Developing a System of Micro-credentials:

Supporting Deeper Learning in the Classroom

Digital Promise

Overview

What Are Educator Micro-credentials?

Teachers earn credentials at the beginning of their careers, but they learn new skills every day. While teachers are recognized for the time they spend in formal professional development settings, they often don't have the opportunity to demonstrate the full breadth of what they have learned, including in informal contexts.

To address this, Digital Promise is building a system of micro-credentials to provide professional educators a new way to identify competencies they are developing and gain recognition for the skills they learn throughout their careers.

We can move to a competency-based system of professional learning.

DESIRED OUTCOMES

MULTIPLE WAYS TO LEARN

MICRO-CREDENTIALS

DEMONSTRATIONS OF COMPETENCE

Source: http://cdno4.gettingsmart.com/wp-content/uploads/2014/01/FINAL-Preparing-Teachers-for-Deeper-Learning-Paper.pdf
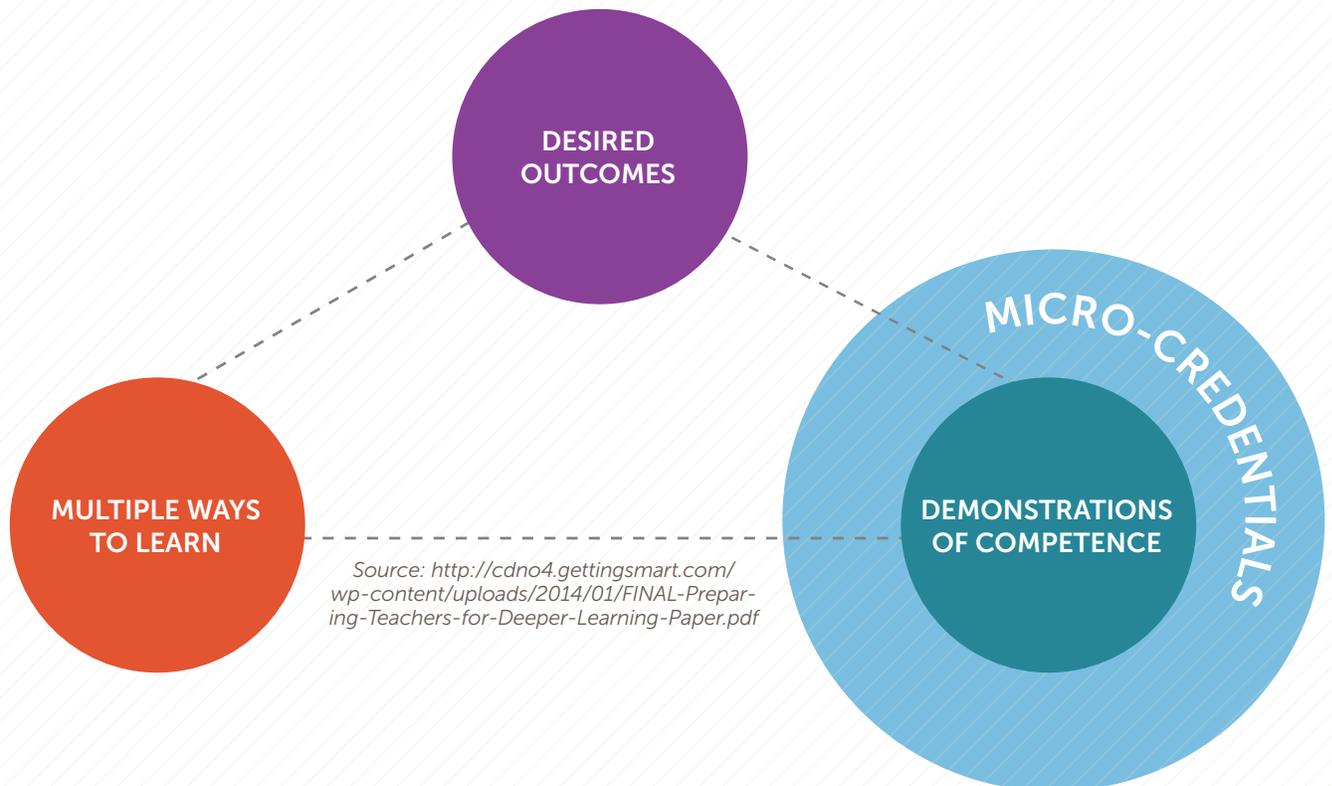
What Are Educator Micro-credentials?

Bite-sized—focused on a specific, observable competency

Subject-adaptable—can usually be adapted to multiple subject areas to support college and career-ready standards

Research-based—grounded in educational research

Teacher- and student-centered—teachers can be selected based on the specific and relevant needs of students

Personal and timely—supports professional growth

Portable—can be shared as digital badges in online platforms

Transparent—supported by publicly available, accessible content, including criteria for assessment

Performance-based—demonstrated through artifacts, such as:

- Lesson, project, and unit plans
- Student work samples
- Teacher and student reflections
- Observations
- Videos of teacher and student interaction
- Peer and self evaluations and reviews

What is Deeper Learning?

"Deeper Learning" is an umbrella term for the skills, understandings, and mindsets students must possess to succeed in today's jobs and civic life. At its heart, Deeper Learning is defined by a set of competencies students must master to develop a keen understanding of academic content and apply their skills to challenges in the classroom, on the job, and in everyday life.

Why does Deeper Learning matter?

Deeper Learning is for **ALL** students—providing a solid foundation for lifelong learning.

Deeper Learning provides a framework through which **ALL** students can develop the critical skills they will need to succeed in college, in the workforce, and as lifelong learners.

By engaging with Deeper Learning competencies, students become more motivated and able to apply what they have learned across subject areas and topics, helping them master the content and retain what they have learned.

Framework for Deeper Learning

Deeper Learning is comprised of **six categories** of strategies that are essential for students to achieve at high levels. By engaging in Deeper Learning, students will master academic content, develop knowledge, skills, and academic mindsets, and learn more efficiently.

Framework for Deeper Learning

1 **Master core academic content**

Clearly state why the content matters.

Explain and/or demonstrate the core facts and concepts of the subject, how they relate to your work, and how they relate to each other.

Use and apply the core processes and procedures that are common practice in the subject.

Transfer your knowledge of the core facts, concepts, processes, and language to a novel context.

Reading

ENGLISH

ART

Mathematics

HISTORY

Language Arts

Geography

SCIENCE

Framework for Deeper Learning

2 Think critically and solve complex problems

Analyze and develop a complex question, problem, issue, or perspective and identify its relevant parts or dimensions.

Consider possible approaches to a question, problem, issue, or perspective and generate a hypothesis and action plan.

Recognize the facts, concepts, processes, and language you need to learn to address the question, problem, issue, or perspective, and use effective strategies to acquire them.

Evaluate the reliability and validity of new information, evidence, and ideas from multiple sources and perspectives.

Support your hypothesis or position with good evidence and logical reasoning.

Carry out your action plan and when your approach is not working, persist, adjust, and try something different.

Seek out and positively respond to critiques of your ideas, and give kind and specific feedback to others.

Purposely reflect on your process and your work.

Framework for Deeper Learning

3 **Work collaboratively**

Contribute relevant knowledge, skills, and ideas to the group and listen carefully to others' contributions.

Encourage and build on a range of ideas from the group.

Identify why your individual responsibilities matter to the group's work and why you should complete them in a timely manner.

Work with the group on an action plan that has specific goals and distributes the work fairly.

Help the group work productively toward its goals, resolving conflicts when necessary.

Give feedback to others in the group about their collaboration and integrate their feedback into your actions.

Work with the group to assess progress toward its goals.

Framework for Deeper Learning

4 **Communicate effectively**

Identify your target audience and its characteristics and needs.

Create messages that are clear, accessible, and useful to your audience.

Concisely state the main idea and purpose of your message.

Communicate your meaning in both written and oral form.

Choose a communication form that suits your audience and purpose.

Consider feedback from reliable sources and respond to questions, critiques, counterarguments, and suggestions.

Offer kind, specific, and helpful feedback to others.

Framework for Deeper Learning

5 Learn how to learn

Seek out intellectual, creative, and personal challenges that lead to growth and learning.

Set goals and keep track of progress.

Recognize what you don't know or understand and find strategies or support from others to help fill those gaps.

Seek feedback for improvement.

Treat mistakes as opportunities to learn.

Use revisions and reflections to grow and learn.

Framework for Deeper Learning

6 **Develop academic mindsets**

Seek out academic challenges that lead to growth and learning.

Identify the relevance and value of the academic work.

Take initiative and show effort in your work.

Persist despite difficulties.

Show increasing autonomy in your work.

Build helpful relationships and access the support and resources you need.

Consider ethical values in all decision making and behavior.

Deeper Learning Micro-credentials

Digital Promise embarked upon a mission to determine how teachers can demonstrate and be recognized for their ability to engage students in Deeper Learning.

There are 40 micro-credentials

that can be mapped to the **six indicators** of Deeper Learning.
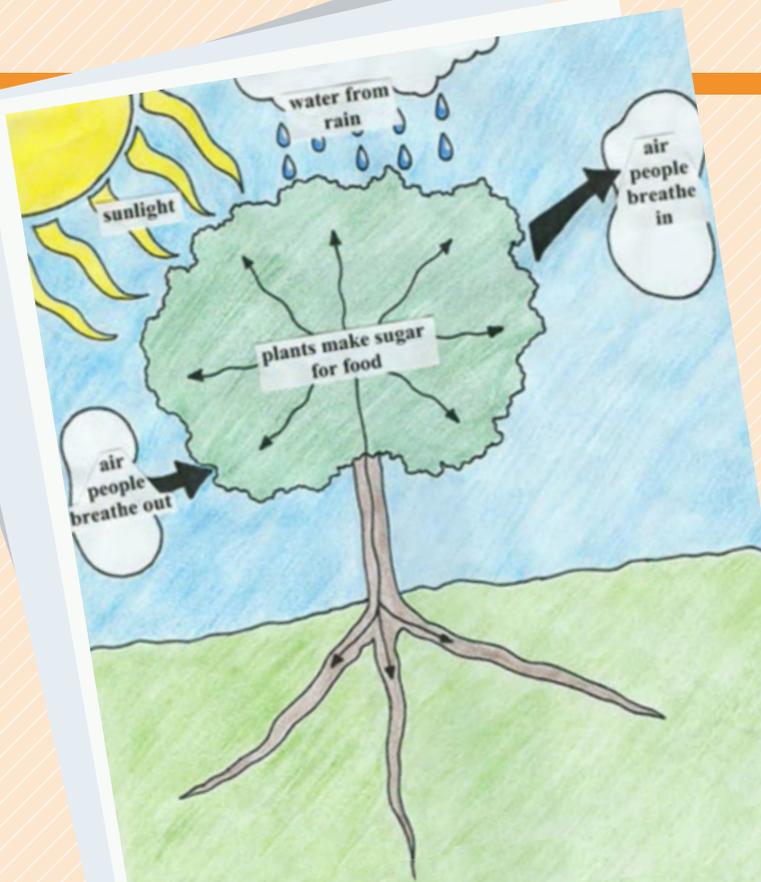
did you know?

For Deeper Learning, research suggests that student work is the most powerful artifact of mastery.

# Deeper Learning Micro-credentials

1 Master core academic content

Making Projects Real—knowing and practicing the essential activities of each stage of a project to improve student learning and support successful outcomes for learning projects.

Mapping Facts—creating visual maps of what students think are the key facts in a topic to be learned, before and after study, to see the effects of the learning process and to deepen learning.
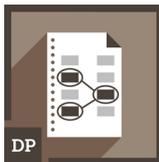
Mapping Processes—creating visual maps of what students think are the key processes in a topic to be learned, before and after study, to see the effects of the learning process and to deepen learning.

Mapping Concepts—creating visual maps of what students think are the key concepts in a topic to be learned, before and after study, to see the effects of the learning process and to deepen learning.

Deeper Learning Micro-credentials

2 Think critically and solve complex problems

Productive Researching—using a structured approach to get the most out of finding, evaluating, and using information in the research process.

Effective Reasoning—using a time-tested, logical scientific reasoning process to develop and test a hypothesis related to a learning challenge.

Systems Thinking—understanding how connections and feedback loops work in complicated systems to build systems thinking and complex problem-solving skills.

Idea Generating—enhancing creative thinking and idea generation through a well-structured set of processes that both expand and deepen learning.

Sound Decision-making—taking the time to fully explore the options and possible outcomes of decisions, with discussions and reflections from others, to make better and deeper decisions.

Analyzing Media Impacts—analyzing and understanding how media messages are intentionally crafted to produce specific audience responses to become more media literate, better able to choose media for learning goals, and better able to craft effective media messages.

Evaluating Online Information—distinguishing fact from fiction, proof from persuasion, and authority from advertising to assess the credibility and reliability of online information.

Evidence-backed Positions—engaging in learning projects that build a number of essential communication, critical thinking, and other Deeper Learning skills, such as researching, analyzing, clarifying, categorizing, prioritizing, questioning, explaining, defending, and most importantly, building a case with strong evidence to support a position.

Kind Critiquing— offering feedback that is timely, specific, actionable, and positive to increase motivation to deepen one's learning.

Practicing Reflection—reflecting on one's learning before, during, and after learning activities.

Creative Problem Solving—enhancing the process of devising creative solutions by incorporating a variety of perspectives and using differing views to stimulate a more unexpected, innovative solution.

Designing Effective Solutions—using a tested design and development project methodology to create an effective solution to a problem.

Deeper Learning Micro-credentials

3 Work collaboratively
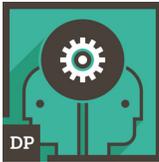
Productive Teamwork—creating an upfront Team Agreement to set goals and expectations for how teamwork will happen in a project.

Getting Help & Support—practicing positive strategies for seeking help and finding support to enhance students' social support networks and increase their motivation and opportunities for lifelong Deeper Learning.

Belonging & Caring—having a regular time to check in with a consistent group of peers and adults and share what's happening in their lives in order to build students' sense of belonging.

Managing Project Cycles—knowing and practicing the essential activities of each stage of a project to improve student learning and support successful outcomes for learning projects.
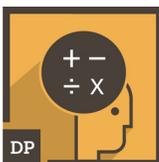
Collaborative Problem Solving—working together through four stages of a problem-solving challenge to design solutions collaboratively.

Resolving Conflicts—understanding each team member's conflict resolution style to develop effective strategies to resolve differences of opinion or approach among members of a team.

Effective Leadership—practicing proven student leadership strategies and methods.

Practicing Open-mindedness—actively searching for evidence against one's favored beliefs, values, plans, or goals; weighing such evidence fairly: and considering alternative perspectives to deepen one's understanding of and empathy for diverse points of view.

Deeper Learning Micro-credentials

4 Communicate effectively

Clear Thinking & Writing—having clear goals and using proven strategies to clarify thinking and writing to increase the effectiveness of both written communications and the learning process.

Active Listening—being thoughtful about the reason for listening and using proven listening strategies before, during, and after the listening experience to get more out of presentations.

Persuasive Presenting—clearly and convincingly presenting ideas to others to connect deeply, both emotionally and thoughtfully, with an audience and to promote Deeper Learning for both the presenter and the audience.

Personal Purpose—having a sense of positive purpose, meaning, and direction for one's learning, work, and life to increase motivation, resilience, and sense of fulfillment.
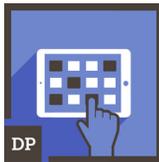
Choosing Technology Tools—thoughtfully choosing the right technology tool for the learning task at hand from the vast array of choices available.

Cultural Competence—developing a position on an intercultural issue by exploring multiple cultural perspectives, then acting to support this position in a meaningful way.

Deeper Learning Micro-credentials

5 Learn how to learn

Design Thinking & Doing—applying both design thinking and a proven, multistage design and development process to create an innovative and entrepreneurial solution to a problem.

Self-reliance & Autonomy—developing the ability to think, feel, and make decisions on one's own and to guide one's own learning through a variety of learning strategies that put students in the center of their learning and their lives.

Choosing Learning Strategies—matching learning goals with appropriate learning strategies for powerful learning and personal empowerment.

Crafting Driving Questions—using proven inquiry strategies to motivate and guide Deeper Learning.

Deeper Learning Micro-credentials

6 Develop academic mindsets

Grit & Resilience—developing a passion for goals, persistence to achieve them, and resilience to overcome setbacks along the way.

Growth Mindset—using growth-oriented feedback and language to reinforce a focus on growth.

Expressing Personal Perspectives—providing students opportunities to develop their personal voice, increase self-confidence and self-direction, exercise their imagination and creativity, and gain transferable project skills such as defining, planning, carrying out, and performing their designs.
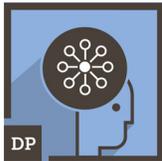
Ethical Behavior—understanding new principles of digital citizenship and timeless universal ethical values to guide students in building a personal set of ethical values and behaviors.

Mindfulness—developing an expanded self-awareness, through focused attention on the present moment, of the unfolding experiences of one's body, breathing, sensations, thoughts, and feelings, and from this center of calmness, actively serving others with empathy and gratitude.

Seeking Well-being—developing one's physical, mental, and spiritual well-being through regular practice to develop lifelong health and wellness practices and deeper, more joyful learning.

What is Next?

Deeper Learning is just the beginning.

Digital Promise is launching a platform to support teachers in earning these Deeper Learning micro-credentials. The future is limitless for micro-credentials, and we seek partners to develop micro-credentials associated with:

Teaching to the Common Core State Standards at various grade bands

Using teacher protocols and specific management strategies

Using technology to support student learning

Implementing focused supports for students with learning differences

Designing and implementing classroom-based research

Developing coaching and teacher leadership skills

Using data and research in the classroom

SCHOOL BUS

The Fine Print

Receipt of a micro-credential is not a guarantee of teacher quality—it is a signal of competency with a specific skill.

Teachers own their artifacts and control when and where they are shared.

For more information, please visit: www.digitalpromise.org/microcredentials