



# Principle of Formative Assessment for Effective Classroom Practice

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# Summative Assessment – Are they enough?



<https://gamalearn.com/summative-assessments-are-they-enough/>

# Summative Assessment

comes at the end of the course

- It tells student “You passed”
- or “You failed”
- or “You got a grade B”
- or “Your scored 65%”

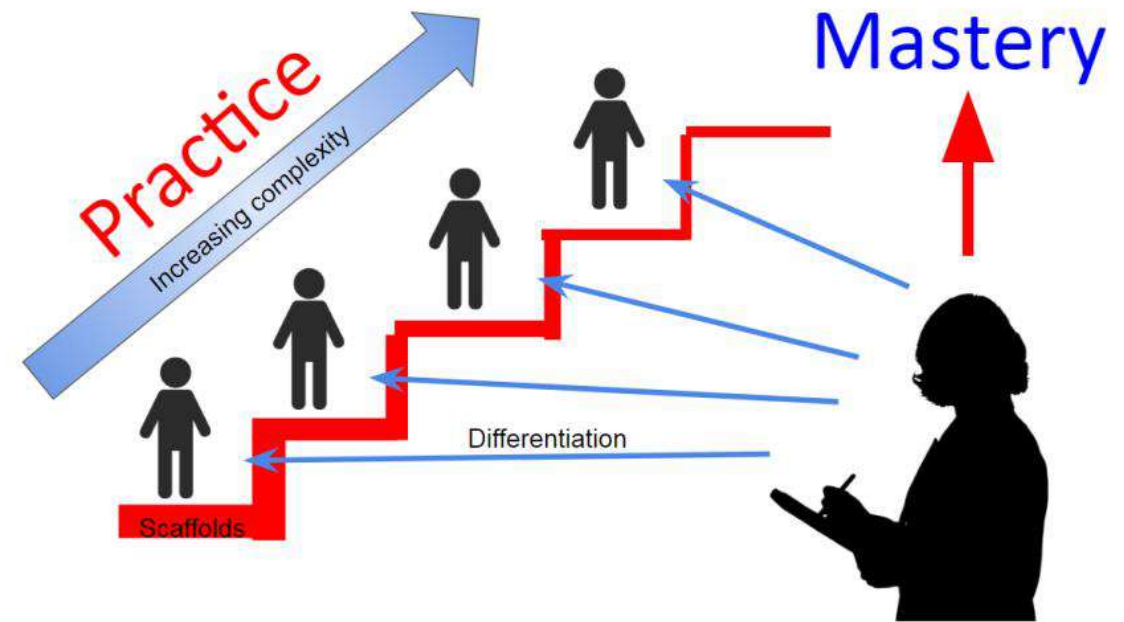


<https://www.wikihow.com/Bring-Your-Grade-Up-when-You-Are-Failing-a-Class>

# Summative Assessment is important for...

- progression on the course
- choice of next module
- final course qualification

**BUT !!!!!!!!!!!!!!!!!!!!!!!**



<https://schoolecosystem.wordpress.com/tag/scaffolding/>

It **does not help** students' learning. Their learning is over at this point!



# Think Soup



**Formative** assessment is when the chef tastes the soup.

**Summative** assessment is when the customer eats the soup.





# Formative

Assessment *for* Learning

**During** learning

Used to provide information on **what and how to improve achievement**

Used by teachers to **identify** and respond to **student needs**

*Purpose:* **improve learning**

**Continuous**

*Examples:* peer assessment, using rubrics with students, descriptive feedback

# Summative

Assessment *of* Learning

**After** learning

Used to **certify** student competent

Used to **rank and sort** students

*Purpose:* **document achievement** of standards

**Periodic**

*Examples:* final exams, mid-term exams, unit tests, placement test

# Formative vs. Summative Assessments



[https://classroomclipart.com/clipart-view/Clipart/Science/student\\_science\\_fair\\_project\\_05\\_jpg.htm](https://classroomclipart.com/clipart-view/Clipart/Science/student_science_fair_project_05_jpg.htm)



# Formative Assessment

comes along the course

- It helps learning
- It **correct errors**
- It **does not give grades** or marks that count towards the final assessment
- It provide descriptive **feedback** that empowers and motivates students

# Shifts in Assessment

From assessing to learn **what students do not know**



To assessing to learn **what students understand**

From using results to calculate **grades**



To using results to **inform instruction**

From **end-of-term assessment** by teachers



To student engaged in **ongoing assessment** of their work and others

From **judgmental feedback** that may harm student motivation

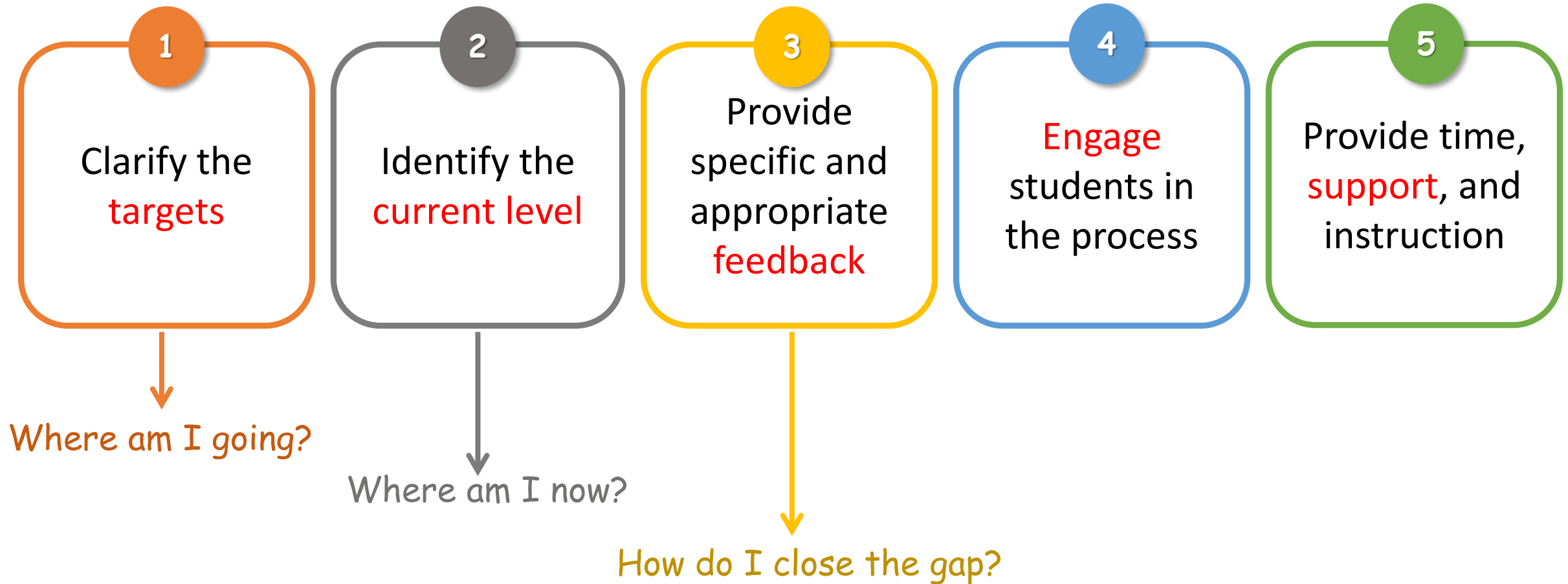


To **descriptive feedback** that empowers and motivates students

# Which of these are formative?

- A. Teacher uses the student's test results of the previous semester to plan the course learning activities.
- B. Teachers doing item-by-item analysis of 3<sup>rd</sup> year undergraduates math tests to review their 3<sup>rd</sup> year undergraduate curriculum.
- C. An English course tests students every two weeks to predict which students are “on course” to pass the end-of the year exam.
- D. Students who fail a sport test on Friday have to come back on Saturday.
- E. End of unit exams in short courses of the continuing education courses
- F. Mid-term exams
- G. Professional certification exams

# Five Critical Elements of Formative Assessment



# 1. Clarity the target

- ❖ The skill and knowledge associated with the **standard** are **clear** and **obtainable**.
- ❖ Students know where they are on the learning continuum – they **know the target**.
- ❖ Students can identify **what needs to be accomplished next**.















## 2. Identify the current level

- ❖ Identify the **current level of skills and understanding** in relation to expectation.
- ❖ Recognize **what** skills or understanding are **weak or missing**.
- ❖ Specifically identifies **what is necessary** to move to the next step.
- ❖ Look at **foundation issues** as well as a recent instruction.
- ❖ **Clearly shows the gap** between current and next level learning.



II. Label the pictures. Use the vocabulary in the box. (12 pts.)

solid      liquid      gas

	Item	States of Matter		Item	States of Matter
1.		solid	7.		solid
2.		liquid	8.		gas
3.		solid	9.		solid
4.		gas	10.		liquid
5.		solid	11.		gas
6.		solid	12.		liquid

# 3. Provide specific and appropriate feedback



- ❖ It should be given promptly.
- ❖ Oral feedback (including discussion) is the most effective.
- ❖ Comments should be limited in number and should give specific advice as how goals can be achieved.
- ❖ It should give the student a sense of what has been achieved as well as improvement still needs to be mastered.
- ❖ Grades are not helpful in a formative environment.
- ❖ Targets and progress should be discussed with students while they are working on the task.
- ❖ Students should reflect on the feedback and be given time to work on improvement.

# SCHOOLIES

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# Incorrect







Noyudom, A., Ketsichainarong, W., & Ruenwongsa, P. (2011). **Development of a computer-based simulation unit on tracheal suctioning to enhance nursing students' knowledge and practical skills.** *Proceedings of the ThaiSim 2011 Conference: Quality, life-long learning through simulation/ gaming, Ayutthaya, Thailand*, pp.65-76. Available online at [http://www.thaisim.org/ts2011/docs/TS11\\_proceedings\\_a.pdf](http://www.thaisim.org/ts2011/docs/TS11_proceedings_a.pdf)

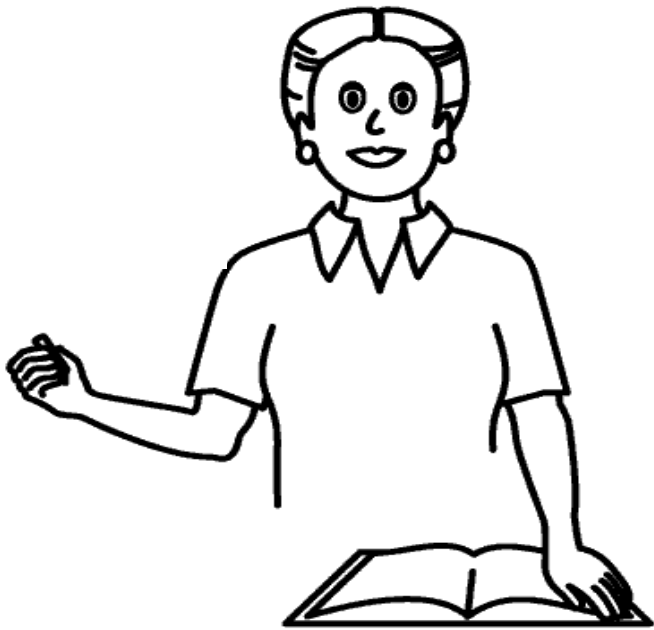
Noyudom, A., & Ketsichainarong, W. (2012). **Using interactive computer game activities to assess nursing students' basic knowledge in tracheostomy care.** Paper presented at The 1st International Conference on Innovation in Education (ICIE 2012), 2012, November 7-9, SD Avenue Hotel, Bangkok, Thailand.



Along with military <sup>techniques</sup> ~~technics~~ of  
their ~~own~~ the persians <sup>adopted</sup> ~~apted~~ the  
Acyrian's <sup>state-of-the-art</sup> warfare,  
which ~~wich~~ increased ~~their~~ ~~security~~ as  
an Empire. <sup>their security</sup>

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wich increased their security as  
an Empire.

Chappuis, Jan. Seven  
strategies of assessment  
for learning (1<sup>st</sup> ed., p.80),  
© 2009.



This essay was “terrible”,  
“hopeless”, complete  
rubbish

If you get this feedback, how do you feel?

# Provide Feedback

Formative assessment gives feedback to help students improve.

Do NOT use words like: *hopeless / useless / stupid / rubbish / full of errors*

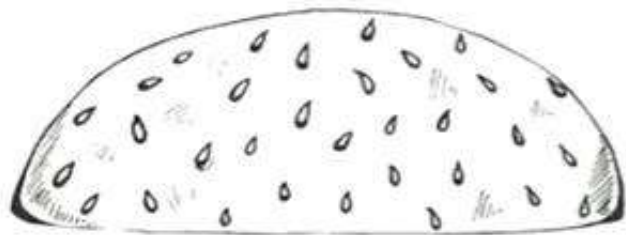
Even if work is not very good ...

- give encouragement first
- then criticize later
- then finish off with encouragement





# Feedback “Sandwich Approach”



Strengths in their work



Address problems/issues



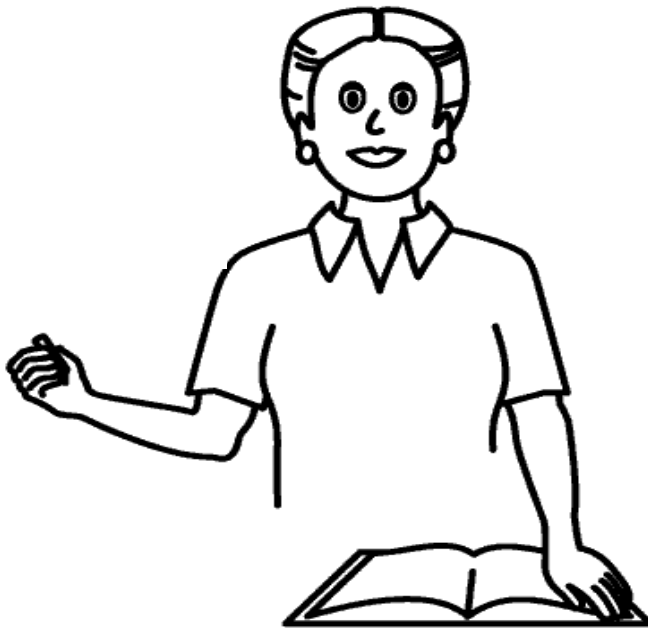
Suggestions on how to improve



End with positive feedback



# Give a Feedback



This essay was “terrible”,  
“hopeless”, complete  
rubbish

You can say ...

*“This essay was quite well written but you forgot to mention ....”*

# The Best Feedback

*The best feedback* is highly specific, directly revealing or highly **descriptive what actually resulted**, clear to the performer, and available or offered in terms of specific targets and standards.

(Wiggins, 1998, p. 46)



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Provide Feedback

# Rubric as Feedback

Rubric are scoring guides that set performance standards for tasks

Rubrics clarify thinking and define tasks; the goals and criteria are clear to everyone ahead of time. When using rubrics, judgments are less about the quality of the person and more about the quality of the work.

(Osborn, 1998)



# Holistic Rubric

## 4 Components

- Focus
- Flow
- Organization
- Sentence structure

Score	Descriptor for scoring writing
4	Interesting throughout Flows smoothly, good transitions Well-organized for topic Good use of mechanics and sentence structure
3	Interesting most of the time Flows smoothly but some poor transitions Organized but some weaknesses Minor mechanical errors
2	Interest lowered by lapses in focus Flow is interrupted by many poor transitions Organization weak, strays from topic Some serious mechanical errors
1	No clear focus Jerky and rambling Poorly organized Many mechanical errors and weak sentence structure

# Analytical Rubric

Component	Beginning (1)	Developing (2)	Accomplish (3)	Exemplary (4)
Focus	No clear focus	Interest lowered by lapses in focus	Interesting most of the time	Interesting throughout
Flow	Jerky and rambling	Flow is interrupted by many poor transitions	Flows smoothly but some poor transitions	Flows smoothly, good transitions
Organization	Poorly organized	Organization weak, strays from topic	Organized but some weaknesses	Well-organized for topic
Sentence structure	Many mechanical errors and weak sentence structure	Some serious mechanical errors	Minor mechanical errors	Good use of mechanics and sentence structure



## 4. Engage students in the process

- ❖ Teacher must create an **environment** where **students feel that they are partners in the learning**
- ❖ The students should **reflect on their learning** and be able to articulate **where they** are and **what needs** to be accomplished next.
- ❖ Students track their learning



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<https://krishijagran.com/agripedia/coconut-farming-earn-lakhs-by-cultivating-this-tree-with-longest-fruited-period/>



## 5. Provide time, support, and instruction in order for students to adjust, implement, and process their learning

- ❖ Follow assessments with time to practice.
- ❖ Make sure **additional (and different) instruction** is provided.
- ❖ Work with students independently and in small group.
- ❖ **Clarify** misconceptions and misunderstandings.
- ❖ **Review** what was taught in relation to its connection the target










# Which cases are formative?

1. Online quiz module that provides immediate feedback. It may be scored, but the score doesn't count towards a final grade
2. Ask students to write good test questions to challenging and help students evaluate their level of understanding of presented content
3. A graphic representation of content such as an infographic, chart, or relational diagram
4. Drawing a concept map in class to represent their understanding of a topic
5. End of unit exams in short courses or continuing education courses
6. Submit one or two sentences identifying the main point of a lecture
7. Turn in a research proposal for early feedback
8. Exit question: “What is the different between mass and weight?”

# Formative Assessment Examples

- Visual models
- Verbal/written summaries
- Peer activities
- Self-assessments
- List-charts and graphic organizers

Examples	Tasks	Benefits for Learners	Additional Benefits
 <p>Visual models</p>	Learners use words and images to create visual representations of information	To make connections, increase memory, and facilitate future retrieval of information	 <p>Highlights preferences in learning style</p>
 <p>Verbal/written summaries</p>	Learners use content-specific language to reflect, summarize, and make sense of what they have heard or read	To derive personal meaning from their learning experiences and increase their metacognitive skills	
 <p>Peer activities</p>	Learners collaborate or assess the quality of each other's work	To become more aware of their own strengths and weaknesses and see peers as resources to gain understanding	 <p>Builds and strengthens a learning community within the training program</p>
 <p>Self-assessments</p>	Learners critically evaluate their own performance and appropriately act on any insights acquired	To see themselves as responsible for their own learning, which helps to drive up engagement and increase retention	
 <p>Lists, charts &amp; graphic organizers</p>	Learners communicate clearly and effectively by organizing information, making connections, and noting relationships	To demonstrate their ability to architect ideas, make decisions, clarify processes, and help solve problems	

Five Critical Elements of Formative Assessment	1	2	3
Indicate how students are moving toward proficiency of a standard	Is general in nature and not targeted to a standard	References a standards but does not indicate where the student is related to proficiency	Specifically targets the component of a standard being worked on and identifies where they are and where they need to be
Identify the current level of understanding in relation to expectations	Is a graded piece of work with nothing to assist in student learning	May identify areas of weakness but does not clearly show skills to work on	Clearly identifies specific strengths and weaknesses as well as what next steps must be taken to be proficient at a certain level
Provide specific and appropriate feedback	Comes in the form of a letter grade, a star or other vague, non-supportive feedback	Feedback provides students with general information, some of which might be used to assist in learning	The feedback is ongoing, specific, targeted to the learning taking place, and assists the student in moving forward.
Engages students in the process	Students receive a grade but are not sure what they did wrong or what to do next	Students go over the assessment and discuss what they got wrong and, perhaps, why. Next steps are not outlined.	Students and teachers discuss the goals and expectations and then discuss those as a result of the assessment. Students then describe what they will do next.
Provide time, support, and instruction in order for students to adjust, implement, and process their learning	The assessment is returned with errors noted and the teacher moves to the next topic	Students are given time to correct their errors but are not assisted by either their peers or the teacher	Time is provided for students to work independently or in small groups while the teacher provides assistance, mini-teaching sessions, and clarifies misconceptions





Thank you