?</i></p> <p>The chapter 5 "Innovation and Design" (textbook: Design & Technology by P. Metcalfe, 2nd edition, IB Diploma Program) contains 7 units; before starting unit 5.6 I decided to check their understanding of the past units (5.1-5.5). Statements included important concepts that all the students should have learned. Evaluating their answers would have helped me understand if they grasped the main ideas of past units and if we need to revise some of the material. We immediately discussed every statement (why is it True? Please provide more details, why is it false? What would be the correct example? etc.)</p>	
<p>Assessment Description/Link: <i>What activity or technology (app, tool, etc.) will students use to demonstrate their knowledge or skills? In other words, how will students provide data?</i></p> <p>True or False (Statements from the chapter 5 "Innovation and Design") I included the statements on my slide, I used cold calling method (to keep students focused)</p> <div data-bbox="203 1207 1088 1722"> <p>True or false?</p> <ol style="list-style-type: none"> 1. Innovation is the process of discovering a principle which allows a technical advance in a particular field that results in a novel/new product. FALSE 2. Sustaining innovation is the continuous development of a product throughout its lifecycle. TRUE 3. Substituting a light sensor with a digital sensor in a digital camera is an example of architectural innovation FALSE 4. All the innovations were developed by chance FALSE 5. Product life cycle has 4 stages TRUE </div> <p>I asked a student to read a statement and say if the statement is "true" or "false" and why; after his response, if there is anything to add to the statement, I asked the class to participate. We keep going until there are no more statements. Example: reading statement number 5, which is true, I ask what are the 4 stages, if they can name them.</p>	

Modifications & Adjustments: *How will you administer this formative assessment in an online, hybrid, and physical learning environment? How will you make this accessible to students with language barriers and those with special needs?*

Powerpoint slides are very convenient to use in any environment (online/in-person).

Otherwise, I can also use such tools as: moodle, collaboration boards etc.. This format of "True or False" statements can be presented orally, as well as in a written way on any platform.

Assuming I have students with language barriers - I would allow them to use a dictionary (book) or online translation tools. Before the class I provide a list of specific to the topic words with the description.

If there are students with other special needs, I would allow extra time and offer personal assistance related to where they are struggling.

Data Collection: *How will you gather and record data from this formative assessment? How will you use the data to inform instruction?*

I have taught this class this week and recorded the video of the class. I can either collect data (students' answers) from the video, or also, at the moment of discussion, I note if they have grasped the main ideas of previous topics and decide if it's time to refresh, or include them for the upcoming lecture. Also similar questions may appear on the summative assessments, so, I emphasize, that if anyone struggles - they should come back to these topics and read again. If the concepts still remain unclear, I encourage them to approach me anytime (before/after class, during office hours), and encourage organizing study groups. I also note, if the approach (format of the assessment) is successful, or if it requires modification: number of questions, style of calling (individual or group), etc.


By the time I'm taking this formative assessment - the students should have grasped the main ideas of previous chapters; thus, they should fluently read from the board (knowing all the topic-specific terms, such as "architectural innovation", "product life cycle"). The assessment is not timed, but students are expected to read quickly and in no time say if that's TRUE or FALSE.

Student-Centered Learning: *How will this formative assessment promote a student-centered learning environment in your classroom?*

This assessment is offered for learning and as learning to bring students' attention to key ideas, to recap previous lessons, to check their understanding. This promotes

student-centered learning experience by helping them identify their strengths and weaknesses. Based on the result and feedback, students can revise if needed, and keep studying to make improvements.

Formative Assessment 2

Assessment Title	Oral language assessment
Grade Level	11
Subject Area	Design technology
Skills or Content Knowledge: <i>What information or ideas will be evaluated with this formative assessment? In other words, what data are you aiming to gather?</i>	
My goal is to let the students think in terms of "design thinking", let them research/explore, and apply critical thinking. This type of assessment is a great way to not only check their understanding, but also to enhance their problem-solving, collaboration/team-work skills, presentation skills, etc. Working on this case study would let them think broadly about all the aspects of innovation in their everyday lives.	
Assessment Description/Link: <i>What activity or technology (app, tool, etc.) will students use to demonstrate their knowledge or skills? In other words, how will students provide data?</i>	
<p>Group discussion based on a case study (with further oral presentation)</p> <p>Brainstorm with your group:</p> <p>IKEA Tripp Trapp Chair: Innovated example of a chair. What else can be innovated in a similar fashion? What products that we constantly replace through our lives can be kept?</p>  <p>0-6 months 6-36 months For life</p> <p>Would that be an architectural or modular innovation in your case?</p> <p>I included the description on the powerpoint slide (seen above); for brainstorming they can use the jamboard:</p> <p>https://jamboard.google.com/d/12yGMf7NqL_kTZLzGezn_CWerelceLZcqPFggillkj7o/edit?usp=sharing</p>	

They can include stickies with their ideas
They are allowed to use search engines (Google), the IB resources that they have on moodle, online libraries

Modifications & Adjustments: How will you administer this formative assessment in an online, hybrid, and physical learning environment? How will you make this accessible to students with language barriers and those with special needs?

In online format I can either use the powerpoint, jamboard as mentioned above, or move to another platform: miro collaboration tool is one of the possible examples.
Assuming I have students with language barriers - I would allow them to use a dictionary (book) or online translation tools. Before the class I provide a list of specific to the topic words with the description.
If there are students with other special needs, I would allow extra time and offer personal assistance related to where they are struggling.

Data Collection: How will you gather and record data from this formative assessment? How will you use the data to inform instruction?

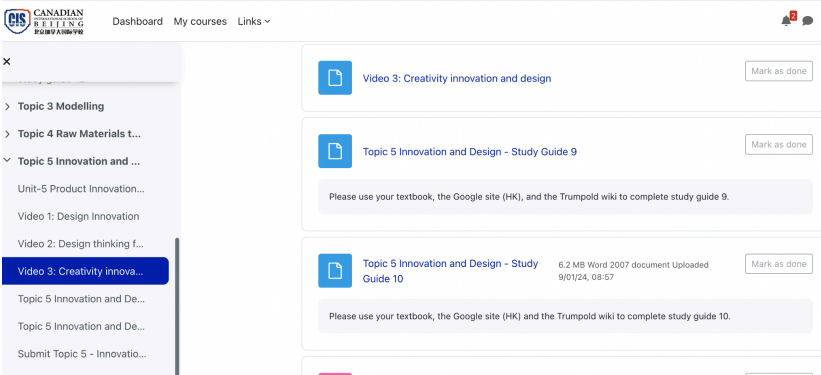
Students will present their ideas to other groups orally during the class; they will need to mention if the innovation they are presenting is "modular" or "architectural"; they will be encouraged to ask questions from each other.
Based on the flow of presentation, discussion, question-answer period I will understand if the students grasped the material, if they can apply the design thinking, if they are ready to move on to the next topic or if we need to review some of the concepts. In my opinion, if they can already apply and "speak" using the vocabulary of a new lesson and think beyond - it's a great indicator of their above-expected performance.

The students are expected to orally present their ideas. They should present confidently, in a clear way, using all the necessary terms learned from this and previous chapters.

Student-Centered Learning: How will this formative assessment promote a student-centered learning environment in your classroom?

This assessment allows students to understand their own progress at all stages of the assessment: inquiry, research, analyzing, discussing, finalizing and evaluating their idea. They receive feedback indirectly (when brainstorming new ideas and discussing with their peers) as well as directly from other groups and the teacher. With this activity they can easily identify their strengths and weaknesses. Based on the result and feedback, students can revise if needed, and keep studying to make improvements.

Formative Assessment 3

Assessment Title	Comprehension assessment
Grade Level	11
Subject Area	Design Technology
Skills or Content Knowledge: <i>What information or ideas will be evaluated with this formative assessment? In other words, what data are you aiming to gather?</i>	
<p>The study guides are formative assessments that help to review the material (by answering questions, by researching, analyzing, and following tasks) and to prepare for formal summative assessments (unit quizzes and exams). The successful completion without/minimum number of mistakes would indicate the student is completely following/understanding the class material and no/minimal adjustments are required; poor performance would indicate the opposite (approach, slides, formative assessments have to be reviewed, especially if a large amount of students has failed the study guide tasks) My goal is to gather such data, analyze, and make according decisions.</p>	
Assessment Description/Link: <i>What activity or technology (app, tool, etc.) will students use to demonstrate their knowledge or skills? In other words, how will students provide data?</i>	
<p>Study guides on moodle for Topic 5</p> <p>The activity is uploaded on school moodle (as it's confidential, thus, I cannot provide the link, but I can provide the screenshots):</p> 	

A sample activity can be found here:

https://docs.google.com/document/d/16J92tebEIIIM27lu7aC-sa_RsdGifDinK/edit

Modifications & Adjustments: *How will you administer this formative assessment in an online, hybrid, and physical learning environment? How will you make this accessible to students with language barriers and those with special needs?*

Students have the access to moodle in an online/hybrid/in-person classroom environment; they are used to this platform; however, I am aware of other platforms such EdPuzzle, Kahoot (in case if I teach the lesson for a different class outside of this school, or if they decide to move away from Moodle)...







Assuming I have students with language barriers - I would allow them to use a dictionary (book) or online translation tools. Before the class I provide a list of specific to the topic words with the description.

If there are students with other special needs, I would allow extra time and offer personal assistance related to where they are struggling.

Data Collection: *How will you gather and record data from this formative assessment? How will you use the data to inform instruction?*

Data can be easily extracted from Moodle:

I can see the number of students who submitted, after grading the assessments - I can see the distribution of grades (visualization charts available on moodle). Grades do not affect their final grade - just used for students and teacher's knowledge - to find out the strengths and weaknesses of each student. I can examine the patterns - if the majority is experiencing problems with similar types of questions (format/concept) - we can plan the upcoming lessons accordingly to address these challenges.

<input type="checkbox"/>		Yoyo Zou	yoyo.zou@cisbeijing.com	No submission	Grade	Edit	-	
<input type="checkbox"/>		Meien Li	meien.li@cisbeijing.com	Submitted for grading	Grade	Edit	Sunday, 14 January 2024, 9:34 AM	 1. Study guide 9 Design.docx 14 J
<input type="checkbox"/>		Catherine Young	catherine.young@cisbeijing.com	No submission	Grade	Edit	-	
<input type="checkbox"/>		Chang Ya-Han	yahan.chang@cisbeijing.com	Submitted for grading	Grade	Edit	Monday, 15 January 2024, 10:05 AM	 Ya-Han Design Tr 15 J

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Opened: Monday, 8 January 2024, 9:55 AM
Due: Wednesday, 17 January 2024, 4:00 PM

Submit Topic 5 - Innovation and Design, study guide 9 here

[View all submissions](#)

[Grade](#)

Grading summary

Visible groups All participants ▾

Hidden from students	No
Participants	24
Submitted	4
Needs grading	4
Time remaining	1 day

Such assessments, study guides, test students' comprehension of the chapters they have studied. The format of questions is broad, and include multiple choice, open (they should write 1-2 paragraphs), analyzing pictures, etc). In the case of this class, this proved to be an effective way to assess comprehensive understanding of the material, guide students in the right direction of what they should focus on when preparing for summative assessments, the data stays with us for further examination, feedback. The results can be shared with the learning community, including DP coordinator, parents if any concerns/necessity

Student-Centered Learning: *How will this formative assessment promote a student-centered learning environment in your classroom?*

This assessment allows students to understand their own progress within the Module. The feedback they receive from the teacher on Moodle would indicate the area they need to review and improve. With this activity they can easily identify their strengths and weaknesses. This assessment places a student in the center of the learning process - it ensures to let them practice skills and review concepts as the students move through the course, ensuring that it reflects students' progress, learning needs, and individual strengths.