

## Measure 1: Completer Impact and Effectiveness

Table 1 provides a visual outline of the multiple case pilot study conducted to meet the requirements of R4.1 Completer Effectiveness. Table 2 details an overview of participant information.

**Table 1.** Multiple Case Pilot Study Visual Outlines

<b>Cycle 1: Spring 2024</b>					
<b>Cycle 2: Fall 2024</b>					
<b>Cycle 3: Spring 2025</b>					
<b>Methodology</b>	Multiple Case Study				
<b>RQ 1</b>	How effective is the teaching of recent initial program completers from ESU-TTC?				
<b>RQ 2</b>	How do recent ESU-TTC initial program completers impact P-12 student learning?				
<b>RQ 3</b>	How do completers of ESU-TTC compare to one another in a cross-case analysis?				
<b>Sample</b>	ESU-TTC completers 3-5 semesters after completion of program (representatives from six out of six categories of initial programs, including (1) undergraduate elementary education, (2) undergraduate secondary education (math and science), (3) undergraduate secondary education (liberal arts and sciences), (4) undergraduate secondary education (physical education and health), (5) undergraduate secondary education (fine arts), and (6) alternative education.				
<b>Recruitment</b>	Email in March 2024, present with informed consent form, and inform of the incentive for participating, coordinate times for observation/data collection, will be paid once all data is collected.				
<b>Data Collected by Researcher</b>	Lesson Observation  RQ1	Post-Lesson Observation Interview  RQ1/RQ2			
<b>Data Collected from Participant</b>			Pre- and Post-Assessment Data  RQ2	Lesson Plan  RQ1/RQ2	Administrator Evaluation  RQ1
<b>Participant/School Partner Assurances</b>	Anonymize identifying references	Anonymize identifying references/ voice using zoom transcription	Student information removed by teacher before submitting	Student information removed by teacher before submitting	Pseudonym replacement
<b>Data Analysis</b>	Quantitative Analysis of Lesson Evaluation Tool Ratings	Two-Cycle Qualitative Coding/ Analysis	TLP Component Completion	Two-Cycle Qualitative Coding/ Analysis	Two-Cycle Qualitative Coding/ Analysis
<b>Incentive</b>	\$250 stipend to participant				

## Sampling Procedures

Ten participants contributed at least two pieces of data to the study across three semesters: Spring 2024 (N=2), Fall 2024 (N=3), and Spring 2025 (N=5). These participants represent all six categories of initial educator preparation programs (Table 2) and nine unique programs. Two participants failed to complete the data collection process; however, partial datasets are included because the data collected provided valuable insights in answering the research questions, though incomplete.

**Table 2.** Six Categories of Initial Educator Preparation Programs

Program Categories	Programs
Undergraduate Elementary Education (ELED)	Elementary Education, PK-6 Elementary Education Unified, K-6
Undergraduate Secondary Education, Math and Science (STEM)	Biology 6-12 Chemistry, 6-12 Earth and Space Science, 6-12 Mathematics, 5-8 Mathematics, 6-12 Physics, 6-12 Science, 5-8
Undergraduate Secondary Education, Liberal Arts and Sciences (LAS)	English Language Arts, 5-8 English Language Arts 6-12 History, Government, Social Studies 6-12 Speech/Theatre, 6-12 World Languages (Spanish), PK-12
Undergraduate Secondary Education, Physical Education and Health (PE)	Health, PK-12 Physical Education, PK-12
Undergraduate Secondary Education, Fine Arts (FA)	Art, PreK-12 Music, Instrumental, PK-12 Music, Vocal, PK-12
Graduate Alternative Education (ALT)	Elementary Education, PK-6 Elementary Education (Innovative), PK-6 Restricted License, 5-8, 6-12, PK-12

## Abbreviated Discussion

### *Lesson Observation*

Overall, the lesson evaluation data revealed notable trends across programs. Completers from the undergraduate elementary education program category demonstrated the strongest overall performance, averaging 19 out of 20 points, while those from alternative education program category had the lowest average at 15 out of 20. Initial program candidates consistently scored effectively in Construct 4.1 and 4.2, which address reflection and continuous growth and collaboration, respectively. Additional areas of strength included Construct 1.1 and 1.2, which address learner development and learner differences, respectively. Construct 1.3 (learning environment,

including classroom management) and Construct 2.2 (innovative applications of content knowledge) were areas for improvement across most initial programs.

#### *Post-Lesson Observation Interview*

The post-observation interview data revealed several consistent themes among completers regarding their instructional practices and professional growth. When reflecting on their professional dispositions, completers emphasized preparedness, intentional lesson design, and collaboration with colleagues to ensure effective instruction. Many focused on student engagement as a primary goal, employing differentiated strategies, gamified activities, and structured approaches to meet learner needs. They also highlighted the importance of thoughtful classroom management and flexible lesson structures to facilitate smooth instruction. When asked about potential improvements, completers recognized opportunities to strengthen their use of content representations and classroom procedures, such as modeling concepts more clearly, incorporating visual or kinesthetic tools, and refining routines to maximize instructional time.

Regarding the use of student data and lesson adjustments, completers consistently noted how formative assessments and informal observations informed instructional decisions. Completers described using previous academic data and student behaviors—such as attention spans or engagement levels—to guide lesson design and real-time modifications. They viewed these insights as critical for determining whether to reteach, anchor, or advance content in future lessons. In discussing their educator preparation programs, completers praised practicum and clinical experiences for providing valuable feedback and hands-on learning. However, they identified gaps in classroom management, assessment literacy, and long-term unit planning, suggesting that more applied, data-driven, and authentic planning experiences would better prepare future educators.

#### *Pre- and Post-Assessment Data*

As shown in Table 3, the cross-case analysis of the impact on student learning, demonstrated by the pre- and post-assessment data, showed that completers in the *undergraduate elementary education program category* had the largest impact on PK-12 student learning—though variance was observed within the category. All program categories showed a moderate impact on the learning of those students who had not demonstrated proficiency at time of pre-assessment, except for the *math and science program category* and the *alternative education category*.

**Table 3.** Average Pre/Post-Assessment Impact by Program

<b>Program Category</b>	<b>% of students above proficiency on post-assessment, who were not above proficiency on pre-assessment</b>	<b>% of students above proficiency on pre-assessment</b>
ELED	65.95%, moderate impact	73.33%
STEM	55.56%, moderate impact	55.56%
ALT	42.86%, marginal impact	42.48%
LAS	62.50%, moderate impact	84.21%
FA	59.09%, moderate impact	85.25%

#### *Administrator Evaluation*

The largest trends in the qualitative comments collected from administrators about completers' teaching included strengths and goals for growth in two main categories: use of assessment and classroom management, which are also connected to constructs within the lesson evaluation tool. A subset of completers received positive qualitative

descriptions from administrators concerning their use of assessment, representing a spread across multiple certification categories. Notably, one of these completers scored "highly effective" on their use of assessments in the observed lesson, corroborating the administrative comments. In contrast, the remaining completers in this group scored "developing" on the lesson evaluation, suggesting that observed lessons may have been anomalies compared to the day-to-day habits of those completers. Only one completer had the use of assessments listed as a goal for growth by administrators, a designation that was corroborated by their lesson evaluation data.

The second construct from the lesson evaluation tool addressed through administrator qualitative comments was classroom management. A majority of completers received positive comments regarding their implementation of classroom management, representing variance across certification categories. A smaller number of completers had classroom management identified as a goal for growth. Comparing these administrative observations to the lesson evaluation data revealed a notable pattern: completers who received positive comments generally earned "effective" or "highly effective" ratings on the lesson evaluation, while those identified as needing growth tended to score "developing." This divergence suggests that anomalies in the observed lessons may have contributed to differences between administrative perceptions and lesson evaluation scores for some completers.