



Great Public Schools for Every Student

Technology Integration: Designer

Educator designs authentic, learner-driven activities and environments that recognize and accommodate learner variability.

Key Method

The educator designs authentic personalized learning experiences that empower students, are aligned to content area standards, and integrate purposeful use of digital tools to accommodate learner preferences and needs.

Method Components

Components of Blended Learning and Learner-Driven Environments

There is no all-encompassing definitive description of blended learning. However, in all the definitions, there is a recurring element: in all blended learning environments, there are **learner-driven activities** that accommodate learner variability. The following examples of blended learning are diverse in the activity, but singular in that, in all cases, students purposefully use digital tools and have some choice about how they learn the material and perhaps, also, about how they are assessed.

Examples of blended learning environments:

- **Students rotate** through stations, and some of those stations include digital devices and intelligent adaptive software that gives the students tasks at or just beyond the students' proficiency level.
- **Students choose** whether to work independently on research or work in a small group to create an infographic while their teacher consults with individual students.
- **Students watch** teacher-created or teacher-selected videos as a launch for a lesson and get started on their chosen pathway when they are ready.

See the Resources section of this document for multiple resources to support educators in understanding how to create learning experiences that are authentic, learner-driven, and aligned to content standards.

Components of Purposeful Use of Digital Tools

- When talking about the purposeful use of digital tools, it is useful to consider the SAMR model (Substitution, Augmentation, Modification, Redefinition).
- Using a digital tool to substitute for paper and pencil (i.e. an online worksheet) may be an entry point for teacher and student, but it certainly should not be where the use of digital tools stops.
- When planning for the purposeful use of digital tools, consider first what the goals for learning are. What should students create? A quick phrase to remember is "verbs before tools."

See the Resources section below for several articles on the SAMR model and purposeful integration of digital tools.

Tips for Designing Learner-Driven Learning Experiences

- Think about three to four class periods (or two blocks) when planning for blended learning.
 - When designing learner-driven learning experiences, it is important to think about a series of lessons addressing a larger goal. It can be difficult to offer students meaningful choice that fully addresses a content area standard in a single 45- to 50-minute class period.
- Begin with the standard(s) addressed and the assessment at the end, and then build the choices for the middle. Some examples of choice are:
 - How a student works (individually, with a partner, with a small group)
 - What they do to introduce themselves to a topic (read about a topic, research, think-pair-share, brainstorm with a group on a padlet, consult an expert, etc.)

The artifact(s) they create to practice their new-found knowledge (an infographic, a shared Google Doc, a video, a photo essay, a presentation, etc.)

Supporting Research

Babette Moeller & Tim Reitzes (2011) Education Development Center, Inc. (EDC). Integrating Technology with Student-Centered Learning. Quincy, MA: Nellie Mae Education Foundation.

<https://www.nmefoundation.org/resources/integrating-technology-with-student-centered-learning/>

OECD (2018). "What does innovation in pedagogy look like?" Teaching in Focus, No. 21, OECD Publishing, Paris,

https://read.oecd-ilibrary.org/education/what-does-innovation-in-pedagogy-look-like_cca19081-en.

Paniagua, A. and D. Istance (2018). Teachers as Designers of Learning Environments: The Importance of Innovative Pedagogies, Educational Research and Innovation, OECD Publishing, Paris,

https://read.oecd-ilibrary.org/education/teachers-as-designers-of-learning-environments_9789264085374-en.

Pape, Barbara, "Learner Variability is the Rule Not the Exception" Digital Promise Global. Retrieved from

<https://digitalpromise.org/wp-content/uploads/2018/06/Learner-Variability-Is-The-Rule.pdf>

Austria, M., Dasig Jr., D., and Valderama, A.M. (May 22–23, 2015) Exploratory Study on Learner-Driven Blended Learning Environment
2nd International Conference in Education, Psychology, and Social Science (ICEPSS) International Research Enthusiast Society Inc. (IRES Inc.) May 22–23, 2015

https://drive.google.com/file/d/1L-Oeql8nEenCmUVSmbvzLXpLjPr_Ri8n/view?usp=sharing

Active Learning Boosts Performance in STEM Courses

Scott Freeman, Sarah L. Eddy, Miles McDonough, Michelle K. Smith, Nnadozie Okoroafor, Hannah Jordt, Mary Pat Wenderoth. June 2014

http://www.pnas.org/content/111/23/8410?lipi=urn%3Ali%3Apage%3Ad_flagship3_pulse_read%3B5ujlJ92ZQgC6PXO%2BbkuCcQ%3D%3D&utm_source=SwitchUp&utm_medium=email&utm_campaign=PNAS%20Feature%20Story%20-%20Active%20Learning%20Boosts%20Performance%20in%20STEM%20Courses

Resources

Standards

ISTE Standards for Educators

<https://www.iste.org/standards/for-educators>

ISTE Standards for Students

<https://www.iste.org/standards/for-students>

Articles

What is Successful Technology Integration?

<https://www.edutopia.org/technology-integration-guide-description>

Technology Integration and Blended Learning

<https://www.digitallearning.org/technology-integration-and-blended-learning>

Find the Model That Works for You: 12 Types of Blended Learning

<https://www.teachthought.com/learning/12-types-of-blended-learning/>

Transitioning to Blended Learning

<https://www.edutopia.org/practice/blended-learning-making-it-work-your-classroom>

Eight Examples of Transforming Lessons Through the SAMR Cycle

<https://www.emergingedtech.com/2015/04/examples-of-transforming-lessons-through-samr/>

K-12 Technology Activities That Work

https://www.educationworld.com/a_tech/tech094.shtml

Technology with a Purpose

<https://edtechdigest.com/2017/05/25/technology-with-a-purpose/>

Videos

Reimagining Classrooms: Teachers as Learners and Students as Leaders | Kayla Delzer

https://www.youtube.com/watchtime_continue=1&v=w6vVXmwYvgs

Gwynn's Technology Integration Playlist

https://www.youtube.com/watch?v=AgLNRKQR3AI&list=PLJHRhVWVgYxkPWJ6-514Fdf3_K1DFFJ7

Blended Learning: Making it Work in Your Classroom

https://www.youtube.com/watchtime_continue=4&v=auzwH1mK2TY

Teaching Resources

Kathy Schrock's Guide to Everything

<http://www.schrockguide.net/>

Google for Education Teaching Center

<https://edu.google.com/teacher-center/>

FreeTech4Teachers

<https://www.freetech4teachers.com/>

About Universal Design for Learning

<http://www.cast.org/our-work/about-udl.html#.W0ZjoNhKjOQ>

SAMR Lesson Plan Sample

<https://www.commonsense.org/education/lesson-plans/samr>

See How SAMR works in real classrooms

<https://blog.mimio.com/see-how-samr-works-in-real-classrooms>

National Research Council. 2000. *How People Learn: Brain, Mind, Experience, and School: Expanded Edition*. Washington, DC: The National Academies Press.

<https://doi.org/10.17226/9853>.

Submission Guidelines & Evaluation Criteria

To earn the micro-credential, you must receive a passing score in Parts 1 and 3 and receive a proficient for all components in Part 2.

Part 1. Overview Questions

300-400 words

Please answer the following contextual questions in your response to help our assessor understand your current situation. Please do not include any information that will make you identifiable to your reviewers.

1. Describe your class demographics and your students' access to digital tools in your classroom, school, and at home; i.e. are you 1:1 with devices, does your school have reliable Wi-Fi, is your school a Google suite for education school, are there limitations on sites your students can access at school, do your students have devices at home with high-speed internet, etc.
2. What are your goals for implementing authentic, personalized learning experiences for your students? In other words, why did you choose this particular micro-credential?
3. Before beginning this micro-credential, where were you in your understanding and practice of the purposeful use of digital tools to create learning experiences that aligned to your content standards and accommodated your learners' preferences and needs?

- **Passing:** Response provides reasonable and accurate information that justifies the reason for choosing this micro-credential to address specific needs of both the teacher and the student. Educator includes a learning goal that describes what they hope to gain from earning this micro-credential.

Part 2. Work Examples / Artifacts

To earn this micro-credential, please submit the following **two artifacts** as evidence of your learning. Please do not include any information that will make you or your students identifiable to your reviewers.

Artifact 1: Short Unit Plan

A short unit plan that uses approximately 3–5 hours of class time, whether that be 4–5 class periods or 2–3 blocks. Your unit plan should include:

- The content standards being addressed
- Success criteria
- At least two opportunities for students' choice
- At least two assignments that use digital tools to enhance student learning

NOTE: Students should have a choice of assignments, not just a choice around which digital tool to use for a particular assignment. For instance, a student might choose from a menu of: write a script, create a video, produce a presentation, author a rap song, etc.

Artifact 2: Six Student Work Samples

Work samples should be three different samples from one lesson and three different samples from another lesson. Student work samples should:

- Show 3 different work choices for each lesson
- Clearly demonstrate student choice in approach to learning the same outcome
- Be digital artifacts
- Be annotated with lesson number, learning outcome, and description of activity

Combine these into one document/file to submit.

Tips:

- If students’ choice includes links to assignments, you can paste the links in a document with the annotations on the document. Also, make sure it is shared publicly so that our assessors can access it.
- Screenshots of work could also be taken and pasted into a document and annotated on the document.

If you have a website with a showcase, paste a link to the students’ work that is shared on a website and include link with annotations on the document you submit.

	Proficient	Basic	Developing
Artifact 1: Short Unit Plan	<div>Unit plan includes all of the following:</div> <div>Content standards</div> <div>Success criteria</div> <div>Time allotted for the unit</div> <div>At least 2 separate assignments where students will use digital tools</div> <div>At least 2 separate assignments where students have a choice about the type of work artifact produced</div> <div>Technology improves the delivery of the lesson, student access to content and/or student engagement better</div>	<div>Unit plan includes most of the following:</div> <div>Content standards</div> <div>Success criteria</div> <div>Time allotted for the unit</div> <div>At least 2 separate assignments where students will use digital tools</div> <div>At least 2 separate assignments where students have a choice about the type of work artifact produced</div> <div>Technology does not improve or reduces the effectiveness of lesson delivery, student access to content, and/or student engagement</div>	<div>Unit plan includes only 1 or 2 of the following:</div> <div>Content standards</div> <div>Success criteria</div> <div>Time allotted for the unit</div> <div>At least 2 separate assignments where students will use digital tools</div> <div>At least 2 separate assignments where students have a choice about the type of work artifact produced</div> <div>Technology reduces the effectiveness of the unit</div>
Artifact 2: 6 Student Work Samples	<div>Six work samples were submitted on one document</div> <div>Three different work samples that show three different work choices for each lesson</div> <div>Work samples clearly demonstrate student choice in approach to learning the same outcome.</div> <div>The choices are digital artifacts</div> <div>All work samples are annotated with Lesson #, learning outcome and</div>	<div>Less than six work samples were submitted on one document</div> <div>Work samples do not show unique choices.</div>	<div>Work samples are incomplete, unlabeled, and/or not unique.</div>

description of activity.

Work samples are from
the submitted lesson
plan

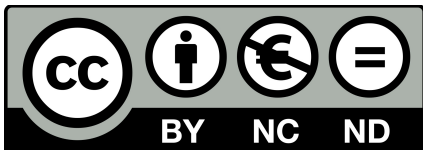
Reflection

300-500 words

Please answer the following reflective questions. Please do not include any information that will make you identifiable to your reviewers.

1. How did designing authentic, learner-driven activities for your students impact your planning? How did it change your practice in the classroom?
2. How did your students respond to having choice in their assignments?
3. How will your learning experience in this micro-credential impact your planning and classroom activities going forward?

- **Passing:** Reflection provides evidence that the learning for both students and educator were positively impacted by integrating the purposeful use of digital tools into a learner-driven environment. Reflection points to specific examples of how implementing this practice impacted students and examples of how the educator intends to integrate the new learning into future practice.



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