



What It Is and Why It Is Important

Teachers have long known that assessment for learning is a powerful and important tool as we consider student learning. When teachers assess for learning, they carefully consider student responses and look at their work daily and weekly to gauge how students are spending time, whether they have learned the content, and where they are on the path to meeting the learning goal. Teachers also encourage and support students to monitor their own understanding and progress toward clear criteria for success. Formative assessment, a demonstrable pedagogical skill, means that teachers and students are constantly monitoring learning and making use of specific strategies to elicit evidence of understanding, analyze progress, and provide constructive feedback. Black and Wiliam define formative assessment as “all those activities undertaken by teachers and/or by students which provide information to be used as feedback to modify the teaching and learning activities in which they engage” (Black, P., & Wiliam, D. 1998. *Assessment and classroom learning. Assessment in Education*, 5(1), 7-75).

Hattie’s synthesis of formative evaluation found it to be “effective across student age, treatment duration, frequency of measurement, and special needs status. When teachers were required to use data and evidence based models, effect sizes were higher than when data were evaluated by teacher judgment” (p 181). The effect size of teachers using feedback is .90; and the major message is for teachers to pay attention to the formative effects of their teaching. (Hattie, J. 2009. *Visible learning. A Synthesis of over 800 meta-analyses relating to achievement*). Teachers seeking evidence of what students are doing well and not doing well and then adjusting their instruction is what makes for excellence in teaching.

Whether in the face-to-face classroom or in a distant learning environment, all teachers are challenged to provide meaningful education experiences. In 2006, Marzano wrote “formative classroom assessment can take a wide variety of formats, both formal (e.g., paper-and-pencil quiz) and informal (e.g., a discussion with a student (Marzano, R.J. 2006. *Classroom Assessment & Grading that Work*). Today, teachers can avail themselves of many digital formative assessment tools to get a snapshot of the class or monitor progress of individuals. These tools provide both the variety Marzano spoke of, as well as the means for quick, seamless, and low-stakes assessments without creating an unmanageable workload. Formative assessments are generally checked, not graded, as the point is to get a basic read on the progress of individuals, or the class as a whole (Thomas, L. 2019. *Edutopia. 7 Smart, fast ways to do formative assessment*).

It’s important that teachers not overwhelm themselves and their students with too many new digital tools. It is recommended that the focus be on a few tools, being sure to always define a clear and differentiated purpose for using each (Fleming, N. 2020. *Edutopia. 7 Ways to do formative assessment in your virtual classroom*). Furthermore, teachers can add variety by using digital tools either synchronously – all together, at the same time – or, asynchronously – at the student’s pace in their own time. ([See helpful graphics here.](#)) Synchronous formative assessments can quickly provide teachers the answers to such questions as “Are we ready to move on?” or “Do my students need a different path into the concepts?” Asynchronous options can provide student choice and support student autonomy, allowing students to demonstrate their learning in an individualized, personal way.

In this micro-credential, you will become familiar with a variety of digital formative assessment tools that can be implemented all together or at the student’s own pace. You will determine how the tool aligns with your learning targets and activities and how it can provide the information you need to make instructional decisions for your students, as a class or individually. With your enhanced knowledge of digital formative assessment tools, you will be able to adapt technology to suit your instructional needs.

Thinking About Your Current Practice

As you launch into your study of digital formative assessment tools, first consider

- The tools and strategies you currently use for formative assessment: the variety and different ways you implement them
- How you use the information from the tool or strategy to “inform” your instruction: What kinds of adjustments are you needing? How do students use the information to guide their learning?
- The goals you have for enhancing your instructional practice, both face-to-face and virtually: What seems to be most critical for you?

Evidence of Skill and Implementation

The Task: Demonstrating Your Skill

Complete the following task as evidence of your learning, as well as for application or implementation in your classroom:

Task 1: Explore a variety of digital formative assessment tools from the resources in the [Possible Learning Pathways](#) below or from your own sources. Consider how you might use these tools synchronously (together at the same time as determined by the teacher) or asynchronously (determined by students, on their own time or pace).

- a) Select one tool to use synchronously and a different tool to use asynchronously as formative assessments.
- b) Write a brief paragraph for each tool, describing the rationale behind your selection of the tool and how you intend to use it.

Task 2: Create and teach two lessons, one that implements the tool used synchronously, the other that implements the different tool used asynchronously. For each lesson

- a) state the learning target,
- b) briefly describe the learning activity or task, and
- c) identify the tool you will use, and
- d) explain the evidence of student learning to be gathered with the formative assessment tool.

Task 3: After you have taught each lesson, reflect upon each, focusing on the formative assessment tool. In a paragraph for each lesson, answer the following prompts:

- a) What you specifically learned about students’ understanding or skill(s) from the data collected from the formative assessment, and
- b) The instructional changes or moves you made (or will make) as a result of the data from the use of the formative assessment tool.

Reflection:

- Describe 3 ways your experience with digital formative assessment tools has impacted your instructional planning.
- Explain 2 important things you learned about the effective use of digital formative assessment tools.
- State 1 thing you will do in future lessons with digital formative assessments as a result of your learning with this micro-credential.

Learning Targets

You will be able to...

1. Select and design digital formative assessments that specifically measure the stated learning targets and are consistent with the lesson's learning activities.
2. Implement a variety of digital formative assessments so that students can show their understanding or skill in various ways.
3. Use data from digital formative assessments to adjust instruction to better meet students learning needs and reach the target.

Possible Learning Pathways to Prepare for the Task

The following activities and resources will help you deepen and sharpen your understanding of the content. Choose those that will fill your learning needs and help you complete the task.

- Keep at hand these [graphics of synchronous and asynchronous](#) as a visual reminder of their definitions.
- [75 Digital tools and apps teachers can use to support formative assessment in the classroom](#) is a curated list by NWEA (January 2019) of tools that can help you and your students use formative assessment to elicit evidence of learning. Don't be overwhelmed by this list. Start by noting those you already use, those you've heard of from your colleagues or research, and/or those that seem possible for you. Then choose three or four to explore and possibly try.
- [7 Ways to do formative assessments in your virtual classroom](#). This article from Edutopia (October 2020) describes how digital assessments can enhance and work in tandem with the formative assessments you already implement in your face-to-face classroom. The many examples and descriptions will also guide you in thinking about synchronous and asynchronous implementation.
- The Continuous Learning Field Guide developed by the Grant Wood AEA (Iowa) Digital Learning Team includes [Planning Feedback and Formative Assessment](#). In this module, you will explore formative assessment as a tool to assess and adjust the learning path of your students.
- [Formative Assessment in Distance Learning](#), from Edutopia, April 2020, reminds us the crucial role formative assessment has in instruction. Even as we are teaching virtually, the article describes the many ways we can monitor student understanding and adjust our instruction to meet their learning needs.
- [7 Smart, fast ways to do formative assessment](#) describes 40 tools and tricks for finding out what your students know while they're still learning. Included are digital tools that can be used both synchronously or asynchronously, both face-to-face or virtually. From Edutopia, April 2019.

Additional Tools to Deepen and Sharpen Your Understanding

- ❑ Watch this video [60 Second strategy: Closing the Loop](#) to learn about a quick whole-class reflection on content as a verbal exit ticket. This would be a synchronous activity either face to face or virtually.
- ❑ Check out Tip # 5 Frequent, low-stake quizzes are easy to do and highly effective in this article from Edutopia (October 2020) [7 High-impact evidence-based tips for online teaching](#).
- ❑ [Teaching digitally: A free resource guide for any K-12 teacher](#) (created by Nadine Gilkison, a technology integrationist in Indiana, 2020) includes a chapter on checking for understanding, a two-minute video discussion, and a list of tools. You'll find yourself returning to this resource for everything essential to digital instruction.
- ❑ View this webinar from Iowa's Area Education Agencies [Digitastify your assessment and feedback toolbox](#) (August 2020). Both digital tools and implementation tips are discussed.
- ❑ This two-minute video from Common Sense Education discusses [3 Tips for great formative assessment](#), focusing on how to make your formative assessments highly effective and motivating for students (2016).
- ❑ This comprehensive document of [60 tools for formative assessment, techniques to check for understanding, and processing activities](#) was curated by Orange County Public Schools Curriculum Services, Florida, 2012. You will find many familiar strategies as you review them through a synchronous and asynchronous lens.

Submission Guidelines

Submission Guidelines

Following are items you must submit to earn this micro-credential and the criteria by which they will be evaluated. To earn this micro-credential, you must successfully complete each element of the rubrics.

Part I: Task Submission

Task 1: From your exploration of digital formative assessment tools,

- a) Select one tool to use synchronously and a different tool to use asynchronously as formative assessments.
- b) Write a brief paragraph for each tool, describing the rationale behind your selection of the tool and how you intend to use it.

Task 2: Create and teach two lessons, one that implements the tool used synchronously, the other that implements the different tool used asynchronously. Submit a description of each lesson that

- a) states the learning target,
- b) briefly describes the learning activity or task,
- c) identifies the tool you will use, and
- d) explains the evidence of student learning to be gathered with the formative assessment tool.

Task 3: After you have taught each lesson, reflect upon each, focusing on the formative assessment tool. In a paragraph for each lesson, answer the following prompts:

- a) What you specifically learned about students understanding or skill(s) from the data collected from the formative assessment, and
- b) The instructional changes or moves you made (or will make) as a result of the data from the use of the formative assessment tool.

Part II: Reflection

Reflection: In clearly detailed paragraphs, answer each of the three prompts below:

- Describe 3 ways your experience with digital formative assessment tools has impacted your instructional planning.
- Explain 2 important things you learned about the effective use of digital formative assessment tools.
- State 1 thing you will do **in future lessons** with digital formative assessments as a result of your experience with this micro-credential.

Success Criteria for Completing the Task

Part I: Task		
<p><i>Your task will be evaluated on the following one-column rubric. You must earn a “yes” on all elements of the rubric in order to earn the micro-credential.</i></p>		
Notes on What Needs Improvement	YES	Notes on How the Work Meets or Exceeds Expectation
	<p>Task 1:</p> <ul style="list-style-type: none"> a) Two paragraphs clearly differentiate between the synchronous and asynchronous implementation of two different digital formative assessment tools. b) Each paragraph clearly describes the rationale (the why) for the selection of the digital tool. c) Each paragraph clearly explains the digital tool’s intended use. 	
	<p>Task 2: Two lesson plans are submitted:</p> <ul style="list-style-type: none"> a) one that implements a digital tool used synchronously b) the other that implements a different tool used asynchronously. 	
	<p>Task 2: Each lesson plan includes the following elements:</p> <ul style="list-style-type: none"> a) the learning target(s) b) a brief description of the learning activity or task c) the digital tool to be used d) an explanation of the evidence of student learning to be gathered with the formative assessment tool. 	
	<p>Task 3:</p> <ul style="list-style-type: none"> a) One paragraph for each digital tool is provided. b) Paragraph details indicate the participant taught the lessons. c) Paragraph details name and focus on the digital formative assessment. 	

	<p>Task 3: Each paragraph response directly address the questions:</p> <p>a) What you specifically learned about students understanding or skill from the data collected from the formative assessment, and</p> <p>b) The instructional changes or moves you made (or will make) as a result of the data from the use of the formative assessment tool.</p>	
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Part II: Reflection

Your reflection will be evaluated on the following rubric. You must earn a “yes” on all elements of the rubric in order to earn the micro-credential.

Notes on What Needs Improvement	YES	Notes on How the Work Meets or Exceeds Expectation
	<p>CONTENT: All components of the reflection are present:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Describe 3 ways your experience with digital formative assessment tools has impacted your instructional planning. <input type="checkbox"/> Explain 2 important things you learned about the effective use of digital formative assessment tools. <input type="checkbox"/> State 1 thing you will do in future lessons with digital formative assessments as a result of your experience with this micro-credential. 	
	<p>DETAILED: Reflection includes sufficient detail for reader to know what the teacher has learned and how knowledge is/will be used in teaching and learning.</p>	
	<p>CLARITY: Reflection is clear and coherent.</p>	

Iowa Teaching Standards

The following Iowa Teaching Standards are closely aligned with this micro-credential.

- 1. Demonstrate ability to enhance academic performance and support for implementation of the school district's student achievement goals.
- 2. Demonstrate competence in content knowledge appropriate to the teaching position.
- 3. Demonstrate competence in planning and preparing for instruction.
- 4. Uses strategies to deliver instruction that meets the multiple learning needs of students
- ✓ 5. Uses a variety of methods to monitor student learning.
- 6. Demonstrates competence in classroom management.
- ✓ 7. Engages in professional growth.
- 8. Fulfills professional responsibilities established by the school district.

Ohio Teaching Standards

The following Ohio Teaching Standards are closely aligned with this micro-credential.

- 1. Teachers understand student learning and development and respect the diversity of the students they teach.
- 2. Teachers know and understand the content area for which they have instructional responsibility.
- ✓ 3. Teachers understand and use varied assessments to inform instruction, evaluate and ensure student learning.
- 4. Teachers plan and deliver effective instruction that advances the learning of each individual student.
- 5. Teachers create learning environments that promote high levels of learning and achievement for all students.
- 6. Teachers collaborate and communicate with students, parents, other educators, administrators and the community to support student learning.
- ✓ 7. Teachers assume responsibility for professional growth, performance and involvement as individuals and as members of a learning community.