

# ASSESS

ASSESSING STUDENTS IN THE 21<sup>ST</sup> CENTURY

## A STEP-BY-STEP APPROACH

**Introduction:** Student assessment comprises many steps, from the initial design of any learning/teaching activity to its implementation and evaluation. It involves a careful reflection about the motivations and goals of the activity, the definition of the mechanisms to collect evidence, the selection of metrics to assess the defined goals and the assessment itself. Student assessment should be seen as a powerful tool to promote students' self-development and the key to achieving this is in involving students in the process, providing regular feedback, offering multiple opportunities for improvement and adopting a positive and inclusive mindset. This template aims to guide educators in the planning and implementation of an inclusive and powerful student assessment, by answering the following questions:

# WHO - WHY - WHAT - HOW - WHEN

Remember that as an educator you have a lot of influence in the development of the students that cross your path. Your expectations of them have the power to influence the expectations and perceptions that they have of themselves. Thinking about student assessment is important and it can make the difference between students growing up with a fixed mindset and low expectations of themselves, or a growth mindset and believing that they have a whole world of learning and experiences ahead of them.

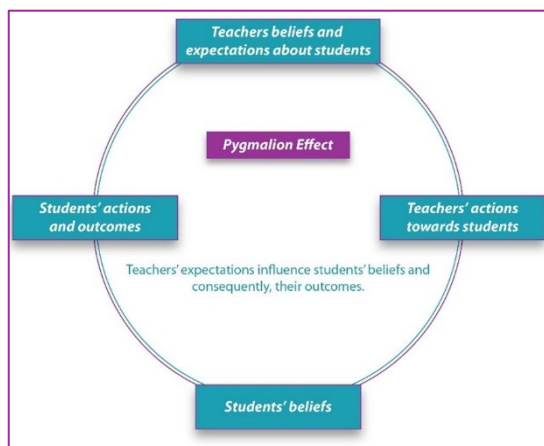


Figure 2. The Pygmalion effect in education

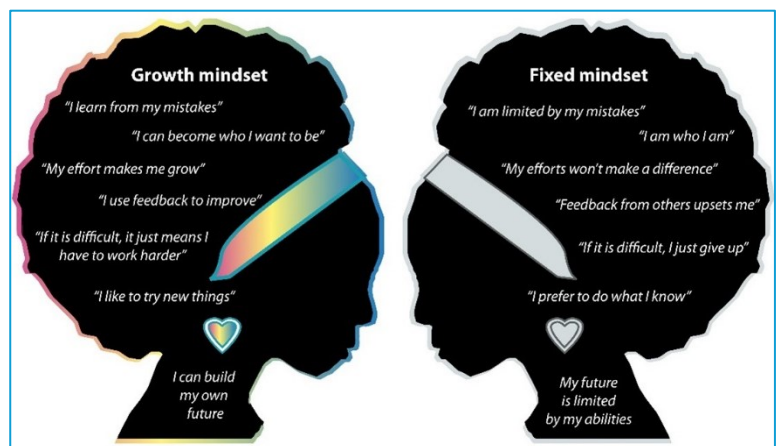


Figure 1. Growth mindset vs Fixed mindset

### Resources:

- Here you can find a **book** that inspires and guides teachers towards innovating in the way they assess their students: <https://assess.nuclio.org/the-assess-book/>
- Here you can find the **rubrics** to assess competences in PDF and in Word document in case you want to edit them: <https://assess.nuclio.org/assessment-toolkit/>



# WHY

**Motivation: WHY I want to assess my students**

Write below why you want to assess your students. What do you expect to achieve? What will you and your students gain from the assessment?

# WHAT

**Learning goals: WHAT I want to assess**

Curriculum content I expect my students to learn during this assessment period	Competences I expect my students to develop during this assessment period
<i>E.g.: Biodiversity, Biology</i>	<i>E.g.: Active citizenship</i>
	<i>E.g.: Critical thinking</i>

## HOW

## Methods and tools: HOW I can assess

**A note on Formative and Summative assessment**

*There has been much debate about whether more value should be attributed to summative or to formative assessment. However, both have a role to play and both can be meaningful.*

**Formative assessment:**

- Powerful for creating regular feedback to support students' development*
- Important for a regular reflection about the teaching practice and adjusting it in a timely manner.*
- Useful, if combined with quantitative metrics to generate graphics of evolution for students.*

**Summative assessment:**

- Provides a final score (which is still mandatory in many educational systems)*
- Offers students an overview of their progress, challenges and achievements.*
- Can be generated as the result of all the relevant formative assessments, being thus fair and representative of students' efforts instead of concentrating the final score on a single moment in time.*

Formative and summative assessments combined can provide students with a complete and detailed assessment approach that supports their development and rewards their efforts, bringing them awareness during the process and the realization of their achievements in the end. Both methods can be considered as high stakes assessments. In this sense, instead of creating anxiety and hindering students' achievements by concentrating their final and most important score in one single moment in time (like one standardized test or exam), teachers can consider all relevant formative assessments to generate the final score. This can be done through a simple average calculation. For example, considering three formative assessment moments, the summative score could be achieved as:

$$(Formative1 + Formative2 + Formative 3) / 3 = Summative assessment$$

*Teachers may perform many formative assessments during the learning period to generate feedback and evolution graphics and only want to consider 3 or 4 of these moments when calculating the summative assessment. These moments can relate to tests, games, projects, observations, etc. It is up to the teachers to select the formative moments that best represent the achievements of the students.*

**Type of assessment(s) I will carry out**

*Selecting the three options is ideal in case you want to create evolution graphics and/or need to provide students with a final score.*

- Formative assessment to generate student feedback
- Formative assessment to generate quantitative metrics
- Summative assessment to generate quantitative metrics

## Methods and tools: HOW I can assess

Recommendation: for each learning goal you identified, (content and competences) select at least one adequate tool to collect evidence. If you want to generate quantitative metrics, select also an associated metric for each learning goal.

Learning goal	Tools we can use to collect evidence	Metrics we can use to assess our students:
<i>E.g.: To understand digestive system</i>	<i>E.g.: games, digital tools like <a href="#">kahoot</a>, <a href="#">Mentimeter</a>, a test, a portfolio, other.</i>	<i>E.g.: Scale from 1 to 10 and each question has a score</i>
<i>E.g.: Valuing Sustainability</i>	<i>E.g. Observation, Checklists</i>	<i>E.g.: Rubrics to assess green competences: <a href="https://assess.nuclio.org/wp-content/uploads/2024/03/GreenComp_Rubrics-EN-Final.pdf">https://assess.nuclio.org/wp-content/uploads/2024/03/GreenComp_Rubrics-EN-Final.pdf</a></i>
<i>Critical Thinking</i>	<i>E.g. Observation, Checklists</i>	<i>E.g.: Rubrics to assess Critical Thinking: <a href="https://assess.nuclio.org/wp-content/uploads/2023/07/Text_rubrics_EN-Final-2.pdf">https://assess.nuclio.org/wp-content/uploads/2023/07/Text_rubrics_EN-Final-2.pdf</a></i>

## How I will structure my feedback to the students

### POSITIVE

An overview of the things they have achieved since the last feedback and pointing out the aspects they have improved. The goal is to sediment good practices and value students' efforts. Helping them realize that they have improved, helps them to believe they can go further.

### CONSTRUCTIVE

Aspects that can still be improved or corrected. Be specific and detailed. Be goal oriented. Stick to the facts and refrain from any judgements. Use a language that appeals for improvement instead of pointing out mistakes with no intention to correct them.

### SUGGESTIONS

Refer to points of action for improvement. For example, remind students to read the rubrics (or other assessment documents) to see what is expected of them, suggest new habits and strategies, etc. Ask students what they think would help them too. Working WITH them key.

Write down an example of how feedback like this would look like. Practicing enough times will make it easier and eventually it will come naturally.

# WHEN

**Timeline: WHEN I will assess students**

<b>Frequency of assessment methods</b>	
<i>E.g.: Collecting evidence through tests, quizzes, kahoot, etc.</i>	<i>E.g.: Once every 3 months</i>
<i>E.g.: Observations</i>	<i>E.g.: Weekly</i>
<i>E.g.: Using the rubrics to assess competences</i>	<i>E.g.: twice a month</i>
<i>E.g.: Promoting students' self-assessment</i>	<i>E.g.: once a week</i>
<i>E.g.: offer feedback to students</i>	<i>E.g.: twice a month</i>

**Additional ideas, strategies, concerns, etc.**