WDE
Opportunity Through Education

Wyoming Elementary Computer Science Micro-Credential Pilot
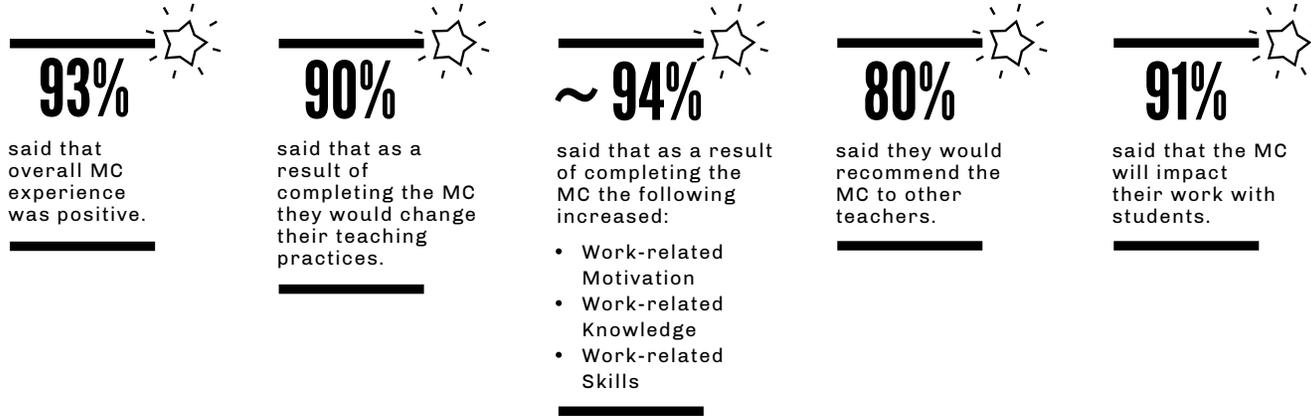*Evaluation Highlights Across All Micro-Credentials (MC)*

WY Micro-Credentials positively impact teachers' computer science knowledge, teaching practices, and self-efficacy!

Teachers Realize Benefits from MCs

Based on the End-of-Micro-Credential Questionnaire (N=328):

93% said that overall MC experience was positive.

90% said that as a result of completing the MC they would change their teaching practices.

~ 94% said that as a result of completing the MC the following increased:
- Work-related Motivation
- Work-related Knowledge
- Work-related Skills

80% said they would recommend the MC to other teachers.

91% said that the MC will impact their work with students.

Impacts of MCs on Teachers

Teachers were asked how the MCs impacted them personally and professionally.

Sample Teacher Comments:

- "I liked that I created lessons that align with this standard that I can use for the future. It will help me to explain to other primary teachers what the standard is asking."

- "Implementing MC has challenged me to think more deeply about integrating across subjects. My students were more successful because of the lesson I created."

- "Taking the time to learn about sequences, conditionals, and repetitions, I am starting to make connections to them in my daily life. I believe I am beginning to think like a programmer."

Teachers Experience Increased Knowledge/Self-Efficacy from the MCs

Pre-/Post-Assessments show improvements in outcomes (Pre-N=49; Post-N=101). For example:

(CS=Computer Science; CSTA=Computer Science Teacher Association)

Average percent of possible points earned on each scale

Scale	Post	Pre
Knowledge of WY CS Standards	79%	43%
Confidence surrounding influencing students' understanding	80%	47%
Knowledge of CSTA Standards	78%	45%
Confidence surrounding CSTA Standards	80%	54%

Legend: Post, Pre

Rating of Teacher Knowledge of CS Standards in Program Development

	Definitely needs improvement	Could improve	Pretty Good: Possibly could improve	Good	Excellent
Post			12%	59%	29%
Pre	20%	41%	22%	14%	2%

Rating of Teacher Confidence Regarding Influencing Students' Understanding of Algorithms & Programming

	Very unconfident	Unconfident	Somewhat Confident	Confident	Very Confident
Post			6%	71%	24%
Pre	10%	27%	44%	17%	2%