Bite-Sized, Tailored, and Job-Embedded: Communicating the Value and Variety of Micro-Credentials in Education
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Background

Several grantees funded by the U.S. Department of Education Effective Educator Development (EED), formerly known as the Teacher Quality Programs (TQP) division, are implementing micro-credentials to support educator development. The TQP Technical Assistance (TQP TA) Center brought these grantees together in-person and virtually through a community of practice. Based on discussions with the community, the TQP TA Center developed two briefs to address their most pressing needs. This brief supports grantees' efforts to communicate the purpose, value, and potential of micro-credentials for educators. The second brief provides guidance on [designing assessments for micro-credentials](#).

To develop this brief, the TQP TA Center conducted a focused literature search to identify micro-credential initiatives with information available online and held discussions with eight grantee organizations that are implementing micro-credentials. Although the brief is not based on an exhaustive or systematic search of all organizations implementing micro-credential programs, it offers insights for engaging stakeholders that micro-credential programs may consider as they set up or implement their programs.

Introduction

Interest in using micro-credentials to support the professional learning of educators has grown rapidly. Micro-credentials demonstrate mastery of one or more competencies, have greater focus, and are more specialized than licensure or traditional degrees (Maxwell & Gallagher, in press). Although used in other fields, micro-credentials have more recently expanded into education (see DeMonte, 2017 for more information about the history of micro-credentials) in part because they build on several trends: (1) interest in individualized professional development opportunities for educators; (2) the availability of online learning opportunities; and (3) a shift in culture around producing evidence of learning through practice. As the number of micro-credential offerings in education have grown, a variety of policymakers and educators have shown interest in using micro-credentials to recognize competencies and award advancement opportunities.

> ### What is a micro-credential?
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> *Micro-credentials demonstrate mastery of one or more competencies, have greater focus, and are more specialized than licensure or traditional degrees. (Maxwell & Gallagher, in press).*

This brief provides foundational information for policymakers and educators to use when developing micro-credentials that meet the professional learning needs of educators. Intended for those considering, developing, or implementing micro-credentials for educators, this brief has two aims: (1) to support efforts to communicate the value of micro-credentials to stakeholders, and (2) to shed light on the range of approaches to designing and implementing micro-credentials. To achieve these aims the brief first highlights how stakeholders involved in these efforts have communicated the value of micro-credentials to educators, followed by a description of how micro-credentials vary on key dimensions based on a scan of existing micro-credentials and conversations with U.S. Department of Education grantees that are

implementing them. Finally, the brief shares strategies that grantees implementing these micro-credential initiatives have used to recruit educators to participate.

How Do Stakeholders Describe the Value of Micro-Credentials?

A key first step for implementing micro-credentials is communicating their benefits relative to other forms of professional development to stakeholders. The TQP TA Center reviewed a variety of online materials and spoke with several EED grantees to summarize how educators, state education agencies (SEAs), local education agencies (LEAs), and educator preparation programs described the value of micro-credentials.

According to educators, the potential benefits of micro-credentials include the following:

- **Knowledge and skills development relevant to their work.** Micro-credentials provide a focused opportunity for educators to engage in ongoing learning that is applicable to their day-to-day work.
- **Professional development tailored to specific needs and interests.** Micro-credentials enable educators to complete professional learning that is specific to their needs and interests (rather than attending a one-size-fits-all professional development activity).
- **Flexibility for when and where educators complete professional learning.** Micro-credentials are often self-directed and self-paced, with content typically delivered online. This provides educators the flexibility to integrate professional learning into their schedules as needed.
- **Recognition for developing competencies**. Micro-credentials can incentivize educators to develop professionally by recognizing their mastery of specific competencies. Offering micro-credentials that are linked to other forms of professional advancement may further incentivize educators to invest in their own professional learning.

Representatives from SEAs and LEAs noted additional benefits:

- **Professional learning aligned with state and local priorities**. The narrow focus of micro-credentials provides flexibility for assembling professional learning opportunities that align with SEA and LEA priorities. For example, a LEA that wants to improve literacy could roll out micro-credentials that guide educators on how to lead guided reading, teach phonetics, or improve writing instruction.
- **Data and insight on professional learning investments**. By allowing educators the flexibility to choose the micro-credentials they complete, SEAs and LEAs could gather valuable information on the competencies that are in highest demand, or the types of professional learning that educators value. In addition, LEAs could have teachers who attain a specific micro-credential serve as mentors for teachers who are working on that same competency.
- **Educator recruitment and retention**. If educators prefer the self-directed, job-embedded, and personalized aspects of micro-credentials, this type of professional learning opportunity could support educator recruitment and retention.

Representatives from institutions of higher education also noted benefits of micro-credentials:

- **An alternative to full degrees.** A micro-credential allows educators to receive training and support from university-based staff or to access resources without enrolling in a degree-granting program.

This could attract more or different types of educators to university-based professional development offerings.

- **Recognition of incremental credentials.** Micro-credentials enable universities to recognize educators for making incremental progress toward mastery of a skill or competency. This ensures that educators who are not pursuing a degree can be recognized and potentially rewarded for advancing their own professional learning.

Micro-credentials have the potential to support educators in deepening their proficiency in critical competencies and advancing their careers. Below, stakeholders share some testimonials for the value of micro-credentials.

> "This was really different and unlike other professional development. I always felt like I was in the lead…It really empowers the teacher to drive the learning."
>
> **-Teacher**

> "Teachers can't just talk about what they're going to do; they have to provide evidence from their classroom…and that was really powerful."
>
> **-Administrator**

> "It only makes sense that we help districts provide teachers with that…personalization in their professional learning."
>
> **–SEA official**

How Do Micro-Credentials Vary on Key Dimensions?

Given the broad definition of micro-credentials as demonstrating mastery of specialized competencies, the emergence of micro-credentials has led to considerable diversity in their design and implementation. This includes variation in their: use for professional advancement; scope and complexity of attained competencies; amount and type of training provided; organizational roles in implementing microcredentials; assessment; and time required for completion.

Use of micro-credentials for professional advancement

Whether for personal growth or lifelong learning, many educators value the opportunity to refine their practice through virtual professional learning. Micro-credentials provide a pathway for educators to develop competencies and document their mastery of them.

Examples of Using Micro-Credentials to Encourage and Support Educators' Professional Advancement

Earn professional development hours/credits. States and districts often require that educators complete a certain amount of professional development each year. Principals in Michigan can earn professional development hours toward this annual requirement by attaining micro-credentials through the state's principals' association (Michigan Virtual, 2016).

Obtain licensure endorsements or licensure renewal. Teachers in South Carolina must complete 120 professional development credits to renew their teaching license. Teachers can earn professional development credits that count toward re-licensure by attaining micro-credentials on collective leadership and student assessment (SCDE, 2019; Quinn 2018).

Become a teacher-leader. Juab School District in Utah offers teachers the opportunity to become a teacher leader by attaining at least 12 micro-credentials within a topic area. Teachers can work with their principal to define a pathway to the teacher-leader role that fits their goals (Juab School District, n.d.).

Earn a salary increase. Educators in Wisconsin's Kettle Moraine School District can earn a permanent base-salary increase of $100 to $600 by attaining micro-credentials and demonstrating an impact on student learning. They can choose from micro-credentials offered through the district or Digital Promise (Sturgis, 2018).

Scope and complexity of attained competencies

By definition, micro-credentials demonstrate mastery of competencies that are more focused or specialized than a degree or licensure. However, given that a degree or licensure covers a broad set of skills and competencies, the scope of the competencies a micro-credential covers can vary tremendously. For example, Arizona State University offers a fairly narrow micro-credential covering one specific teaching strategy—how to give clear directions for a task (Digital Promise, n.d.a). A micro-credential from the Friday Institute at North Carolina State University is a bit broader—it allows educators to demonstrate their understanding of number lines and when to use them (Digital Promise, n.d.b). These micro-credentials contrast with others that cover even broader competencies. For example, the Kentucky Valley Educational Cooperative offers a micro-credential on understanding the core principles and techniques for designing and using student assessments, and Michigan's principals' association offers a micro-credential on how to establish a district leadership team (BloomBoard, n.d.b; Michigan Virtual, n.d.).

Because micro-credentials can be used by SEAs and LEAs to address a variety of different needs, the complexity of the competencies that micro-credentials cover vary to address those needs. Some micro-credentials cover competencies that are less complex, such as having educators demonstrate competency

in completing a narrow, structured task. For example, Florida offers a micro-credential for educators who demonstrate an understanding of how to access course descriptions from the state education department's website (FLDOE, n.d.). A micro-credential from the University of the Pacific familiarizes educators with social media platforms that students commonly use (University of the Pacific, n.d.). Other micro-credentials are designed to cover more complex competencies that require educators to apply new knowledge in different settings or situations, such as a micro-credential to demonstrate understanding of a growth mindset and how to develop this type of mindset among students in a classroom. A micro-credential offered by the Rhode Island Department of Education covers how to design fair and authentic performance assessments for students that give them multiple ways to demonstrate their understanding (Paley & Chapin, 2016).

Micro-credentials often combine multiple, related competencies as part of a larger "stack" that represents a broader area of practice (DeMonte, 2017). Stacks provide a way to organize fine-grained competencies into a coherent progression or set of related skills. As an example, Baltimore County Public Schools offers a stack of four micro-credentials related to collaboration that cover Active Listening, Effective Leadership, Productive Teamwork, and Resolving Conflicts. Educators are not required to complete a full stack of micro-credentials, but they may need to complete a full stack or a portion of micro-credentials in a stack to earn other types of professional advancement (for example, a professional development credit or teacher-leader role).

Amount and type of training and support

Micro-credentials recognize educators for mastering competencies, but they vary in whether they provide the training or support to develop those competencies. Some micro-credentials expect educators to find the resources and training needed to develop the competency on their own, and provide little, if any, support for gaining the competency. These micro-credentials are designed to be self-directed and allow educators the flexibility to identify the resources they need to develop the competency or resources that fit their context. In some cases, the micro-credential provider may supply links to articles, resources, or other online materials that are relevant for the competency. However, these might not be a focused, coherent set of resources that guide educators in developing the competency. As an example, issuers might list a set of journal articles that educators can choose to read that are related to the topic but not directly aligned with the micro-credential and are not designed as professional learning materials (see Digital Promise n.d.c).

Alternatively, other micro-credentials are explicitly linked to a specific course, training, or support that provides educators a pathway for developing the competency. These micro-credentials may be tied to an online course (such as a Massive Open Online Course (MOOC)), webinar, or specific materials that educators are expected to understand or use. In some cases, educators must complete the training or support to earn the micro-credential. As an example of these types of support, the Tennessee Department of Education provides a virtual coach to support teachers in mastering its micro-credential competencies (TNDOE, n.d.). Integrating micro-credentials into existing coursework or professional development may create greater relevancy for educators because they can see how the content links to other training they are engaged in and applies to their classrooms.

Organizational roles in implementing micro-credentials

A range of organizations are involved in providing micro-credentials for educators, including for-profit companies, nonprofit organizations, SEAs and LEAs, and educator preparation programs. Implementing a micro-credential requires a variety of roles that one or more organizations can fill:

- **Issue or award the micro-credential**. The organization that issues the micro-credential plays an important role in approving and recognizing an educator's mastery of a competency. The issuing agency is responsible for ensuring that educators who complete the micro-credential have achieved the competency. The issuer may provide educators a "digital badge" that provides virtual recognition that a micro-credential was earned. The issuer may have experience awarding other types of credentials to educators (for example, a university-based teacher preparation program) or may be another type of organization that has the expertise to judge mastery of a competency.
- **Host the micro-credential online**. Because micro-credentials are virtual, they require a place to reside on the Internet. A variety of organizations can play a role hosting the online platform or website on which educators can access a micro-credential and submit materials to demonstrate their mastery of the content.
- **Provide the professional development content**. Some micro-credentials include different types of professional development content that educators can access to build the competency a micro-credential targets (see point below). Online professional development content (such as MOOCs) requires an organization to host and deliver the content online. This may be the same organization that issues the micro-credential, or it could be a separate professional development provider.
- **Assess the evidence**. Although the issuing agency is ultimately responsible for the competency of educators who complete a micro-credential, different organizations may play a role in assessing educators' competencies. For example, if teachers submit a video recording of their classroom to demonstrate a particular teaching practice, a team of coders or reviewers will be needed to consistently and accurately score teachers' submissions. Micro-credential issuers may require that individuals assessing educators' competencies complete a certification before they can review educators' submissions for a micro-credential.

As an example, the Washington Professional Educators Standards Board (WPESB) provides a micro-credential stack to prepare educators to support high school students in learning about the teaching profession. WPESB designed the micro-credentials and serves as the issuing agency; the Center for Strengthening the Teaching Profession developed the professional development content; Canvas provided the online platform for the professional development content; and BloomBoard hosted the online platform for educators to upload their evidence (WPSEB, n.d).

Assessment

To award a micro-credential, the issuing agency must assess whether an educator mastered the target competency. Micro-credential assessments can measure different aspects of educators' competencies. For example, an assessment may measure whether an educator *understands* an idea or concept, can *apply* the idea or concept in a mock setting, can *implement* the idea or concept in the classroom, or can *reflect* on his

or her experience using the idea or concept. The type of evidence required to assess each aspect of an educator's competency can differ.

Examples of Different Types of Evidence Used for Assessing Competencies

✓ ***Evidence of an educator's ability to implement the competency.*** An educator submits documentation of their ability to implement a competency, such as lesson or unit plan, student assignments, video recordings of their practices, assessments, or other documents. An educator could submit a collection of this type of evidence as part of a broader portfolio.

✓ ***Evidence of an educator's understanding of the competency.*** An educator provides a written response to one or more open-ended questions or a series of traditional multiple-choice questions.

✓ ***Evidence of an educator's ability to reflect on the competency.*** An educator provides a written or verbal reflection in response to an experience or learning opportunity.

✓ ***Evidence of an educator's ability to apply the competency.*** An educator provides a written or verbal response to a mock situation or case study that assesses his or her ability to apply the competency in a hypothetical setting.

To learn more about how micro-credential providers have structured assessment processes, review this brief's companion document, the **Micro-credential Assessment Framework**.

Time required to complete a micro-credential

Although micro-credentials focus on narrowly defined competencies, the time required for completion can vary. The amount of time required depends, in part, on the grain-size and complexity of the competency, as well as any training or support required to earn the micro-credential. In addition, the time frame is affected by the amount and type of evidence an educator needs to submit to be awarded the micro-credential. Because micro-credentials are often self-paced, the actual time required can vary from a few hours, to a few days or weeks, or even a few months. For example, one SEA offers a micro-credential for teachers that can take up to three months as each teacher completes a virtual professional development module, produces an artifact representing what he or she has learned from the course, and revises the artifact based on feedback.

Because micro-credentials are competency-based, the length of time needed to earn a micro-credential may vary based on the educator's prior knowledge and experience. Educators who are already knowledgeable or skilled in a particular area may be able to successfully demonstrate a competency more quickly than other educators who need time to develop the competency.

Looking Forward: Considerations for Encouraging Participation in Micro-Credential Programs

Because micro-credentials are self-initiated and self-directed, developing buy-in of educators is critical for encouraging their participation. Given the variation in the design and structure of micro-credentials, policymakers should consider how to set up conditions that encourage participation in micro-credential programs in ways that bring value to existing professional development structures. The following strategies can encourage participation in micro-credentials:

- **Link micro-credentials to professional development or licensure requirements**. For example, teachers in North Carolina can use micro-credentials to earn credits for their license renewal (NCDPI, 2018).
- **Provide enough time to complete micro-credentials**. A pilot in California's Long Beach Unified School District found that teachers may not have completed micro-credentials when the time to complete them was inadequate (Kohl et al., 2017).
- **Link micro-credentials to pay and advancement opportunities**. As described above, Kettle Moraine School District in Wisconsin increased educator pay for each micro-credential earned (Strugis, 2018).
- **Allow micro-credentials to replace other professional learning requirements**. Educators may view traditional professional development trainings as redundant if they are developing the same competencies through micro-credentials. Reward educators with "additional time" by allowing them to build the competency either through a micro-credential or another type of training.
- **Foster communities of educators.** Because educators opt in to work toward attaining a micro-credential, this provides a natural starting group for creating a community of educators who are focused on developing specific competencies. A community may also provide opportunities for educators who completed the micro-credential to serve as a source of support for others working toward a relate competency.
- **Spread interest in micro-credentials by starting with a pilot**. A pilot allows a site to monitor progress, develop lessons learned, and generate interest in micro-credentials. Because the field lacks evidence on which approaches to micro-credentials are most effective for different settings, SEAs and LEAs should also take steps to evaluate their micro-credential initiatives and provide evidence that can inform future efforts.

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*The **Teacher Quality Programs Technical Assistance Center (TQP TA Center)** provides technical assistance and resources to organizations funded by the U.S. Department of Education. The TQP TA Center's purpose is to support these grantees as they 1) pilot programs to improve the quality of teacher and leader preparation, induction, and ongoing development; 2) test strategies to more equitably distribute highly effective teachers and leaders across LEAs and schools; and 3) monitor implementation.*