



2-28-2022


## Structured Pathways, Reinforced Plans: Exploring the Impact of a Dual Enrollment Program on the College Choice and Career Interests of Future Teachers of Color

Jennifer M. Johnson  
*Temple University, jmjohnson@temple.edu*

Joseph H. Paris  
*Temple University, paris@temple.edu*

Juliet D. Curci  
*Temple University, juliet.curci@temple.edu*

Follow this and additional works at: <https://scholarworks.wmich.edu/jca>

 Part of the Higher Education Administration Commons, Scholarship of Teaching and Learning Commons, Social and Philosophical Foundations of Education Commons, Teacher Education and Professional Development Commons, and the University Extension Commons

### Recommended Citation

Johnson, Jennifer M.; Paris, Joseph H.; and Curci, Juliet D. (2022) "Structured Pathways, Reinforced Plans: Exploring the Impact of a Dual Enrollment Program on the College Choice and Career Interests of Future Teachers of Color," *Journal of College Access*: Vol. 7 : Iss. 1 , Article 6.  
Available at: <https://scholarworks.wmich.edu/jca/vol7/iss1/6>

This Article is brought to you for free and open access by the Western Michigan University at ScholarWorks at WMU. It has been accepted for inclusion in Journal of College Access by an authorized editor of ScholarWorks at WMU. For more information, please contact [wmu-scholarworks@wmich.edu](mailto:wmu-scholarworks@wmich.edu).



# Structured Pathways, Reinforced Plans: Exploring the Impact of a Dual Enrollment Program on the College Choice and Career Interests of Future Teachers of Color



Authored by  
Jennifer M. Johnson (*Temple University*)  
Joseph H. Paris (*Temple University*)  
Juliet D. Curci (*Temple University*)

## ABSTRACT

In response to the critical shortage of a diverse teacher workforce, Temple Education Scholars is a “Grow Your Own” dual enrollment program model designed to promote access to postsecondary education and educator diversity. Grow Your Own programs have frequently been cited as a promising and potentially sustainable model for addressing the disparity between the racial identifications of students and those of their teachers. Using social cognitive career theory, we explore how three participants in the Temple Education Scholars program develop academic and career interests in teaching and make educational choices related to their career aspirations. Following case study analysis, we illustrate how three participants with interests in teaching described what attracted them to the program, how the program supported their college and career aspirations, and their visions for careers in education.

**Keywords:** teacher education, dual enrollment, college access, career readiness, social cognitive career theory

Postsecondary education serves as a primary vehicle for promoting social and economic mobility and meeting national goals of degree productivity, civic participation, and workforce development (Ma et al., 2016; Zumeta et al., 2012). For the United States to achieve the level of educational attainment required for workforce readiness and international competitiveness, disparities in higher education degree attainment that persist across demographic groups need to be

addressed (Perna & Finney, 2014). Access to postsecondary education is of particular importance for minoritized and special needs populations that have historically been excluded from educational opportunities. The field of higher education must also grapple with barriers experienced by minoritized students as they pursue their educational and career goals. For example, scholars have noted the difficulties associated with the early identification of academically talented students with an interest in teaching (Bianco et al., 2011; Carver-Thomas, 2018). Disinterest in teaching and other barriers to degree completion (e.g., testing standards, field placement requirements, lack of mentorship) can result in low levels of representation of people of color employed as teachers (Carver-Thomas, 2018). For example, only 6.0% of public school teachers in the Commonwealth of Pennsylvania are people of color compared to a public school student population of 35.8% people of color (Shaw-Amoah et al., 2020). Pennsylvania ranks near last nationally in the percentage of educators of color (Fontana & Lapp, 2018). While there are many reasons for the current disparity in representation in the racial backgrounds of



## Structured Pathways, Reinforced Plans

teachers in Pennsylvania, there are opportunities to increase the number of teachers of color by establishing postsecondary education initiatives that provide early exposure to teaching and meaningfully guide students to and through teacher-pathway programs. Initiatives that support people of color to pursue teacher education degree pathways can be effective interventions for diversifying the teacher workforce (Bianco et al., 2011).

Researchers who demonstrate concern for the representation of people of color in teaching have studied the recruitment of people into the profession through intentional pathway programs that engage students while enrolled in high school (Bianco et al., 2011).

Additionally, research that focuses on dual enrollment shows positive impact for students (An, 2013; Hughes et al., 2012; Lile et al., 2017). However, few models combine early exposure to careers in teaching with opportunities for students to complete college-level courses while enrolled in high school. In response, we address the gaps in understanding the potential of dual enrollment programs in guiding students' career exploration. Specifically, we illustrate how dual enrollment program participants with interest in teaching describe what attracted them to the program, how the program supported their college and career aspirations, and their visions for careers in education.

## Literature Review

### College and Career Readiness

Prospective undergraduate students are often concerned about investing in postsecondary education to attain career goals (Wambu et al., 2017). Initiatives that strategically structure programs for students from marginally resourced school districts may have a significant impact on the educational and career trajectory of "at promise" students (Hughes et al., 2012). Two approaches to support college and career readiness are early outreach and dual enrollment programs.

### Grow Your Own Early Outreach Programs

Grow Your Own (GYO) early outreach programs are one of several possible strategies for addressing the critical teacher shortage and the teacher diversity gap (Goings et al., 2018). A review of the literature on various teacher pools (e.g., middle and high school teachers, paraprofessionals, community activists, parents, mentors) over the continuum of teacher development (i.e., recruitment, preparation, induction, and retention) found that GYO programs offer a promising model for the recruitment of teachers of color (Gist et al., 2019). Many early outreach programs are designed to recruit high school students into the teacher workforce, but not all focus specifically on recruiting students of color (Gist et al., 2019). One such model is situated within the high school setting and constitutes a series of courses taught by the high school faculty within a "Teacher Academy" concentration or

## Structured Pathways, Reinforced Plans

program of study. In this model, students are introduced to topics in teaching and learning, often with a focus on the early childhood years, throughout a sequenced series of courses in which students participate as a cohort. There is typically a field experience or practicum component to students' later courses in the program in which students shadow or provide support for teachers and students in classrooms at earlier grade levels in the school district (Council of Great City Schools, 2000). The limitations of such programs, like many other high school career academies, are that they often are not directly connected to post-secondary educational pathways into teaching majors at local colleges or universities; either college credits are not available for the high school coursework that students complete within the academy or there are no formal recruitment, admissions, or scholarship opportunities made available to students who successfully complete the academy (Kemple & Snipes, 2000). Though Teaching Academy programs are not typically exclusive to students of color, increasingly, programs with interest in recruiting students of color into teaching have adopted messaging and curricula grounded in social justice. Appealing to students' desires to make a positive impact, address injustice, and present culturally relevant content and pedagogy has been effective for gaining students' interest in such early exposure opportunities (Bianco, et al., 2011).

### Dual Enrollment

Dual enrollment (also referred to as dual credit or concurrent enrollment) has become a strategy for providing high school students with access to postsecondary education (Karp & Hughes, 2008). By completing college coursework while in high school, students can experience the rigor of college coursework, pace of class schedules and assignments, and situations in which social and self-advocacy skills are needed to effectively communicate with peers and faculty. Moreover, students can benefit from the potential savings of time and money if the credits earned transfer to their future college degree program. Dual enrollment opportunities vary in several ways: the settings in which courses are taught (i.e., high school or college campus); the instructor of the course (high school teacher or college faculty member); and the value of the college credits earned toward high school requirements (i.e., elective courses, core courses, or non-credit; Karp & Hughes, 2008). Often the dual enrollment opportunities available to students are not linked to a specific college or career pathway for students, and the transferability of credits earned to a student's future degree program of interest is highly variable (Corin et al., 2020). A recent study found that students are more likely to continue their interest in the STEM career field when exposed to STEM-related dual enrollment courses while in high school (Corin et al., 2020). For high school students whose parents or guardians, school, or school district cover the cost of tuition, fees, and books, completing a dual enrollment

## Structured Pathways, Reinforced Plans

course can be financially worthwhile. However, programs that lack intentional structure and supports may be unable to help students realize the maximum benefits of the experience such as the development of a strong college academic record and high academic self-efficacy.

### Temple Education Scholars

Combining GYO and dual enrollment approaches, the Temple Education Scholars (TES) program provides School District of Philadelphia high school seniors with college admissions application guidance and the opportunity to complete up to 15 credits of college coursework instructed by Temple University faculty on its main campus. Informed by scholarship and practice, TES was intentionally designed to include components that cultivate participants' academic and career interests. These components include structured course taking, near-peer mentorship from current undergraduate students, college admissions and scholarship application submission guidance, and a cohort-based community environment (Johnson et al., 2021).

TES participants complete five college courses in education that count toward the school district's high school graduation requirements and the baccalaureate degree requirements at Temple. TES is free to participants and is funded by Temple University's College of Education and Human Development and the School District of Philadelphia. The long-term objective of TES is for participants to return to

the school district as teachers upon earning a bachelor's degree.

As practitioners, researchers, and policymakers seek information about strategies for recruiting and retaining people from diverse backgrounds in a college and career pathway focused on teaching, a study focused on how students on that pathway describe their aspirations could inform the development, modification, or expansion of efforts to increase the number of people of color who pursue careers in teaching. The desire for this critical information resulted in the study described herein. The current study is guided by the following research questions:

*How do Temple Education Scholars participants develop academic and career interests in teaching?*

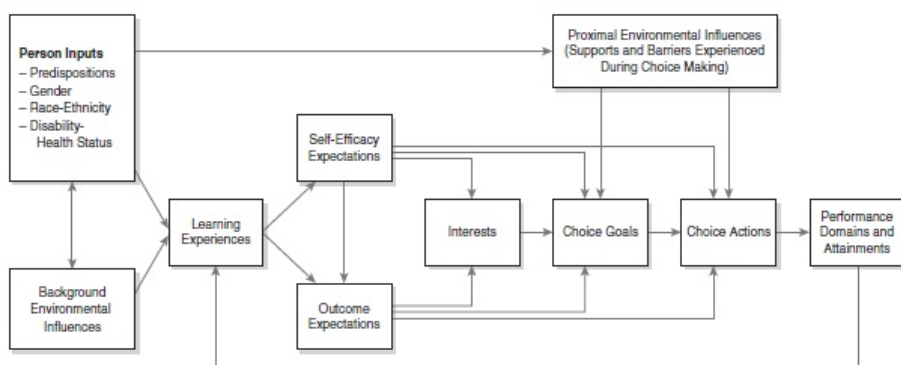
*How do Temple Education Scholars participants make educational choices related to their career aspirations?*

### Theoretical Framework

Drawing upon earlier career development theories, Lent et al. (1994) developed the Social Cognitive Career Theory (SCCT) to explain three interrelated models of career development: (1) how academic and occupational interests develop, (2) how educational and career choices are made, and (3) how academic and career success is obtained (Lent & Brown, 2006, 2008; see Figure 1 on page 59). Lent and Brown (2006) added a fourth overlapping model to understand educational and vocational

## Structured Pathways, Reinforced Plans

Figure 1.  
*Social Cognitive Career Theory Model*



Adapted from Lent et al. (1994)

satisfaction and well-being. Using general social cognitive theory (Bandura, 1997) as a unifying framework, SCCT integrates a variety of factors (e.g., abilities, personality, environmental context) to address the content and processes related to the formation of career interests and selection of academic choices. The model also helps explain the potential conditions that promote or inhibit pathways to career success. SCCT is based on three interrelated variables: self-efficacy (an individual's beliefs about their capabilities to perform in a particular situation), outcome expectations (an individual's beliefs about the consequences of performing certain behaviors), and goals (an individual's intentions to engage in a particular activity or attain a particular level of performance; Lent & Brown, 2013). Interests in career-relevant activities (e.g., pursuing a given academic major that leads to a specific career outcome) and the career choice process are functions of self-efficacy and outcome expectations (Lent & Brown, 2013).

SCCT emphasizes that educational or career goals may be influenced more directly and impactfully by self-efficacy beliefs, outcome expectations, or environmental conditions, rather than by interests alone. SCCT is an ideal framework for the current study because it focuses on both the content (e.g., the types of educational and vocational opportunities people are inclined to pursue) and process (e.g., how people make career-related decisions, navigate the transition from school to work, and pursue personal goals) of career development under a variety of environmental conditions (Lent & Brown, 2013).

### Methodology

We used a descriptive case study design (Yin, 2003) to explore the development of participants' career interests and their educational choices in pursuit of these interests. This methodological approach allowed us to generate an in-depth understanding of a complex issue within the context of participants' experiences. Descriptive case studies are used to illustrate an intervention or phenomenon in the natural context in which it occurred (Yin, 2003). In this analysis, each study participant is a case bounded by their experience in TES. To generate the descriptions needed to understand our participants' perceptions of their experiences, we collected data by

## Structured Pathways, Reinforced Plans

conducting semi-structured interviews with students across the first three cohorts of TES (n = 24) between Spring 2018 and Spring 2021.

### Participant Recruitment and Selection

TES participants were recruited by the School District of Philadelphia as part of its “Senior Year Only Program” (SYOP) initiative, an opportunity for high school seniors to complete college and career preparatory experiences. Principals and school counselors were asked to invite all high school juniors to apply to a SYOP program. Interested students completed a brief online application and indicated their preferred program. On average, according to school district officials, between 25-30 students (of the 200-400 who submit SYOP applications) indicated TES as their preferred SYOP program. School district and Temple University College of Education and Human Development administrators reviewed the following information to select Scholars: the contents of their application, responses to short-answer essay questions, unweighted cumulative high school GPA (a minimum 3.2 GPA was required for admission), recent high school course grades, and high school attendance records. A total of 38 students participated in TES across three cohorts.

### Participants

All TES program participants were invited to engage in this research study to explore their experiences. Twenty-four agreed and engaged in semi-structured interviews with a member of the research team. Given the focus of our

study, we reviewed the data and identified nine participants who specifically articulated an interest in pursuing a career in education and decided to highlight three of their profiles. Each participant represents a unique case, illustrative of the potential of TES as a Grow Your Own early outreach initiative and dual enrollment program designed to promote pathways to careers in teaching for students from diverse racial, ethnic, socioeconomic, and academic backgrounds. The three participants from this subset, Morgan, Vinh, and Hawa (pseudonyms), attended three different Philadelphia public high schools. Morgan and Hawa attended “special admit” high schools while Vinh attended a “neighborhood” high school without admissions criteria. All participants self-identify as people of color. Specifically, Morgan and Hawa identify as African American and Vinh as Asian American. Vinh is also the only participant who identifies as a man. All are the first generation in their family to potentially earn a bachelor's degree.

### Data Collection and Analysis

We developed semi-structured interview questions that asked participants to reflect on the formation of their career aspirations, their personal qualities and capabilities that perceivably make them a “good teacher,” and their educational choices and actions in pursuit of their career aspirations. We asked guiding questions such as “What experiences have influenced your thoughts about becoming a teacher?” and “What factors shaped your decisions about applying to and

## Structured Pathways, Reinforced Plans

enrolling in college?” Semi-structured interviews were conducted by members of the research team via video conference technology. These meetings were electronically recorded, transcribed, and reviewed for accuracy.

We coded the transcript data to identify trends in the data, informed by the theoretical framework and literature on college and career readiness (Saldaña, 2021). We began with open coding to understand the data and develop insights within and across participants’ experiences. This process led to the decision to focus on three individuals uniquely suited to address the research questions. Next, we reengaged the data, using a priori codes derived from SCCT. We used SCCT to understand the types of experiences and activities that formed the basis of study participants’ educational and career interests and choice paths. We were also interested in whether person inputs (e.g., predispositions), background environmental influences (e.g., social or familial connections to teaching), and learning experiences (e.g., exposure to teaching through extracurricular involvement) influenced participants’ career interests, goals, and choices. We considered the proximal environmental influences (e.g., family, financial, and emotional support) that shaped participants’ adaptive behaviors and self-efficacy expectations. Given the pre-college nature of TES, we focused on the first three models of the SCCT framework (i.e., interests, goals, choices). This information was used to create case profiles and then cross

-case analyses of how TES participants develop academic and career interests in teaching and make choices related to their career aspirations.

### Researcher Positionality

As colleagues within the College of Education and Human Development at Temple University, we engaged with TES and the students in the program in different capacities since its inception. At the time of this writing, Dr. Curci serves as the Assistant Dean of College Access and Persistence. In this role, she is the lead administrator responsible for all aspects of TES, including participant recruitment and selection, curriculum development, and hiring and supervision of program staff. Drs. Johnson and Paris are assistant professors in Temple’s Higher Education Program. Dr. Johnson teaches the Scholars in their first course in TES, serves as a mentor to students, and partners with the TES team to inform curriculum and present the program to diverse stakeholders. Dr. Paris has been involved in establishing the preliminary program logistics from an enrollment management perspective, and since has been engaged with the TES participants participated in the research interviews.

We acknowledge that our roles and relationships within the program shape both responses to interview questions and our interpretation of the data. To minimize this, the research team met bi-weekly throughout the data collection and analysis process to



## Structured Pathways, Reinforced Plans

review and discuss our initial findings and confront our biases as program stakeholders. We engaged in memoing to document these conversations which served as an audit trail that detailed our decisions. Moreover, we endeavored to share rich, thick descriptions of participants by sharing their individual profiles and incorporating their own words in the reporting of the findings. That was done so readers can review the data and build their own understanding of participants' experiences related to the research questions.

### Findings

Next, we share the profiles of three participants in the program who expressed an interest in a career in teaching, then will illustrate the common themes that cut across their experiences: college-bound mentality; pre-program interest in teaching; and structured pathways, reinforced plans.

### Participant Profiles

#### *Morgan*

Morgan is an African American woman and second-year college student at Temple University. She graduated from a "special admit" high school in Philadelphia. She learned about TES through her high school staff, although as a member of the first program cohort, there was little information available about the opportunity. By the time she was a senior, she was certain about becoming a teacher, yet less certain about which college she would attend to prepare for that career. TES seemed like an ideal

opportunity to further explore her career interest. Morgan shared, "I was interested in [TES] because I was interested in pursuing education as a career path." Although there were other options to take dual enrollment courses, she applied for TES "since it was geared towards teaching...not just the opportunity to take college courses that can fit any major."

Academically, Morgan did well in high school and continued in that pattern of success as a dual enrollment student. She often talked about her network of support, inclusive of her family and friends, who helped her cultivate her college and career aspirations. TES provided her with structured support specifically as it related to applying for colleges and deciding where to attend. When asked what she liked best about the program, Morgan described its familial environment. She shared, "It's just a great family atmosphere...and that wasn't just the Scholars. [It] was the peer mentors, the counselor, the director...I mean, everyone!" She spoke of new relationships with peers in the program and connections with the program staff as an unexpected benefit of participation in TES. Conversations with her family, along with TES staff, helped her to "evaluate my different decisions—they told me that I had more than one choice..." She viewed the opportunity to participate in TES as the chance to deepen her interest and exposure to the expectations of a future educator.

## Structured Pathways, Reinforced Plans

Based on her experiences, Morgan ultimately decided to continue her education at Temple as an early childhood education major. As she transitioned to full-time undergraduate studies, she commented on having realistic expectations for college success. Morgan explained, “not only did I have credits for my college, but I already had background knowledge about the material.” During her first year of college, she continued contact with TES faculty, had the opportunity to speak about her experiences in TES at a state-level education conference, and served as a TES student employee.

### *Vinh*

Vinh is an Asian American man and senior attending a neighborhood high school in Philadelphia. Vinh learned about TES from his school counselor: “I was in my advisory class and my counselor walk[ed] in and said, ‘is there anyone interested in being a teacher?’ I instinctively raised my hand.” Yet, the main reason TES as a program intrigued Vinh was that it would prepare him for college.

He shared:

*My cousins, my sister - they all talked about [how] they got really overwhelmed in their freshman year [of college]. They earned a really horrible GPA during their freshman year. I had to take a first step to stay on top of everything...to be well prepared before going to actual college.*

Vinh would be one of the first in his immediate family to pursue postsecondary education and he was concerned about the

transition from high school. After being accepted into TES, he grappled with how to reconcile his interest in becoming a teacher with his family’s desire for him to pursue a STEM-related career. While in TES, Vinh’s conversations with the tutor-mentors and fellow students provided opportunities for him to consider his career interests and choice of college major.

As a participant in TES, Vinh gave presentations, asked questions in class, and engaged with his peers more so than he had in high school. He reflected, “TES helped me build my self-confidence...when I get into my high school classes I realize[d] that I became more confident as opposed to my peers.” Vinh acknowledged that this confidence will be helpful as an educator. He credited experiences in college-level classes and conversations with program staff as instrumental in affirming his decision to become a math educator.

### *Hawa*

Hawa is an African American woman and senior attending a “special admit” high school in Philadelphia. Her school is considered academically competitive and well-resourced, with several college preparatory partners throughout the region. She learned about TES through a conversation with a school administrator: “I was just talking to our roster chair and telling her I want to teach, and she brought up this program [TES].” Hawa was very interested in TES, but doubted she was qualified to participate in the program because the other college preparatory

## Structured Pathways, Reinforced Plans

opportunities required a minimum 3.5 cumulative high school GPA. She shared, “for me, academically, that's very discouraging, especially being around a lot of other intelligent kids and just constantly being like, ‘oh, you can't do this because you don't meet the mark.’” Acceptance into the program came as a surprise, “in all honesty, I didn't think that I was going to be able to do it. So, when I got accepted, I was really excited because I do want to go into education.” For Hawa, being a part of TES was considered an important step toward making her a competitive college applicant and actualizing her goal of becoming an educator.

Although TES is sponsored, in part, by a four-year university, the program staff encourages students to explore all their college options. This was critical for Hawa; she wanted to become a teacher and was interested in attending a Historically Black College/University (HBCU), an institution of higher education founded with the explicit mission to support African American students. After attending a predominately White high school and spending the year involved in racial equity work in the city, she shared:

*I've definitely wanted to go to an HBCU since eighth grade when I found out what they were... and doing all of this anti-racist work makes me want to be at an HBCU even more because it's so draining...I want to be around Black people. I'm a little tired.*

Consequently, Hawa described the benefit of being in a program that supported students' aspirations to become a teacher and provided support to help her make a college choice decision. Upon earning her degree in Secondary English Education at an HBCU, it is her plan to return to Philadelphia to teach.

### Themes

As participants shared how they developed their interest in college and teaching, and their experiences in TES, the themes that emerged were illustrative of the ways academic and career interests are interrelated and uniquely shaped by individual characteristics and experiences. Each student could be considered a “high achiever” given their proclivity to seek advanced curricular opportunities and prior history of solid academic performance. Yet, they had different levels of access to supports that promoted the formation of interests in a career in teaching. Although they likely would have attended college in the absence of TES, the certainty of whether and where to pursue a degree in teaching may have not crystalized without structured experiences. These experiences were facilitated through several components of TES including specific college-level coursework in education and engagement with TES staff.

### College-bound Mentality

The theme college-bound mentality reflects participants' predisposition for pursuing postsecondary education. Each participant exhibited a college-bound mentality that pre-

## Structured Pathways, Reinforced Plans

dated their knowledge of TES. This was evidenced by their enrollment in college preparatory coursework and their interest in taking dual enrollment courses. This college-bound mentality was further reflected in their attitudes about how they were able to manage the added responsibilities of being in a dual enrollment program. Morgan shared:

*Being able to take college courses as a senior sometimes was stressful because I had my high school classes, I had my college classes, [and] I was working at the time, so, I had a whole bunch of stuff going on at once. That kind of forced me to procrastinate sometimes, but also made me motivate myself to keep going because I knew I wanted to finish the program. I wanted to graduate high school.*

This was a similar experience for Vinh and Hawa, who also had to juggle multiple responsibilities as high school seniors. Their experiences were complicated due to the decision to participate in TES during the COVID-19 pandemic. Due to state mandates, all Philadelphia high schools engaged in online instruction and Temple courses were also facilitated online. Nevertheless, these students chose to engage in a co-curricular program to prepare for college. Vinh, for example, took four Advanced Placement courses along with his dual enrollment coursework and related program assignments. Reflecting on his senior year experience, he noticed that many of his peers were focused on just “getting by” and doing the minimum while he was driven to stay on top of his tasks. He shared,

“sometimes I feel overwhelmed but...I always look back...was I productive or was I just like laying on my bed all day? That's what make [s] me proud of myself. Just being productive.” The willingness to maintain continuous academic engagement during a time when academic experiences were less structured is indicative of students’ commitment to academic success and college readiness.

These college-bound students also reflected on how they utilized school resources to gain access to the information needed to continue their education beyond high school. This realization led to decisions to seek opportunities to gain more support outside of the school context. For example, Hawa stressed the importance of cultivating relationships with school personnel, especially for students in large schools with few school counselors. She mused:

*It's just too many kids, and that's not just at [my school]; that's happening at a lot of district schools. We don't have a lot of counselors. So, I think TES is even more important because a lot of students don't have that support system at their schools.*

Vinh expected that he would be able to gain support with the college application process through his high school, but that was not his experience. Support from TES filled the gap. He shared:

## Structured Pathways, Reinforced Plans

*TES helped me out with the college essay, which is one of the most important steps when it comes to college applications. And then they also helped [with] how to fill out the FAFSA and how to [apply for] scholarships as well.*

Participating in TES provided these college-bound students with information to which they would not otherwise have access. As Morgan described, “a few of my friends had taken a [dual enrollment] class their junior year, so I just assumed it would be another dual enrollment program. But it was way more than that; I'm definitely appreciative of it.” Similarly, Vinh shared, “Overall, I feel like TES is a good program for students who want to be a teacher. Or even if you don't want to be a teacher, just like join TES to see how college looks.” TES was instrumental for students for gaining the experiences needed to make informed choices about postsecondary education and career pathways.

### *Pre-Program Interest in Teaching*

The theme pre-program interest in teaching describes participants' beliefs about the qualities of effective teachers and their futures as teachers. As illustrated, participants were attracted to TES because of their interest in becoming an educator. Interest in teaching seemed to have developed over time and was reinforced through personalized experiences in TES. For instance, Vinh talked about being attracted to teaching through his own experiences struggling to learn math concepts. He was committed to learning difficult topics,

even if he earned poor grades along the way. He shared, “I want to be a high school math teacher. I want to have a strong impact on students. I often help my peers who are struggling with math problems, and it feels really interesting to me.” Scholars also reflected on how interactions with teachers shaped their thoughts on the type of educator they wanted to become. Hawa shared, “I think that I've had terrible teachers in Philadelphia, and I've had amazing teachers in Philadelphia. [I] definitely don't think I would be the kind of person that I am without the teachers.” Given her engagement in the community, and her identity as a Black student, she also reflected on the value of having teachers from her home community. She shared, “I want to teach in Philly...I want to teach Black kids in Philly” because she could relate to these students' experiences in a way that those from other places may not. Still some questions remain about their future approaches as an educator. Vinh shared:

*This really is a question I have not even answered yet...If I am too easy, would the students just be stubborn and would I get bullied? If I am too harsh on them, are they going to hate me? There is a lot of stuff to think about.*

Morgan and Hawa talked about having long-held interests in becoming educators. Hawa, however, contemplated other career pathways before deciding teaching would be her chosen career path. She shared:

## Structured Pathways, Reinforced Plans

*I've always wanted to teach my entire life. But, in eighth to tenth grade, I kind of changed that because a lot of people are like, "don't teach, you're not going to make any money, you're going to be broke... Oh, you're so smart. Don't waste your time doing education.*

Over time, other options such as law or dentistry did not resonate with her after she completed an internship at a law firm and came to the realization that "I hate science." Despite the influence of others and after much deliberation, she re-asserted her interest in teaching. Participation in TES gave students space and structure to link their career interests with college opportunities.

### Structured Pathways, Reinforced Plans

The theme structured pathways, reinforced plans describes how TES offers space for participants to gain firsthand experience and actualize their college and career plans. As an early outreach program, TES participants benefit from supports focused on the college choice process. Each participant described different types of supports that they found helpful: reminders to meet deadlines, making decisions about college majors, and understanding differentiated information in financial aid award letters. Hawa talked about how TES staff helped her secure the financial aid needed to attend an HBCU and how they modeled ways to advocate for yourself in college. For example, TES staff helped Hawa communicate with various institutions to appeal financial aid offers to attain her goal

of attending a Black College:

*I love Temple [University], but I need to be at an HBCU. That's what I need for my character development. So [the TES staff] just being supportive about [my decision to attend an HBCU] ... [They did not say], "This [college] will give you this much so you should go here" ... [They said], "Well this where you want to go. Let's try to make it work."*

The TES staff guided participants through the college choice process by placing their needs and interests at the center of decision-making as opposed to encouraging them to make choices based on a single factor such as tuition costs.

As stated previously, Vinh wanted to be a math educator, but was still grappling with how to reconcile his interest in becoming a teacher with his family's desire for him to pursue a STEM related career. He shared:

*So, at the beginning of the year, I wanted to be a pharmacist. But after having conversations with TES staff, faculty, and mentors, I figured out I just want to be a pharmacist because of my parents and the salary. I also experienced working the job and I didn't like it at all. I told myself, 'Hey, just choose the right job and you're going to like working for your whole life. Just don't waste your time. I want to be a teacher.'*

Vinh reflected on the various careers that align most closely with his interests and

## Structured Pathways, Reinforced Plans

decided to pursue teaching despite the influence of his parents and his outcome expectations (e.g., compensation) of other professions.

Morgan's positive experiences in TES helped affirm her college choice. Reflecting on her college choice, she shared:

*I wasn't set on Temple in the beginning. I had choices...[but] I was already used to Temple's atmosphere, campus, the classroom, and some of the professors. So, it really solidified my decision about coming to Temple which I am so happy about now. Having those courses in education made me realize I still want to pursue education. I still want to become a teacher.*

Morgan's familiarity with the campus environment at Temple informed her choice about enrolling at Temple compared to other institutions. TES helped her solidify her chosen career in teaching and accelerated her path to becoming an educator through the completion of 15 college credits.

### Discussion and Implications

This study explored how three participants in TES developed academic and career interests in teaching and made educational choices

related to their career aspirations. In this analysis, we learned that participants were high achieving high school students and had developed predispositions for college prior to participation in TES. With the urgent need to diversify the teacher workforce, opportunities like TES should include students who have an interest in teaching but may not meet Conley's (2012) four keys of college and career readiness: cognitive strategies, content knowledge, learning skills and techniques, and transition knowledge and skills. School

staff should be mindful to not pre-select students based on their academic performance or other behaviors. Rather, they should share information widely so that students marginalized in educational spaces can learn about and express interest in programs like TES.

Although the program was designed to support

college access for future educators, only a small subset of students who participated in TES since its inception held an interest in teaching. SCCT emphasizes that educational or career goals may be influenced more substantially by outcome expectations or environmental conditions, rather than by interests alone. This is of particular importance for the teaching profession as the value of becoming an educator is often associated with outcome expectations (e.g.,



**“...without direct and impactful messages and experiences that interrupt the narrative or create a counter-narrative, racial disparities in the teacher workforce are likely to persist.”**

## Structured Pathways, Reinforced Plans

compensation, working conditions; Carver-Thomas, 2018; Harris et al., 2019). Interests in teaching must be cultivated, especially among talented students who have numerous career options. Negative messages and perceptions of teaching as a profession are pervasive. In the absence of supportive environments, students may make choices that are misaligned with established pathways to the teaching profession. Therefore, without direct and impactful messages and experiences that interrupt the narrative or create a counter-narrative, racial disparities in the teacher workforce are likely to persist. To expand the teacher pipeline, interventions such as targeted partnerships between higher education institutions, high school teacher academies, and other outreach efforts may provide opportunities for elementary and middle school students to learn about the teaching profession and how to proactively pursue a career in education (Bianco et al., 2011; Goings et al., 2018).

Within the current sociopolitical climate, messages about the possibility of impacting the next generation of students and teaching for change and social justice are of critical importance for addressing pervasive societal issues such as racial and socioeconomic injustice (Gist et al., 2018). For some students, learning the rich history and legacy of Black educators and their forceful displacement from the workforce due to school desegregation is also impactful as they consider career opportunities that position them to work for equity. Future studies

should evaluate the impact of having educators and near-peer mentors of color in secondary and post-secondary spaces. Through discussion and coaching, these role models allow students to experience college and career content from non-White peoples' perspectives and envision themselves in similar future roles.


Finally, it is important to acknowledge the certification requirements as a potential barrier to accessing a degree in teaching. Across various teacher education programs, students must maintain a certain GPA and complete other certification requirements (e.g., licensure examinations, student teaching). However, for some students, attaining a bachelor's degree in education may not be possible without academic support, mentorship, and the other types of support provided by TES. Programs such as TES are well-positioned to address two types of barriers: (1) postsecondary education barriers such as college readiness, financial aid, and the admissions process, and (2) teacher certification barriers such as standardized tests, field experiences, and academic performance requirements. Both types of barriers have noteworthy consequences for the racial diversification of the teacher workforce given the level of education required to pursue a career in teaching (Carver-Thomas, 2018). Efforts to diversify the educator workforce by recruiting people of color into teaching will only be successful if they have access to intentional efforts designed to promote their success in and completion of college and certification



## Structured Pathways, Reinforced Plans

requirements.

### Conclusion

With the urgent need for initiatives focused on the recruitment of people of color into teaching, TES is a GYO early outreach and dual enrollment program that not only promotes college access, but also creates a pipeline for educator diversity. To inform future investments in initiatives that positively impact students' postsecondary education and career trajectories, school districts and institutions of higher education need data related to outcomes for the participants of such initiatives. This manuscript was developed by a team of scholar-practitioners deeply invested in promoting college access and success among historically marginalized populations. Through our service, teaching, and scholarship, we promote and advocate for educational equity. Our combined areas of expertise bring a nuanced understanding of the college access process that was instrumental in developing TES and the refinement of policies and practices that shape the program. 

### REFERENCES

- An, B. P. (2013). The influence of dual enrollment on academic performance and college readiness: Differences by socioeconomic status. *Research in Higher Education, 54* (4), 407–432. <https://doi.org/10.1007/s11162-012-9278-z>
- Bandura A. (1997). *Self-efficacy: The exercise of control*. Freeman.
- Bianco, M., Leech, N. L., & Mitchell, K. (2011). Pathways to teaching: African American male teens explore teaching as a career. *The Journal of Negro Education, 80*(3), 368–383.
- Carver-Thomas, D. (2018). *Diversifying the teaching profession: How to recruit and retain teachers of color*. Palo Alto, CA: Learning Policy Institute. Retrieved from: [https://learningpolicyinstitute.org/sites/default/files/product-files/Diversifying\\_Teaching\\_Profession\\_REPORT\\_0.pdf](https://learningpolicyinstitute.org/sites/default/files/product-files/Diversifying_Teaching_Profession_REPORT_0.pdf)
- Conley, D. T. (2012). A complete definition of college and career readiness. *Educational Policy Improvement Center (NJ1)*.
- Corin, E. N., Sonnert, G., & Sadler, P. M. (2020). The role of dual enrollment STEM coursework in increasing STEM career interest among American high school students. *Teachers College Record, 122*(5), 1–36. <https://10.1177/016146812012200210>
- Council of Great City Schools. (2000). *High school teaching career academies: Profiles and practices*. Urban teacher academy project. Urban Teacher Academy Project. Retrieved from: <https://files.eric.ed.gov/fulltext/ED449247.pdf>
- Fontana, J., & Lapp, D. (2018). *New data on teacher diversity in Pennsylvania*. Research for Action. Retrieved from: <https://files.eric.ed.gov/fulltext/ED589386.pdf>
- Gist, C. D., Bianco, M., & Lynn, M. (2019). Examining grow your own programs across the teacher development continuum: Mining research on teachers of color and nontraditional educator pipelines. *Journal of Teacher Education, 70*(1), 13–25. <https://doi.org/10.1177/0022487118787504>
- Gist, C. D., White, T., & Bianco, M. (2018). Pushed to teach: Pedagogies and policies for a Black women educator pipeline. *Education and Urban Society, 50*(1), 56–86. <https://doi.org/10.1177/0013124517727584>

## Structured Pathways, Reinforced Plans

- Goings, R. B., Brandehoff, R., & Bianco, M. (2018). To diversify the teacher workforce, start early. *Educational Leadership*, 75(8), 50-55. Retrieved from: <https://www.equityinschool.org/wp-content/uploads/2020/12/To-Diversify-the-Teacher-Workforce-Start-Early-May-2018-.pdf>
- Harris, S. P., Davies, R. S., Christensen, S. S., Hanks, J., & Bowles, B. (2019). Teacher attrition: Differences in stakeholder perceptions of teacher work conditions. *Education Sciences*, 9(4), 300. <https://doi.org/10.3390/educsci9040300>
- Hughes, K. L., Rodriguez, O., Edwards, L., & Belfield, C. (2012). Broadening the benefits of dual enrollment: Reaching underachieving and underrepresented students with career-focused programs. Insight. *James Irvine Foundation*.
- Johnson, J. M., Paris, J. H., & Curci, J. D., & Horchos, S. (2021). Beyond college access: An exploration of the short-term impact of a dual enrollment program. *Journal of College Student Retention: Research, Theory & Practice*. <https://doi.org/10.1177/15210251211056319>
- Karp, M. J. M., & Hughes, K. L. (2008). Study: Dual enrollment can benefit a broad range of students. *Connecting Education and Careers (J1)*, 83(7), 14-17. Retrieved from: <https://files.eric.ed.gov/fulltext/EJ815413.pdf>
- Kemple, J. J., & Snipes, J. C. (2000). *Career academies: Impacts on students' engagement and performance in high school*. Manpower Demonstration Research Corporation. Retrieved from: <https://www.mdr.org/publication/career-academies-impacts-student-engagement-and-performance-high-school>
- Lent, R. W., & Brown, S. D. (2006). Integrating person and situation perspectives on work satisfaction: A social-cognitive view. *Journal of Vocational Behavior*, 69, 236-247. <https://doi.org/10.1016/j.jvb.2006.02.006>
- Lent, R. W., & Brown, S. D. (2008). Social cognitive career theory and subjective well-being in the context of work. *Journal of Career Assessment*, 16, 6-21. <https://doi.org/10.1177/1069072707305769>
- Lent, R. W., & Brown, S. D. (2013). Social cognitive model of career self-management: Toward a unifying view of adaptive career behavior across the life span. *Journal of Counseling Psychology*, 60(4), 557-568. <https://doi.apa.org/doi/10.1037/a0033446>
- Lent, R. W., Brown, S. D., & Hackett, G. (1994). Toward a unifying social cognitive theory of career and academic interest, choice, and performance. *Journal of Vocational Behavior*, 45, 79-122. <https://doi.org/10.1006/jvbe.1994.1027>
- Lile, K. R., Ottusch, T. M., Jones, T., & Richards, L. N. (2017). Understanding college-student roles: Perspectives of participants in a high school/community college dual-enrollment program. *Community College Journal of Research and Practice*, 42(2), 95-111. <https://doi.org/10.1080/10668926.2016.1264899>
- Ma, J., Pender, M., & Welch, M. (2016). *Education Pays 2016: The Benefits of Higher Education for Individuals and Society*. Trends in Higher Education Series. The College Board. Retrieved from: <https://research.collegeboard.org/pdf/education-pays-2016-full-report.pdf>
- Perna, L. W., & Finney, J. (2014). *The attainment agenda: State policy leadership in higher education*. Johns Hopkins University Press.
- Saldaña, J. (2021). *The coding manual for qualitative researchers*. Sage.
- Shaw-Amoah, A., Lapp, D., & Kim, D. (2020). *Teacher Diversity in Pennsylvania from 2013-14 to 2019-20*. Research for Action. Retrieved from: <https://eric.ed.gov/?id=ED611656>
- Wambu, G., Hutchison, B., & Pietrantonio, Z. (2017). Career-decision making and college and career access among recent African immigrant students. *Journal of College Access*, 3(2), 62-77.
- Yin, R. K. (2003). *Case study research: Design and methods (3rd ed.)*. Applied social research methods series. Sage.
- Zumeta, W., Breneman, D. W., Callan, P. M., & Finney, J. E. (2012). *Financing American higher education in the era of globalization*. Harvard Education Press.