

# Micro-Credentials 101: A Presentation and Discussion



*Presentation at KVEC Virtual Micro-Credential Summit*

*June 16, 2020*

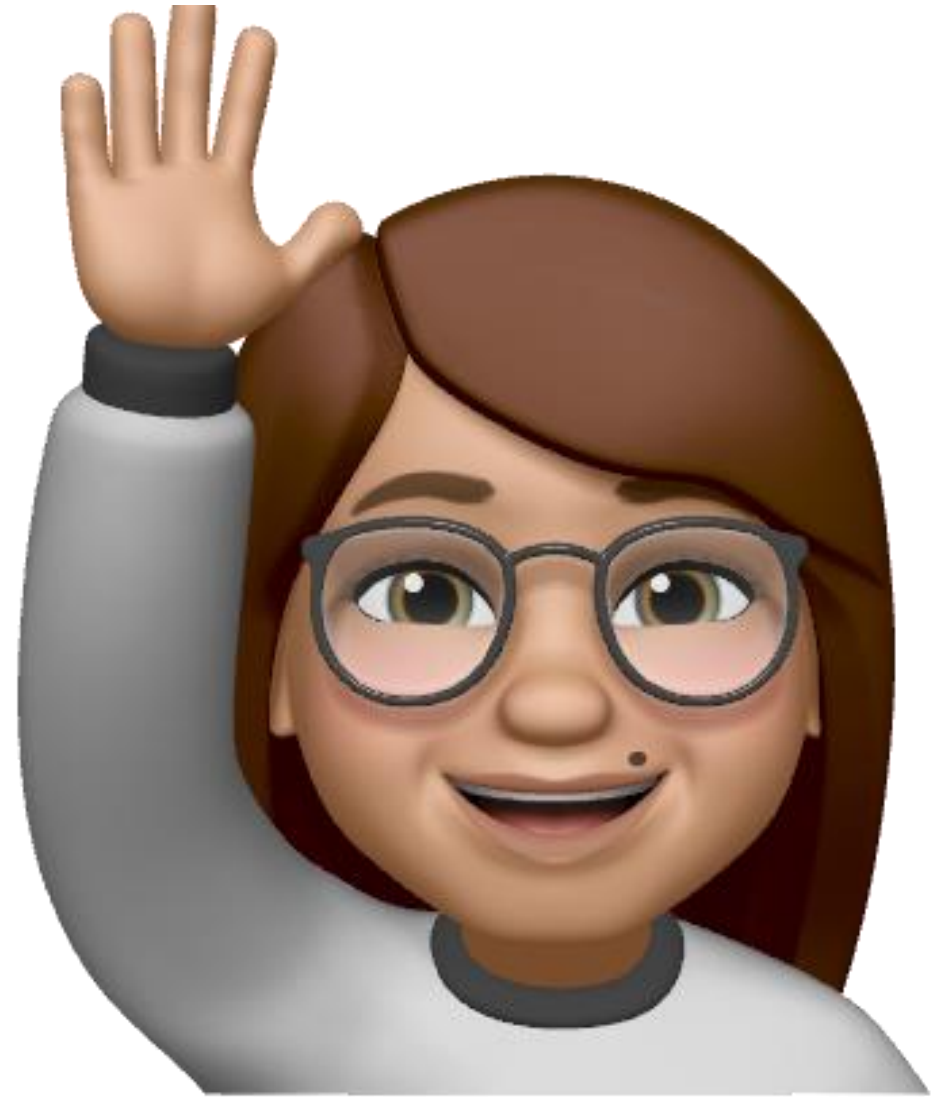
*Jennifer Carroll, Kentucky Valley Educational Cooperative*

# Welcome!!!

---

- Introduce yourself in the Chat!

- -Name
- -Role/Agency
- -Where?
- Connect with someone!  
Grow your PLN!!



# Targets for today

- Network with KVEC and other colleagues to advance our understanding and applications of micro-credentials within a system of professional learning
- Introduction to what a MC is (and isn't)
- Explore a sample MC
- Explore MC research
- Plan for continued learning

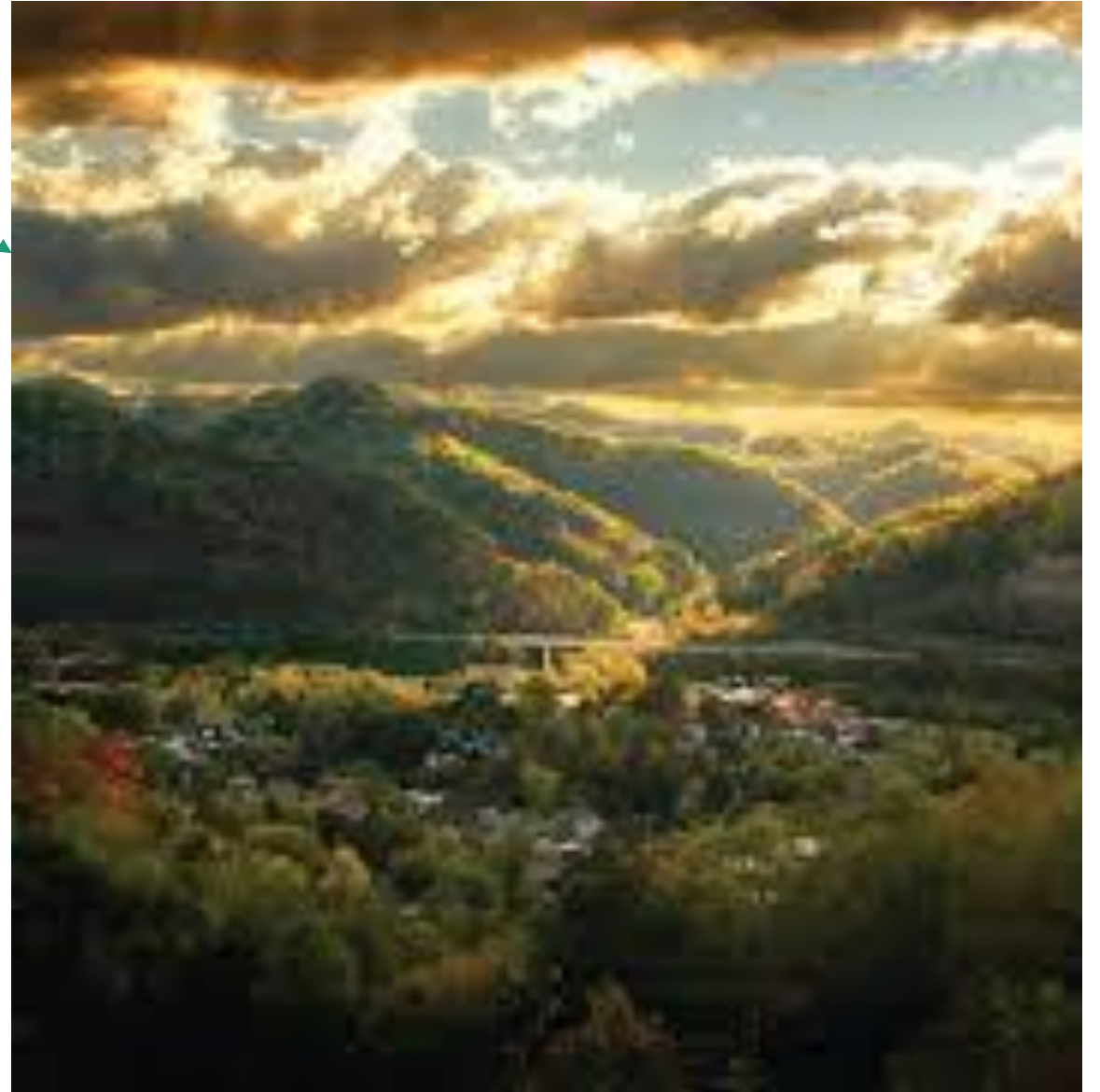
Yes, I know that is the TARGET logo...I am missing it.....



# KVEC

This is really  
where we live  
and work!!!!

- One of nine education cooperatives in Kentucky
- Founded in 1969 to address the needs of rural school districts
- State's oldest K-12 educational cooperative
- Geographic area about the size of Connecticut





- 23 districts
  - 139 schools
- 3,000+ teachers
- 50,000+ students
- Non-regulatory
- Primary professional learning provider
- Strengths vs. Deficit Model
- Network approaches



# Mission

KVEC's overarching mission is to lead and direct sustainable systemic improvement that drives education reform and improves student achievement through innovation in systems design, resource use, and human capital development that will contribute to the continued advancement in educational achievement taking place in the Appalachian region.





*While family and poverty deeply affect student performance, research over the past decade indicates that **no in-school intervention has a greater impact on student learning than an effective teacher***





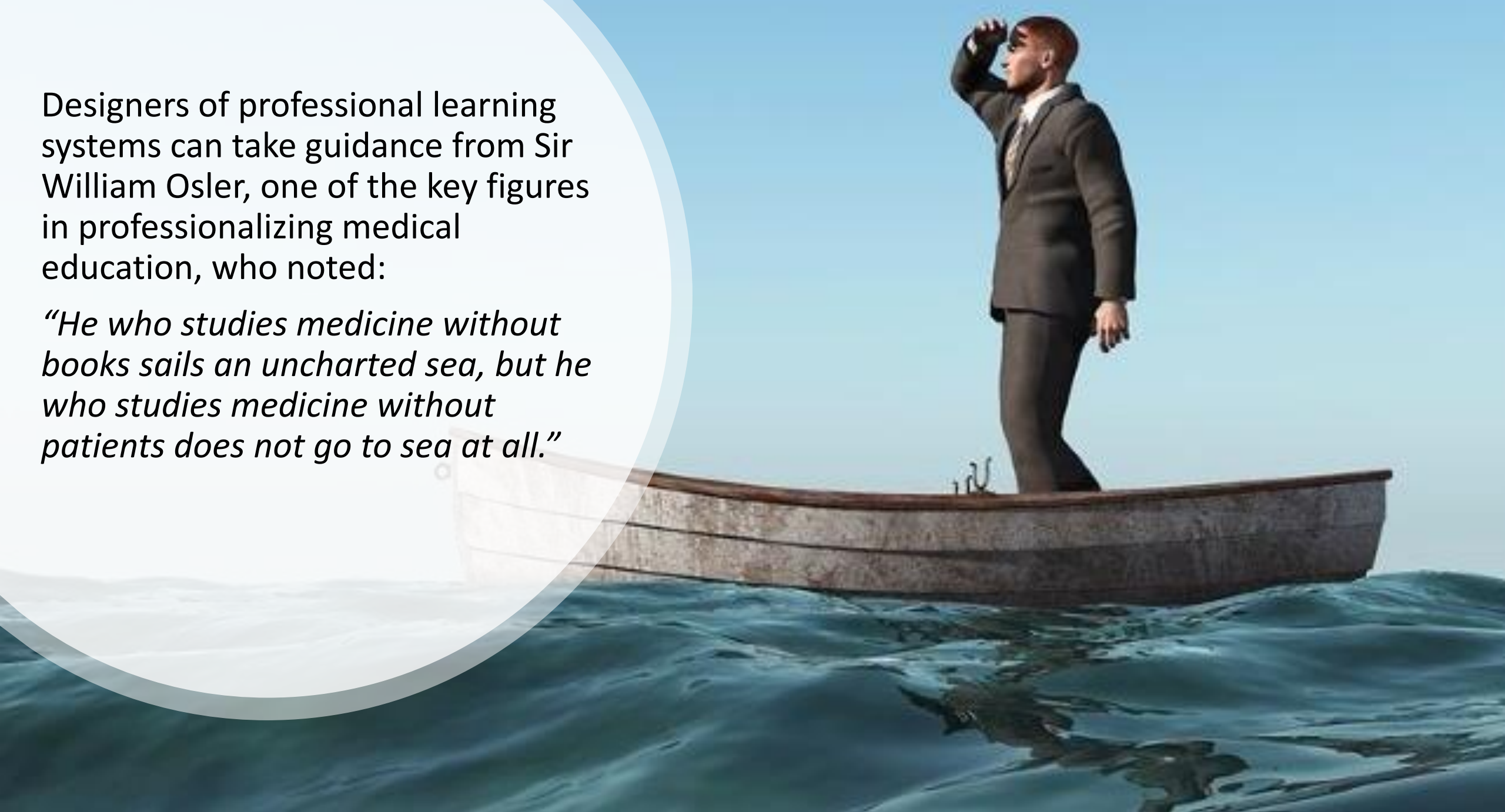
# Professional Learning Landscape

- Professional learning is critical to the success of the educator and therefore the student.
- According to one report (Boston Consulting Group, 2014), states and districts in the United States spend more than \$18 billion per year on professional development, and a teacher will, on average, spend about 68 hours per year in professional learning activities paid for by states and districts. For that investment, states and districts want to see results.
- Our state is entering its THIRD biennium of zero dollars from the state for PL.



Designers of professional learning systems can take guidance from Sir William Osler, one of the key figures in professionalizing medical education, who noted:

*“He who studies medicine without books sails an uncharted sea, but he who studies medicine without patients does not go to sea at all.”*



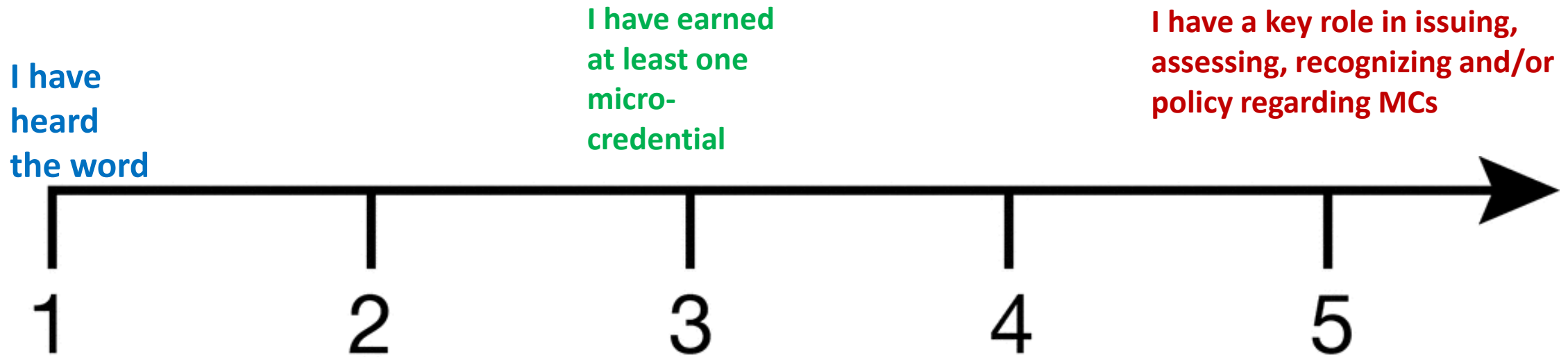
*Traditional “sit and get” workshops assume that the only challenge facing educators is a lack of knowledge of teaching practices and when that knowledge gap is corrected, teachers will then be able to change practice.*

*However, research tells us that teachers’ greatest challenge is actually putting what they’ve learned into practice in the classroom*

-Bloomboard



# What is your current experience level with micro-credentials?



**Drop your experience level in the Chat!**





A micro-credential is a competency-based certification of a discrete skill.





- Micro-credentials are a digital form of certification indicating that a person has demonstrated competency in a specific skill, such as data literacy, teacher leadership, or growth mindset.
- Rather than learning by watching, reading, or listening alone, micro-credentials promote learning by doing.
- Educators apply their learnings in their practice and collect evidence, thereby demonstrating their competence.

## MCs ARE:

- Competency-based
- Personalized, self-directed
- Demonstration of new or existing expertise
- Available on-demand
- Clinical learning and application
- Specified learning by doing and applying
- Guided by feedback
- Opportunities for collaboration with peers



**Add other characteristics/non-characteristics!!**

## MCs are NOT:

- Seat-time bound
- One size fits all
- Traditional online course, MOOC, or class
- Available only at set times
- Separate from context
- Simply receiving information
- Automatically scored



# Design, Assessment and Implementation Principles for Educator Micro-Credentials

Principles to support the design, assessment and implementation of educator micro-credentials.



## Design, Assessment, and Implementation Principles for Educator Micro-credentials

### INTRODUCTION

The Council of Chief State School Officers (CCSSO) recently convened a wide range of stakeholders through the Certification and Licensure Collective (CLC) to support states to improve certification and licensure systems, including **initial licensure, renewal, and reciprocity** or teacher mobility. As part of this work, CCSSO joined with [Digital Promise](#) to convene a task force to outline principles to support the design, assessment, and implementation for educator micro-credentials so teachers can expand, validate, and receive recognition for their professional learning journey.

Micro-credentials are gaining momentum as an approach for educators to demonstrate proficiency on a discrete skill or competency to indicate their expertise. Microcredentials are one part of the larger [nested system of professional learning](#) that teachers experience. A micro-credential is a competency-based certification of a discrete skill: an educator earns a micro-credential by submitting evidence verifying that they meet the definition of competence outlined by the entity developing and/or issuing the micro-credential. Similar to degrees/certifications, the assessment of evidence results in a determination to award or deny, with the educator either earning the micro-credential or not. The micro-credential submission process takes place through an online platform, and micro-credentials earned are typically recognized with a "digital badge."<sup>1</sup> See the diagram on the next page for more information on the micro-credential development process and the process for earning a micro-credential.

Key Term	Description
Developer	The organization(s) or individuals that identify and establish the expected knowledge and skills to be recognized through the micro-credential (often the same entity as the <b>issuer</b> )
Earners	The individual who submits evidence demonstrating their learning competency in order to earn a micro-credential.
Assessor	The individual(s) that review evidence submitted by earners and apply criteria to assess and determine each earner's proficiency
Issuer	The organization(s) or institution(s) that formally award the micro-credential to earners who have successfully met the proficiency criteria (often the same entity as the <b>developer</b> )
Recognizer	The organization(s) or institution(s) that recognize and give currency or value to the micro-credentials and allow them to be used by earners for various purposes

Adapted from Cross-State Collective Inquiry Project: Micro-Credential Quality Criteria, Midwest Comprehensive Center and Great Lakes Comprehensive Center at the American Institutes for Research, 2019

<sup>1</sup> A digital badge is a visual representation of an accomplishment or skill that can be earned in a variety of learning environments.

# “Sample” Micro-credential





Micro-credentials are part of an “eco-system” that include 4 distinct roles:

- Issuers (sometimes also the Developer)
- Earners
- Assessor (sometimes the Issuer/Developer)
- Recognizers



Within the eco-system of MCs, there are 5 distinct paths to the issuer/earner process

- **Issuer/Developer** identifies and describes competencies
- **Issuer** establishes requirements for earning micro-credentials
- **Earners** produce and submit artifacts that demonstrate competency
- **Assessor** provides feedback and determines if submission meets requirements defined by the issuer
- Credentials are awarded by **issuer**, **recognized** and **shared**

- Metadata is embedded in the micro-credential and therefore has the potential for becoming part of an online record of achievements.
- The micro-credentials provide information regarding who issued the micro-credentials as well as the competencies that were attained in order to get them.
- Earners can "collect" the micro-credentials in a virtual portfolio.





# Components of a Micro-Credential

- Competency-based
- Demonstration within context of work
- Includes
  - Competency
  - Key Method
  - Method Components
  - Research & Resources
  - Submission Criteria
  - Scoring Rubric



# What are benefits of micro-credentials?

- Flexibility in time
- Learning Styles
- Content
- Relevance
- Manageable
- Clinical
- Opportunity for Collaboration



**Others?**





# KY and National Professional Learning Standards

STANDARDS FOR PROFESSIONAL LEARNING			
<i>Professional learning that increases educator effectiveness and results for all students ...</i>	<b>LEARNING COMMUNITIES:</b> Professional learning that increases educator effectiveness and results for all students occurs within learning communities committed to continuous improvement, collective responsibility, and goal alignment.	<b>LEADERSHIP:</b> Professional learning that increases educator effectiveness and results for all students requires skillful leaders who develop capacity, advocate, and create support systems for professional learning.	<b>RESOURCES:</b> Professional learning that increases educator effectiveness and results for all students requires prioritizing, monitoring, and coordinating resources for educator learning.
<b>DATA:</b> Professional learning that increases educator effectiveness and results for all students uses a variety of sources and types of student, educator, and system data to plan, assess, and evaluate professional learning.	<b>LEARNING DESIGNS:</b> Professional learning that increases educator effectiveness and results for all students integrates theories, research, and models of human learning to achieve its intended outcomes.	<b>IMPLEMENTATION:</b> Professional learning that increases educator effectiveness and results for all students applies research on change and sustains support for implementation of professional learning for long-term change.	<b>OUTCOMES:</b> Professional learning that increases educator effectiveness and results for all students aligns its outcomes with educator performance and student curriculum standards.

# *Why and How could micro-credentials become part of a system of professional growth and development?*

- **Take a growth-based approach.** Micro-credentials redefine the professional learning experience, shifting the emphasis from seat time to demonstrated competence.
- **Support development around targeted needs.** Allow instructional leaders to recommend micro-credentials that match an educator's specific growth goals.
- **Provide ongoing feedback.** Educators can submit pieces of required evidence — one at a time — enabling district-assigned assessors to provide incremental feedback.
- **Enhance all your PD resources.** Micro-credentials have the potential to make all the PD tools and resources your educators access — from virtual PLCs to online tools to coaches and mentors — more relevant and meaningful.



# Making MCs part of a SYSTEM

- Plan, develop, implement and share the plan grounded in research and data and in collaboration with stakeholders
- Include MCs as part of an educator's PGP, with voice, choice, and data driving the plan
- Recognize and Incentivize
- Encourage, support and provide for collaboration
- Administrators earn MCs too
- Have FUN
- Share successes and lessons learned





# Lessons Learned

- Teachers who earn MCs want to earn more
- MCs encourage educators to apply skills to practice
- MCs scaffold teachers to engage at an increased level of rigor
- Teachers can demonstrate competency/mastery in a variety of ways
- Instructional design and online platform matter
- MCs should not have a one-size-fits-all approach
- Many questions still exist around MCs.

THE WILLIAM & IDA  
**FRIDAY INSTITUTE**  
FOR EDUCATIONAL INNOVATION

## Purpose of the Research



- Quantitative study of a sample of 100 teachers in the Kentucky Valley Educational Cooperative service region.
- To compare the impact of micro-credentials for professional learning to the impact of other formats of professional learning on:
  - Educator professional practice
  - Student outcomes
  - Educator perception of the professional learning as aligned to Learning Forward's Standards for Professional Learning.

## Problem Statement



*Do teachers who engage in micro-credentialing have higher professional practice ratings, higher student achievement scores and more positive perception of professional learning than teachers who engage in other forms of professional learning?*



# Research Question #1



How do the professional practice ratings of educators who engage in micro-credentialing compare to the professional practice ratings of educators who participate in other methods of professional learning?

## Research Question #2



How does student achievement in classes taught by educators who engage in micro-credentialing compare to the student achievement in classes taught by educators who participate in other methods of professional learning?

## Research Question #3



How does the perception of effective professional learning practices by educators who engage in micro-credentialing differ from the perception by educators who engage in other methods of professional learning?



# Limitations of the Study

- Possible inaccurate ratings of educator professional practice using the Danielson Framework (2013).
- More elementary teachers than secondary teachers in the Kentucky Valley Educational Cooperative region report engaging in micro-credentialing for professional learning.
- The administration of the NWEA MAP interim assessment is not governed by regulation.

# Research Design



Independent  $t$  -tests to:

- compare the professional practice ratings of teachers in the sample
- compare the Spring 2019 MAP interim assessment scores of students whose teachers were in the sample
- compare the ratings on the Learning Forward Standards Assessment Inventory of teachers in the sample

# Data Sources



- Teacher professional practice ratings (provided by principals using the Kentucky Framework for Teaching (2017)).
- Student assessment scores on the 2019 Spring NWEA MAP Assessment (provided by principals).
- Teacher ratings on the Learning Forward Standards Assessment Inventory (provided anonymously).



Table 3  
*Teachers Studied*

	Total number of teachers in study	Ten or less years of teaching experience	More than 10 years of teaching experience	Teach elementary school	Teach middle school	Teach high school
Teachers Who Engaged in Micro- credentialing	50	25	25	37	4	9
Teachers Who Engaged in Other Forms of Professional Learning	50	13	37	41	4	5



# Findings: Research Question 1



- Teachers who engaged in micro-credentialing for professional learning did not have statistically significant higher professional practice ratings on the Kentucky Framework for Teaching than those teachers who engaged in other forms of professional learning.
- No significant difference was found to exist between the two means and the results failed to reject the Null Hypothesis at ( $t [98] = .0726, p > .05$ ).

## Findings: Research Question 2



- In comparing the MAP interim assessment scores of students whose teachers engaged in micro-credentialing and those whose teachers engaged in other forms of professional learning, there was a statistically significant difference to reject the null hypothesis.
- There was a significant difference in the most recent NWEA interim assessment scores between teachers who engaged in micro-credentialing and teachers who engaged in traditional professional learning ( $t [98]=3.5274$ ,  $p=.00064032$ ,  $p <.001$ ).

# Findings: Research Question 3



- In comparing the responses to the Learning Forward Standards Assessment Inventory (SAI) (Appendix E) by educators who engaged in micro-credentialing to those engaged in other forms of professional learning, there was a statistically significant difference to reject the null hypothesis.
- There was a significant difference between the ratings assigned to the survey statements by the teachers who engaged in micro-credentialing and teachers who engaged in traditional professional learning ( $t [4835] = 9.523, p = 2.5323E-21, p < .001$ ).

# Conclusions

Micro-credentials are a format for professional learning that adheres to Knowles' (1980) theory of andragogy and aligns to Learning Forward's Standards for Professional Learning (2011).

There is evidence that educators who engage in micro-credentialing for professional learning have higher student performance, as measured by the MAP assessment, and higher perception ratings of the professional learning as measured by the Standards Assessment Inventory.

Further study into how micro-credentialing impacts educator professional practice is needed.



# Implications for Future Research



Further study is needed into:

- the impact of micro-credentialing for educator professional learning on specific experience levels of teachers.
- educators who all earned the same micro-credential.
- how professional learning (micro-credentials or other forms of professional learning) is considered as part of a systemic approach to improving educator and student outcomes at the school or district level.
- the impact of micro-credentials on educator professional practice.

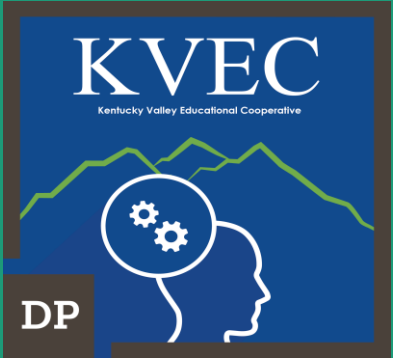






# What do these results mean?



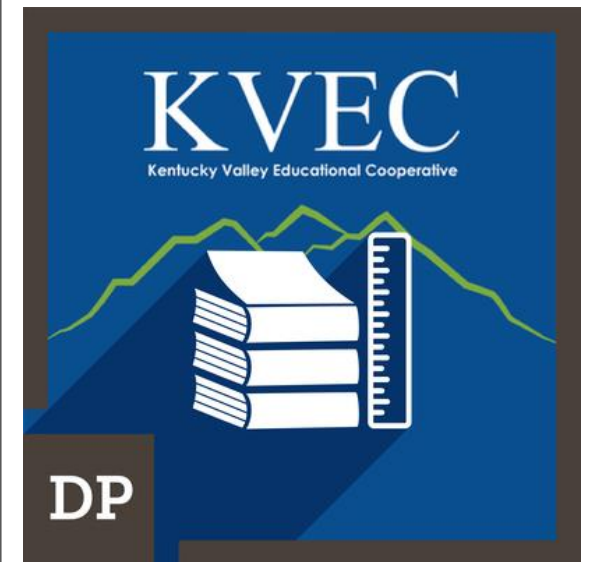
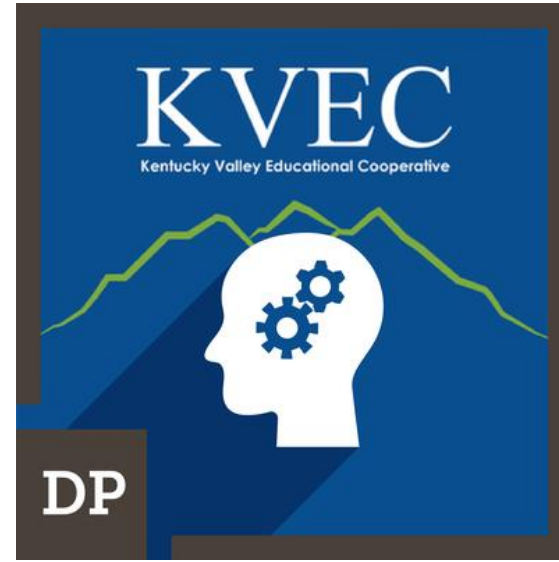
These results have implications for leadership including:

- Teacher Leaders
- Principals
- School District Administrators
- School Boards and SBDM Councils
- State Education Officials
- KVEC as a service agency

				
Assessment Literacy	Collaborative Coaching	Developing an Instructional Strategy Checklist	Framing a Problem of Practice	Facilitating an Online Computer Science Course

**Some Examples of Micro-Credentials Developed by KVEC Based on Regional Need**





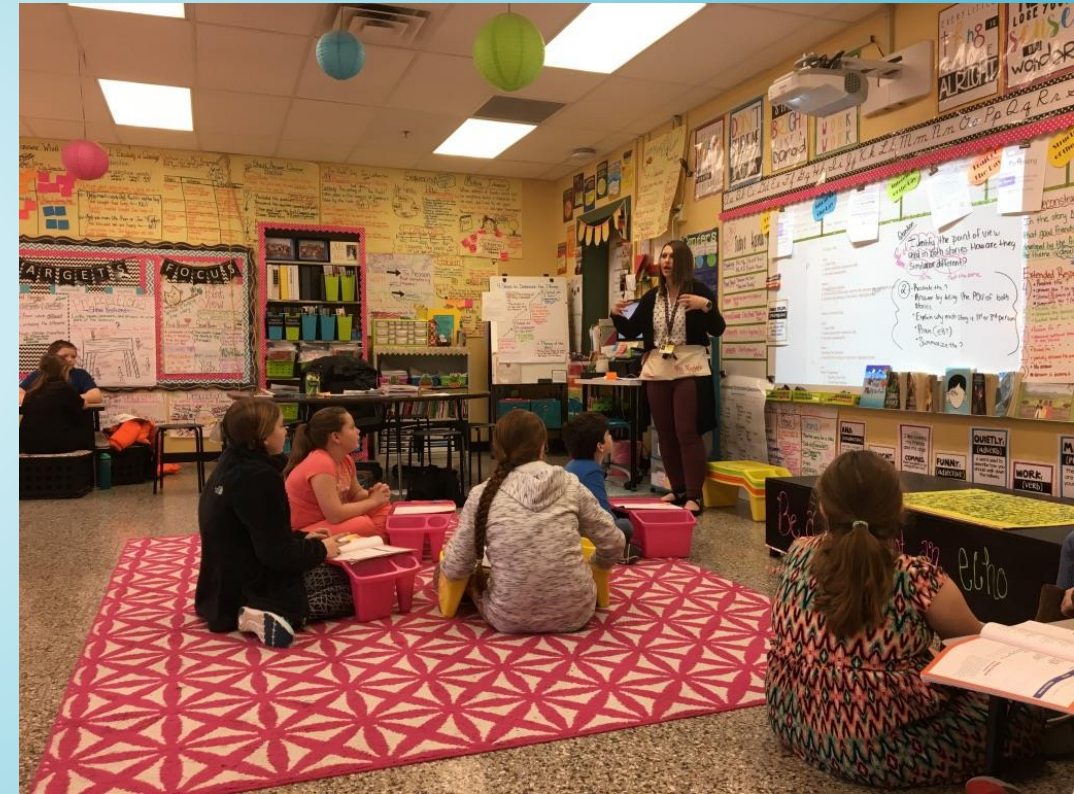
# Micro-Credentials for Special Education Teachers

# Teaching Rural Students From Poverty



## Stack of 5

- Understanding Types of Poverty
- Building Relationships
- Culturally Responsive Pedagogy
- Learning Structures-In Development
- Interventions-In Development



# Next Steps for KVEC



- Continue work with our state agency (KDE) to offer a Continuing Education Option that includes competency-based professional learning for Rank Change.
- Continued development of MCs based on needs in our region.
- Continued work with stakeholder partners to advance micro-credentials as a component of competency-based personalized professional learning—within our region and beyond.



What are YOUR next steps?



Questions? Further Discussion?

[Robert.Brown@hazard.kyschools.us](mailto:Robert.Brown@hazard.kyschools.us)

[Jennifer.Carroll@wolfe.kyschools.us](mailto:Jennifer.Carroll@wolfe.kyschools.us)



@KVECFoward



[www.TheHoller.org](http://www.TheHoller.org)