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What Happens after edTPA?

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Abstract: The teacher certification process can be overwhelming for early-career educators. Negotiating teacher identity, completing fieldwork hours, and navigating institutional expectations can stress the most resilient teacher candidates. These pressures are further compounded as teacher certification assessments, such as the edTPA, introduce additional hurdles to achieving state licensure. This study approaches these obstacles by examining the stories of a diverse group of 14 early-career teachers as they reflect on completing edTPA and their current teaching practices. Through social constructivist perspectives and professional learning continuum framing, we interpreted narrative data to examine early-career teacher discussions of completing edTPA and developing pedagogical

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practices. These 14 teachers elucidated that the collaborative nature of their preparation program was integral to their completing the assessment, that the program approach to completing the portfolio assessment positioned them to think reflexively about their practice, and that the skills and tools used on edTPA remained useful to them throughout their early-career teaching. We suggest ways that preparation programs can interpret this teacher certification policy as an instructional touchpoint and can limit the gatekeeping capabilities of certification exams through collaboration, building capital, and supporting reflective portfolios. This work has implications for policymakers in teacher education and induction programs.

Keywords: teacher education; teacher certification; performance assessment; edTPA

¿Qué sucede después de edTPA?

Resumen: El proceso de certificación de docentes puede ser abrumador para los educadores de carreras tempranas. Negociar la identidad del maestro, completar las horas de trabajo de campo y navegar por las expectativas institucionales puede estresar a los candidatos a maestros más resilientes. Estas presiones se agravan a medida que las evaluaciones de certificación de maestros, como edTPA, presentan obstáculos adicionales para obtener la licencia estatal. Este estudio aborda estos obstáculos al examinar las historias de un grupo diverso de 14 maestros principiantes mientras reflexionan sobre cómo completar edTPA y sus prácticas docentes actuales. A través de perspectivas constructivistas sociales y marcos continuos de aprendizaje profesional, interpretamos datos narrativos para examinar discusiones de maestros de carrera temprana sobre cómo completar edTPA y desarrollar prácticas pedagógicas. Estos 14 maestros aclararon que la naturaleza colaborativa de su programa de preparación fue integral para completar su evaluación, que el enfoque del programa para completar la evaluación del portafolio los posicionó para pensar reflexivamente sobre su práctica, y que las habilidades y herramientas utilizadas en edTPA siguieron siendo útiles para ellos. a lo largo de sus primeros años de carrera docente. Sugerimos formas en que los programas de preparación pueden interpretar esta política de certificación docente como un punto de contacto instructivo y pueden limitar las capacidades de control de los exámenes de certificación a través de la colaboración, la creación de capital y el respaldo de carpetas reflexivas. Este trabajo tiene implicaciones para los formuladores de políticas en la formación docente y los programas de inducción.

Palabras-clave: formación docente; certificación de maestros; evaluación del desempeño; edTPA

O que acontece depois do edTPA?

Resumo: O processo de certificação de professores pode ser desgastante para educadores em início de carreira. Negociar a identidade do professor, completar as horas de trabalho de campo e navegar pelas expectativas institucionais podem estressar os candidatos a professores mais resilientes. Essas pressões são agravadas à medida que as avaliações de certificação de professores, como a edTPA, introduzem obstáculos adicionais para obter o licenciamento estadual. Este estudo aborda esses obstáculos examinando as histórias de um grupo diversificado de 14 professores em início de carreira enquanto refletem sobre a conclusão da edTPA e suas práticas de ensino atuais. Por meio de perspectivas socioconstrutivistas e enquadramento contínuo de aprendizagem profissional, interpretamos dados narrativos para examinar as discussões de professores em início de carreira sobre a conclusão do edTPA e o desenvolvimento de práticas pedagógicas. Esses

14 professores elucidaram que a natureza colaborativa de seu programa de preparação era essencial para a conclusão da avaliação, que a abordagem do programa para concluir a avaliação do portfólio os posicionou para pensar reflexivamente sobre sua prática e que as habilidades e ferramentas usadas no edTPA permaneceram úteis para durante toda a sua carreira docente. Sugerimos maneiras pelas quais os programas de preparação podem interpretar essa política de certificação de professores como um ponto de contato instrucional e podem limitar os recursos de gatekeeping dos exames de certificação por meio de colaboração, construção de capital e suporte a portfólios reflexivos. Este trabalho tem implicações para os formuladores de políticas em programas de formação e indução de professores.

Palavras-chave: formação de professores; certificação de professores; avaliação de desempenho; edTPA

What Happens after edTPA?¹

Changes in expectations for teacher education have heightened policy attention on accountability through educational reporting and accreditation requirements bolstered by high-stakes standardized tests (CAEP, n.d.; Cochran-Smith et al., 2016). “Holding teacher preparation accountable” through measures, such as the edTPA certification requirement, continues to pervade the higher education landscape and breed a myriad of interpretations of teacher quality and effectiveness among supervisors, teacher educators, and college administration (Donovan & Cannon, 2018). These assessments have been linked to neoliberalism and also to racist ordering through gatekeeping practices and upholding exclusive norms (Leonardo & Grubb, 2014; Petchauer et al., 2018; Powell & Parkes, 2020; Tuck & Gorlewski, 2016). According to this argument, teacher candidates are required to adjust their writing and performance on these assessments to meet traditional academic language requirements and to align with White epistemological assumptions. In these ways, among others, teacher certification exams can serve as major obstacles for underrepresented minorities in teacher education, thus perpetuating the critical lack of diversity in teaching and in STEM education overall (Irvine & Villegas, 2010; NSF, 2020; Sleeter, 2017).

At the same time, the accountability movement during the past 20 years in the United States has supported a culture of standardizing student and teacher learning and performance outcomes, thus maintaining a status quo in education and teacher education (Ravitch, 2010; Tienken, 2017). As a result, education remains semi-professionalized in public and policy spheres, leaving it vulnerable to the politics of accountability and depriving teachers and teacher educators of the protections ensured for other professional fields (Mehta, 2014). Accountability measures, masked as innovative reform efforts, oftentimes limit teacher and teacher educator agency in order to promote global academic and economic competition, which in itself is flawed, and support the commodified curriculum and testing industries (De Lissovoy, 2013; Glazer & Mehta, 2021; Ravitch, 2010; Tienken, 2017, 2020). While these assessment efforts are intended to improve student and teacher performance, many times the expectations are unclear and the necessary structures for improvement are faulty at best (Glazer & Mehta, 2021; Ravitch, 2010).

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The edTPA is a high-stakes performance assessment issued as a part of the teacher certification process in 41 states in the USA (<http://edtpa.aacte.org/state-policy>). The Stanford Center of Assessment, Learning and Equity (SCALE), creator of the assessment, explains that the goal of edTPA is to assess teachers' "knowledge and skills required to help all students learn in real classrooms" (AACTE, 2019, n.p.). The edTPA is an extensive portfolio assessment in which teacher candidates must submit video clips of their teaching, students' work samples, analyses of student performance, and substantial written responses to highly specific prompts, commonly encompassing at least 20 pages. SCALE states that the edTPA is intended to be educative; candidates should learn about effective teaching as they go through the process. However, studies have shown that edTPA can be performed and passed without being educative (Heil & Berg, 2017; Holland & Sheth, 2018; Parkes & Powell, 2015; Souto-Manning, 2019). Rather, candidates can get through the portfolio assessment by reiterating the academic language used in the prompts and handbook while providing predictably acceptable examples of their teaching (Heil & Berg, 2017; Holland & Sheth, 2018; Souto-Manning, 2019).

In New York State, where this study was conducted, teacher education programs use the edTPA to meet the required certification standards. This portfolio assessment, described in further detail below, is completed during the final (and commonly, the only) semester of student teaching and requires considerable planning, writing, and editing in alignment with the 15 rubrics that are provided as evaluation criteria (SCALE, 2013). Completing the edTPA may be daunting and consuming for teacher candidates (Miletta, 2014). Regardless of the edTPA, teacher educators are still tasked with preparing their teacher candidates for "good" teaching including important practices that are not necessarily explicitly covered in edTPA, such as meaningful reflective practice, culturally relevant pedagogy, and inclusivity (Ladson-Billings, 1995; Mensah & Larson, 2018; Schon, 1992).

The edTPA was implemented quite quickly in New York State; it was piloted in 2010 and field tested in 2011 at select locations throughout the state (NYSED, n.d.). Teacher educator training was more broadly implemented across the state in 2012-2013 before the assessment was fully integrated as a requirement for state licensure in 2014 (NYSED, n.d.). In our case, and in the case of many other New York State teacher preparation programs, this meant that we only received one year of training before edTPA was fully integrated as a New York State certification requirement. It was up to faculty and candidates to quickly figure out how to prepare for the assessment (Greenblatt & O'Hara, 2015). The state's original timeline was even more ambitious, but after feedback, implementation was pushed out an additional year to 2014. Upon adoption, New York State chose the highest passing score in the nation, which was later lowered in 2017 after it became apparent that the assessment was preventing many new teachers from entering the classroom, in particular teachers of color (Disare, 2017). By 2016, colleges with lower pass rates were publicly noted on state websites, and teacher education programs were threatened with sanctions up to and including their programs being shut down. The New York State version of this website has since been removed.

There is broad concern that strong emphasis on edTPA may lead both teacher educators and candidates to focus on satisfying the perceived requirements of the assessment instead of upon actually learning to teach (Heil & Berg, 2017; Holland & Sheth, 2018; Larson, 2020; Parkes & Powell, 2015; Souto-Manning, 2019). As a result, candidates and teacher educators may miss the opportunity to demonstrate "good teaching practices" (Kuranishi & Oyler, 2017; Parkes & Powell, 2015; Souto-Manning, 2019). Furthermore, other researchers emphasize the concern that the assessment may be disproportionately burdensome to candidates of color (Petchauer et al., 2018; Tuck & Gorlewski, 2016). Several studies and commentaries have noted that candidates and teacher educators view edTPA as extremely time-consuming, taking time away from what the purported focus of day-to-day student teaching is: learning to become an effective teacher (Behizadeh & Neely,

2019; Clayton, 2018; Larson, 2020; Meuwissen et al., 2016; Miletta, 2014; Ratner & Kolman, 2016). On the other hand, some programs have used the assessment to increase collaboration among faculty, generating “conversations framed by a common language...to facilitate collective understandings of teaching practice” (Sloan, 2013, p. 33). It also has provided data to help inform faculty inquiry into aligning their programs to prepare for and respond to edTPA as a collective group (Peck et al., 2010; Peck et al., 2014). When feasible, this inquiry approach to edTPA may have potential to improve teacher preparation programs (Peck et al., 2010; Peck et al., 2014; Sloan, 2013).

Anticipating and meeting all the requirements of this portfolio assessment can be overwhelming for preservice teachers, thus candidates require many supports in order to succeed without succumbing to the stress associated with the assessment (Miletta, 2014; Ratner & Koleman, 2016). The supports available to candidates are limited for the edTPA as faculty and course leaders are barred from providing any detailed guidance for completing the portfolio assessment (Ratner & Koleman, 2016). As a result, teacher educators are forced to decide how they will approach edTPA in their courses and how they will provide guidance even with mandatory restrictions on the amount of support they can provide to their student teachers (Ratner & Kolman, 2016). This is especially problematic when student teachers are placed in schools with cooperating teachers, and later colleagues, who have never completed the edTPA and are even less equipped to support them in the process (Ratner & Kolman, 2016).

Further critique of the edTPA highlight concerns of predictive validity, misalignment with program or candidate goals and values, and lack of consistency among raters (Cohen et al., 2020; De Voto et al., 2021; Gitomer et al., 2021a; Gitomer et al., 2021b; Goldhaber et al., 2017; Kuranishi & Oyler, 2017; Ledwell & Oyler, 2016; Picower & Marshall, 2016). These concerns bring to light the fact that, while edTPA scores may be predictive of employment, they are not necessarily indicative of good teaching or commitment to remaining in the profession (Goldhaber et al., 2017). Gitomer et al. (2021a; b) shed light on their concerns regarding reliability among raters and the potential impacts this might have on candidate scores and decisions made regarding teacher licensure. Moreover, edTPA scores may be more reflective of the candidates’ successful test-taking strategies, such as proficient use of academic language and efficient responses to assessment prompts than of their identities, action research, teaching philosophies, or goals for student learning (Behizadeh & Neely, 2018; Cohen et al., 2020; Heil & Berg, 2017; Holland & Sheth, 2018; Larson, 2020; Parkes & Powell, 2015). While edTPA may aim to highlight constructivist teaching, reflective practice, and meeting diverse student learning needs, there is certainly room for improvement (Sato, 2014). Some areas for further attention include featuring other crucial elements of teaching including social justice and socioculturally inclusive pedagogies (Kuranishi & Oyler, 2017; Picower & Marshall, 2016; Sato, 2014).

Nevertheless, Whittaker et al. (2018) offer that there is some predictive validity, that teachers can use their agency in curating meaningful artifacts and reflection in their portfolios, and that raters are scoring a variety of abilities beyond academic writing. Additionally, edTPA data may be informative to teacher preparation programs. Data provided by edTPA scores can be used to inform teacher preparation programs on their success, areas of need, or ways that they can support their current or upcoming candidates (Bastian et al., 2018; Peck et al., 2010). Furthermore, locally sourced edTPA scores, those that are scored by local raters, can be reflective of teacher performance in nearby districts and offer better understanding of how teachers are being prepared for those local contexts (Bastian et al., 2016). Other scholars fall somewhere in the middle on these issues, recognizing that teachers may value some of the educative experiences with elements, such as differentiating instruction and assessment to meet students’ needs, or that the edTPA may improve the general quality of the teaching workforce (Clayton, 2018; Goldhaber et al., 2017; Meuwissen & Choppin, 2015; Peck et al., 2010; Rao et al., 2021).

In any case, teacher education programs are pushed to consider where they fall in their presentation of edTPA (Ratner & Koleman, 2016). Programs are left to grapple with how much to prepare candidates for the portfolio assessment, how much to focus on the assessments, and whether to equate success with the portfolio scores. In some states, teacher education programs themselves are evaluated based on candidates' passing rates, increasing the pressure on teacher educators to ensure that their candidates score highly. As a result, the inconsistencies make for varying teacher experiences with edTPA, adding or removing value from the process of completing the portfolio assessment. While we recognized the gatekeeping properties and exclusive and performative nature of edTPA as we entered this work, we approached our research study with the idea that preparation for edTPA may have educative potential as we considered our candidates' successes on their portfolios. This article, therefore, offers a wholistic look at edTPA as both a "tool for compliance" and a "tool for inquiry" as it unfolded for our teacher candidates in their preservice preparation and beyond (De Voto et al., 2021; Peck et al., 2010).

In this qualitative case study, we address the issue of preparing teacher candidates for both "good" teaching and the edTPA portfolio in a five-year BS/MS education program that employs two semesters of student teaching. Here, we interpreted interviews, survey responses, and edTPA scores to better understand how fourteen graduates of our program perceived the portfolio assessment in the contexts of their preservice work and in their current teaching. This study is situated within a scholarship program that provides continuous support for science and math teachers from preservice through year two of their teaching and, in many cases, beyond. Data collected in these induction years brought us to examine the ways in which a cohort of new teachers view the influence of the edTPA experience on their classroom teaching. This study fills a major longitudinal gap in edTPA literature by offering the perspectives of participants from their preparation as teacher candidates through their first year(s) teaching. This unique approach allowed us to illustrate the experience of preparing for and completing edTPA beyond the scope of teacher preparation and offer insight into how it continues to shape professional practice well after program completion. Thus, our research question is: *Once they have been teaching for one to three years, how do new teachers view their experiences preparing for and completing the edTPA in relation to their teaching practice?*

Conceptual Framework

This study takes on perspectives from social constructivism and the professional learning continuum to consider the contexts in which participants completed the edTPA; earned certification; and grew as practicing teachers. This conceptual framework allows us to employ a wide lens to understand how teachers experienced edTPA in the broader scope of the induction years and their early careers.

Social Constructivist Perspectives

The participants in this study completed their teacher preparation and induction programs in cohorts, collaboratively constructing their understanding of teaching and learning with each other and with program professors and mentors. This aligns with a social constructivist framework and means that, "although individuals have to construct their own meaning...the process of constructing meaning always is embedded in a particular social setting of which the individual is a part" (Duit & Treagust, 1998, p. 8). Novice teachers share ideas and experiences and can build content and pedagogical knowledge together and with a trusted mentor, as they are engaged in experiential learning and reflection practices (Palinscar, 1998; Richardson, 1997; van Driel et al., 2001).

Regarding edTPA, Sato (2014) explains that “expectations of assessing and linking to prior knowledge and building on student ideas suggests that the edTPA leans toward a constructivist approach to support student learning” (p. 427). Furthermore, Sato makes the claim that “edTPA is built within a conceptual framing of teaching as a professional endeavor not only for the individual teacher candidate but also for the field of teacher education” (p. 429). Through this conceptual framework, we can view the edTPA as a common ground for all teacher candidates and teacher educators to build consensus on what makes for quality instructional plans, student materials, and assessment artifacts (Peck et al., 2014; Sato, 2014; Sloan, 2013).

We envision social constructivism throughout this paper in three ways. First, we see it as a framework for recognizing edTPA as a common experience that is shared among preservice and early-career teachers that shapes and is shaped by their expectations for the assessment and for good teaching. Second, we employ it as a methodological lens for co-constructing narratives with participating teachers and sharing thoughts both among researchers and participants (Creswell & Poth, 2018; Crotty, 1998; Merriam & Tisdell, 2016). The constructivist perspective fits strongly with qualitative research in that we are using an inductive approach to examine the participants’ perspectives and learnings, and their ideas are built from their own experiences (Creswell & Poth, 2018). Finally, we see through social constructivist perspectives, how participating teachers found support and guidance as a collective group among their cohort peers through feedback and completing edTPA in a collaborative and cooperative process. Using social constructivist perspectives is especially important as we recognize the purposeful lack of collaborative support built into the implementation of edTPA which may have been designed to ensure validity, but failed to see the collaborative nature of the assessment for both faculty and candidates (Ratner & Koleman, 2016). Overall, this framing allowed us to interpret the narratives shared by and among the participants as important snapshots of their development as teachers along the professional learning continuum.

Professional Learning Continuum

Feiman-Nemser (2001) describes the professional learning continuum as an ongoing journey that teachers embark on beginning in their preservice programs and continuing throughout their careers. Along the journey, teachers continuously build on their practices, philosophies, and identities while refining their skills as teachers (Feiman-Nemser, 2001). In this way, teachers are positioned as lifelong learners and reflexive practitioners that engage in professional development; that can adopt a growth-mindset; and that revisit prior experiences as they engage in their careers (Darling-Hammond & McLaughlin, 2011; Feiman-Nemser, 2001, 2012). Scholarly work continues to discuss what, exactly, teachers *should* learn during their preservice training and what preservice training should look like for early-career preparation (Ball & Cohen, 1999; Bransford et al., 2005; Cochran-Smith et al., 2015). Deregulation and privatization policies have expanded definitions of teacher preparation as funding and focus have spilled into alternative certification routes that offer practice-based programs outside of the college-based teacher preparation programs (Zeichner, 2016). Additionally, alternative certification programs entice candidates by skirting teacher certification exams and assessment instruments, such as edTPA, providing expedient turnaround, and offering lower costs for completion (Zeichner, 2016).

For this study, we recognize in our work that this initial stage of the professional learning continuum is essential in building lifelong practices and that our program offers insight into how limiting gatekeeping in edTPA and offering long-term support for preservice and induction teaching serve as major benefits of traditional teacher education. Furthermore, it is important that we think of edTPA here as part of this earliest stage of the continuum and recognize its role as a steppingstone that we are forced to reckon with at the end of preservice teaching. The experience of completing

edTPA is very much a part of teacher candidates' preparation whether we confront, challenge, or ignore it. To pay mind to this inevitability, our study analyzes teachers' narratives of their preservice experiences, including the edTPA, and of their induction experiences, including their leadership, pedagogy, and planning. Thus, in this work, we capture a more holistic scan of the edTPA within the broader context of the professional learning continuum.

In this case, we are most interested in how the experience with completing edTPA influenced these teachers' induction teaching. During the induction stage of teaching, teachers face several institutional obstacles that push them to navigate key parts of their practice including planning, instruction, and assessment (Luft et al., 2003; Marco-Bujosa et al., 2020; Strom et al., 2018). Supportive induction programs can be successful when they offer mentorship, continued guidance from the university, and opportunities for professional development (Luft, 2007; Luft et al., 2003). In this study, we used the existing induction model embedded in the program that consisted of a support system that is constructed of program faculty and cohort networks. Recent graduates of the program are consistently observed in their classrooms, provided meaningful feedback on their teaching, and encouraged through cohort meetings and group texts and emails. In addition, this induction program pushes its teachers to maintain connections through professional networks, such as annual conferences, professional organizations, and other grant-funded programs. These supports helped us develop longstanding relationships with these teachers and provided time and resources for us to collect data pertaining to their development and reflections as teachers in the field.

Throughout this study, we turned to our understanding of the professional learning continuum for: framing data collection and recognizing the longitudinal nature of the study- interpreting data as it is contextualized within the continuum- and developing findings regarding edTPA beyond preservice and into the induction years of service.

Methods

We took an interpretive case study qualitative approach to examine data from 14 teachers in their early career development (Creswell & Clark, 2017; Merriam, 2009; Yin, 2018). The case of the teachers represented a "bounded system" (Merriam, 2009), because all were a part of a specific teacher preparation and induction program. The research team used qualitative research methods to better understand the perceptions and experiences of the teachers during both preservice and induction stages of their careers. Case study design allowed us to use inductive and emergent methods to pursue questions, ideas, and data as the project unfolded and our relationships with participants grew (Creswell & Poth, 2018; Yin, 2018). To fully address our research question on how new teachers view their experiences preparing for and completing edTPA in relation to their teaching practice, we worked to collect narrative data sources, including interviews and surveys. The goals for interpreting reflective and detailed narratives of these teachers could not be achieved through quantitative methods. The central focus of this study relies on rich descriptions, memories of preservice years, and nuanced thoughts about current teaching practices. These types of data are best recruited through conversations and written responses. Furthermore, data collection was a collaborative and co-constructive process that occurred throughout the participating teachers' journeys (Creswell & Clark, 2017; Merriam, 2009). Many of the data sources below were collected in response to program evaluation, emergent questions and thoughts among the research team, and feedback from participating teachers and, therefore, is best represented through qualitative approaches to analysis.

Participants

This qualitative case study was conducted with a group of 14 candidates who became secondary math or science teachers in high-need school districts, as described by the funder of this program, the National Science Foundation, meeting criteria of large percentages of both low-income students and Black, Indigenous, and students of color. Participating teachers entered this program in one of four cohorts. The first cohort began in 2015 and teachers in subsequent cohorts began each year following. Of the participants, three were from Cohort 1, four were from Cohort 2, three were from Cohort 3, and four were from Cohort 4. Additionally, 12 identified as underrepresented minorities and nine were first-generation college students. Ten of the teachers were secondary mathematics teachers and four were secondary science teachers. Further demographic information is broken down in Table 1. All of the teachers were enrolled in a specialized scholarship program designed to provide a longer clinical experience prior to certification, along with intensive support from program mentors and clinical supervisors both prior to and after earning state certification. The scholarship program existed within a federally designated Hispanic-serving institution in New York State. The teachers in this study, hereinafter called, “Scholars,” completed the teacher preparation program and had been teaching in a high-need classroom for one to three years at the time of this study. During this time, professors, supervisors, and mentors were in continuous contact with the teachers and maintained a collaborative network among the cohorts through meetings, observations, and general communication. Aside from edTPA supports, described in further detail below, Scholars were provided with mentoring from instructors to help them develop relationships in their placements, professional development for implementing science or math instruction, activities for lesson planning and assessment design, and digital group discussions among peers and instructors to help provide encouragement and a space for debriefing when teachers entered their practice. The relationships among the teachers and the research team serve as important context for this study.

Table 1

Participant Demographics by Race and Gender

	Black or African American	White	Asian	Ethnicity: Hispanic/Latinx	Not Identified
Female	5	7	1	7	0
Male	0	1	0	0	0

Of the 14 Scholars in this study, 10 completed edTPA to satisfy the certification requirements as outlined by New York State policy. Due to COVID-19, the edTPA certification requirement was waived for the 2019-20 academic year as well as the 2020-21 academic year. As a result, four of the Scholars in this study participated in activities aimed at preparing for edTPA, but never completed the full portfolio. These four Scholars remain as part of this study due to their participation in simulated edTPA activities, including analyzing videos of their teaching. Their insight on edTPA is helpful in understanding the educative process of undertaking the assessment even when the requirement was waived.

Setting

Colleges took different approaches to supporting students to pass the assessment. At the college in which this study took place, professors embedded simulated edTPA prompts into assignments in courses leading up to student teaching, and the clinical team created workshops to support candidates with each of the three tasks during student teaching. Within this particular teacher preparation program, Scholars were given extensive support in unpacking the edTPA portfolio's format, prompts, and elements. Among these supports were simulations that required students to video tape themselves teaching and provide each other with meaningful feedback using a secure, private, online video sharing platform. Additionally, instructors facilitated structured conversations between peer groups to debrief and troubleshoot edTPA tasks. All the participants received feedback from peers during the completion of the edTPA portfolio while seeking general guidance and support from faculty in the program, as per the "Guidelines for Acceptable Candidate Support" issued by edTPA (SCALE, 2013).

The professors who taught the Scholars in this study sought to reduce anxiety and empower the Scholars by stressing that the elements of the edTPA are actually integral components of good teaching. For example, the edTPA stresses strong planning, teacher reflection, and using formative assessment to guide instructional decision making. These practices are not just used for the edTPA portfolio, but rather should be used all the time. The instructor frequently noted that the edTPA asked for more formalized and extensive documentation of practices that the teachers were already using. During their induction years, Scholars continued to reference their edTPA in conversations with supervisors and faculty, inciting our curiosity on this topic and providing impetus for this research.

Data Collection

To ensure rigor and triangulation of data sources, the researchers examined semi-structured interviews, open-ended survey responses, field notes documenting informal moments throughout the research process, and edTPA scores. As a result, this case study was constructed through a variety of data sources collected over five years (2015-2020) and across four cohorts of developing teachers in order to examine their experiences from multiple perspectives and to crystallize findings. These approaches provide both methodological and data triangulation, according to Denzin (1978), and present strong elements of rigor and validity for this study. Data collection initially occurred solely for program evaluation, but then grew as the research plan developed. Follow up interviews, group interviews, and surveys occurred throughout the program to revisit emergent and recurring trends across evaluation data sources. Below are further details on the data sources collected for this study.

Survey Responses

The November 2020 survey was administered by researchers as follow up to emergent ideas that surfaced in other data sources, including participants' social capital, experiences with edTPA, and STEM teacher identities. Survey questions relevant to this study included: "How has [this program] shaped your identity as a science/math teacher? Reflect on your experience with completing the edTPA portfolio. What was it like for you? Looking back, what about the edTPA process stands out to you the most?" The results from the survey offered insight into the thoughts that Scholars had on teacher preparation, edTPA, and goals for teaching and student learning. This survey, administered for program evaluation as well as research purposes, offered Likert scale-type questions alongside free response questions that provided more detailed answers. 12 participants completed the survey. All survey responses were recorded digitally using Google Forms.

edTPA Scores

Scores were released each year of completion of the edTPA portfolio (2017-2019). These scores were organized by raters based on the candidates' performance on each of the 15 rubrics discussed above. Each rubric measured candidate performance on one of the three tasks that make up the entire portfolio. Task 1 is the "Planning" segment which requires context of their learning environment, 3-5 detailed lesson plans in a learning segment, and written responses to prompts regarding their planning for teaching. Task 2 is the "Instruction" segment and requires that candidates submit two video clips of themselves teaching. Within the section, teachers are asked to watch their videos and offer a time-stamped analysis of their pedagogy and learning environment. Task 3 is the "Assessment" segment and requires that teachers provide an assessment that represents their learning unit, a detailed analysis of student performance, and evaluation criteria and feedback given to students. Together, scores are added up by the assigned rater and then provided to the candidate and teacher education program digitally. These scores were obtained by our research team from all ten participants who completed edTPA as part of our yearly program analysis for the college and saved in a digital PDF format.

Interviews

Interviews were conducted in December 2018, December 2019, March 2020 (group interview), and November 2020, for both program evaluation and research. These semi-structured interviews asked questions regarding the teachers' leadership, identity, and edTPA completion. Participants agreed to participate in these interviews as part of the emergent questions we had as feedback and program evaluation unfolded. Each interview was 20-30 minutes long and was audio-recorded and transcribed using a third-party transcription service. Thirteen participants completed at least one interview. All transcripts and audio were saved digitally on research team members' password-protected computers. A sample interview protocol is attached as Appendix A of this article.

Data Analysis

Using a social constructivist interpretive framework, we employed a cross-case analytical lens through which we explored the varied data sources described above to recognize themes among the narratives of the fourteen participants (Creswell & Poth, 2018; Yin, 2018). Comparative case study analysis allowed the research team to look across data sources to first develop individual cases for each participating teacher and then draw comparisons across cases to illuminate overarching themes presented as findings in this paper (Yin, 2018). By employing a cross-case analytical approach to this work, we used data collected throughout the implementation of the program and considered each participant's role in the program separately, at first, and then as a whole group (Creswell & Poth, 2018; Yin, 2018). Through this approach, we were able to explore various qualitative data sources among the fourteen participants. This analytical framing also served to situate these findings within the context of one preservice teacher preparation program and encourages other researchers to replicate similar methods in other cases or programs.

Employing comparative case study analytical approaches enabled us to visit and revisit each data source multiple times to comment, memo, and generate categorical findings that transcended individual cases to become broad themes reported here (Creswell & Poth, 2018; Yin, 2018). First, the research team collected all data sources, deidentified these artifacts by replacing all names and places with pseudonyms, and ordered them chronologically from data collected in preservice through induction. Second, we analyzed each data source individually, noting interesting or important ideas as they emerged, and looking for common threads among the notes. These general

sweeps across the data created space for researchers to embrace first impressions, discuss with each other, and revisit the data with a broad scope of interpretation. Third, the research team revisited the data with the intention of recognizing recurrent comments in memos within and across data sources. These comments included noticing discussions about “peer feedback.” “assessment.” and “reflection..” Here, the team connected these ideas and collapsed them into major themes evident across data sources. These processes of thematic analysis supported us in identifying emergent themes and developing our case (Creswell, 2013).

This study leverages evaluation data sources to gain a longitudinal overarching illustration of Scholars’ reflections and narratives throughout their early careers. These sustained methods support rigor for this study and appropriate triangulation (Creswell, 2013; Guba & Lincoln, 1986/1989; Merriam, 2009).

Limitations

Although this study bears hallmarks of rigor and triangulation, we recognize the limited sample size of 14 candidates may affect the generalizability of our findings. Due to the prolonged and emerging nature of this work, some of the data sets differed from year to year, also due to candidate availability and participation. In addition, the deep relationships formed through this program among participants and with the program director may not be able to be replicated in other populations or settings. As with all studies, elements of bias may have entered analysis. Merriam (1998) describes the subjectivity that is inherent to qualitative research that both is valuable for the deep insight into the study, but is ultimately a construction of an individual researcher, which may not be similarly constructed by others. In this study, peer debriefing and member checking were employed to mitigate bias, but it may still exist. Despite these possible limitations we believe the research is valuable for consideration in the field and within the conversation regarding the edTPA and other teacher candidate assessments. These findings are valuable to consider while exploring methods of supporting diverse candidates to be successful in the edTPA, even in varied settings not mirroring our own.

Findings

Like other researchers, we found that our Scholars felt that the edTPA was a difficult and stressful process for preservice teachers (Miletta, 2014; Ratner & Kolemian, 2016). For instance, when asked what she remembered about the edTPA process, a math teacher, Isabel’s first response was, “Well for most of it, I was like, ‘Dear God, when is this over?’” (interview, 12/2019). Another teacher, Sylvia, described edTPA as “my worst nightmare, honestly” (interview, 11/2020). As we probed beyond these initial reactions, the Scholars expanded their thoughts on edTPA and described their perceptions and memories of the process of completing the portfolio. As mentioned at the outset of this study, this novel approach in seeking Scholar perspectives well after their completion of their teacher preparation program fills a need to understand how teachers perceive edTPA as they continue their professional practice. Our findings speak to how the teachers developed a network to support their completion of edTPA (see, “Building a Community of Support for edTPA), how the edTPA served as a platform for reflection in their teaching (see, “An Avenue for Reflection”), and how the process of preparing for and completing the edTPA helped them in data-driven teaching (see, “Preparation for Data-Driven Teaching”). Overall, these findings contribute to our understanding of the many points throughout the professional learning continuum at which edTPA played a role in their development and growth.

Building a Community of Support for edTPA

Throughout the process of completing edTPA, the Scholars were provided the space and time to work together to give and receive peer feedback on their portfolios, as outlined in the setting description above. Besides ensuring their success on edTPA, the Scholars found the process of cooperative learning and iterative feedback to have long-lasting impacts on their professional dispositions in teaching and planning. In particular, Collette, a middle school math teacher, looked back at her experiences with her cohort and called attention to the shared experiences she had with them while completing edTPA:

I was very stressed out, but the cohort made it a little less stressful. We were all completing and submitting ours at the same time and were able to help each other in the terminology (for math), figuring out which standards were appropriate, and our mock video lessons pointing out how we would explain each of our steps. (survey, 11/2020)

Collette was not alone in thinking of the cohort as a support system for completing edTPA. Six other Scholars emphasized the role of the cohort and their peers in their discussions of edTPA through surveys and interviews. When asked how the teachers recalled experiencing edTPA, almost all of them described it as “stressful” and many of them found solace in working on their portfolios as part of a group, rather than without peer support and feedback. For many, it seemed that the cooperative nature of preparing for feedback was the only saving grace at the time. Ten out of the 14 participants described edTPA in their survey responses as “stressful.” “difficult.” “horrible.” “tedious.” and various other words to indicate a negative experience. Of these, seven explained in the survey that their peers were a major factor in helping them get through the process. When asked “what about the edTPA process stands out to you the most?.” Vanessa recalled that

the process that I remember the most was being able to get feedback from my peers. Being able to get together during class time to get guidance on how to use the rubric as a checklist for answering every part of the edTPA... (survey, 11/2020)

Similarly, Leah responded that the part of edTPA that stood out to her the most was “having the [program] community, going through the process with other students like myself who were able to help each other and give each other support and feedback” (survey, 11/2020). These survey responses mirrored the responses that six other participants, such as Collette, offered in their interviews about edTPA and their cohort support.

For these seven Scholars, the continuous feedback loop, like the one they had for their video recording self-analysis, helped them through both edTPA and their preservice program overall. In the semester prior to completing their edTPA, for example, Scholars recorded videos of lessons and received feedback from peers and clinical supervisors. Community reflection became a norm and usual practice. For instance, Melany recalled, “...the small group that we had...was also really helpful in terms of the system with [a video sharing platform] ...I got to see myself and others and compare and see what works” (interview, 2019). She explained that she “felt more safe getting feedback from them and listening to their experiences and their message” (interview, 2019). The peer feedback was structured based on our previous research with vertically articulated professional learning communities and was not targeted specifically to support candidates in completing the edTPA (Chen et al., 2014; Gunning et al., 2020). Scholars were instructed on what feedback should look like, being professional and specific, providing time for reflection and response (Gunning et al., 2020).

This skill to consider feedback on their practice equitably became a normal part of teaching for them in later years. The teacher candidates internalized this embedded method of receiving and providing feedback and brought it into their own practice. This was an unintended outcome. For example, Amelia, a middle school science teacher, described that

...just talking to people and peer review was very helpful. We did that in a lot of classes. We would go over each other's work. I thought that was helpful for me. I don't know if that's helpful for everyone, but I feel like as a teacher, you should be able to do that, to be able to take feedback, cool or warm. (interview, 11/2020)

The community of peers that Amelia described here was frequently noted among the Scholars. The practices of providing and gaining feedback in rounds of warm or cool affirmations or suggestions pushed the teachers to see a way forward in their writing, reflecting, and constructing of the edTPA as well as restructuring their perspectives of professionalism in the workplace. These practices also fostered reflective practices among the Scholars. As they refined their reflective practices, the Scholars recognized other pathways for introspection as they completed their portfolios.

An Avenue for Reflection

Even amidst the stress that edTPA caused for them as teacher candidates at the time, 10 out of the 14 Scholars discussed the process of completing edTPA as one that instilled reflective practices in their work both in preservice and beyond. In their responses to the survey question: "What stands out the most to you from the edTPA," these 10 Scholars referred to the level of reflection that they were required to engage in as they completed the portfolio. This reflection component took on different meanings for the participants as they discussed their reflection through the feedback process described above, the video reflection component for Task 2, and in their writing (and rewriting) for each of the edTPA prompts. For instance, Isabel described the reflective process that unfolded for her as she watched videos for her Task 2 – Instruction portion of the edTPA:

The process that stands out the most was the video recordings. Although it was a little "cringe-y" to watch yourself on video, it was a great way to self-reflect on the lessons I taught. I see different strategies that worked, what didn't work, and what I could do differently the second time I would teach the lesson. (survey, 11/2020)

This comment aligns with research that suggests similar reflexivity associated with video analysis of teaching (Arias et al., 2020; Falter & Barners, 2020; Gelfuso, 2017; Harford et al., 2010; Radloff & Guzey, 2017; Roth et al., 2011). Here, Isabel found the videos for edTPA a valuable part of completing the portfolio and that helped her think about her future instruction. While video analysis was one memorable and useful task that arose out of completing edTPA, Collette mentioned that "reflecting on why I am doing each step in the lesson and preparation" stood out to her the most. She continued by saying that this "made me think about what is in my lesson plan and why, what this shows about the lesson, and what information may or may not be necessary" (survey, 11/2020). In this case, Collette described value in the lesson planning required for Task 1 – Planning as a means for reflection and growth. Finally, in her response to this prompt, Ivy replied "[edTPA] is really a reflection on your teaching. I have practiced the edTPA, but it's a chance to deeply analyze who I am as a teacher and what things I should work on" (survey, 11/2020). This perception of completing edTPA stood out to us considering that Ivy did not need to complete her portfolio in light of the COVID-19 pandemic that eliminated the portfolio assessment requirement for the 2020 certification year. Even with the requirement waived, the teachers had practiced edTPA elements in their preparation program as part of their training and development as teachers. This educative

approach to edTPA seems unique among a sea of narratives that speak to the opposite experience in other programs and studies (Dover & Schultz, 2016; Powell & Parkes, 2020; Shin, 2019).

We recognized that even teachers who were required to complete the edTPA as part of their certification were able to see, with the guidance of their program, value beyond the scores in contributing to their practice. When asked “what is the point of edTPA?.” Amelia explained that “besides being just a prerequisite for the state, you know, just that you got to do it...I really think it’s a way to help us develop reflection practices” (interview, November 2020). Amelia, a middle school science teacher, called attention to the fact that the edTPA was just something she had to do, but that it also helped her with thinking reflectively on her practice. She went on to say in her survey responses from November 2020 that edTPA was

the biggest reflection assignment I have ever done! I think the point of the edTPA is to help us reflect and better our practices, but this goal gets washed away by fear, anxiety, lack of sleep, and a fear of failing.

Looking back at the edTPA, Sylvia, another Scholar, explained that completing the edTPA pushed her to think more deeply about her practice as a teacher. In her conversation with the interviewer, Sylvia thought back on her experience with edTPA and how it may have given her a space to reach a level of reflection, an ability to consider the “what” and “why” of her practice, that her colleagues did not reach. She said:

It is a process to become an effective teacher. You have to know how to plan and expect the unexpected...to be flexible in that way...you have to be able to present that. You have to be able to assess that data, assess that knowledge and see ‘should you move on or do you need to go back?’ I wouldn’t say that teachers that didn’t complete the edTPA don’t know that process, I think they do know that process, I hope, but I don’t think they know it the way the people who do complete the edTPA know it...to ask yourself, to really have that time to reflect. I feel like that’s what it is...edTPA forced you to reflect, ‘why are you doing this? Why did this happen? So how could you have done better?’ (interview, 11/2020)

Sylvia noted that, while she found the process of edTPA to be poorly timed and challenging, she saw later in her teaching how it helped her consider her work more critically. She wondered whether teachers who did not complete the edTPA were as familiar or comfortable with reflection as she was now. Similarly, in a December 2018 interview, Vanessa who at the time was in her second year of teaching high school math, discussed teacher evaluations and self-assessment in her school context. She described that other teachers, who had not necessarily gone through the edTPA process, rated themselves and others much higher than Vanessa rated herself. When asked why she thought this happened she said,

I think the edTPA did that [to me], but I honestly feel like if it weren’t for us being able to talk about our practices, even those videos that we had to do solid feedback and stuff like that, I feel like if it wasn’t for those things, I wouldn’t have been as reflective and aware of my practices as much as now.

In this quote, we noticed that Vanessa combined the two components of her preservice preparation, edTPA and her program coursework, to recognize a unified experience that supported her reflexivity and her ability to self-assess meaningfully and effectively once she began teaching at her school. Nearly three quarters of the Scholars shared the perspective that the program approach to edTPA pushed them to be more reflective and mindful of their practice and explained that other teachers who did not complete edTPA may not be as aware of their teaching or as reflective in their

instructional and assessment practices. These findings are of interest in light of those that suggest the process of preparing candidates for the edTPA portfolio can elicit rich, reflective conversations and collaboration among program faculty as well (Peck et al., 2014; Sloan, 2013; Whittaker et al., 2018). Interestingly, these participants described the program approach to Task 3, the assessment portion of edTPA, as the approach that prompted them to reflect the most. Scholars' use of the assessment portion of edTPA as a means for improving long-term planning and feedback is described further in the following section of this paper.

Preparation for Data-Driven Teaching

Throughout this study, nine of the Scholars repeatedly noted the importance of completing the Task 3, or the "assessment" portion, of the edTPA in their growth and development as a teacher. These findings are split into two sections; the first to demonstrate how assessments were used as instructional planning tools in edTPA and the second to show how feedback practices were utilized throughout the process of completing the edTPA.

Assessments as Instructional Planning Tools in edTPA

Scholars viewed the edTPA approach to student assessment as particularly valuable to their classroom practice. When asked to reflect on some of the most important things they learned in their preparation programs, Scholars frequently cited elements of assessing students as critical to their everyday teaching. Some Scholars directly attributed their practice to the work they did with edTPA, while others simply mentioned practices that they worked on in their student teaching seminar, which provided activities to simulate edTPA prompts. For instance, when asked: "Are there any aspects of the three [edTPA] tasks that you still use in your current practice?" Collette explained:

I think reviewing assessments, either if they were formal or informal, reviewing assessments to go back to see if there was anything I could change, or work on, or readdress in [my] teaching to see if...they understood or had an understanding of what I taught and if they didn't, what [could] I do to improve their understanding. I guess the reflection piece of it...being able to reflect. (interview, 11/2020)

This reflection on assessing and student learning in the edTPA carried over into Collette's teaching practices and helped her refine these practices in her early career. Like Collette, Sylvia, also a middle school math teacher, who described the edTPA (as mentioned above) as difficult and time-consuming, said that while she recalled many of edTPA's downfalls, she still felt that it helped "in the long run" (interview, 11/2020). She explained

I feel like I'm a better planner [now]. I did really well on the assessment and analyzing data...that's like my bread and butter...I love analyzing it and seeing patterns. I do it with all my math tests. I'm like 'what questions did they get wrong, why did they get this wrong?' It's so easy for me. (interview, 11/2020)

Sylvia seemed to find the assessment portion of the edTPA both the most doable for her and also the most rewarding in the long-term. Similarly, Vanessa gave some examples of how she used assessment data to plan her instruction, another component of edTPA:

In terms of planning, well, one thing that really helped me was just to use the data to guide my instruction for the next day-- like something I got to review. . . I find patterns and trends and like the errors and misconceptions and figure out like how to go from there. I appreciate that because I noticed a lot of teachers don't go over

misconceptions. I've learned to base my planning off of -- based my planning off of misconceptions and stuff like that. (interview, 12/2018)

When candidates respond to the edTPA, they must identify misconceptions, along with patterns and trends in class data with respect to some student assessment. The candidate must then explain the next steps they would take with the whole class and individual students. Vanessa recognized that between the support of her program and the planning for edTPA she was enabled to identify, anticipate, and address important misconceptions in her classroom. This practice of noticing and planning for misconceptions continued to shape her practice into her induction years of teaching. In a similar way, Collette noted that when the interviewer asked about edTPA:

The thing that was really on my mind was the amount of assessment and how assessment can really help you; they are really under the care of what actually went well in the lesson. "Did the student learn this? Or did they pick up on this?" and then the assessment class will tell you, always fixing your lessons like what you can improve on. I figured that out too as far as, the edTPA had a lot of focus on assessment like pre-assessment, post assessment, assessment during. I think that is helpful. (group interview, March 2020)

Nine of the 14 Scholars expressed that the Task 3 Assessment portion of edTPA had long-lasting impacts on their teaching practice. They described that the assessment portion helped them with planning expectations and learning goals for their students, justifying their assessments with evidence from standards, preparing them for data-driven instruction and planning in their schools, and expanding their strategies in providing feedback to their students throughout a learning segment.

Honing Feedback Strategies through edTPA

Scholars also cited the edTPA as useful for helping them crystallize how to provide strong feedback to students. For instance, in a December 2019 interview, Amelia, a second-year teacher at the time of the interview, explained that while at the time of completing edTPA it did not feel useful, she realized at her school that she was "ahead of the game" when her administrators asked for the same types of feedback that were required on edTPA. She elaborated:

A big thing in my school now is how to give feedback and how to respond to the students' feedback and that's something that I think a lot of teachers that didn't do the edTPA are struggling with. And I just went back to the way I gave feedback for the edTPA. I know how to give it to the students so that they understood it, and then they were able to give me feedback so that's one thing that helped me. . . With our [bulletin boards], every time we have piece of work from the kids, the administrators want us to give them feedback but then they want them to respond to the feedback back to us. (interview, December 2019)

Amelia explicitly noted that her experience with edTPA was something she leaned upon when giving feedback to students in her class. The practice of giving students feedback in her edTPA portfolio was two-fold as Amelia needed to provide evidence of feedback on student work for Task 3 of the portfolio, but also needed to provide feedback to her peers on their portfolios. Again, as noted above, we noticed that this Scholar felt that preparing for edTPA also prepared her for the professional demands of her school context. She, like others quoted above, wondered whether other teachers who had *not* completed the edTPA were as well-positioned as she was for providing and receiving student feedback. The multilayered approach to giving feedback, that was established

through her preservice program, enabled Amelia to adapt valuable feedback practices in assessing student learning.

Kathy, another Scholar, also cited practice giving feedback as something that has influenced her practice:

I also learned many tools for feedback as we practiced it amongst ourselves, e.g., stems to start a sentence were extremely helpful, and knowing that giving praise was just as important as giving feedback on areas of growth.

In this questionnaire response, Kathy referred to an activity that the Scholars used as they prepared for edTPA, practicing using sentence starters to give feedback to students that highlighted both the areas of strength and growth on particular assignments. This practice is similar to the one that Amelia had found particularly helpful in her work with student feedback that is described above. For her, the practice of providing and using sentence starters to give and receive feedback improved her ability to showcase meaningful feedback on her classroom bulletin boards and for the administration to review.

The Scholars' edTPA results support the focus on assessment that emerged from the qualitative data, as the Scholars cited elements of Task 3, including data-driven instruction and providing feedback, as parts of edTPA that stick with them and relate to their daily teaching practice. There is also evidence of their skill in these areas within the edTPA scores of graduating Scholars, as illustrated in Table 2 below.

Table 2

edTPA Score Comparisons

edTPA	Scholars	Nationwide Average 2017	All College Secondary Candidates
Mean Total Score	48.2	44.0	41.5
Mean Task 1 Total	16.05	15.2	13.8
Mean Task 2 Total	15.3	14.7	13.7
Mean Task 3 Total	16.65	14.8	12.8

Our analysis shows that the Scholars were quite intentional in assessment planning and learning from student work to inform practice. The table compares the scores of our Scholars with the nationwide average, and with all secondary candidates at our college. Our Scholars outperformed both national and local averages on Task 3, with a mean of 16.65 as compared to 14.8 (Nationwide) and 12.8 (College Secondary average). These scores, paired with the qualitative data we interpreted in the narratives described above, suggest that the Scholars found success through our approach to preparation for edTPA and teacher certification overall.

Discussion and Significance

Our findings offer an understanding of how approaches to edTPA can provide opportunities for teachers to collaborate, reflect, and hone their teaching practices both during and after their program completion. These findings were surprising considering the general anxiety and resentment that teacher candidates often express when discussing the edTPA in conversation. While the edTPA is designed as a gatekeeping device and serves a major hurdle for candidates, the experience of completing edTPA may be of educative value for candidates' professional lives. Acknowledging this baggage the assessment brings, we were pleased to discover that with candidate-centered supports, diverse candidates can be successful and find long-term value in the experience

of the assessment. These findings are important as colleges and states implement the edTPA and consider the implications for diverse candidates.

Approaching edTPA as an Instructional Touchpoint

While the edTPA scores, as mentioned earlier in this paper, may be used as screening materials for employers, they are not, in and of themselves, representative of teaching quality or effectiveness (Goldhaber et al., 2017; Heil & Berg, 2017; Souto-Manning, 2019). As other experiences in teacher education show, the approach to the assessment influences the outcome of student teacher experience in writing the portfolio (Heil & Berg, 2017; Holland & Sheth, 2018; Kissau et al., 2019; Sherfinski et al., 2019). Teacher education programs can have an enormous impact on the way that candidates experience the portfolio assessment. As mentioned in our findings, ten out of fourteen Scholars cited the reflection as the most significant portion of the edTPA. Looking back, the teachers considered the edTPA to be useful in the way that it pushed them to think critically about their teaching practices. Many of them mentioned that it made them more mindful of “why” they were teaching what they were teaching and how. This finding stands out as inconsistent with prior research that points to the forced components of the edTPA portfolio that seem to surface less personal, more objective approaches to teaching and learning development (Heil & Berg, 2017; Kuranishi & Oyler, 2017; Larson, 2020).

Instead of positioning edTPA as a means for predictive validity for teacher performance or quality, the teachers in this study experienced the process of completing edTPA as educative. The Scholars considered edTPA as a moment in their professional learning continuum in which they were able to spend time thinking about their planning, instruction, and practice. This is more consistent with successes highlighted in research on iterative feedback processes, meaningful reflection practices, and video analysis exercises in teacher education (AACTE, 2020; Gelfuso, 2016; Huston, 2017). In this program of study, the Scholars adopted these same practices as they worked towards completing the edTPA. The findings suggest, along with those in prior research, that preservice teachers can make edTPA “their own” while meeting the required benchmarks in the portfolio assessment (Ahmed, 2019). Through collaborative feedback cycles, the Scholars worked with other STEM teachers to provide, receive, and implement feedback, analyze videos of themselves and other participants teaching, and consider effective ways to evaluate student understanding, provide assessment feedback, and draw conclusions from assessment data. These components of their edTPA contributed to their induction year pedagogy and overall professionalism. In this way, we see opportunities for edTPA to become an instructional touchpoint in teacher education, one that student teachers can use as a landmark in developing long-lasting pedagogical strategies.

Limiting Gatekeeping in edTPA

Completing edTPA is daunting for all candidates as referenced throughout this study. The cost, the time commitment, and the rigorous demands for academic language are just three of the gatekeeping properties that position edTPA as an oppressive, exclusive accountability measure (Heil & Berg, 2017; Ledwell & Oyler, 2016; Souto-Manning, 2019; Tuck & Gorlewski, 2016). The findings in this study offer an approach used in one teacher preparation program that resulted in success for underrepresented minorities and first-generation students in STEM education on the edTPA while maintaining high-leverage practices in teacher education. In this study we note the immense value of providing candidates a collaborative network on which they can rely throughout the edTPA process. This network and its inherent social capital were essential to our Scholars’ success in completing the portfolio (Mandzuk et al., 2005; Neesemann, 2017; Schwartz et al., 2018). In this program, Scholars counted on their cohort of peers, supervisors, and their professor for guidance and encouragement

in writing and analyzing their work. Continuous, on-going feedback from peers and supervisors supported the Scholars in the ways they discussed their planning, instruction, and assessment.

Additionally, the Scholars felt supported in their assessment design and in their ability to analyze data from their assessments, which they continued to practice in their induction years. This study suggests that this cohort of math and science teachers found the experience of completing edTPA Task 3- Assessment to be particularly useful to their everyday classroom practice. Other studies have found that candidates who felt they were not as well-prepared for edTPA Tasks 2 and 3, the instruction and assessment tasks, also felt that the work they submitted for Task 3 did not represent their teaching practice as accurately as the planning task, Task 1 (Meuwissen, et al., 2016). Even as experienced practicing teachers, the Scholars credited their preparation for the assessment portion of their edTPA to their comfort with data-driven teaching and planning in their schools. Several Scholars wondered how their colleagues who had not gone through the edTPA process were able to refine similar skills with data and assessments. In this case, preparing for and completing edTPA served as a space for Scholars to apply their knowledge of data-driven planning and instruction to create a mini case study for themselves and their future practice. The Scholars had built these skills throughout their preparation program and knew how to apply them to the assessment. As a result, the typically lowest-scoring portion of the edTPA was re-envisioned by the Scholars as a tool for their long-term growth and success.

It is important that we also recognize that while student teachers have less support than ever in completing their teacher certification portfolios, the program provided Scholars the opportunity to build a collaborative network of peers that they could count on for feedback, encouragement, and morale (Mandzuk et al., 2005; Neesemann, 2017; Ratner & Koleman, 2016). These cohort connections carried with them into their teaching when they became integral parts of their departments or teams at their schools. Even with strict “guidelines for acceptable support” that include no faculty input or guidance regarding writing for the prompts, identifying videos of good teaching, or curating meaningful assessments and feedback, it is important to note that we can still develop cooperative learning environments for our Scholars and future educators. Supporting our candidates who are typically underrepresented in education and in STEM, and who would otherwise overthink, avoid, or delay completing the edTPA, is as other teacher educators have described, a social justice issue (Ratner & Koleman, 2016). Our study worked to understand the stories of participants who were either first-generation college students or sociohistorically, socioculturally marginalized in STEM (or both). Their success in taking edTPA and seeing it as a useful tool is important especially in a test prep culture that is typically biased against these groups.

Implications

This study has implications for teacher education programs and policy makers regarding preparation for and utilization of the edTPA. Throughout this work, we showcased program successes in positioning edTPA as a stage in the professional learning continuum for growth and reflection, similar to “inquiry” approaches explored by other researchers in this field (De Voto et al., 2021; Peck et al., 2010; Sloan, 2013; Whittaker et al., 2018). In our research, teachers completed the edTPA preparation process with some lessons learned and actionable skills that became valuable for some as they entered their professional practice. In this way, while there are significant policy problems associated with edTPA, such as its use as a gatekeeping device, our program successes reflect its potential as a tool for reflection and longitudinal professional support even for teacher candidates in marginalized groups. These results demonstrate some consistencies with those presented among the research and experiences shared by others in this field regarding the perceived

value that candidates found in completing edTPA with the embedded supports of their programs (Rao et al., 2021). Furthermore, our study expands on the work of our peers by representing teachers in their first years of professional practice. This expansion is only just now becoming possible as experienced teachers are able to look back and reflect on their edTPA experience and its possible educative value. As we continue researching the preparation for edTPA and its worth to professional practice, we are most interested in programmatic approaches that influence and/or are influenced by preparation for edTPA; the implementation of reflective practices to foster more meaningful experiences in edTPA; and data analysis activities as means for empowerment in assessment design and evaluation that may also result in higher scores on edTPA Task 3.

As with all assessment policies, edTPA has both peaks and pitfalls, both of which deserve attention in our work. Looking ahead, we see two emerging concerns, timing and equity, that have implications for policymakers and teacher educators.

First, timing of the edTPA during the preservice pathway seems to present early-career teachers with feelings of incapability, disconnection, and unnecessary stress that limits their abilities to demonstrate their most authentic and meaningful teaching experiences. We ask policymakers to consider: *when in the professional learning continuum is edTPA most appropriate?* As one of our Scholars grappled with the question “how could edTPA have been a more considerate exam for someone like you?” she offered:

Maybe if it was where I was doing it with my own kids. Really, like maybe not my first [year] because the first year of teaching is so stressful. Maybe my second year in, I would be able to do it...I think it should be an assessment where you get the certification, but there should be an assessment in order to keep it...I just think that I would just benefit much more if they were my kids and [I wasn't] thrown into the wolves... (Sylvia, interview, November 2020)

This comment brings to light the issue of timing when it comes to testing our teachers' abilities, effectiveness, and commitment. Here, Sylvia suggests that perhaps the edTPA would have been more representative of her as a professional had she been able to do it with her own students. Perhaps, Sylvia mentions, the edTPA is better suited for a second-year teacher or a teacher who has practices that they are prepared to show off to assessment raters. This perspective is particularly interesting for us to consider since all the Scholars completed their edTPA in their second semester of student teaching, and even with the additional semester of student teaching under their belts for experience and support, the portfolio assessment still seemed to occur too early in their journeys.

Second, and perhaps more pressing, is the issue of gatekeeping that we described earlier in this paper. High-stakes assessment at any level of education presents issues of inequities and systemic racism that limit, ostracize, and oppress underrepresented minorities in teaching fields, especially those in STEM. Throughout this study, Scholars described the dilemmas that completing edTPA posed for them ranging from confusion around academic language and aligning with the rubrics, reconciling identities as a student and an educator, and grappling with the overwhelming workloads they endured as full-time parents, workers, and students while completing their final portfolio assessment. The tremendous pressures did not dissipate because of the Scholars' connection to our program, rather these weights continued to mount the closer they got to completion. As the COVID-19 pandemic hit, the edTPA requirement was waived for the final cohort of our program. With this, four of the Scholars no longer needed to submit their portfolios to receive certification. All four of these teachers reflected on the benefits of the experiences they had in the program and some even commented that they might still submit their edTPA now that they have more teaching experience. As Penelope, a first-year science teacher explained, “I am here teaching and everything, so I am basically mastering everything that's in edTPA...you learn as you

go...I feel like why not, you know?" (interview, 11/2020). However, Daniela, who also did not have to submit edTPA, found that the assessment only forced her to question her competence as a student, rather than push her to improve as a teacher. When asked if she thought edTPA was an important part of her journey, Daniela said

not at all...I don't. And I say this just because you know I have been teaching now for two years, two years and some change. And I have been able to teach my kids and I have seen them grow *without a test*, without edTPA. I feel like it's a lot of added stress. (interview, 11/2020)

While this comment counters Penelope's comment above, Daniela demonstrated the same idea that edTPA does not make for a good teacher, rather a good teacher with experience and meaningful preservice experiences could design a good edTPA if they chose to do so. For Daniela, edTPA marked an oppressive and discouraging time in her professional learning. She shared that

I literally cried because I feel like I'm incapable...if I can't pass the [certification tests], how am I going to be a math teacher? But, I got to do it because this is what's required. (interview, 11/2020)

In this quote, Daniela shared the significant hurdle that certification exams posed for her in achieving teacher licensure. In the face of her many test failures, she was still teaching students and meeting program expectations with strength and perseverance. We ask policymakers, *do teachers need to go through edTPA to become good teachers?* How is it possible that Daniela was able to achieve many of the same practices, philosophies, and skills as the other successful Scholars in her program? Why should an assessment force her and others to question their capability and competence as teachers?

As we return to edTPA after two years shaped by a pandemic, let us keep in mind that the lessons learned and practices gained through completing edTPA were beneficial to these teacher candidates. For all the teachers who did not have to complete the edTPA we wonder: is it worthwhile for them to complete it in their second or third years of the profession? Moving forward, we continue to push on the argument that we need to limit the gatekeeping abilities of edTPA and focus on fostering long-term practice development and reflexive approaches to teacher preparation and certification in preservice education. Additionally, we continue to direct our attention to when and how teachers should be prepared for the edTPA. Using the words of one of our Scholars, we need to push policymakers and researchers to ask: *How can we move forward with the edTPA without throwing our student teachers to the wolves?*

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Appendix A

Sample Interview Protocol

Social Capital and Persistence/Prior Experience

- Besides [your program], what types of experiences helped you in becoming a teacher?
- How long have you been a science teacher?
- What are some challenges you have encountered as a STEM teacher?
- You can give examples from your school, district, community, or personal life.
- Why do you think you are still a STEM teacher?
- What keeps you going? What makes you stick with science teaching?

Leadership (STEM leadership questions)

- Describe your current role in your school right now.
- In what ways have you grown professionally since starting [this program]?
- What types of leadership activities/roles have you taken on since [this program]? (i.e., conducting PD, helping with [this program], attending a conference, running a PLC, etc.)
- Would you consider yourself a leader?
- How have you used experiences from [this program] to grow as a leader?
- Looking ahead, what goals do you have for teaching?
- How has your experience in [this program] shaped/inspired your goals?
- How has [this program] helped you set goals?
- What are some successes you have had as a STEM teacher leader?

Social Capital and edTPA

- Looking back to your time as a student teacher, how do you see your experience completing edTPA?
- How would you describe the purpose of completing edTPA in your journey?
- What resources did you use to complete edTPA?
- How has edTPA informed your practice or been a resource for you since becoming a teacher?

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