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Original Paper

Raising Teacher Education Achievement: Strategic Supports That Improve Teacher Content Exam Success in a Texas HBCU Educator Preparation Program

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Abstract

Historically Black Colleges and Universities (HBCUs) are essential to expanding and diversifying the U.S. teacher workforce. This conceptual paper addresses how faculty members at a Texas-based HBCU Education Preparation Program addressed low teacher certification content exam pass rates by implementing three targeted strategies to support teacher candidates through certification. First, *Graduate Assistant Mentorship/Data Tracking* involved a graduate assistant who mentored students and systematically monitored their progress with required test preparation platforms. Second, *Increased Communication* strengthened messaging between the Certification Office, faculty, and students by utilizing course platforms and reminders to clarify certification timelines and testing expectations. Third, *Innovative Supportive Structures*, like study prep sessions, were developed to reduce test anxiety, build student self-efficacy, and offer consistent faculty check-ins and encouragement. These strategies, grounded in Bandura's theory of self-efficacy and Dweck's Mindset theory, helped students persist through certification challenges. Early results show significant improvement in certification outcomes, offering a replicable model for supporting teacher candidates at other HBCUs.

Keywords: Teacher Education, Education Preparation Program, Self-efficacy, Mentorship, Mindsets, teacher certification

Introduction

There is a severe teacher shortage within the United States (Cross, 2017). In 2017, the U.S. Department of Education shared that 40 out of 50 states report shortages in several subject matter areas—such as mathematics, science, and special education—and more than 30 states report shortages in several other fields, ranging from career technical education to bilingual education (U.S. Department of Education Office of Postsecondary Education, 2017). Post-COVID, these numbers have been exacerbated (Schmitt & deCourcy, 2022).

According to the 2022 National Center for Educational Statistics (NCES), 45% of the nation's public schools are operating with a teaching shortage. Schools that serve minority students are reporting issues; public schools in high-poverty neighborhoods had 57% teaching vacancies compared to public schools in low-poverty neighborhoods, whose vacancies averaged only 41%. Even more alarming, public schools with minority enrolment greater than 75% had teaching vacancies that exceeded 60% (NCES, 2022).

A common indicator of workforce shortages is the difficulty employers face in filling job vacancies. Each year, the American Association for Employment in Education (AAEE) surveys higher education institutions and school districts across the country. In the 2016–2017 survey, 69% of districts reported challenges in hiring qualified candidates (Sutcher et al., 2019).

Additionally, the need for a diverse workforce is increasingly important to reflect the student population. Historically Black Colleges and Universities (HBCUs) have been vital in addressing the need for a diverse workforce. HBCUs make up only 3% of the country's colleges and universities, yet they enroll 10% of all African American students and produce almost 20% of all African American graduates (uncf.org, 2023). This research is set at an HBCU in Texas tasked with developing an Educator

Preparation Program (EPP) that can produce qualified teachers who can also pass the Texas Education Agency (TEA) content and requirements to ensure certification is met upon graduation.

Educator Preparation Programs (EPPs) across Texas have established dedicated testing and certification offices within their institutions to support teacher candidates through the complex process of becoming certified educators. These offices provide essential services, including guidance on exam registration, preparation resources for TEA teacher education certification exams, and monitoring of candidates' progress toward meeting all state-mandated requirements. By offering individualized support and compliance oversight, certification offices play a critical role in ensuring that graduates are not only academically prepared but also fully qualified and officially certified to teach in Texas classrooms.

Clinical teaching is an essential capstone experience in EPP programs for teacher candidates (Gurl, 2019; Smalley, Retallick, & Paulsen, 2015; Steadman & Brown, 2011; Valencia, Martin, Place, & Grossman, 2009). Teacher residency programs are district-serving initiatives that combine a rigorous, full-year classroom apprenticeship with coursework. "Residency programs are partnerships among school districts, universities, and other stakeholders to prepare and retain effective teachers" (NCTR, 2018, p. 3). Modeled after medical education residencies, teacher preparation programs provide residents with a strong foundation in the theory of effective teaching and through practice.

In the fall 2022 semester, only one out of twelve students in our Educator Preparation Program (EPP) courses passed the TEA content exam. This alarmingly low pass rate placed the EPP at risk of losing its ability to certify future candidates, as each program is required to maintain at least an 85% pass rate across all certification areas to remain in good standing. Faculty were deeply concerned about the impact of these exam outcomes on teacher graduation rates, which directly contributed to a decline in the number of certified educators completing the program at this HBCU.

In response, one faculty member launched a pilot study in January 2023, after receiving IRB approval, to investigate the underlying reasons why students were struggling with the various TEA teacher certification content examinations. As part of this query, a graduate assistant was added to create a team to help track and monitor student progress, provide direct support, and ensure that students were better informed and prepared regarding testing requirements and procedures.

Over the past two years, additional faculty joined the research effort and, along with the graduate assistant, collaboratively developed test-taking strategies tailored for students who may lack strong content knowledge and experience high levels of test anxiety. To support this work, survey-based instruments were created to collect and analyze data. The primary focus was to understand how students internalize both the test preparation and testing process, enhance the effectiveness of preparation initiatives offered to them, and systematically track candidate outcomes across semesters. As the study progressed, the central research question that emerged was: *how do testing protocols and strategies influence student throughput in an HBCU's Educator Preparation Program (EPP)*?

Purpose of the paper

This conceptual paper explores the urgent challenge of teacher certification requirements, particularly as they affect pre-service teachers at an HBCU. As the nation continues to grapple with a persistent teacher shortage, HBCUs play a vital role in producing certified educators who are often more likely to serve in diverse urban and rural schools and communities. However, many teacher candidates at these institutions face systemic barriers, including gaps in prior content knowledge and elevated test anxiety, which can hinder their success on high-stakes certification exams.

The purpose was to examine and document the intentional strategies developed by faculty and a graduate assistant at an HBCU Educator Preparation Program (EPP) to support candidates in meeting these certification requirements. These strategies were developed directly in response to student feedback about their readiness and test performance. They include collaborative test-taking interventions, the development of targeted survey instruments, and the implementation of a semester-based matrix to track candidate outcomes.

To frame the inquiry, Bandura's (1995) theory of self-efficacy is used to understand how testing systems influence candidates' confidence and performance. Dweck's (2006) Mindset theory further

provides a lens for analyzing the cognitive and emotional shifts needed to develop resilience and persistence through the testing process. Together, these frameworks offer a deeper understanding of how structured support and psychological readiness can shape student throughput in an HBCU's EPP.

Strategies

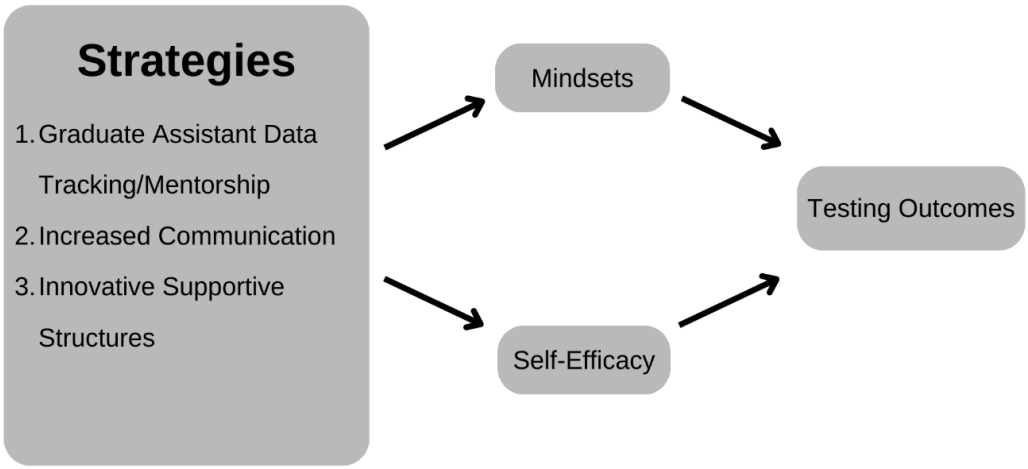

Figure 1. Designed by Abigail Bradshaw

Based on extensive meetings and informal discussions with students who were successful and the many who were not successful, the following strategies emerged:

1. ***Graduate Assistant Data Tracking/Mentorship*****:** Graduate Student working with all students-mentoring and data tracking of the study preparation materials required to move to testing.

2. ***Increased Communication*****:** Increased Communication with GA and Students /and with Faculty, Students and Certification Office providing emphasis on the timeline for certification examinations.

3. ***Innovative Supportive Structures*****:** Innovative Faculty and Departmental Supportive Structures to increase the content certification examination pass rate.

The following background section offers a concise, yet meaningful overview of the history of teacher education, with a focus on the foundational and ongoing role of Historically Black Colleges and Universities (HBCUs) in preparing educators for underserved and high-need communities. Building on this historical context, the next section introduces the theoretical framework guiding this research—Bandura's (1995) work on self-efficacy interwoven with Dweck's (2006) Mindset theory. These frameworks are used to contextualize the psychosocial factors that influence teacher candidates' experiences, particularly as they confront the challenges of certification exams and program expectations.

Finally, the paper expands on the three targeted strategies that were implemented over a two-year period within an HBCU Educator Preparation Program. These strategies are offered as promising, evidence-informed approaches that other institutions—particularly those serving underrepresented populations—can adopt to strengthen teacher candidate preparation, persistence, and success.

Background Information

History of Teacher Education Programs

Teacher education in America began in the colonial period, and its primary purpose was to prepare individuals to teach basic literacy and religious instruction. The earliest schools were often church-affiliated, and teachers were typically trained through apprenticeships rather than formal education programs (Johnson, 2017). The 19th century saw the establishment of normal schools, which

were designed specifically to train teachers. The first normal school in the U.S., the Lexington Normal School in Massachusetts, was founded in 1839 (Johnson, 2017). These institutions focused on pedagogical methods and subjects relevant to teaching.

Today, EPPs are designed to assist pre-service teacher candidates in completing teacher educator programs and certification (TEA, 2023). Those who are seeking to become certified teachers in Texas must obtain a bachelor's degree from an accredited college and complete an approved educator preparation program or EPP at the undergraduate or post-baccalaureate level. They are required to take and pass the chosen certification exam and complete a state application upon completion of the program. Historically, access to such programs was significantly limited for African Americans and other minority groups (Johnson, 2017). This created a need for Historically Black Colleges and Universities (HBCUs).

The Role of HBCUs

The history of teacher education in the United States is deeply intertwined with the broader social, political, and economic contexts in which it has evolved. Historically Black Colleges and Universities (HBCUs) have played a pivotal role in shaping teacher education, particularly for African American educators. HBCUs were founded to educate Black citizens when they could not attend white institutions (Stefon, 2023). They grew across the South, primarily providing agricultural and teacher training institutions. HBCUs emerged in the mid-19th century, primarily after the Civil War, as a response to the need for higher education among African Americans.

The first HBCU, Cheyney University of Pennsylvania, was established in 1837, followed by others like Howard University and Fisk University. These institutions were crucial in providing educational opportunities for African Americans who had been historically marginalized (USDE, 1991). Since their inception and considerable growth, they have significantly helped to produce the Black middle class (UNCF, 2023).

The faculty commitment at HBCUs requires unique strategies for advancing underrepresented and racially minoritized students (URM); therefore, they often exemplify a unique mentorship and willingness to go above and beyond what is expected of faculty. Mentorship offers benefits to young adults in college. These benefits include personal growth, providing space to share mentoring experiences, and guidance and feedback from experienced individuals (McDonald & Wilson-Mah, 2022). This is especially important for students preparing for high-stakes testing.

Theoretical / Conceptual Framework

Self-efficacy

Bandura's theory (1977; 1992; 1995) of self-efficacy emphasizes an individual's belief in their ability to perform tasks that lead to positive outcomes. This belief, shaped by cognitive processes, drives motivation, which increases with a stronger sense of self-efficacy. Motivated students are more likely to actively engage and participate in tasks. Bandura identifies four key sources of self-efficacy that enhance motivation: mastery experiences, vicarious experiences, social persuasions, and physiological and emotional states.

Mastery experiences are those via which the individual's mastery of a task is relative to the amount of effort that went into obtaining the mastery. Through this, "success builds a robust belief in one's personal efficacy. Failures undermine it, especially if failures occur before a sense of efficacy is firmly established" (Bandura, 1995, p. 3).

Vicarious experiences are those where the individual draws motivation from seeing someone similar to themselves succeed in a task. Competent models help transmit knowledge and teach observers effective skills and strategies to help them navigate the environment (Bandura, 1995).

Social persuasions are verbally affirming support received from others. Although this is important, the most significant is one's ability to self-affirm. Self-affirmation is important because when there are no other social persuasions, the individual must be able to persuade themselves. If not, "people who have been persuaded that they lack capabilities tend to give up quickly in the face of difficulties"

(Bandura, 1995, p. 4).

Physiological and emotional states is the final source of self-efficacy. That is, if someone holds negative beliefs about a task or experience, then their belief will lower their sense of self-efficacy. They will tend to resist the task or experience. Conversely, those with a positive mood or outlook regarding the task or experience are more likely to hold positive beliefs that increase their sense of self-efficacy. Those beliefs will likely increase their motivation. Bandura (1977) also asserts that people tend to avoid activities that they believe they are incapable of accomplishing. For teacher candidates in this EPP, this may mean that as they see they are not successful based on the test preparation/practice software, the social persuasions may not be enough to counter their self-efficacy through their mastery experiences.

Mentorship opportunities that allow students to work together in support groups foster a sense of belonging and social persuasive experiences as a form of motivation (Bandura, 1995). These experiences help to build the self-efficacy of students that can result in positive academic outcomes. Working with URM requires models of mentorship that are transformative (Brown, N., & Montoya, C., 2020). For example, Palmer et al. (2009) highlights the PACE (Pre-Accelerated Curriculum in Engineering) program, designed to help incoming engineering freshmen strengthen their math aptitude and critical thinking skills. This initiative provides students with access to peer tutoring, mentoring, and research skill development, fostering a supportive environment. The program has resulted in 80% of participants achieving the necessary qualifications to test directly into calculus and bypassing foundational math courses (Palmer et al., 2009). This success typifies the resourcefulness and commitment of HBCU faculty, who often address students' needs by creating support structures to scaffold learning, thus providing the educational support needed to be a viable catalyst to diversify workspaces (Cross, 2017; Feder, 2022).

Mindsets

The distinction between a gift mindset and a growth mindset is crucial for teacher candidates, especially in the context of test preparation. Mindset is the belief about oneself and one's ability to achieve; it lies on a spectrum ranging from a fixed mindset to a growth mindset (Dweck, 2016). A fixed mindset is the belief that your intelligence and abilities are fixed and cannot change, while a growth mindset is the opposite: your intelligence and abilities can change through your own efforts and the support of others (Dweck, 2016). Thus, a student's mindset will impact his or her ability to achieve in school and on their assessments. Fortunately, it is possible to change one's mindset from fixed to growth (Dweck, 2016), and within a school setting, the teachers have the power to motivate this change for students.

For teacher candidates preparing for certification exams, adopting a growth mindset is essential for developing self-efficacy, sustaining motivation, and navigating academic and emotional challenges. A growth mindset—the belief that intelligence and abilities can be developed through effort, strategies, and support—enables candidates to reframe failure and setbacks not as personal deficiencies, but as opportunities for learning and growth. This psychological shift is especially critical in high stakes testing environments, where anxiety and self-doubt can significantly undermine performance.

Within the context of EPPs, particularly those at HBCUs, this shift in mindset can be transformative. Many students may enter with varying levels of academic preparation and may have internalized negative narratives about their capabilities due to systemic inequities in K–12 education. By fostering a growth mindset, programs help students challenge these narratives, build resilience, and take ownership of their learning process.

When combined with increased self-efficacy, students' belief in their ability to succeed—this mindset becomes a powerful force for persistence and performance. Students are more likely to engage with test preparation proactively, seek support when needed, and approach certification exams with confidence. As a result, pass rates improve, and students are more likely to complete the program and enter the teaching profession content strong and TEA certified.

Structure and Strategies at Texas HBCU

At the HBCU EPP, specific courses are designated for students to begin the certification testing process in coordination with the Certification Office. Students typically enter these courses in their junior year, upon admission to the EPP.

As a supplement to these courses, students are required to engage with designated test preparation tools, including Certify Teacher and 240 Tutoring. To meet program benchmarks, they must earn a minimum score of 290 on the Certify Teacher practice exam and complete at least three practice tests in 240 Tutoring, with one score of 90% or higher. Students also track their study hours with faculty support, tailored to their specific content area.

In addition to testing, students must earn a grade of B or higher in each course and complete 15 hours of field observations. Once all TEA requirements are met, they receive approval to take the official content exam. Prior to 2024, all students had to pass the content exam to qualify to move into two senior-level courses before entering their final clinical teaching experience. Today, they can take the courses, but cannot enter clinical teaching, therefore, they graduate non-clinical/non certifiable by the EPP.

Strategies and Interventions Implemented

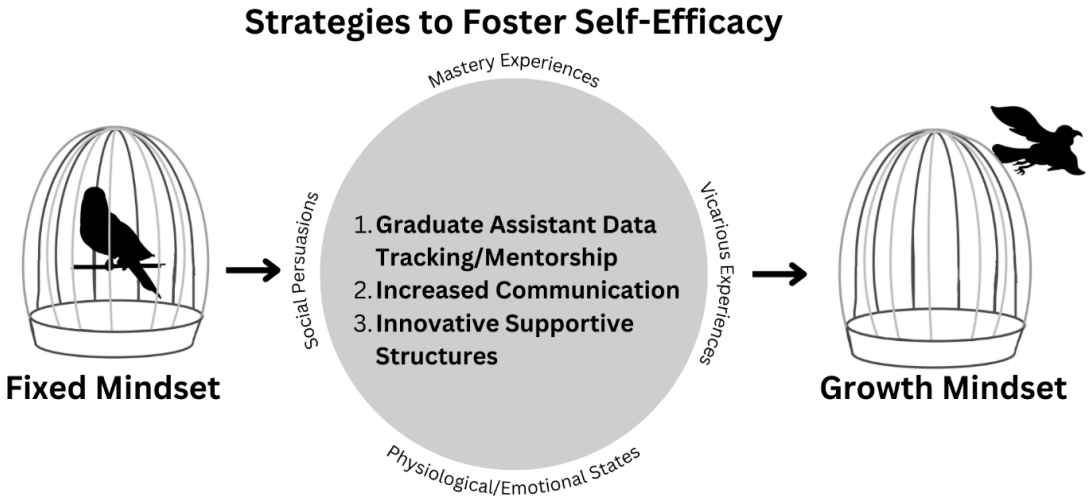

Figure 2. Designed by Abigail Bradshaw

Strategy 1: Graduate Assistant Data Tracking/Mentoring

A Graduate Assistant (GA) was funded through a grant secured by the lead faculty instructor of this initiative. The GA was involved in this research from its inception in Spring 2023. She was tasked with meeting the first cohort of 31 students and engaging in informal conversations after class to understand the types of support they felt were necessary. She was responsible for tracking and monitoring student progress using a spreadsheet that documented student progress with the two primary test preparation materials, Certify Teacher and 240 Tutoring. Throughout the semester, the GA collaborated with faculty researchers and other faculty members to analyze trends in student performance.

The spreadsheet tracked individual student progress based on their chosen content area, recording scores from Certify Teacher's content-specific testing and tracking engagement with 240 Tutoring study tools and practice tests. Students had the opportunity to take certification practice tests twice a month. While these opportunities were optional, students were required to achieve a score of 290 or higher on Certify Teacher to submit their packet to qualify for test approval.

The collected data included student identification, initial Certify Teacher baseline scores from October, all subsequent test scores, 240 Tutoring practice test scores, and study time logged both in-person and

online. Additionally, if students completed the Pearson $10 practice test, this was also documented in the spreadsheet. Figure 1 is an example of the spreadsheet and data that was tracked.

Explanation of Figure. 3.3 below

Certify Teacher column: the goal is **290** and the **240 Tutoring column:** the goal is a score of **90% or better** on one practice exam.

Certify Teacher Baseline (09/27/24)	Certify Teacher (10/05)	Certify Teacher (10/24-25)	Certify Teacher Nov(11/15 or 22	Certify TeachDec12	Certify TeachDec13	Certify Teach Study Time (hr:min)	240 Tutoring Test Scores	240 Tutoring Study Time (hr:min)
200		194	207 +15			33:47	76	8hr 44min
226			238 + 20	258		19:20	82	16hr 21min
208		236	216 +20	268		17:36	72	8hr 11min
?	222		218 +20			6:46	76	5hr 3min
237			244 +20		272	10:55	82	7hr 48 min
208		244	246			14:07	80	8hr 5min
ELAR:206 Math:210 SS:185 SC:193 FAHPE:210			not passed	NP	NP	26:34	96sc 88pe 88ss	60hr 13
ELAR:233 Math:210 SS:230 SC:211 FAHPE:235		ELAR:233 Math:210 SS:230 SC:211 FAHPE:235	not passed	NP		43:11	79	3hr 57min
ELAR:215 Math:240 SS:220 SC:224 FAHPE:200			not passed			74:47	73ss 98m	21hr 51 min
	not passed					19:39	DNT	DNT
ELAR:193 Math:230 SS:190 SC:211 FAHPE:215			not passed	NP	NP	11:16	93s90ss93PE	18hr 29min
225		252	272	276		19:39	82	22hr 11 min
?	202		252		242	18:44	14	16hr 43 min
165			177		194	4:30	DNT	9hr 29 min
185	207			212	212	9:15	82	3hr 56 min
190			220	222		5:32	82	8hr 31 min
DNT	217					2:38	Music	Music

Figure 3. Test Progress Monitoring Spreadsheet

Through vicarious experiences, provided by the study sessions, students' self-efficacy seems to have increased. Through her informal conversations, individualized tracking, and consistent engagement with students, the GA helped create a supportive environment where students felt seen, heard, and guided through their certification preparation journey. By systematically monitoring student progress using Certify Teacher and 240 Tutoring, the GA helped demystify the testing process. Regular updates on students' strengths and areas needing improvement enabled them to track their own growth and better understand where to focus their efforts. The involvement of a dedicated Graduate Assistant (GA) played a pivotal role in fostering increased self-efficacy that positively impacted a shift toward a growth mindset among teacher candidates.

This ongoing feedback loop—combined with opportunities to reflect on their study habits and performance—enabled students to reframe challenges as surmountable and build confidence in their ability to succeed. The clear benchmarks for progress (e.g., scoring 290 or higher to move forward) gave students tangible goals, reinforcing their sense of agency. As students witnessed their own growth through rising test scores and deeper engagement with study tools, many began to adopt more positive beliefs about their learning potential. This structured support system ultimately contributed to a psychological shift: from test anxiety and self-doubt to a mindset grounded in resilience, self-belief, and proactive effort.

Strategy 2: Increased Communication

One of the primary challenges faced by this EPP was the disconnect between faculty teaching the courses, students enrolled in them, and the Certification Office (CO). The CO regularly sent emails to students regarding testing requirements and available support, but many students either overlooked these emails or did not recognize their importance. As a result, they often failed to prioritize communications from the CO, leading to missed opportunities and confusion about certification requirements.

To address this issue, the GA was tasked with resending all CO emails to students through the digital course platform. Every email received was either forwarded or its key information was reposted to ensure visibility. By Spring 2023, this intervention eliminated student claims of not receiving important messages, as all communications were sent at least twice. Additionally, for emails regarding upcoming

testing dates, the GA provided reminders and verified that students had signed up for their required exams.

Initially, a joint course was created to allow faculty to communicate collectively with students and track their progress through test preparation portals. However, this approach was later revised, and faculty members were instead added to each other's courses for better coordination and oversight.

This increased communication and mentorship structure significantly improved student engagement. The Graduate Assistant (GA) became a key support figure whom students felt comfortable approaching for guidance, often serving as a bridge between faculty, the Certification Office, and the students. While students were sometimes hesitant to ask faculty direct questions, often due to fear of judgment or academic intimidation, they viewed the GA as more accessible and approachable, reinforcing the importance of peer-based support in the certification process.

The GA's mentorship extended beyond logistical support; it included encouragement, emotional check-ins, and personalized accountability. Students were reminded not only of deadlines and expectations, but also of their own potential. Through regular conversations, review sessions, and informal check-ins, the GA cultivated a sense of trust and consistency that students deeply valued. This mentorship model helped reduce feelings of isolation, normalized academic struggle, and created a safe environment where students could ask questions, reflect on their progress, and build confidence. As a result, students remained more engaged, proactive, and motivated throughout the certification process, highlighting the essential role of mentorship in fostering persistence and success among underrepresented teacher candidates.

Student Survey

During the first month of the semester, in an early meeting with the cohort of 31 students, the GA facilitated an anonymous Q&A activity using Post-it notes where students could share their needs and concerns regarding the testing protocols. Without the faculty instructor present, students were asked to write down two questions they had at that moment. Interestingly, every student submitted at least two questions, and some felt comfortable adding more. This activity provided valuable insight into student concerns and highlighted the importance of creating a space where they felt free to express their uncertainties.

Here were some of the questions asked:

- What is the best method to study?
- What are some extra study materials we can use?
- Why is the COE (College of Education) score required so high if the state requires 240? (more than five students asked this one)
- What do I need to do to pass my test?
- Math student: Is the calculator used in the practice test the same as the real (TEA) exam?

As an Exit ticket to end the class meeting the GA asked: *What three things have you learned so far*?

Here is a summary of their responses:

- *We must attend review sessions*
- *We must pass the content exam to enter the final two courses before clinical teaching.*
- *The Certify Teacher and 240 Tutoring programs will help us pass the content exam.*

This cohort of 31 students embraced the structured support system and found success. Initially, only 31% were on track to graduate by May 2024. However, by December 2024, 15 out of 31 students (48%) had graduated fully certified. This outcome highlighted the diverse challenges students faced—some needed additional time to strengthen their content knowledge, others navigated personal and family challenges, and one student who had already passed the content examination chose to take a semester off before graduating in December.

These findings underscore the complexities of balancing college coursework with the additional demands of certification examinations. The mentorship component proved to be a critical factor in student persistence and success, reinforcing the importance of structured guidance and individualized support throughout the certification process. For the Fall 2024, this data proved helpful and became a pillar for the following strategy.

Strategy 3: Innovative Supportive Structures

The HBCU EPP faculty recognized that a major challenge for teacher candidates was not only mastering content, but also managing the stress and anxiety associated with certification testing. For many students, passing the content exam represents a pivotal step toward achieving their lifelong dream of becoming a teacher. Fear of failure often leads to increased anxiety, which can undermine performance and motivation.

Drawing from Bandura's (1995) theory of self-efficacy and the importance of psychological support to shift mindsets (Dweck, 2006), faculty understood the importance of regular encouragement, check-ins, and responsive support systems to boost students' belief in their ability to succeed. These "pulse checks" help faculty recognize when deadlines, emails, or personal challenges are affecting students' readiness and performance.

In this section, we offer four specific innovative strategies used at Texas HBCU supported by the department's EPP.

Panther Teaching Academy (PTA): A Growth Mindset Model

Before 2022, the Panther Teaching Academy (PTA) was established through a collaboration between the Colleges of Education and Arts and Sciences (Sande, & Burnett, 2022). This incentive-based program, taught by content area specialists, focused on structured test preparation and was supported by the Summer Bridge Program, which covered student tuition for test prep courses in math, science, and social studies.

The PTA was designed to do more than deliver content—it helped students build a *growth mindset*, the belief that abilities can improve with effort, strategies, and support (Dweck, 2006). Through this model students engaged in effective study and test-taking strategies and developed resilience. These mindset shifts helped reduce anxiety and empowered students to register for and take their content exams immediately upon completing the summer courses.

This initiative is particularly critical in addressing national disparities in teacher representation. While fewer than 20% of teachers are from minority backgrounds and only 2% are Black males (Whitfield, 2019), programs like the PTA help diversify the educator pipeline by offering targeted mentorship, support structures, and equity-focused pathways into certification.

The Power of Role Models: Guest Speakers offer Vicarious Experiences

To further enhance self-efficacy, another faculty member invited guest speakers, often former students or teachers with similar backgrounds, to share personal experiences of overcoming test-related setbacks. As Bandura (1977) explains, vicarious experiences and social persuasion are powerful influences on belief and motivation. One speaker, a former student who had failed courses, repeated courses, but ultimately had earned a master's degree, shared practical test-taking strategies, relatable study routines, and a powerful message: *"If I can do it, you can too."* His story, combined with his current success as a teacher, entrepreneur, and social media influencer, deeply resonated with students. This exposure to success stories sparked new levels of hope and motivation.

Students' reactions—lining up to shake hands, take photos, and ask questions—reflected a genuine mindset shift. These interactions demonstrated how seeing someone who looks like them and has walked a similar path can dramatically boost belief in one's own potential.

Peer Collaboration: Pizza, Pop, and Study Prep (PPSP) Sessions

In Fall 2024, faculty launched a new pilot: **Pizza, Pop, and Study Prep** (PPSP) sessions. Designed as engaging, small-group study events that meet after the last cohort course. These sessions brought

students together in content-specific subgroups for guided peer learning and direct faculty support.

Students signed up for two-hour sessions held after class, where they:

- Completed Certify Teacher study trackers
- Reviewed progress in 240 Tutoring
- Received reminders of TEA testing protocols and timelines
- Earned certificates of participation to submit to the Certification Office

The Fall cohort included 20 students across Early Childhood, English Language Arts, Physical Education, Music, and Health Education. Attendance rates were strong: 78% in Week 1 and 94% in Week 2.

Post-session surveys highlighted the impact:

Student 1: *"Thank you for allowing us to work collaboratively to get a better understanding!"*
Student 2: *"It made me realize the COE staff actually want us to succeed."*
Student 3: *"The test prep motivated everyone to work together."*
Student 5: *"I liked how I was able to break apart questions with my peers."*

The introduction of the *Pizza, Pop, and Study Prep (PPSP)* sessions in Fall 2024 marked a significant step in reinforcing both self-efficacy and growth mindset among teacher candidates. These content-specific, peer-supported study events provided structured opportunities for students to actively engage with test preparation tools, reflect on their progress, and receive direct guidance from faculty. High attendance rates and positive student feedback indicated a growing sense of confidence and motivation. By working collaboratively, students not only deepened their content knowledge but also developed a stronger belief in their own ability to succeed. The sessions fostered a supportive learning environment that emphasized effort, persistence, and peer accountability—key elements in promoting a psychological shift from anxiety and self-doubt to a mindset rooted in resilience and academic ownership.

Student Self-Support Structures: Peer Mentorship and Digital Communities

Beyond the structured, faculty-led programming, teacher candidates organically developed self-sustaining peer support systems that further strengthened their academic resilience and confidence. Utilizing platforms such as GroupMe and Facebook, students formed collaborative study groups where they shared resources and held one another accountable. These informal networks extended learning beyond the classroom, fostering a sense of community and mutual encouragement throughout the certification process.

Notably, students who had already passed their certification exams voluntarily stepped into mentorship roles, offering support and firsthand insight to those just beginning the journey. Some came and spoke to the class or stayed after for the study sessions. These peer mentors helped demystify testing protocols, shared effective study strategies, and modeled perseverance, serving as relatable sources of guidance and inspiration.

This student-led support structure aligns with Bandura's (1977) theory of self-efficacy, which highlights mastery experiences, vicarious learning, and social persuasion as key contributors to motivation and belief in one's capabilities. Through witnessing peers succeed and receiving encouragement from those who had "been there," candidates gained a deeper belief in their own potential. These interactions not only built academic confidence but also reinforced a growth mindset—promoting the idea that success is attainable through effort, strategy, and support. In essence, these peer-led efforts created a culture of shared accountability, empowerment, and optimism that complemented formal interventions and helped normalize the challenges of certification preparation.

Conclusion

This conceptual paper presents targeted strategies designed to improve certification exam pass rates among teacher candidates enrolled in a Texas-based Educator Preparation Program (EPP) at a Historically Black College and University (HBCU). Grounded in Texas Education Agency (TEA)

accountability standards, these strategies position certification exam performance not only as a regulatory requirement but as a key indicator of teacher education program quality and candidate readiness. By aligning programmatic support with TEA certification expectations, the EPP strengthens candidate achievement, increases certification throughput, and enhances the preparation of effective educators for Texas classrooms. The paper further underscores the critical role of HBCU-based EPPs in addressing the national teacher shortage by expanding access to certification for underrepresented and racially minoritized candidates who often encounter systemic barriers throughout the licensure pathway.

Grounded in Bandura's (1995) theory of self-efficacy and Dweck's (2006) mindset theory, the paper explores how test anxiety, low academic confidence, and emotional stress can hinder student progress and program completion. In response to these challenges, the program implemented three core strategies: (1) a Graduate Assistant-led mentorship and data tracking system; (2) increased communication and coordination between students, faculty, and the Certification Office; and (3) innovative support structures including content-specific study sessions, guest speakers, and peer mentoring networks. These interventions provided both academic and emotional scaffolding, enabling students to strengthen their study habits, build resilience, and improve their performance on certification exams.

By fostering confidence, motivation, and persistence, these strategies demonstrate the potential for HBCUs to build sustainable, lasting EPPs that contribute to the production of content strong TEA certified graduates. This model offers valuable insights for institutions seeking to improve teacher certification outcomes to address the need of an educator workforce that is skilled to better serve the evolving needs of America's classrooms.

References

240 Tutoring (n.d.). *TExES Test Study Guides and Test-Prep*. Retrieved March 13, 2025, from https://www.240tutoring.com/texes/

Bandura, A. (1977). Self-efficacy: toward a unifying theory of behavioral change. *Psychological Review, 84*(2), 191–215. https://doi.org/10.1037/0033-295X.84.2.191

Bandura, A (1992). Exercise of personal agency through the self-efficacy mechanism. In R. Schwarzer (Ed.), *Self-Efficacy: Thought Control of Action* (pp. 3–38). Taylor & Francis. https://doi.org/10.4324/9781315800820

Bandura, A. (1995). *Self-Efficacy in changing societies.* Cambridge University Press.

Brown, N. E., & Montoya, C. (2020). Intersectional mentorship: A model for empowerment and transformation. *PS: Political Science & Politics, 53*(4), 784–787.

Certify Teacher (n.d.). *Texas Teacher Performance Assessment*. Retrieved on March 13, 2025 from https://www.certifyteacher.com/products/list/texas?gad_source=1&gclid=Cj0KCQjw4cS-BhDGARIsABg4_J0Cp55lyCd9E7X6qknUWautBnN4U_tldPdulOlhmvQa4aunm_NE_u0aAsZ7EALw_wcB

Cross, F. (2017, May). *Teacher shortage areas: Nationwide listing 1990-1991 through 2017-2018*. U.S. Department of Education, Office of Postsecondary Education. https://www2.ed.gov/about/offices/list/ope/pol/bteachershortageareasreport201718.pdf

Dweck, C. S. (2006). *Mindset: The New Psychology of Success*. Random House.

Feder, T. (2022, March). The US is in dire need of STEM teachers. *Physics Today, 75*(3), 25–27. https://doi.org/10.1063/PT.3.4959

Gurl, T. (2019). Teacher preparation and the capstone clinical experience: An examination of candidates' teaching readiness. *Teacher Education Quarterly, 46*(1), 41–60.

Johnson, D. W., & Johnson, R. T. (2017). The use of cooperative procedures in teacher education and professional development. *Journal of Education for Teaching, 43*(3), 284–295.

McDonald, M., & Wilson-Mah, R. (2022). The role of mentorship in internships. *Papers on Postsecondary Learning and Teaching, 5*, 42–50.

NCES, (n.d). Projections of Education Statistics to 2030. *National Center for Education Statistics*. https://nces.ed.gov/programs/PES/section-1.asp

National Center for Teacher Residencies. (2018). *Building effective teacher residencies*. https://nctresidencies.org

Palmer, R. T., Davis, R. J., & Hilton, A. A. (2009). Exploring challenges that threaten to impede the academic success of academically underprepared Black males at an HBCU. *Journal of College Student Development, 50*(4), 429–445.

Sande, B., & Burnett, C. S. (2022). *The triage implementation framework for continuous improvement in educator preparation programs.* In B. Sande, & C. Kemp (Eds.), *Collaborative Models and Frameworks for Inclusive Educator Preparation Programs* (pp. 14–31). IGI Global. https://doi.org/10.4018/978-1-6684-3443-7.ch002

Schmitt, J., & deCourcy, K. (2022, December 6). The pandemic has exacerbated a long-standing national shortage of teachers. *Economic Policy Institute*. https://www.epi.org/publication/shortage-of-teachers/

Smalley, S. W., Retallick, M. S., & Paulsen, T. H. (2015). Cooperating teachers' perspectives of student teaching skills and deficiencies. *Journal of Agricultural Education, 56*(4), 13–26.

Stefon, M. (2023, August 14). Historically Black Colleges and Universities. Encyclopedia Britannica. https://www.britannica.com/topic/historically-black-colleges-and-universities

Sutcher, L., Darling-Hammond, L., & Carver-Thomas, D. (2019). Understanding teacher shortages: An analysis of teacher supply and demand in the United States. *Education Policy Analysis Archives, 27*(35).

Steadman, S. C., & Brown, S. D. (2011). Defining and describing teacher leadership. *Professional Educator, 35*(1), 1–10.

UNCF. (2023, July 23). The impact of HBCUs on diversity in STEM fields. *UNCF*. https://uncf.org/the-latest/the-impact-of-hbcus-on-diversity-in-stem-fields

Valencia, S. W., Martin, S. D., Place, N. A., & Grossman, P. (2009). Complex interactions in student teaching: Lost opportunities for learning. *Journal of Teacher Education, 60*(3), 304–322.

Whitfield, C. T. (2019, January 29). Only two percent of teachers are black men, yet research confirms they matter. *The Undefeated*. https://theundefeated.com/features/only-two percent-of-teachers-are-black-men-yet-research-confirms-they-matter/