SUNY Cortland
Teacher Education Program
Case Study of Program Completers

Teacher education programs need to ensure their graduates have the competencies necessary for facilitating their future students' learning. Graduates' competencies include having the knowledge, skills and dispositions needed for (a) preparing and planning lessons; (b) creating an inclusive and productive learning environment; (c) coherently instructing students and (d) carrying out professional responsibilities. SUNY Cortland's teacher education unit is committed to quality assurance and has implemented various measures to demonstrate program graduates' competencies during their preparation and during the early years of employment.

In spring 2024, SUNY Cortland conducted a multi-case study to investigate program completers' impact on P-12 students' learning and to use outcomes to inform ongoing improvement in our teacher education programs. Similar multi-case studies were carried out in 2017, 2019 and 2022.

Six researchers from all three schools across the College studied 12 early-career teachers who taught the following: adolescence English, adolescence Spanish, adolescence French, adolescence physics, physical education and early childhood/childhood education. Faculty researchers used a mixed-methods approach to carry out a five-phase investigation which included a pre-observation interview, one structured classroom observation and a post-observation interview with opportunities to review student and instructional artifacts.

Context and Timeline

In fall 2023, SUNY Cortland began to prepare for accreditation offered through the Association for Advancing Quality in Educator Preparation (AAQEP, 2024). Part of that work included determining how to collect evidence to exhibit program completers' performance as professional educators in their current teaching positions. To carry out this inquiry, six faculty members became part of a case study research team. The faculty researchers were from the following programs: two from Physical Education, one from Modern Languages, one from Adolescence English Education, one from Physics and one from Childhood/Early Childhood Education. Meetings were held to review research protocols used in the three previous rounds of case studies and to confirm their continued use along with an observation measure based on already validated observation rubrics in use in New York State (e.g. Danielson, 2011). A training was implemented to provide faculty researchers with opportunities to practice using the data collection tools which helped to establish validity and reliability protocols. An IRB was submitted and approved in February 2024. Data collection began soon afterward.

This study was designed to provide information about program completers' impact on their students' outcomes. Performance measures used to gather data for the studies' findings are aligned to AAQEP Standard 1: Candidate/Completer Performance (Program completers perform as professional educators with the capacity to support success for all learners) and Standard 2: Completer Professional Competence and Growth (Program completers adapt to working in a variety of contexts and grow as professionals) and the Aspects associated with each. See Table1 and Table 2 for AAQEP Standards and Aspects alignment to case study measures.

Table 1: AAQEP Standard 1 Alignment to Case Study Measures

AAQEP Standards/Aspects	Case Study Measures						
	Observation Template				Pre-Obs. Interview	Post-Obs. Interview	Work samples
	Domain 1	Domain 2	Domain 3	Domain 4			
Standard 1: Competence/Completer Performance: Program completers perform as professional educators with the capacity to support success for all learners.							
1a. Content, pedagogical, and/or professional knowledge relevant to the credential or degree sought	✓				✓		✓
1b. Learners, learning theory, including social, emotional, and academic dimensions, and application of learning theory	✓					✓	✓
1c. Culturally responsive practice, including intersectionality of race, ethnicity, class, gender identity, and expression, sexual identity, and the impact of language acquisition and literacy development on learning	✓	✓			✓	✓	
1d. Assessment of and for student learning, assessment and data literacy, and use of data to inform practice	✓		✓		✓	✓	✓
1e. Creation and development of positive learning and work environments		✓	✓	✓			
1f. Dispositions and behaviors required for successful professional practice		✓	✓	✓		✓	

Table 2: AAQEP Standard 2 Alignment to Case Study Measures

AAQEP Standards/Aspects	Case Study Measures						
	Observation Template				Pre-Obs. Interview	Post-Obs. Interview	Work samples
	Domain 1	Domain 2	Domain 3	Domain 4			
Standard 2: Completer Professional Competence and Growth: Program completers adapt to working in a variety of contexts and grow as professionals							
2a. Understand and engage local school and cultural communities, and communicate and foster relationships with families/ guardians/caregivers in a variety of communities				✓		✓	
2b. Engage in culturally responsive educational practices with diverse learners and do so in diverse cultural and socioeconomic community contexts	✓	✓	✓		✓	✓	
2c. Create productive learning environments and use strategies to develop productive learning environments in a variety of school contexts		✓	✓		✓		
2d. Support students' growth in international and global perspectives						✓	
2e. Establish goals for their own professional growth and engage in self-assessment, goal setting, and reflection				✓	✓		
2f. Collaborate with colleagues to support professional learning				✓	✓		

Methods and Procedures

The research team used a descriptive, multi-case design to study 12 program completers across K-12 content and grade levels. Data were collected using semi-structured interviews, structured observations, and reviewing documents and student work samples.

Participants

Faculty Researchers

Six faculty members carried out this collaborative case study research. Faculty researchers were from the following programs: two from Physical Education, one from Modern Languages, one from Adolescence English Education, one from Physics and one from Childhood/Early Childhood Education. All researchers were employed full-time and were teaching courses in their specific disciplines while carrying out the study. They also served as participants' prior course instructors.

Program Completers

To identify participants (i.e., program completers), the research team sent a recruitment email to program graduates from the following SUNY Cortland teacher education programs: (1) Early Childhood and Childhood Education, (2) Adolescence English; (3) Adolescence Spanish and French; (4) Physical Education and (5) Mathematics and Physics. The initial email described basic parameters for the study, including that each participant would be asked to share their background and demographics, participate in pre- and post-observation interviews, be formally observed teaching one lesson and share artifacts that demonstrated their impact on student-learning. See Solicitation Email in Appendix A.

Twelve program completers participated in the study. All were early-career teachers currently employed fewer than five years in schools across New York State. The completers included five high school, two middle school and five elementary school teachers. Eleven were undergraduate program completers and one was a master's program completer. Five completers were in their first year of teaching. All but one were working in public schools. One was teaching in a dual-language elementary school. See Table 3 for the List of Program Completers.

Table 3: List of Program Completers

Program Completer	Teacher Preparation Program	Graduation Date	Current Subject/ Grade Level	Employment Location	Years Teaching
01	B.S. Physical Education	May 2022	Physical Education K-12	Urban public elementary school	2 years
02	B.S. Physical Education	May 2023	Physical Education K-3	Suburban public elementary school	< 1 year
03	B. A. English Education	May 2021	High School English Gr. 9	Urban public high school	3 years
04	MAT English Education	May 2022	Middle School English Gr. 7	Rural public high school	2 years
05	B.S. Physical Education	May 2023	Physical Education K-5	Small city public elementary school	< 1 year
06	B.S. Physical Education	May 2023	Physical Education 6-9	BOCES suburban middle school	< 1 year
07	B.A. Adol. Spanish Education	Dec. 2023	Spanish Education Gr. 7	Small city public high school	< 1 year

08	B. A. Adol. French Education	Dec. 2019	French Education Gr. 7	Suburban public middle school	4 years
09	B.S. Adol. Education: Physics and Math	Dec. 2020	Regents Physics Gr. 11	Private/catholic Urban high school	3 years
10	B.S. Adol. Education: Physics and Math	Dec. 2022	Physics Gr. 10 - 12	Suburban public high school	< 1 year
11	B.S. Early Childhood/ Childhood Education	Dec. 2022	Elementary Education, K	Small city public elementary school	1 year
12	B.S. Early Childhood/ Childhood Education	May 2021	Elementary Education, Gr. 5	Suburban public elementary school	3 years

Since this multi-case study investigated program completers' impact on their students' outcomes, it's important to understand their students' demographics. Completers were asked to complete an electronic form depicting the population of students they taught during the observed lesson and, if applicable, additional students they taught.

Six completers reported they were teaching students in urban or small cities, five were teaching in suburban communities and one was teaching in a rural setting. 11 were teaching students enrolled in public schools and one was teaching in a private school. Overall, completers' students were enrolled in kindergarten through twelfth grade, with most students receiving free and reduced lunch. Students were diverse in racial, ethnic, and socio-economic status backgrounds and over half of the observed class included English language learners and/or students of Hispanic dissent. 75% of observed classes had students with Individualized Education Plans and 58% of observed classes had students with 504 plans. See Table 4 for Observed Lesson Student Demographics

Table 4: Observed Lesson Student Demographics

P	Current Subject/ Grade	Students in Observed Class	English Language Learners	Racial Demographics	Special Ed. Services IEP/504	Free and Reduced Lunch
01	Physical Ed. K-12	25	68% ELL	100% Hispanic	40%	100%
02	Physical Ed. K-3	18	28% ELL	72% White 28% Hispanic	56%	Unknown
03	HS English Gr. 9	24	100% ELL	100% Hispanic	33%	100%
04	MS English Gr. 7	19	0% ELL	100% White	63%	59%
05	Physical Ed. K-5	12	8% ELL	67% White, 8% African American/ Black, 8% Hispanic, 17% Multiracial	42%	100%
06	Physical Ed. Gr. 6-9	10	40% ELL	10% White, 10% African American/ Black, 40% Hispanic, 20% Multiracial	100%	100%
07	Spanish Ed. Gr. 7	15	0% ELL	100% White	11%	100%
08	French Ed. Gr. 7	16	19% ELL	55% White, 28% Black/African	19%	100%

				American, 17% Hispanic		
09	Physics Gr. 11	37	0% ELL	45% White, 13% Asian, 27% Hispanic, 10% Black/African American	0%	0%
10	Physics Gr. 10 - 12	21	0% ELL	35% South East Asian, 35% White, 30% Hispanic	0%	Not reported
11	Elementary Education, K	18	0% ELL	66% White, 28% Black/African American, 6% Multiracial	0%	100%
12	Elementary Education, Gr. 5	28	39% ELL	82% Hispanic, 14% Black/African American, 4% Multiracial	7%	100%

Totals:
58% of program completers taught English language learners
75% of program completers had students who receive special education services
67% of observed classes had 100% students with free or reduced lunch
67% of program completers taught in classrooms with students of multiple races and cultures

Data Collection Tools

Faculty researchers used four data collection tools throughout the study including a demographics survey, a pre-observation semi-structured interview, a formal observation rubric adapted from Charlotte Danielson's (2011) Framework for Teaching Evaluation Instrument and a post-observation semi-structured interview. The following includes information about each tool.

Demographics Survey

The initial demographics survey asked program graduates to identify the subject and grade level taught, the number of students enrolled in the class, a description of the diversity among students, and the number of students receiving special education services, 504 plans and AIS services. The survey also asked program graduates to report how many students are English Language Learners, Heritage Language Learners, how many receive free or reduced lunch, and to identify how many additional adults work in the classroom. See Demographics Survey in Appendix B.

Initial Pre-observation Interview

The initial semi-structured interview was administered prior to the first observation and included two parts including Part I: Completer Growth which provided prompts to learn about program completers' backgrounds, education and professional experiences and Part II: Semi-structured Interview Questions which were used to learn contextual information about students and the instruction prior to observing the lesson. See Pre-Observation Semi-Structured Interview in Appendix C.

Formal Observation Rubric

The case study formal observation rubric was informed by and aligned to Danielson's framework and SUNY Cortland's unit-wide Student Teaching Evaluation (STE) which was previously administered to all program completers while they completed their teacher preparation programs. The STE rubric has been validated as a tool for observing teaching practice across multiple classrooms. The rubric includes four competency categories: Domain 1: Planning and Preparation; Domain 2: Classroom Environment; Domain 3: Instruction and Domain 4: Professional Responsibilities. Within each domain, five or six competencies are identified and evaluated based on a four-point continuum including Unsatisfactory (1); Basic (2); Proficient (3); and Exemplary (4). Each faculty researcher formally observed each program completer and used the rubric to document their evaluation of program completers' proficiencies in each competency area and provided overall ratings for each domain as well. See Appendix D for the Structured Observation Rubric (Revised).

Final Post-observation Interview

Faculty researchers met with program completers for a post-observation, semi-structured interview to ask questions following the observed lesson. This final interview consisted of 14 questions which probed at ideas related to identifying their impact on students' learning ("Did the students learn what you intended for them to learn? How do you know?"), planning and preparation ("Did you depart from your plan? If so, how and why? What impact do you think it had?"), student assessment ("how do these artifacts show your influence on student learning? And how do these artifacts relate to your assessment of student learning? What other assessments are relevant to this lesson?") and meeting the needs of diverse learners ("How did your lesson address the needs of diverse learners, where diversity is understood in academic, cultural, and socioeconomic terms? Thinking more broadly, how did this lesson engage local school and cultural communities? Did it help to foster relationships with families, guardians, or caregivers? If so, how? Would you describe your lesson as culturally responsive? If so, how?"). The last interview question asked program graduates to identify the impact their preparation program had on their teaching ("We're interested in learning how SUNY Cortland's teacher preparation program impacted you. How would you describe the influence of your teacher preparation program on your teaching?"). See Appendix E for the Post-Observation Interview Questions.

Case Study Template

Field notes were collected by faculty using a Case Study Template created by the research team to streamline data organization, provide consistency with what data were collected and to assist with summarizing data after observing and conversing with completers. The Case Study Template was organized into six categories of data collection including: Section 1: Completer Information; Section 2: Completer Growth after Cortland; Section 3: Observation/Interview Data Sources; Section 4: Impact on Student Learning; Section 5: Culturally Responsive Teaching and Section 6: Summary Analysis. See the Case Study Template in Appendix F.

Additional Data Sources

Prior to observing program completers, faculty researchers requested completers to provide student data for their review. Faculty researchers provided this request during an initial phone conversation with completers. Completers were asked to provide artifacts portraying student learning such as copies of anonymized student work samples, portfolios with student learning outcomes and student data (with no identifying information), assessed student work with corresponding rubrics or another evaluation tool, and pre-post student assessments. Program

completers were provided with additional suggestions of artifacts such as lesson plans related to assessed student work samples, teacher reflections that responded to assessed student work and teacher-generated curriculum guides, lesson plans and scope and sequence charts. See Appendix G: Student Data Request.

Procedures

This multi-case study was carried out using five phases of implementation. Phase 1 included forming a research team, aligning researchers with the study's purpose and discussing artifacts to demonstrate program completers' impact on their students' learning. Phase 2 included faculty researchers being trained to use the formal observation rubric, reviewing and editing a data collection template and discussing how to document data. Phase 3 consisted of data collection, using interviews and completing formal observations. Phase 4 included faculty researchers discussing general findings and Phase 5 included documenting findings and writing formal case study reports. For additional information about the timeline and procedures, see Table 5: Phases and Timeline.

Table 5: Phases and Timeline

Phases	Dates	Activities
Phase 1: Research team formation; Program completers identification, initial procedures selection	October – December 2023	Overview of project and its purposes; IRB proposal written and submitted; Discuss artifacts to demonstrate student growth appropriate to respective disciplines; CITI training
Phase 2: Data collection preparation; Research team training	January 2024	Research Team trained in Danielson rubric use; Discuss research / writing procedures; Introduce data collection template
Phase 3: Data collection	February – April 2024	Faculty researchers meet with and observe program completers; Collect data and attend a check-in meeting about research; Debrief findings; Ask questions about case study summaries
Phase 4: Discuss Findings and case study summaries	May 2024	Faculty researchers meet to discuss findings; Share concerns or questions about process
Phase 5: Documenting Findings	June – August 2024	Faculty researchers complete data collection templates; Data are analyzed and final report is written.

Each faculty researcher interacted with program completers during (a) one initial participant interaction to disseminate a survey to learn about completers' demographics, backgrounds and teaching contexts; (b) one semi-structured pre-observation interview; (c) one structured, formal classroom observation; and (d) one final post-observation interview with a review of artifacts and/or student work samples.

Data Analysis

This multi-case study used a mixed-methods approach to better understand the impact early-career program graduates have on their students. Faculty researchers collected qualitative data by conducting interviews and observing program completers. Additionally, they collected quantitative data by using a structured 22-item rubric to evaluate teaching competencies along a 4-point scale.

Narrative Analysis

Qualitative data were analyzed using a narrative analysis approach. This approach was selected because it provides an opportunity to review each case separately, as its own story, which offers a deeper understanding of each participant. Narrative analysis was also used to provide opportunities to look closely at the complexities of each case while being grounded in program completers' unique teaching contexts.

Descriptive Statistics

Quantitative data were analyzed using descriptive statistics. This approach was selected because it provides basic information about data sets and offers a straightforward interpretation of the data's features by calculating measures of central tendency. This method also helps to identify patterns and summarize data as findings.

Within- and cross-case analyses were also used to explore findings within single cases and across multiple cases as well. This combined approach allows opportunities to identify unique characteristics and complexities in individual cases while discovering similarities and differences across multiple cases.

Validation Strategies

This study collected data from multiple sources within each case including interviews, formal observations and document analysis. This provided opportunities to employ data triangulation which was used to establish trustworthiness and credibility of findings. Triangulation provided faculty researchers with multiple data points which also afforded the opportunity for them to establish a convergence of evidence which was especially useful when summarizing their findings within each case.

Findings

This study's goal was to learn about program completers' impact on their students' learning and thus, utilized Danielson's Framework for Teaching (FFT) as the foundation for evaluating instructional practice. The FFT was selected because it has been "documented through empirical studies and theoretical research as promoting improved student learning… and define what teachers should know and be able to do in the exercise of their profession" (Danielson, 2011, p. iv). Data were reviewed and analyzed within the context of each of the FFT domains. Findings are portrayed as different themes within each domain.

Planning and Preparation

Faculty researchers collected data representing program completers' proficiencies with planning and preparation through observations and interview questions. Quantitative data were derived through ratings of formal lesson observations focusing on six competencies including (a) demonstrating knowledge of content and pedagogy; (b) demonstrating knowledge of students; (c) demonstrating knowledge of resources; (d) designing coherent instruction; (e) setting instructional outcomes; and (f) designing coherent instruction. See Table 6 for Planning and Preparation data.

Table 6: Planning and Preparation

				Domain 1: Planning and Preparation						
P	Years Employed	Grade Level(s)	Subject Area(s)	1a	1b	1c	1d	1e	1f	Overall Rating
01	2	K-12	Phys. Ed.	2	3	2	2	2	1	2
02	1	K-3	Phys. Ed.	4	3	4	4	4	2	4
03	3	9	ELA	4	4	2	3	2	2	2.8
04	2	7	ELA	4	4	3	3	3	3	3.3
05	1	K-5	Phys. Ed.	4	4	4	4	4	4	4
06	1	6-9	Phys. Ed.	4	4	4	4	4	4	4
07	1	7	Spanish	4	4	4	3	4	4	4
08	3	7	French	3	4	4	4	4	4	4
09	3	11	Physics	4	3	4	3	3	3	3.3
10	2	10-12	Physics	3	3	3	2	3	3	2.8
11	1	K	Elementary	3	3	3	3	3	3	3
12	3	5	Elementary	3	3	3	3	3	3	3
			Mean	3.5	3.5	3.3	3.2	3.2	3	3.4
			Median	4	3.5	3.5	3	3	3	3
			Mode	4	3, 4	4	3	3, 4	3	4

In the area of planning and preparation, quantitative data suggest candidates are proficient (i.e., competent) preparing instruction for the students. Two competency areas with highest ratings included demonstrating knowledge of (1) content and pedagogy and (2) students.

Strength: Knowledge of Content and Pedagogy

Overall, completers had a mean rating of 3.5 in the area of knowledge of content and pedagogy. This high rating provides evidence that completers know discipline specific concepts and skills and apply their content knowledge as they plan for students' learning, assessment and anticipate and plan addressing content misconceptions. This rating level also suggests completers reflect accurate understandings of content in their plan and portray the accurate knowledge with their planned pedagogy.

Faculty researchers' qualitative data (i.e., pre- and post- interviews and Case Study Template field notes) provided the following indicators that also reflected disciplinary and interdisciplinary content relationships:

> *"I would describe the planning and preparation that I observed to be exemplary according to Danielson's (2011) framework. The completer both cited intra- and interdisciplinary content relationships while their plan reflected recent developments in content-related pedagogy in physical education. (Field Notes on Completer #02)*

> *"The scores for planning and preparation… were commendable. In terms of planning and preparation, Mason exhibited proficiency in content and pedagogical knowledge, understanding of student needs, establishment of instructional objectives, utilization of resources, development of coherent instruction, and creation of student assessments. (Field Notes on Completer #05)*

> *"In terms of planning and preparation, she had well-defined and grade-appropriate learning outcomes for kindergarten literacy skills… Her plans included all the different literacy domains…[and] the materials she used were aligned with her students' learning outcomes. (Field Notes on Completer #11).*

> *"She [Completer] predicted her students would find the steps challenging, so she created slides that broke the process down and she modeled each step." (Field Notes on Completer #12)*

Strength: Knowledge of Students

A second area of strength was candidates' demonstrated knowledge of students when planning and preparing for instruction. This competency reflects completers planning lessons with their students in mind, to portray their own knowledge of students learning differently and apply their knowledge of students' different cultural backgrounds to inform their instruction. Quantitative data reveal that, overall, completers had a mean rating of 3.5, suggesting they are aware of and proficiently applying their knowledge of students' backgrounds, cultures, language, interests and neurodiversity to their planning.

Qualitative data also represented this finding in the following ways:

> *"The completer not only knew their students' levels of cognitive development but also the different cultural groups and skill levels of "high," "medium," and "low" within the class. For example, the completer purposefully grouped students in pairs based on skill level. Also, they specifically paired two students together due to one student being English Language Learner." (Field Notes on Completer #02)*

> *"To reach them [students' goals], this completer prepared all materials in bilingual form, had English and Spanish instructional directions read aloud, and paired low-language-competency students with higher-level students who could help them. (Field Notes on Completer #03).*

> *"Throughout this floor hockey unit, Mason planned to incorporate sled hockey into the unit, demonstrating that hockey is accessible to individually with disabilities. This aspect demonstrates that hockey can be enjoyed by people from diverse backgrounds and abilities…. [He] intended to introduce information about the newly created Women's Professional Hockey League, providing female students with a relatable context and showcasing the sport's inclusivity" (Field Notes on Completer #05)*

> *"Since the project included tasks that required either giving personal information or that information could be fictitious, the students were using information that was relevant to them and vocabulary and grammatical structures that would allow them to have a conversation and negotiation of meanings with them while using the target language (Field Notes on Completer #08).*

> *"The completer had explained to me that he put a lot of thought into how to assign the groups in a way that students would work best. He took into account their personalities, their World Language level and his knowledge as to how they got along or didn't with*

> *each other trying to play on the students' strengths to best serve them all. (Field Notes on Completer #08)*
>
> *"She [the Completer] designed her lessons slides with added visuals, virtual manipulatives, clear steps and color-coding to support her English language learners. She paired Spanish speaking students with less English acquisition with more fluent bilingual speakers so they could communicate using both languages. (Field Notes on Completer #12)*

Challenge: Designing Student Assessments

While 75% of program completers scored proficient or exemplary ratings in the area of planning for designing student assessment, 25% scored either basic or unsatisfactory which was the lowest score in this competency area. This lower rating reveals three program completers did not show proficiency with designing assessments to identify students' learning outcomes or to use assessments to monitor students' progress meeting their learning outcomes. Across these three completers' cases, qualitative data show that no formal or formative assessments were designed, assessments did not match instructional outcomes, and assessments were not fully developed. Qualitative data revealed the following:

> *"No assessment nor instructional materials were included. Also, tasks within the lesson were briefly described, often missing task progressions…. The completer provided little to no evidence of their impact on student learning. Primarily this was due to the lack of any formal assessment used throughout the lesson and solely relying on informal data. (Field Notes on Completer #01)*
>
> *"The one that would be a target for improvement is designing student assessments, as only some of the instructional outcomes were addressed in the planned assessments as their lesson plan referred to the use for formative assessments, but these were not fully developed nor effectively utilized. (Field Notes on Completer #02)*

When looking within individual cases with lower ratings in the area of planning and preparation, program completers mentioned they needed additional classroom management strategies. The absence of or lesser developed skills may have created a barrier to their planning competencies. Two faculty researchers reported:

> *"The completer was placed within a challenging teaching context, where due to this challenge, management of students became the primary outcome of the lesson rather than the students' learning the content being taught. The completer expressed the need for broader culture exposure and diversity training. They recognized the differences in student demographics as compared to their experiences in teacher training and thus expressed the need for more experiences that reflects their current environment. (Field Notes on Completer #01).*
>
> *"Program completer #03 explained… all student teaching was done virtually, so limited classroom management skills were acquired then." (Field Notes on Completer #03)*

Of particular concern was Completers #01 and #03 because both explicitly mentioned challenges with classroom management. These completers were the only two who reported they taught in

urban public schools and also reported the following similar classroom demographics (listed in Table 2):

- 100% English language learners
- 100% receiving free or reduced lunch
- >50% receiving special education services

This finding reveals program completers who taught a preponderance of students from multiple marginalized backgrounds (i.e., language, class and ability) were challenged to create learning environments they felt were manageable. This finding may also suggest some completers may not have been able to relate to students with multiple identities and the compounded experiences often related to being part of historically marginalized groups who, as such, often experience racism, classism and ableism. In other words, findings suggest some program completers may have taught students experiencing what Gilborn (2015) describes as intersectionality. (i.e., the compounding effect of experiencing multiple oppressed identities).

Overall, faculty researchers rated 75% of program completers at proficient or exemplary ratings on planning and preparation which is interpreted as satisfactory but needing additional attention. Findings suggest most completers are doing well planning concepts and skills needed for their students to meet their learning objectives. It's important to reiterate that findings also suggest candidates who had lower planning and preparation ratings were those who also expressed their need for additional classroom management skills and strategies which, when analyzing individual case data, identified specific concern with managing classrooms with students with intersectional identities.

Classroom Environment

Faculty researchers collected data representing program completers' proficiencies with creating a cohesive classroom learning environment through observations and interview questions. Quantitative data were derived through ratings of formal lesson observations focusing on five competencies in this area including (a) creating an environment of respect and rapport; (b) establishing a culture for learning; (c) managing classroom procedures; (d) managing student behavior and (e) organizing physical space. See Table 7 for Classroom Environment data.

Table 7: Classroom Environment

				Domain 2: Classroom Environment					
P	Years Employed	Grade Level(s)	Subject Area(s)	2a	2b	2c	2d	2e	Overall Rating
01	2	K-12	Phys. Ed.	3	3	2	3	2	3
02	1	K-3	Phys. Ed.	4	4	4	4	4	4
03	3	9	ELA	4	4	4	4	3	3.8
04	2	7	ELA	4	4	4	4	3	3.8
05	1	K-5	Phys. Ed.	4	4	4	3	4	4
06	1	6-9	Phys. Ed.	4	4	4	4	4	4
07	1	7	Spanish	4	4	3	3	4	4
08	3	7	French	4	4	4	4	4	4
09	3	11	Physics	4	4	4	3	4	3.6
10	2	10-12	Physics	3	3	3	3	3	3
11	1	K	Elementary	3	3	3	3	3	3

12	3	5	Elementary	3	3	3	3	3	3
			Mean	3.7	3.7	3.5	3.5	3.4	3.6
			Median	4	4	4	3	3.5	3
			Mode	4	4	4	3	4	4

In the area of classroom environment, quantitative data suggests completers are proficient or above in all areas which suggests completers have created an environment that seems to be respectful and supportive of students. Data also suggest teachers responded to students in sensitive ways and set a classroom tone that offers fairness and encouragement. Two competency areas including (a) creating an environment of respect and rapport and (b) establishing a culture for learning had highest ratings of either proficient or exemplary across all categories with a mean and mode of 4 representing exemplary ratings for both competencies.

Strength: Creating an Environment of Respect and Rapport
Overall, 67% of program completers had exemplary ratings and 33% had proficient ratings regarding completers' interactions with students. Completers were viewed as highly respectful and portrayed support and sensitivity to students' needs. Their high rating suggests that, overall, completers demonstrated strong connections and relationships with students.

Qualitative data also represented completers created environments of respect and rapport in the following ways:

> *"In terms of classroom environment, the completer was exemplary…. The completer demonstrated knowledge and caring about individual students' lives beyond the gymnasium… the environment set up was one where disrespectful behavior was not present, students respectfully engaged one another, and all respected and encouraged other students' efforts." (Field Notes on Completer #02)*

> *"What I did see in ready abundance was social-emotional learning in the context of meaningful language exchange. This completer created a safe space for ninth graders to learn meaningful academic discourse and built strong bonds with many in the process, though his cultural background diverged sharply from theirs. (Field Notes on Completer #03)*

Strength: Establishing a Culture for Learning
Similar to the previously mentioned competency, 67% of program completers had exemplary ratings and 33% had proficient ratings regarding establishing a culture of learning. Completers were viewed portraying high expectations for all students and creating a tone that communicates a "can do" attitude. Completers' high rating suggests that, overall, they demonstrated genuine passion for their subject matter within a productive, caring classroom climate.

Qualitative data also reflected this finding with the following:

> *"Mason excelled in fostering an atmosphere of respect and rapport, cultivating a culture conducive to learning, managing classroom procedures effectively, addressing student behavior and organizing the physical space." (Field Notes on Completer #05)*

> *"Andrew exhibited flexibility and responsiveness by promptly adjusting the lesson when some students arrived late, ensuring minimal disruption to the learning environment.) (Field Notes on Completer #06)*

> *"I was very impressed with the completer's ability to relate to the students, to engage them in such an ambitious project and to have the students create something where they could see how much they had learned through the year…" (Field Notes on Completer #08*

Teaching Students Self-Management Skills

While cross-case analyses revealed general proficiencies with classroom management, within-case analyses revealed some completers taught their students self-management strategies which contributed positively to the overall classroom management while also contributing to individual students' skills. In cases of Completer #01 and #11, there was evidence of teaching skills related to regulating emotions and collaborative problem-solving. For example:

> *"During the lesson, there was disagreement between students in the game, and the completer was able to step in and provide enough guidance on how to resolve a conflict for the students. Both students used the strategies provided by the completer and then returned to the game within a short period of time." (Field Notes on Completer #01)*

> *"One student became terribly upset during a transition away from the writing and drawing center that he enjoyed. Jessica noticed the specific trigger and gave him gentle reminders telling him he could finish his drawing after center time. He still did not calm down and hid under her desk, so she suggested he go to the "calm corner" where there were pillows and fidgets. Within a few minutes, he rejoined his group." (Field Notes on Completer #11).*

Teaching students their own self-management skills can proactively contribute to students' holding themselves accountable for their own behaviors and contribute to fostering a more productive learning environment in the classroom.

Overall, faculty researchers rated 100% of completers at proficient or exemplary regarding classroom environment, with 42% of completers with overall exemplary ratings.

Challenge: Managing Student Behavior

Only one competency area with in the domain of Classroom Environment, Managing Student Behavior, had a median rating of 3, indicating proficient. While proficient is interpreted as completers portraying competence, qualitative data related to this finding revealed some concerns worth mentioning. The following was captured in faculty researchers' field notes:

> "*In summary, the completer was placed within a challenging teaching context, where due to this challenge, management of students became the primary outcome of the lesson rather than students learning the content being taught." (Field Notes on Completer #01)*

> *"The class did have some difficult moments and issues. There was one student that was extremely disruptive and who, has had many difficulties not only in this class, but in several others… The student had no boundaries neither in his behavior, nor in his*

language use. The situation got to a point where the completer had no recourse, but to send him to the principal's office and this was after several attempts to talk with him, to try to have him participate, etc. I do believe our program needs to provide more information on discipline strategies for our students. I do not see how this can be done, however, as there is too much material that needs to be covered, although I do recognize the absolute need for this ability for our students." (Field Notes on Completer #7)

"She struggled with classroom management… with several students with challenging behavior issues." (Field Notes on Completer #11)

When looking within cases, data analysis also revealed some completers reflected on their need for having more knowledge about and implementing stronger culturally responsive instruction. For example:

"In the post observation interview, the completer expressed the need for broader cultural exposure and diversity training. They recognized the differences in student demographics as compared to their experiences in teacher training and thus expressed the need for more experiences that reflects their current environment. By advocating for a more diverse educational experience, the completer felt as if they could better teach content and assess student learning." (Field Notes on Completer #01).

"One area for improvement lies in enhancing his flexibility and responsiveness to students' needs during teaching." (Field Notes on Completer #05)

Overall, faculty researchers rated 100% of program completers at proficient or exemplary ratings on creating a cohesive classroom environment. In addition, findings also revealed some completers are developing a sense of agency with reflecting on their own instruction, their students' responses and any additional skills needed for creating a more cohesive learning environment.

Instruction

Faculty researchers collected data representing program completers' proficiencies with instruction through observations and interview questions. Quantitative data were derived through ratings of formal lesson observations focusing on five competencies in this domain including (a) communicating with students; (b) using questioning and discussion techniques; (c) engaging students in learning; (d) using assessment in instruction and (e) demonstrating flexibility and responsiveness. See Table 8 for Instruction data.

Table 8: Instruction

				Domain 3: Instruction					
P	Years Employed	Grade Level(s)	Subject Area(s)	3a	3b	3c	3d	3e	Overall Rating
01	2	K-12	Phys. Ed.	4	2	2	2	4	3
02	1	K-3	Phys. Ed.	4	4	4	3	4	4
03	3	9	ELA	3	2	3	2	3	2.6
04	2	7	ELA	4	4	3	3	3	3.4
05	1	K-5	Phys. Ed.	4	4	4	4	3	4
06	1	6-9	Phys. Ed.	4	3	4	4	4	4

07	1	7	Spanish	4	4	4	4	3	4
08	3	7	French	4	4	4	4	4	4
09	3	11	Physics	4	4	3	3	4	3.6
10	2	10-12	Physics	3	2	2	3	2	2.4
11	1	K	Elementary	3	3	3	3	3	3
12	3	5	Elementary	3	3	3	3	3	3
			Mean	3.7	3.3	3.3	3.2	3.3	3.3
			Median	4	3.5	3.5	3	3.5	3.5
			Mode	4	4	3, 4	3	4	4

In the Instruction domain, quantitative data suggest completers' overall mean rating was a 3.3 which indicates a general overall proficiency in this area. When reviewing each of the Instruction competencies separately, completers had a median score of 4 (exemplary) in communicating with students. Additional Instructional competencies that had higher overall quantitative ratings included using questioning and discussion techniques (75% of completers scored proficient or exemplary), engaging students in learning (83% of completers scored proficient or exemplary) and demonstrating flexibility and responsiveness (83% scored proficient or exemplary).

Both qualitative and qualitative data revealed that communicating with students is a proficiency area among completers. The same data consistencies were not found with regard to using questioning and discussion techniques. While 75% of completers had proficient or exemplary quantitative ratings with skills related to their questioning skills, qualitative data show some completers were challenged and struggled in this area.

The lowest median rating in the Instruction area was with using assessment in instruction. While the rating was Proficient (3), qualitative data reveal additional insight into some challenges some completers had. The following information highlights some of the completers' strengths and challenges when communicating during instruction:

Strength: Communicating with Students
100% of completers were rated proficient or exemplary with regard to communicating with students. These quantitative data suggest completers are providing clear directions and using precise language when explaining concepts, skills and procedures to students. They also suggest completers are using vocabulary that is understood by students, and if and when clarification is needed, completers are using comprehensible language and necessary scaffolding to assist students' misconceptions. Qualitative data revealed completers' high competencies when communicating to students. For example:

> *"When communicating with students, the completer was highly effective, explains content clearly and imaginatively, pointing out possible areas for misunderstanding, and using student voice to explain content to their classmates in both English and/or Spanish language. The completer was able to identify which students might need more help in understanding their instruction and therefore was able to place certain students with others to help bridge the gap." (Field Notes on Completer #01)*

> *"The completer… pointed out possible areas for misunderstanding. Furthermore, the completer not only provided a range of options for varying levels of ability, but they also*

> *explained the purpose and what made it challenging through student responses to questions to deepen student understanding and thus for the most part, all students were engaged in discussion at various points in the lesson." (Field Notes on Completer #02)*
>
> *"The completer was masterful in several ways… The completer was aware and scaffolded things for the students in a way that she walked them through the sentences they were co-constructing so the students would arrive at the right answer by self-correcting... The completer's impact was clear and her interaction with the students showed an understanding of what was interesting, meaningful and relevant to the students…. I was very impressed." (Field Notes on Completer #07)*

Developing: Using Questioning and Discussion Techniques

While quantitative data analysis showed some strength with using questioning and discussion techniques, qualitative data revealed varied proficiencies across completers. The following four field note data sets reveal varied competencies with questioning:

> *"The completer was answering questions, but without giving the students all the answers, rather by guiding them to get them while giving them clues or working with them… He also used metacognitive strategies to question why students had chosen one word over another one or why they used one pronoun instead of another one." (Field Notes on Completer #08)*
>
> *"When communicating with students, the completer was highly effective…[and] although some checking for understanding took place before the activities began, the completer struggled to ask questions designed to promote student thinking, with many questions management related that had a single correct answer. Moreover, while the completer called on many students, only a small number responded. The completer often monitored student understanding through a single method, focusing solely on their participation in the activity rather than providing specific feedback related to their performance. The feedback provided to students was vague and not oriented toward future improvement of work. Overall student engagement was largely passive with a few materials and resources aligned to the lesson objectives. (Field Notes on Completer #11)*
>
> *"One area Andrew could improve in the utilization of questioning and discussion techniques. By enhancing these methods, Andrew can further promote student engagement and critical thinking. (Field Notes on Completer #06)*
>
> *"The lesson was so tightly controlled that much higher-level discussion was precluded by procedural information, which consumed too much instructional time… What students basically got, intellectually, was comprehension of the poem's essential thematic material… A second pass at the poem… could have yielded rich results." (Field Notes on Completer #03)*

These data suggest that while faculty researchers rated completers with a mean overall rating of 3.3 for the Instruction domain, qualitative data about using questioning and discussion techniques revealed inconsistent findings. Since some completers portrayed challenges with their use of questioning and discussion techniques during instruction, more information would be needed to determine completers' knowledge and skills with these competencies.

Developing: Using Assessment in Instruction

Overall, completers had a median rating of 3 in the area of using assessment in instruction. This quantitative rating suggests completers are proficient with formally and informally monitoring student learning and evaluating their success with meeting targeted outcomes. Some qualitative data that revealed favorable ratings include:

> *"Andrew created a dribbling checklist for this lesson and conducted a formal assessment to measure student learning of skills during the lesson. The assessment included the key performance cues. Andrew observed students' performance during the lesson and checked whether students demonstrated the cues. Many students' skills were improved by the end of the lesson." (Field Notes on Completer #06)*

> *"Michelle shared that she would listen to and observe students in peer groups to see if they are grasping the idea of multiplying and dividing decimal numbers by the power of ten. She also provided the exit ticket as an individual assessment. After the lesson, Michelle reviewed the exit tickets and sorted them into groups: students who could accurately multiply or divide by powers of ten, students who could do one operation (usually multiply) but not the other. As she did this, she was concerned that many students were not meeting the learning target, and we discussed ways she might reteach the concepts." (Field Notes on Completer #12)*

While most completers demonstrated proficiency with skills related to student assessments and student data, within-case analysis suggested Completer #01 was challenged with (1) asking students questions to monitor learning and (2) asking students questions to explore relationships or deepen understanding. For example:

> *"Although some checking for understanding took place before the activities began, the completer struggled to ask questions designed to promote student thinking." (Field Notes on Completer #01)*

> *"Only some of the instructional outcomes were addressed in the planned assessments with the assessment criteria vague… There was no formal assessment and solely relied on teacher observation as the method to assess…. therefore, claims of student learning cannot be made as there is no data to back this up." (Field Notes on Completer #01)*

To better understand these qualitative data, it's important to know the completer's instructional context. Completer #01 reported student demographics including 100% Hispanic, 68% English language learners and 56% students receiving special education services. In addition, 100% of students received free and reduced lunch. These data also provide evidence suggesting that when there were instances intersectionality (i.e., students who have multiple oppressed identities such as race, language, ability and class) candidates' competencies' ratings were lower as in this case of using assessment in instruction. This finding is explained more in the Summary and Recommendations sections.

Professional Responsibilities

Faculty researchers collected data representing program completers' proficiencies with professional responsibilities through observations and interview questions. Quantitative data

were derived through ratings of formal lesson observations focusing on six competencies in this area including (a) reflecting on teaching; (b) maintaining accurate records; (c) communicating with families; (d) participating in a professional community; (e) growing and developing professionally and (f) showing professionalism. See Table 9 for Professional Responsibilities data.

Table 9: Professional Responsibilities

				Domain 4: Professional Responsibilities						
P	Years Employed	Grade Level(s)	Subject Area(s)	4a	4b	4c	4d	4e	4f	Overall Rating
01	2	K-12	Phys. Ed.	2	n/a	n/a	2	2	4	2
02	1	K	Phys. Ed.	4	4	n/a	3	4	4	4
03	3	9	ELA	3	3	2	4	4	4	3.3
04	2	7	ELA	3	4	3	4	3	4	3.5
05	1	K-5	Phys. Ed.	4	n/a	n/a	n/a	4	4	4
06	1	6-9	Phys. Ed.	4	n/a	n/a	n/a	4	4	4
07	1	7	Spanish	4	n/a	n/a	3	3	4	3
08	3	7	French	4	n/a	n/a	4	4	4	4
09	3	11	Physics	3	n/a	n/a	3	3	3	3
10	2	10-12	Physics	3	n/a	n/a	3	2	3	2.8
11	1	K	Elementary	3	3	3	3	3	3	3
12	3	5	Elementary	3	3	3	2	2	3	3
			Mean	3.3				3.2	3.6	3.3
			Median	3				3	4	3.4
			Mode	3	n/a	n/a	3	3, 4	4	3

In the Professional Responsibilities domain, quantitative data reveal completers' overall mean rating was a 3.3 which indicates a general overall proficiency in this area. When reviewing each of the Professional Responsibilities competencies separately, completers had a median score of 3.4 in showing professionalism. In addition, all but one program completer (92%) scored either proficient or exemplary in the area of reflecting on teaching. One concern regarding this domain was that researchers were not able to access enough data to identify the ways completers were maintaining accurate records of students (see Table 9, column 4b), communicating with families (Table 7, column 4c), and participating in a professional community (Table 9, column 4d).

Strength: Showing Professionalism

Teachers demonstrate professionalism when they take responsibility for self-improvement and renewal. They show dedication to the profession and approach their own make decisions with students in mind. Completers' ratings were high in this area with a mean rating of 3.6 which represents exemplary. Qualitative data also suggests completers have a strength in demonstrating professionalism with the following:

> *"In the post-observation interview, the completer expressed the need for broader cultural and diversity training. They recognized the differences in student demographics as compared to their experiences in teacher training and thus expressed the need for more experiences that reflects their cultural environment." (Field Notes on Completer #01)*

> *"The completer recognized the need to do better at formally assessing, the completer has a growth mindset. They seem to be wanting to always find ways that improve student learning through the most developmentally appropriate environment for their students." (Field Notes on Completer #02)*

Strength: Reflecting on Teaching

Another area of strength in the Professional Responsibilities domain is with reflecting on teaching. Faculty researchers rated completers proficient in this area, indicating completers are thinking about their actions and thoughtfully considering their impact on students' learning. Reflecting on teaching also requires completers to contemplate decisions they made and to recognize their impact on student learning. Reflecting on teaching to determine both their own effectiveness and adjustments needed for improvement can lead to stronger professional decision-making, instructional proficiencies and students' outcomes. Qualitative data also show completers' overall strengths with reflecting on teaching with the following:

> *"The completer has established a series of personal goals for growth which include… reflecting on how lessons and units worked out and doing so not in the abstract but thinking about individual students because sometimes things work for some students and not others so by reflecting on the results of the lesson he can create more differentiated lesson plans for his students." (Field Notes on Completer #08)*

> *"The completer showed great professionalism and concern about this situation reflecting on it after the class and writing a note to herself to give it some more thought. It was evident to me that the completer does a lot of self-reflection and understands that the teaching profession is one of constant analysis and improvement. (Field Notes on Completer #07)*

Challenge: More Information Needed

Domain 4: Professional Responsibilities includes three competencies some faculty researchers were not able to observe or collect data on, including maintaining accurate records, communicating with families and participating in a professional community. Of the data that were gathered, completers had overall proficient ratings with maintaining accurate records but less favorable ratings with communicating with families and participating in a professional community.

While additional information is needed about these competencies, some completers revealed proficiencies communicating with families and the community noted in the following ways:

> *"He facilitates the involvement of families in the learning process through family fun nights, which enhances the connection between school and home." (Field Notes on Completer #06)*

> *"She values relationships with families and shared that she is trying to communicate frequently about student progress, sending home books and activities." (Field notes on Completer #11)*

> *"In terms of community involvement, there was a community member "Grandma" volunteering in the classroom who supports the teacher and children with daily tasks." (Field Notes on Completer #11)*

While Completers #06 and #11 described how they are including families and community members in students' learning experiences, more information needs to be derived from all completers to understand completers' overall competencies in this area.

Summary

Results from this multi-case study indicate that, overall, completers are strong in all areas, with a mean rating of proficient or exemplary across all domains and with little variance between each of the overall ratings. See Table 10: Overall Ratings of Observations.

Table 10: Overall Ratings of Observations

P	Subject/ grade level	Years Exp.	Domain 1: Planning/ Preparation	Domain 2: Classroom Environment	Domain 3: Instruction	Domain 4: Professional Respons.	Mean Rating
01	Physical Education	2 yrs.	2	3	3	2	2.5
02	Physical Education	< 1 yr.	4	4	4	4	4
03	English Education	3 yrs.	2.8	3.8	2.6	3.3	3.2
04	English Education	< 1 yr.	3.3	3.8	3.4	3.5	3.5
05	Physical Education	< 1 yr.	4	4	4	4	4
06	Physical Education	< 1 yr.	4	4	4	4	4
07	Spanish Education	< 1 yr.	4	4	4	3	3.8
08	French Education	4 yrs.	4	4	4	4	4
09	Physics 10-12	3 yrs.	3.3	4	3.6	3	3.5
10	Regents Physics	< 1 yr.	2.8	3	2.4	2.8	2.7
11	Elementary Education	1 yr.	3	3	3	3	3
12	Elementary Education	3 yrs.	3	3	3	3	3
Mean Rating All Domains			3.4	3.6	3.4	3.3	**3.4**
Median			3.3	4	3, 4	3.2	
Mode			4	4	4	3	

Each of the four domains listed in Table 10 include five or six specific competency areas that were rated by faculty researchers and reviewed in this report.

Cross-case findings reveal the following overall proficiencies among completers:

- Creating an environment of respect and rapport
- Establishing a culture of learning
- Communicating with students
- Demonstrating knowledge of content and pedagogy
- Demonstrating knowledge of students
- Managing classroom procedures

Cross-case findings reveal one lower mean rating among some completers:

- Designing student assessments

Within-case findings suggest:

- Some completers may be challenged by meeting the needs of students who have multiple historically oppressed identities (i.e., race, ability, class, language) which may have contributed to some completers' lower ratings in some competency areas.

This report adds to our understanding of our completers' competencies and their impact on students' learning. This multi-case study sought to better understand the impact completers have on P-12 students' learning. Findings suggest that, overall, completers have the proficiencies necessary to positively impact students' learning and are applying their competencies well during planning, when creating positive learning environments, when instructing students and engaging in professional responsibilities. Overall, completers were found to have a very positive impact on P-12 students' learning.

Recommendations

While findings from this multi-case study are not generalizable, they do provide a snapshot of a group of 12 program completers and their current teaching contexts and challenges. Such findings can provide teacher preparation programs with insight into some realities and complexities their future program completers may face. While findings suggest completers possess the essential knowledge, skills and dispositions necessary for positively impacting students' learning, findings also imply the following recommendations for future consideration:

1. Recognize and acknowledge teacher educators' success with preparing future teachers well. Findings reveal that, overall, program completers have the proficiencies necessary for successfully making a positive impact on their students' learning. Teacher educators should be commended for their positive contributions to their completers' knowledge and skills which in turn contributes positively to their students' outcomes, their communities and the teaching profession.

2. Increase candidates' opportunities to authentically practice teaching in and learning alongside mentors who are currently teaching in classrooms with diverse student populations. Findings reveal many completers taught students from multiple races, languages, cultures, classes, and abilities all within one classroom. Future completers will benefit from being prepared to teach a diverse group of students before they complete their teacher education programs.

3. Review current case study design and determine a method to better collect data to address Domain 4: Professional Responsibilities. During analysis, it was determined that Domain

4 had missing/ incomplete data that need to be collected in the future. While these data gaps could be due to various reasons, analysis suggested it may have been due to data collection tools (i.e., interview questions) that may not have been developed to fully address this area. Future case study design could include an inquiry that specifically collects data related to program completers' proficiencies with maintaining accurate records and communicating with families (AAQEP Standards 4b and 4c).
.

4. Enhance candidates' awareness of students with intersecting, oppressed identities and any associated experiences of bias which may be exacerbated when their oppressed identities overlap. Without knowledge about intersectionality, program completers may find it challenging to understand and meet some students' needs which may lead to challenges with reaching social and academic goals. Future completers will benefit from learning to keep intersectionality in mind when selecting teaching materials and resources, planning for instruction, creating assessments, supporting families and interpreting student data and outcomes.

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Appendix A: Initial Recruitment Email and Phone Solicitation

Initial Recruitment Email to Program Completers/Graduates

[Date]

Dear SUNY Cortland Graduate,

Teacher education programs at SUNY Cortland are seeking graduates of their programs who are currently full-time teachers to participate in a study of program graduates' impact and effectiveness.

The study will examine impact on student learning and teaching effectiveness among SUNY Cortland graduates. One faculty member who is part of the research team and also part of the teacher education program from which you graduated will conduct one interview and one observation with a post-observation interview in your classroom.

Dr. Andrea Lachance, the Dean of the School of Education, and I invite you to participate in this study. The study will be conducted over the next few months. To participate in this study, you would first need to obtain permission from your building principal. Once permission is obtained, you would participate in an initial interview with a faculty researcher to discuss your teaching, a lesson that a faculty researcher could observe, and a range of possible artifacts that could serve as evidence for your impact on student learning. The faculty researcher would then conduct a classroom observation, followed by a post-observation interview to discuss the lesson. A portion of that post-observation interview would focus on anonymized, student-generated work that provide evidence of your impact on student learning.

The Dean's Office in the School of Education is offering a $500.00 stipend to participants who complete the study. A prorated amount of $150 would be given to participants who withdraw early.

If you are interested in participating and believe you could obtain permission from your building administrator to do so, please reply to this email with a phone number and best/preferred times you would like to be called. A faculty member who is part of the research team will contact you by phone to further explain the study, share permission and consent form information, and set up an initial visit.

Sincerely,

[Faculty Researcher]

And

Dr. Andrea Lachance, Dean
School of Education

Appendix B: Demographics Survey

Demographic Survey (Completed by the teacher participant on a Microsoft form and stored on a secure SUNY Cortland server)

1. Subject?
2. Grade Level?
3. How many students do you teach in this class and overall?
4. In numbers, could you please describe the diversity among your students?
5. How many students are receiving special education services?
6. How many have 504 plans?
7. How many students receive Academic Intervention Services?
8. How many students English Language Learners?
9. How many students are Heritage Language Learners?
10. How else are students in the class identified?
11. How many receive free or reduced lunch? (We can look up later if unknown.)
12. What other adults work in your classroom with you? What roles do they have? How often are they in your classroom with you?

Appendix C: Pre-observation Semi-structured Interview

Semi-Structured First Interview Questions with Program Completers

Part 1: Completer Growth

1. When did you graduate from a program that led to an initial teaching certification?
2. In addition to your initial teaching certification, what other credentials do you have and where did you obtain them?
3. Are you currently in a master's program? If so, what program are you completing? Where?
4. Now that you're a full-time teacher, what goals have you established for your own personal growth? How do you engage in such activities as goal-setting, self-assessment, and reflection?
5. What opportunities do you have to collaborate with colleagues to support your professional learning?
6. Have you participated in a new faculty mentoring program? If so, could you describe it?
7. Have you been asked to teach out of your certification area? If so, what was your experience?
8. Are you or have you been partaking in professional development? If so, please provide some examples?

Part 2: Pre-Observation Interview

1. What are the learning objectives/outcomes of this lesson?
2. What influenced the way you designed this lesson (e.g., district curriculum goals, state standards, knowledge of content, knowledge of students' backgrounds/identities/abilities, particular pedagogical strategies)?
3. What materials are being used to present the curriculum (instructional resources including classroom, community, and supplemental student resources)?
4. What activities are you planning for this lesson?
5. How will these activities create a productive learning environment?
6. How will students demonstrate their learning in this lesson?
7. How will you assess student learning? What forms of assessment will you be using?
8. Did you use assessment data to plan your upcoming lessons? Example?
9. How does your lesson situate within the larger curriculum?
10. What methods are you using to monitor on-going student learning?
11. How do you know your teaching efforts impact student learning over the long term – such as in making progress toward grade level standards or learning targets or other benchmarks?

12. What types of assessment measures, samples of student work and/or other data would you use to show an interested parent or colleague how you document and monitor student's learning?
13. What else would you like to share about this lesson before you begin?

Appendix D: Structured Observation Rubric (Revised)

Structured Observation Rubric (REVISED)

The Case Study Evaluation Rubric is based on Danielson's (2011) Framework and APPR observation tools used in New York State (2013) to evaluate teachers. Research team members at SUNY Cortland will identify critical attributes used within each domain to discuss and calibrate their use of this tool. They will then use this rubric when conducting observations of program completers from EPPs to determine their impact on their P-12 students' learning and development, classroom instruction, and schools (CAEP, 2013; Standard 4). Research team members will use the rubric when conferencing with teachers and observing classroom instruction. The rubric is also aligned with the unit-wide Student Teaching Evaluation (SUNY Cortland TEC, 2017).

Name of Teacher: **Name of Evaluator:** **Date**	**Alignment with S.T.E.**	**Exemplary (4)**	**Proficient (3)**	**Basic (2)**	**Unsatisfactory (1)**	**N/A**
DOMAIN 1: Planning and Preparation						
1a. Demonstrating knowledge of content and pedagogy	D1-Q1, D1-Q2, D2-Q6					
1b. Demonstrating knowledge of students	D1-Q3, D4-Q15					
1c. Setting instructional outcomes	D3-Q12					
1d. Demonstrating knowledge of resources	D3-Q14					
1e. Designing coherent instruction	D2-Q7, D3-Q11					
1f. Designing student assessments	D3-Q9, D3-Q10					
	Overall rating for DOMAIN 1					
NOTES:						

Name of Teacher: **Name of Evaluator:** **Date:**	**Alignment with S.T.E.**	**Exemplary (4)**	**Proficient (3)**	**Basic (2)**	**Unsatisfactory (1)**	**N/A**
DOMAIN 2: Classroom Environment						
2a. Creating an environment of respect and rapport	D1-Q3, D1-Q4					
2b. Establishing a culture for learning	D1-Q5, D4-Q17					
2c. Managing classroom procedures	D1-Q5					
2d. Managing student behavior	D1-Q4, D1-Q5					
2e. Organizing physical space	D1-Q4, D1-Q5					
	Overall rating for DOMAIN 2					
NOTES:						

Name of Teacher: **Name of Evaluator:** **Date:**	**Alignment with S.T.E.**	**Exemplary (4)**	**Proficient (3)**	**Basic (2)**	**Unsatisfactory (1)**	**N/A**
DOMAIN 3: Instruction						
3a. Communicating with students	D2-Q8					
3b. Using questioning and discussion techniques	D2-Q8					
3c. Engaging students in learning	D2-Q8, D3-Q13, D4-Q17					
3d. Using assessment in instruction	D3-Q9, D3-Q10					
3e. Demonstrating flexibility and responsiveness	D3-Q13, D4-Q16, D4-Q17					
	Overall rating for DOMAIN 3					
NOTES:						

DOMAIN 4: Professional Responsibilities

Name of Teacher: **Name of Evaluator:** **Date:**	**Alignment with S.T.E.**	**Exemplary (4)**	**Proficient (3)**	**Basic (2)**	**Unsatisfactory (1)**	**N/A**
DOMAIN 4 Professional Responsibilities						
4a. Reflecting on teaching	D4-Q15					
4b. Maintaining accurate records						
4c. Communicating with families	D4-Q18					
4d. Participating in a professional community	D4-Q18					
4e. Growing and developing professionally	D4-Q15, D4-Q16					
4f. Showing professionalism	D4-Q16					
	Overall rating for DOMAIN 4					
NOTES:						

Appendix E: Post-observation Interview

Follow-up Interview After Observation of Program Completers (REVISED)

1. Tell me how you think the lesson went.
2. Did the students learn what you intended for them to learn? How do you know?
3. Did you depart from your plan? If so, how and why? What impact do you think it had?
4. What artifacts for demonstrating learning would you like to discuss with me today? (Remember that these artifacts need to be anonymized for me to look at them.)
5. How do these artifacts relate to the learning environment you've created in your classroom?
6. How do these artifacts show your influence on student learning?
7. How do these artifacts relate to your assessment of student learning? What other assessments are relevant to this lesson?
8. How did your lesson address the needs of diverse learners, where diversity is understood in academic, cultural, and socioeconomic terms?
9. Thinking more broadly, how did this lesson engage local school and cultural communities? Did it help to foster relationships with families, guardians, or caregivers? If so, how?
10. Would you describe your lesson as culturally responsive? If so, how?
11. Would you say your lesson supported students' growth in international or global perspectives? If so, how?
12. What else would you like to highlight about your instructional delivery, your impact on student learning, or some other feature of the lesson that hasn't been mentioned?
13. Based on your students' performance today, where in the curriculum will you head next?
14. **We're interested in learning how SUNY Cortland's teacher preparation program impacted you. How would you describe the influence of your teacher preparation program on your teaching?**

Appendix F: Case Study Template

Case Study of SUNY Cortland Completer of English Education Program
Completer Code Number ____

Section 1. Completer Information:

a. When did the completer earn her/his degree from SUNY Cortland?
b. What was the degree?
c. Has there been any schooling since? If so, where and for how long?
d. Where is the completer currently working, and for how long?

Section 2. Completer Growth after Cortland

a. Brief summary of current professional development activities (master's program, school-sponsored programs, etc.)

b. Brief summary of individually motivated professional practices (goal-setting, self-assessment and reflection, etc.) outside of formal professional development programs

c. Brief summary of building support for growth (new faculty mentoring, collegial collaboration, etc.)

Section 3. Observation/Interview Data Sources

a. Brief summary of documents provided by the completer

b. Brief summary of the context of the interviews (timing, location, etc.)

c. Brief summary of observation context (timing, lesson content, class composition, etc.)

Section 4. Impact on Student Learning

What evidence did the completer provide of their impact on student learning? Explain.

Section 5. Culturally Responsive Teaching

a. What evidence did the completer provide that their lesson was responsive to diverse cultural and socioeconomic contexts?

b. Did the lesson ask students to look beyond local contexts to wider and perhaps global viewpoints? If so, how?

Section 6. Summary Analysis

Using evidence to support your claims, how would describe the quality of instruction you observed? How convinced are you about the impact this completer is having on student learning?

Appendix G: Student Data Request

Follow-Up Phone Call to Program Completers/Graduates Who Replied to Recruitment Email

The following phone protocol was used by each research team member to assure all requirements of the study were clearly explained to each participant.

"Hello, [participant].

I am calling to thank you for your email reply to our request for participation in our study.

I am also calling to review the specific requirements of the study and how payment of the stipend works when the study is completed.

The requirements of the study include the following:

- A signed permission form from your building principal and a signed consent form from you to initiate the research,
- The discussion of artifacts that demonstrate student learning, the assessment of student learning, and planning that stems from that assessment; artifacts may include the following:
    - APPR Data (from previous year's final scores, including impact on student learning and administrator evaluation and potentially from any data collected for current year)
    - Portfolios with Student Learning Outcomes (SLO) Data with no identifying information
    - Anonymized student work samples that have been assessed using a rubric or some other evaluative mechanism
    - Pre-post student assessment for individuals, small and whole group
    - Lesson plans that respond to assessed student work (with that work provided in an anonymized form)
    - Teacher reflections that respond to assessed student work (with that work provided in an anonymized form)
- These artifacts may be supported by materials like the following:
    - Teacher-generated curriculum guides, block plans, scope and sequence plans
    - Forms of communication with parents
    - Community focus/communications
    - Efforts to support diversity, equity, and inclusion in the classroom
- The scheduling of an after-school time for a first visit to complete a review of the artifacts with a research team member within a semi-structured interview to last 45-60 minutes,
- The scheduling of a time for a second visit to complete a pre-observation check, observation, and post-observation interview, and
- The completion of required paperwork in order to receive the $500 stipend. (Please note: Participants who withdraw early will receive a prorated amount.) This paperwork will include filling out a W-4 and potential additional paperwork required by the School of Education Dean's Office to provide stipends. To ensure confidentiality, paperwork

required for the processing of your stipend will not in any way be attached to the data you provide. You will be given an addressed, stamped envelope to mail this paperwork directly to the Dean's Office.

Do you feel you can provide a signed permission form from your administrator, a set of artifacts that demonstrate your impact on student learning, time to speak with a faculty member, and time in your classroom to be observed?

I will send 2 forms to your building administrator, including one form that explains the study and one permission form. I will send the consent form to you for you to sign. Please return these forms to me within the following 2 weeks or provide these forms at the time of my first visit to your school and classroom.

When might be a good time for me to visit your classroom and review artifacts with you?

Thank you for your time and please look for those forms to be delivered in the mail."