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Finding Tomorrow's Teachers: Investigating School District Plans for Pre-Collegiate GYO Programs

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Abstract: Teacher shortages increase yearly while interest in the teaching profession seems to be at an all-time low. Policymakers are again seeing value in high school "grow your own" (GYO) teacher programs as a source of future teacher talent. Against the backdrop of career development models for teaching, we developed an instrument based on specific practices in the GYO literature and applied the instrument to review school district applications selected for statewide grant funding to evaluate the extent which proposed programs intended to enact such strategies. Applications reflected many of the recruitment, preparation and retention strategies found in the literature, but we also found three trends across the pool of applications that suggested GYO programs may miss their intended mark of increasing the number and diversity of teachers. First, application plans made limited use of current career models to guide recruiting efforts. Second, the application plans seemed unlikely to create diversity in the teacher talent pool. Third, plans for offering dual credit courses in high school gave little attention to aligning post-secondary academic pathways to undergraduate

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teacher certification. These results suggest that traditionally conceived pre-collegiate GYO programs need to be reimagined if they are going to be successful at mitigating teacher shortages.

Keywords: "grow your own" (GYO); teacher preparation; teacher shortage; community college

Encontrando a los maestros del mañana: Investigando los planes del distrito escolar para los programas preuniversitarios Grow Your Own

Resumen: Cada año aumenta la escasez de docentes, mientras que el interés por la profesión docente sigue siendo bajo. Los formuladores de políticas actualmente ven valor en los programas de maestros "grow your own" (GYO) de la escuela secundaria como una fuente de talento para futuros maestros. En el contexto de los modelos de desarrollo profesional para la enseñanza, desarrollamos un instrumento basado en prácticas específicas en la literatura de GYO y lo usamos para evaluar en qué medida los distritos escolares seleccionados para recibir subvenciones estatales utilizaron estas estrategias en sus programas propuestos. Encontramos tres tendencias en el grupo de aplicaciones que sugirieron que los programas GYO pueden no estar aumentando el número y la diversidad de maestros. Primero, los programas hicieron un uso limitado de los modelos de carrera actuales para guiar los esfuerzos de reclutamiento. En segundo lugar, parecía poco probable que los programas crearan diversidad en el grupo de talentos docentes. En tercer lugar, los planes para ofrecer cursos de doble crédito en la escuela secundaria prestaron poca atención a alinear los caminos académicos posteriores a la secundaria con la certificación de maestros de pregrado. Estos resultados sugieren que los programas GYO preuniversitarios concebidos tradicionalmente deben reinventarse si van a tener éxito en mitigar la escasez de docentes. Palabras-clave: "grow your own" (GYO); preparación docente; escasez de maestros; colegio comunitario

Encontrando os professores de amanhã: Investigando os planos do distrito escolar para programas pré-universitários GYO

Resumo: A cada ano a escassez de professores aumenta, enquanto o interesse pela profissão docente permanece baixo. Atualmente, os formuladores de políticas veem valor nos programas de professores "grow your own" (GYO) do ensino médio como uma fonte de futuros talentos para professores. No contexto dos modelos de desenvolvimento de carreira para o ensino, desenvolvemos um instrumento baseado em práticas específicas na literatura GYO e o usamos para avaliar em que medida os distritos escolares selecionados para financiamento de subsídios estaduais usaram essas estratégias em seus programas propostos. Encontramos três tendências no conjunto de aplicativos que sugerem que os programas GYO podem não estar aumentando o número e a diversidade de professores. Em primeiro lugar, os programas faziam uso limitado dos atuais modelos de carreira para orientar os esforços de recrutamento. Em segundo lugar, parecia improvável que os programas criassem diversidade no banco de talentos dos professores. Em terceiro lugar, os planos para oferecer cursos de crédito duplo no ensino médio deram pouca atenção ao alinhamento dos caminhos acadêmicos pós-secundários com a certificação de professores de graduação. Esses resultados sugerem que os programas GYO pré-colegiais tradicionalmente concebidos precisam ser reimaginados para serem bem-sucedidos na mitigação da escassez de professores.

Palavras-chave: "grow your own" (GYO); preparação do professor; escassez de professores; faculdade comunitária

Finding Tomorrow's Teachers: Examining School District Plans for Pre-Collegiate GYO Programs

The 2022 school year started as many before—with teacher shortages across all 50 states and territories in the United States (Nguyen et al., 2022; United States Department of Education, n.d.). Predictions place 2025 as a critical juncture in the nation's education system when demand for teachers will outstrip supply by over 100,000 (Sutcher et al., 2016). More recently, plummeting enrollment in teacher preparation programs (Garcia & Weiss, 2019), and exponentially more challenging working conditions for teachers due to COVID-19 (Rogers & Scott, 2020) have converged to further exacerbate workforce shortages.

For over two decades, researchers and policymakers have recognized the role "grow your own" (GYO) programs might play in addressing teacher shortages (e.g., Bragg, 2007; Forseille & Raptis, 2016; Monto, 2019; United States Department of Education, 2022; Ward et al., 2001). Valenzuela (2017) defined GYO programs as academic and social pathways to teaching that are aimed at addressing teacher shortages, especially in hard-to-staff assignments, and that often aim to diversify the teacher-talent pool for a state, region, or community. GYO programs typically focus on recruiting from two groups. The first is paraprofessional educators and/or parents of school children with strong ties to the community. The second is pre-collegiate adolescents in middle and secondary schools. Community colleges have long been involved with GYO pathways offering credentialing opportunities for paraprofessionals (Walker et al., 2008) and more recently offering to high-school students' access to coursework for dual-credit in an early-college pathway to teaching (e.g., Gist et al., 2019; Rosenberg & Miles, 2018).

The 100-year history of student organizations (Forseille & Raptes, 2016), the number of precollegiate programs and existence of large organizations in the United States like *Educators Rising* [https://educatorsrising.org] attest to the fact that adolescents do have an interest in becoming teachers. Research findings related to adolescents' early decision-making process and setting of a career goal to become a teacher, however, is very limited.

For this study, we examined the applications selected for funding by a state education agency (SEA) program aimed at helping school districts establish pre-collegiate GYO programs. Our purpose was two-fold. We first wanted to develop a list of the most impactful recruitment, preparation and retention strategies synthesized from the literature. Next, we wanted to apply this list to GYO grant applications to ascertain which impactful strategies should be better utilized in GYO program planning. We reviewed the frequency with which application authors proposed to use strategies found in existing literature about GYO programs and evaluated the alignment between proposed programs and career development models for teaching. We focused our study on precollegiate GYO programs because fewer publications focus on this population and because of greater recruiting potential given the number of high-school aged adolescents who might consider teaching compared to the numbers of potential paraprofessionals interested in transitioning to fully credentialed teaching.

The importance of this study lies in determining impactful practices and how to best include them in GYO initiatives. If school districts and state agencies had succinct guidance as to the most impactful recruitment, preparation, and retention strategies, would they devise more impactful GYO initiatives? Furthermore, would the GYO initiatives increase the number of participants in teacher preparation programs?

Relevant Literature for GYO Programs

The research team followed common practices (Machi & McEvoy, 2012) in locating and examining literature regarding GYO programs focused on high school students, reviewed literature that involved the racial/ethnic differences among individuals and their opinions about becoming a teacher, and delved deeper into literature on the social cognitive career theory (SCCT) and FIT-Choice models. Members of the research team used key words and phrases, and combinations thereof (e.g., teacher education, teacher preparation, teacher pipelines, "grow your own," high school students, minority, underrepresented, Hispanic, Black, paraprofessionals, social cognitive career theory) to search databases (e.g., EBSCO, Academic Search, ERIC, JSTOR, Scopus) for relevant literature.

We initially focused on peer-reviewed journal articles, written in English, that presented outcomes from studies of GYO programs. We also intended to focus on GYO programs that used FIT-choice or SCCT as a career development theory. However, as we searched for studies, we found that many studies were not using a career development framework. In addition, we noted that non-research focused articles also provided recruiting strategies and, therefore, chose to add them to our list as appropriate. We independently developed a list, created and a synopsis of the articles, and then discussed the main ideas found during our examination. The result was the creation of a master list of articles divided into proposed coding categories, themes, and related strategies. These coding categories underwent numerous revisions, as did the themes and strategies.

In spite of the growing popularity of high school GYO programs (Garcia, 2020), evidence of their effectiveness is difficult to find. Most published articles describe how programs are implemented, but they do not report any long-term outcomes that have impact on the teacher shortage, nor do they articulate any underlying theoretical model informing program development (Forseille & Raptis, 2016; Torres et al., 2004). Given the still nascent state of research field about pre-collegiate GYO, we first set out to delineate what theories might inform these approaches. We then highlight features of existing GYO programs found in the literature.

Career Development Theories Applicable to Teaching

Investigations of individual interest and choice for teaching have been based on two theoretical approaches with roots in expectancy–value theory (Atkinson, 1957). The first is social cognitive career theory (SCCT), which is a framework used to describe early career interest and career preparation primarily in STEM-related fields. As the name implies, this framework draws upon Bandura's (1986) formulation of social cognitive theory, with the corresponding emphasis on triadic reciprocity and the central role of self-efficacy. The second is the FIT-Choice model (Watt & Richardson, 2007), which is a prominent framework used to describe the role played by cognitive and environmental factors when choosing teaching as a career. This approach draws from Eccles' model of students' academic choice, and emphasizes the role played by values, like intrinsic value and social utility values, that influence the decision to teach.

Researchers using both theoretical frameworks typically rely on some form of retrospective interview or questionnaire (Schutz et al., 2001; Watt et al., 2012). Among those who have already expressed a commitment to teaching, these theories point to the importance of past experiences with teaching and learning and indirect experiences, like persuasion or social dissuasion, as initially influencing their personal beliefs about teaching. These experiences, in turn, shape beliefs about teaching capabilities and cultivation of values for or interest in teaching. Later in the career development process, interest and perceived capabilities are believed to influence formation of an intention to teach and actions taken toward realizing that career goal.

Career development models like SCCT and FIT-Choice provide a good starting point for recruiting and retention planning of pre-collegiate GYO programs because they delineate different motivational aspects upon which to focus depending on an individual's particular phase in career development. For those who have already expressed an interest or value in teaching, it is important to support the taking of concrete, next steps toward the career goal. For those who have not yet expressed an interest or value in teaching, it is important to identify ways creating experiences that might stir awareness and support development of initial capability beliefs or values that might lead to an interest in teaching.

Limitations to Existing Theories

Recently, researchers have identified limitations to these theoretical approaches when applied to a more demographically diverse population. Specifically, researchers are finding evidence that SCCT approaches may not adequately account for the role of social class in career decisions (Flores et al., 2017; Hu et al., 2020). Mau and Mau (2006) used the NELS: 88 Survey (National Center for Educational Statistics, 1991) to examine the role that personal beliefs and environmental factors played in predicting 10th graders' persistence in their intention to become teachers. Overall, their findings highlighted the importance of racial background and school environment as important predictors of adolescents' persistence toward teaching and pointed to the mediating role played by self-efficacy. The researchers also pointed to a familiar trend that White students were more likely than minority students to persist in their aspiration, and students with better academic achievement and higher SES were more likely to persist. Mau and Mau's (2006) findings drew attention to experiential and environmental factors that might build up or diminish students' beliefs about their capabilities for teaching.

Researchers using the FIT-Choice model have reported similar findings when examined minority adolescents' interest and choice for becoming a teacher. For example, Leech et al. (2019) compared responses to the FIT-Choice questionnaire among groups representing predominantly White in-service teachers, predominantly White pre-service teachers and urban high-school students of color who had not yet committed to teaching as a career. Consistent with other studies (Watt & Richardson, 2007), in-service and pre-service teachers were similar in their responses about motivations and perceptions of teaching.

Motivations to teach and perceptions of teaching among students of color differed, however, from the two groups of teachers. Groups of individuals who had already chosen teaching as a career identified intrinsic value as an important factor influencing their choice of teaching. High school students of color who were as yet undecided, however, appeared to draw most on past educational experiences to inform their motivation and perceptions of teaching (Watt & Richardson, 2017). These findings seem to suggest that having not yet made a career decision to teach, adolescents are likely to be more informed in their views of teaching from a perspective other than thinking about their own capabilities or intrinsic value. In other words, perceptions of ability, intrinsic motivation and social utility values that are important for those who have already chosen teaching may not as yet had an opportunity to develop for these high school students.

Similarly, Naughton (2020) reported findings from a mixed-method study concerning motivations and perception of teaching as a career among racially, ethnically, and culturally diverse high school students in Ireland. Her findings mirrored those reported by Leech et al. (2019) in that students elected not to teach for reasons very different from those who had already committed to the profession. Specifically, students in Naughton's study reported higher levels of social dissuasion including greater encouragement to pursue other careers, and discouragement to choose teaching due to low salary, hard work, and job insecurity. Unlike those who have already chosen teaching as a

career, high school students were also discouraged to pursue teaching by a lack of diversity among those currently teaching.

Together, these studies raise important questions about how best to recruit adolescents, and especially students of color, to the teaching profession. The SCCT and FIT-Choice theories, when applied to those not yet committed to teaching and those representing minority populations, point to the importance of social influences and personal experiences that might cultivate their interest in teaching. Efforts to recruit young people to the teaching profession might garner a more positive response if messaging and activities addressed cultivation of these factors rather than relying on intrinsic and utility value alone. In summary, career development models suggest that recruiting and retaining adolescents on a pathway to teaching must involve both cultivating capability beliefs through positive experiences and providing an environment that is supportive of a career goal to become a teacher.

Literature Focusing on the Features of GYO Programs

In addition to examining common theories informing the approaches developed for GYO programs, we also reviewed pre-collegiate GYO literature using as a lens, our collective awareness of the influence of social class and minority status on career considerations of teaching. After compiling one comprehensive list of the GYO literature, we undertook a mapping review approach (Booth et al., 2022) to categorize the existing literature. This type of qualitative literature synthesis is aggregative and is useful in identifying principal themes (Booth et al., 2022).

When embarking upon the aggregative literature synthesis, particular attention was paid to (a) descriptions of recruitment of participants, (b) what types of activities participants were involved in, and (c) what types of supports were provided by the school or school district. Subsequently, these descriptions formed the foundation for developing an instrument to examine state education agency GYO program applications.

Program Recruitment

Our aggregative synthesis of the existing literature identified several approaches to recruiting participants in pre-collegiate GYO programs. Many reports described recruitment messages that focused on reasons to become a teacher, which are prominent aspects of career development models. We found two reasons most often given for becoming a teacher. First, teaching was described as a profession (rather than an occupation), reflecting an appreciation for the task demands and outcome expectancies among those receiving this message (DeFeo & Tran, 2019). Second, teaching was portrayed as a mission aimed at achieving equity goals for future students and drew upon cultural and community affinity for students of color to become teachers (Bianco et al., 2011). This approach assumes of the listener an awareness of outcome expectancies or having social utility values about enhancing social equity as well as drawing on past teaching and learning experiences.

The GYO aggregative literature synthesis was helpful in categorizing messaging about the abilities needed to become a teacher. These messages tended to have one of three orientations. First, some messages focused on recruiting top-achieving high school students, and those with strong leadership skills as being most fit for a teaching career (Croft et al., 2018). A second group, on the other hand, identified average-ability students as often being overlooked as potentially effective teachers (Christensen et al., 2019). Third, some programs recruited any student with an interest in teaching, especially if it was a way of addressing gaps in diversity within the teacher-talent pool (Bianco & Marin-Paris, 2019). In terms of the career development models, these messages seemed to focus on past learning experiences (i.e., achievement and leadership), on efficacy beliefs about school success and leadership, or on interests that may already exist.

Finally, the aggregative literature synthesis allowed for the summarizing of the messages within the program descriptions about how to become a teacher that stressed self-efficacy associated with seeing oneself attending college. Programs utilized visits to college campuses and interacting with faculty of color (Bianco et al., 2011; Perkins, 2016) as well as direct interaction with departmental administrators and admissions personnel (Adams & Manuel, 2016). We considered this strategy as a messaging strategy because the primary focus seemed to be drawing on ability beliefs for attending college.

Overall, the aggregative literature synthesis revealed many different messages were sent to pre-collegiate students about who or why they should become a teacher. Most messages assumed the pre-existence of positive past experiences and the presence of some value or ability belief for teaching, perceptions often missing among minoritized adolescents. Fewer programs attempted to first cultivate beliefs and socializing influences that might incline one to consider teaching as a career before attempting to recruit.

Activities of GYO Programs

The aggregative literature synthesis also detailed how participants were placed in social settings that would create opportunities for them to interact with others who might help foster positive values for teaching and belief in their pedagogical capabilities. Several researchers described arranging interactions for participants with adults or near-peers who could serve as role models (Vitrella et al., 2015). Bianco et al. (2011) included interaction with teachers of color and male teachers to avoid images of teachers that are restrictive. Monto (2019) described work-based learning opportunities such as tutoring or small group instruction. Finally, other researchers described program structures that combined both role-model influences, enactive experiences, and feedback within the context of internship (Monto, 2019; Ward et al., 2001).

These activities, more so than the recruiting messages, seemed to be designed to use efficacy sources and socialization to cultivate values, interest, and capability beliefs. One publication (Cruz, 2013) described efforts to remove social dissuasion by meeting directly with parents to counteract any tendencies to discourage their children from going into teaching. These activities are surely ones that would strengthen interest, values, and capability beliefs among those who have expressed an intention to teach as well as those who have not. If these experiences are confined only to those with an expressed interest, however, many potential teachers, especially among students of color, may have been missed.

School Supports

Finally, the aggregative literature synthesis proved beneficial in summarizing the actions taken by adults within schools and school districts that provided resources (i.e., personnel and funding) to support recruiting and retaining adolescents' who might become teachers. Some programs described supports provided to advise and recruit students, which typically involved allocation of academic and career counselors (Adams & Manuel, 2016). Others provided supports in the form of resources for school-based career organizations aimed at those intending to teach (DeFeo & Tran, 2019; Gist et al., 2019). Finally, there were those who described supports in the form of resources intended to increase retention of high school graduates on the pathway to teaching by supporting transition to post-secondary education. These supports included dual-credit offerings (Monto, 2019), coordination between school district and colleges (Perkins, 2016), tuition support (Vitrella et al., 2015), and support for language development needed for post-secondary success (Adams & Manuel, 2016).

Overall, the role these actions have in career development are not well articulated in existing models. It is plausible that these support actions serve to enable socialization of students, provide

sources of efficacy, and communicate social value for teaching to those affiliated with its programs. Given differences in access to dual-credit enrollment between racial groups (Xu et al., 2022), however, relying on this approach may serve to stymie efforts to diversify the teacher talent pool.

Methods

An instrumental case study design was utilized for this research study. Instrumental case studies are useful in providing an understanding about a specific issue or concern (Stake, 2005). A case study must be specific in its context or boundaries. This investigation examined 12 educational applications that were awarded GYO grant funds. The monies were used to strategically support high school students who were considering teaching as a career choice. As GYO programs are regarded as holding great promise increasing the diversity of teachers, we wanted to understand if applicants were incorporating strategies found in existing literature about GYO programs when developing their plans. Additionally, we wanted to evaluate the alignment between the proposed programs and career development models for teaching.

Context: The Pre-Collegiate GYO Program in Texas

The Grow Your Own (GYO) program developed by the Texas Education Agency (TEA) offered competitive grant funding to local education agencies (LEAs), educational service centers (ESCs), and institutions of higher education (IHEs). Funding was intended to create programs to recruit, prepare and retain diverse educators as a means to address teacher shortage in general and especially in rural and small school district (TEA, 2019). Districts had the option to implement a pre-collegiate program (Pathway 1), a paraprofessional program (Pathway 2) or a program implemented in partnership with an IHE (Pathway 3). The focus of the current research is on programs implemented by school districts to support high-school students who may be considering teaching as a career choice (i.e., Pathway 1).

Pathway 1 provided funding to begin or expand high-school-based programs focused on cultivating interest in teaching as a career. Districts had the option to design programs where students could earn credit toward high-school graduation only, or programs that offered dual-credit for courses associated with degree pathways to teacher certification in Texas. The latter option involved selection of a teacher from the community to earn a master's degree enabling the offering of dual-credit education courses.

Finally, funding was provided to support extra-curricular student groups affiliated with state and national level organizations focused on cultivating adolescents' interest in teaching. In the application, districts were required to describe local need, propose solutions, set goals for the funding period, describe progress monitoring strategies along with plans to recruit participants, select dual-credit teachers, and establish partnerships with post-secondary institutions for the purposes of arranging dual-credit course offerings.

Instrument Development

After undertaking the aggregative literature synthesis, we used an inductive approach to categorize the goals and strategies we found into specific codes to facilitate the review of the GYO grant submissions. The coding categories were intended to be mutually exclusive of one another, but acknowledge some instances of conceptual overlap. Our decisions about how to use the coding categories and codes were guided by the aggregative literature synthesis findings, the Texas GYO applications themselves, and the career development models. We eventually identified three main categories of strategies districts might propose and we developed specific descriptions to facilitate independent coding of applications. Our initial coding system consisted of:

- **Recruiting participants.** These strategies focused on appealing to or identifying characteristics that are associated with ability beliefs and values for teaching. They do not attempt to *cultivate* the characteristics, but only to *recognize* them.
- *GYO activities.* These strategies involved interactions with others for the purposes of *cultivating* characteristics that may incline an individual toward the teaching profession by enhancing task values or ability beliefs.
- *School supports.* These strategies described actions of a school district program, or other institution intending to recruit, prepare, retain high school students and high school graduates on a pathway to a teaching career.

Next, we used our list of strategies identified in the aggregative literature synthesis and classified them into the three coding categories (i.e., recruiting participants, GYO activities, school supports). In the initial draft of a scoring instrument for the GYO applications, there were three categories, nine themes, and 36 strategies.

We then took an additional step to determine if the coding categories, themes, and strategies were well grounded in practices in school settings. We requested feedback about the coding structure from individuals with experience in GYO initiatives, thus utilizing the Delphi technique (Hsu & Sandford, 2007) as a tool to determine the efficacy of the codes in evaluating GYO applications. We identified individuals in positions that would be integral to GYO initiatives and sent them the initial scoring instrument. Their comments were used to modify the GYO application scoring instrument (see Appendix). There were few changes to the first two categories, but significant changes and additions were made to the "school supports" category. Thus, the final GYO application scoring instrument was expanded to a total of 49 strategies across the three categories and 10 themes. Additions and changes to the categories, themes, and subthemes are noted in the findings section.

Data Sources

Data was drawn from the funded applications from a TEA program aimed at helping school districts establish pre-collegiate GYO programs. We concentrated on applications submitted for the 2018-2019 award cycle to sidestep any concerns that plans would have been influenced by COVID. Finally, we chose to focus on the pre-collegiate program development because the research base in this area is still being established and because pre-collegiate programs seem to hold the greatest promise for addressing future shortages of teacher talent. We exclusively examined 12 applications, selected for funding, that proposed to implement a high school GYO program starting in the 2018-2019 school year (i.e., Cohort 1). A summary of key characteristics of these 12 districts appears in Table 1 including data on student population and teacher demographics.

Table 1Demographic Information for Districts with Funded High School GYO Grants¹

District Name ²	Number of Students	% Black & Hispanic Students	% White Teachers	Plan for Dual Credit
Azalea ISD	691	38%	43%	Yes
Beachgrass ISD	6,805	60%	72%	Yes
Cedar ISD	26,393	72%	63%	Yes

District Name ²	Number of Students	% Black & Hispanic Students	% White Teachers	Plan for Dual Credit
Juniper ISD	3,574	21%	93%	Yes
Live Oak ISD	3,527	66%	71%	Yes
Magnolia ISD	691	36%	96%	Yes
Myrtle ISD	35,042	63%	61%	No
Pecan ISD	2,900	46%	85%	No
Phlox ISD	253	29%	77%	Yes
Pine ISD	302	70%	84%	Yes
Small Grove ISD	1,856	80%	45%	Yes
Verbena ISD	394	14%	98%	Yes

Note: ¹Information retrieved from https://schools.texastribune.org/districts/

Procedures

We accessed publicly available grant applications for a GYO teacher program sponsored by TEA (2019). The research team used the coding instrument resulting from the aggregated literature synthesis to review this specified subset of applications. The three team members independently coded the subset, then discussed their decisions. This process allowed the research team to develop a common understanding of how to code the strategies. For example, we only counted a strategy once even though it may have appeared multiple times in an application. Section headings in the application and context of the statements were used to clarify meanings. After completing multiple rounds of common coding, each member of the research team then coded all 12 of the GYO applications independently. The team reconciled any discrepancies and strategy counts were recorded on an Excel spreadsheet. This process resulted in a total of 171 counts (44 for recruiting participants, 35 for GYO activities, and 92 for school supports). The tables presented in the findings also provide the count of how many of the 12 school district applications mentioned each specific strategy.

Findings

The findings are organized thematically by coding category. We focused on strategies who had a greater frequency of appearance in the applications. Quotes from the applications provide insights as to the authors' rationale for including the strategy. Strategies are identified by an alphanumeric code (see Tables 2, 3, and 4).

Recruiting Students to GYO Programs

Table 2 shows the recruiting strategies and number of districts including them in the application. Approximately 25% (44 of 171) of the strategies found in the applications reflected an intention to recruit participants in the new program. Authors of the applications most often described the population of students toward whom recruitment efforts would be directed.

² All names are pseudonyms.

Table 2 Frequency of Districts Using Recruiting Strategies

Code	Description LE.	As including in Applications
Recruit	ing using reasons to become a teacher based on	
A1	A professional identity as a teacher	2
A2	Benefits of the role to the individual *	4
A3	Benefits of the role to the community	1
A4	Benefits of the role to specific members, or members	s' 4
	characteristics in the community	
Messag	ing to whom recruiting would be directed	
B5	Recruiting students with high GPA	2
B6	Recruiting students with good interpersonal- and lead	lership 2
	skills	
B7	Recruiting average-ability students *	4
B8	Allowing all interested students to participate	7
B9	Recruiting students with an interest (pre-existing) in the	teaching 5
B10	Recruiting students of color to become teachers of co	olor 8
B11	Recruiting students with capabilities in hard-to-staff	areas or 1
	content	
	ing how to become a teacher, including plans for student organiza	tions or recruiting that describes an
intentio	n to	
C12	Have college representatives visit with student group	s * 3
C13	Visit a college campus	0
C14	Visit education departments, college faculty, admission	ons 1
C15	Provide student of color access to post-secondary fac	
	color	
Note:	* Indicates a code that was rephrased or added by Delphi	participants noted in Table A1

Recruiting Students of Color

The most frequent used strategy included in applications was an explicit intention to recruit students of color (B10). In some cases, this strategy was linked with benefits to the community (A4). For example, Pine ISD¹, a small, rural district, articulated the need to improve the match between teacher and student demographics, and set a goal to "encourage diversity by [recruiting] ... Hispanic students to have a gateway into college and into the teaching profession" (Pine, 1:2). They noted later in the application,

[Pine ISD] needs to have teachers that match the student demographic and by Growing our Own, we can do this. Many of our graduates come back to live, if they come back and become teachers in the school, they will enhance the learning and build a culture of learning in the community. (Pine, 4:4)

¹ District names are pseudonyms. The first number references the section of the application, and the second number references the page in the application.

Most applications, however, provided only a statement indicating that recruitment of students of color, or students representing other demographics, would take place. For example, the application submitted by Small Grove ISD stated,

Diverse student groups [in the district] will be targeted for recruitment but will not be limited to students based on gender, ethnicity, or by other population such as disability status, economic disadvantage, single parents, displaced homemakers, limited English proficiency, and migrant status. (Small Grove, 8: a1)

Similarly, the author of the application for Juniper ISD wrote in the recruitment plan, A diverse student population to reflect the current and growing demographics in the state of Texas will be encouraged to participate. This will include encouraging migrant, immigrant, and ESL students as well as other students to become bilingual and ESL certified. (Juniper, 8:7)

Appealing to Those with an Interest in Teaching

When describing how program leaders would recruit students to participate in education pathway, the application authors most often described some form of appeal to students with an interest in teaching as a career. Interest in teaching was cast in two distinct ways. First, interest was described in an expansive way with it being the only requirement for program participation in the GYO (B8). For example, the application from Magnolia ISD read:

Recruiting students for this career path will be open not only to those students in specific performance quartiles, nor will it be closed to those students who do not 'fit the mold.' We will plan a rigorous and relevant course of study for the students, and those that meet the challenges will succeed in the program. (Magnolia, 8: a3)

Likewise, the application from Pine ISD stated, "The program will be offered to all students no matter their performance on state testing" (Pine, 9:2). Verbena ISD also described how "Teachers and administrators will guide students who express interest to the program teacher or counselor for an overview of the program" (Verbena, 8: a2). This approach of relying solely on interest reflects a potentially more inclusive approach to recruitment (Bianco & Marin-Paris, 2019) instead of focusing on certain academic or personality criteria.

Second, interest connoted a more restrictive situation where it was seen as a quality of students who already had made a committed to teaching. (B9). For example, the application from Beachgrass ISD stated, "Junior high counselors will also be stakeholders in promoting the pathway to junior high students, particularly students in the Teen Leadership, Principals of Education and Training, and Career Investigations courses" (Beachgrass, 7: 2). Similarly,

[Juniper] High School currently offers ... the education and training program ... [These] students will be informed of the dual credit opportunities (Juniper, 4:1) ... All students in the education and training pathway will be eligible to participate in the dual credit ... program. (Juniper, 8: a2)

Likewise, the application from Live Oak ISD stated, "The first step is to establish a 4-year high school pathway for students who are interested in a career as a teacher" (Live Oak, 9:1). The authors of these applications seemed to already have in mind the students who might be served by their proposed programs and seemed more focused on the benefit of dual-credit offerings.

Whether cast as inclusive (B8) or as a quality of those already committed (B9), relying on interest alone may act to limit the number of students involved in the pre-collegiate programs.

None of the applications took steps to expand the pool of potential recruits by first cultivating interest using social influences or experiences teaching.

Student Activities in GYO

Slightly more than 20% (35 of 171) of all strategies included in district applications involved the use of social interaction in a manner that would be likely to influence task value and ability beliefs (see Table 3). These strategies, in contrast to those focused on identifying students with certain characteristics, seek to create or boost task value and cultivate ability beliefs about teaching. Three versions of this strategy occurred most often: (a) enlisting support from parents to encourage pursuit of teaching as a career (D16); (b) ensuring that the lead teacher of the Education and Training Course (ETC) was charismatic enough to draw students to teaching (E23); and (c) some form of enactive experiences (F24-F26).

Table 3Frequency of Districts Using GYO Activities

Code	Description LE.	As including in Applications
Family	y influence	
D16	Inform parents about the teaching profession as a way t	to win 6
	support for students interested in teaching	
D17	Allaying fears and dispelling untruths, including concern	ns about 1
	low salary, violence in schools, teacher safety *	
Role Λ	Aodels: Those exploring teaching as a career are	
E18	Put in situations where they can interact with individuals	s who 2
	might serve as adult mentors	
E19	Put in situations where they can interact with individuals	s who 3
	might serve as near-peer mentors (HS to MS)	
E20	Put in situations where they can interact with individuals	s who 1
	might serve as near-peer mentors (IHE to HS)	
E21	Put in a situation that would avoid a "gendered" perspec	ctive of 0
	teaching	_
E22	Put in a situation that would avoid a "racial" perspective	e of 1
	teaching *	
E23	Ensure the "right person" as the ETC teacher will be a	draw for 9
	students *	
	ive Experiences: Those exploring teaching as a career are provided wo	O 11
F24	Tutoring	2
F25	Co-teaching, small group instruction or otherwise support	
	"participating" in classroom activities with a cooperating	g teacher *
F26	Informal learning *	3
F27	Students attending professional development with distri	ict 0
	teachers *	
Combi	ining sources: Role models and enactive experiences	
G28	With their own teacher or administrator as a mentor *	1
G29	That include social support and/or performance feedba	ck 2
	intended to strengthen identity	
Note:	* Indicates a code that was rephrased or added by Delphi parti	icipants noted in Table A1

Seeking Parental Support in Recruiting

Parents can play an important role in the choices adolescents make about their careers and given as reported in *Phi Delta Kappan* (2018), it seems winning support from parents about their child's choice of teaching as a career might be a good idea. Several applications included plans to involve parents in supporting students with an interest in teaching (D16-17). One Delphi participant encouraged speaking with parents about potential cost savings associated with college attendance and allaying fears about teacher safety (Table 3).

The most common approach for seeking parental support was to provide information in venues where parents would be present. For example, Phlox ISD described plans to communicate through announcements at district meetings with the community, parent advisory meetings and at a career night event attended by the local community college (Phlox, 8, a1). Azalea ISD planned to recruit students using flyers, whole school announcements, and "[sending notices home] to parents/guardians in English and Spanish that will notify them of the available [dual-credit] courses" (Azalea, 8, a2). Based on the evidence in the applications, it is not clear exactly how teaching as a career would be messaged to parents but identifying cost savings associated with dual-credit opportunities, a value associated with task return, appeared to be the most common method of enlisting parent support.

Identifying the "Right" Teacher to Lead the GYO Program

In the application form, applicants were prompted to describe the process used to select the teacher who would lead the education and training courses (ETC) associated with the GYO program (E23). The application recommended several selection criteria, including identifying teachers who had a past record of improving student achievement, involvement in student organizations, and strong appraisal ratings. Depending on the district plan, this teacher could also be the person who would teach two education courses eligible for dual credit at the post-secondary level. Therefore, many applications included descriptions for how the selected teacher would earn a master's degree in order to be eligible to teach college-level courses.

A total of nine applications included additional descriptions of the teacher selected for the ETC courses, but none used the selection criteria recommended in the application. In five of the applications, the intention was to select a teacher who was already functioning in the ETC role. Others planned to recruit "a highly motivated teacher" (Verbena, 1, 1) or a teacher with a "commitment to the school district and potential to earn the graduate degree so as to teach dual-credit courses" (Azalea, 6, a1). Three applications explicitly mention demographic characteristics of the desired ETC teachers. For example, in the Pine ISD application the selected teacher was a former resident of the community, and "understands the need to develop diversity in the profession" (Pine, 6, a1). In Myrtle ISD, "Preference will be given to Hispanic and African American teachers that meet all eligibility criteria" (Myrtle, 6, a1). Cedar ISD's application stated, "[The district] will target candidates who meet the following criteria: (1) Diversity: candidate's reflection of the demographic makeup of the district" (Cedar, 6, a1).

Cultivating Belief in Teaching Ability Through Enactive Experiences

Nine district applications included plans to place students in situations where they were able to experience the role of a teacher. This could be through tutoring (F24), working with a cooperating teacher (F25), or interacting with younger students in some informal learning situation such as coaching (F26). The Pine ISD application described activities that would likely serve as an inactive experience. Their application outlined the way in which the practicum portion of the dual-credit courses would be carried out while working with teachers in the district, "During the 11th and

12th grade year, the students will have rotations in the elementary school working with students on academics as well as mentoring them" (Pine, 8, a3).

Some applications described multiple enactive strategies. For example, the plan from Cedar ISD proposed to keep participants "engaged in courses by offering real exposure to teaching work ... so that students can see the path to [teaching as a] career" (Cedar, 8, a6), and "pairing students 1:1 with teacher mentors to provide an opportunity to form relationships with educators who can act as guides as the students embark on their career journey" (Cedar, 8, a7). The application from Myrtle ISD also included plans for two types of activity. The first involved coordinating a service-learning project pairing "high school students acting as reading buddies to our at-risk elementary students" and the second involved students in informal learning during teacher-focused student competitions at regional and state contests (Magnolia, 8, a3).

Only one application planned to place students in a situation that might help avoid a racial perspective on who could become a teacher (E22), "The LEA will utilize the following recruitment methods to ensure continued enrollment of students into the Education and Training courses: ... Invite teachers from diverse background to speak with students about the benefits of entering the teaching profession" (Magnolia, 8, a3). Only two applications included strategies that would provide social support that strengthened students' identity as a teacher. For example, the application from Juniper ISD described opportunities for students that would increase the likelihood of success in regional and state teaching-focused competitions. "Students can prepare and practice their events and projects within their education and training classes as well as before and after school" (Juniper 4: 1). The application from Verbena ISD also described how the teacher of the education and training courses would motivate students to enter and persist. "The teacher will meet weekly with individual students to discuss program progress and classroom strengths and weaknesses for practicum students" (Verbena, 8: a2).

Strategies for School Support

Actions to be taken by school district or school-district personnel (see Table 4) accounted for slightly less than 55% (92 of 171) of all the strategies identified in the applications. The most common strategies had to do with allocating resources to support student groups focused on teaching as a career, which was a requirement of the grant program (I35), establishing dual-credit education courses for students in the GYO program (J42), developing a program of study to become a teacher (J41) (which may or may not include courses that are dual-credit earning), identifying community colleges with teacher training programs to offer dual-credit courses (J47), and providing students with access to a school advisor or career counselor who would promote teaching as a career (H30).

Table 4Frequency of Districts Using School Support Strategies

Code	Description	LEAs including in Applications
Resources allocated for advising / recruiting: High school students have access to		
H30	An advisor, career counselor or career advisor who teaching as a career and / or advises students about requirements	*
H31	Local administrators present to students about the profession and other education-related career opportunity or administration *	

Code	Description	LEAs including in Applications
H32	Local promotion and visibility of the endorsement or teacher pathway *	
H33	An "interest" inventory for guiding career decision	ons * 3
H34	A counselor or other who is able to create an ind to ensure completion of the "program of study"	
Resource support	es allocated to groups of students intending to be teachers: $ T $	The school or school district provides resources to
I35	Student groups that are focused on teaching as a	career 12
I36	Recruiting elementary or middle-level students in focused student groups *	to teaching- 8
I37	Launching of online resources intending to help students remain on the pathway to teaching	high school 0
I38	Student access in FAFSA, scholarship, grants, loa college	ans to finance 0
I39	Creation of a committee to monitor and evaluate and / or to help with administrative "buy in" to limplementation, including placement of high sch "practicum" classrooms *	nelp with program
I40	Ensure training for mentor teachers in "practicur ensure fidelity of program implementation and encommunications between mentor and ETC teach	nhance
Resource supporte	es allocated to support transition to post-secondary education d by	s: Students intending to be teachers are
J41	A structured program of study to become a teach	ner 9
J42	Dual-credit teacher preparation courses to "add students with class schedules that are already bus	
J43	Tuition assistance or scholarship for attending co	ollege 7
J44	District efforts to support language development academic success	to help ensure 0
J45	Non-traditional instructional modes, like online r	modules * 0
J46	Some type of collaboration among district, IHE	and students 2
J47	District efforts to identify IHEs that are both int include teacher training programs at the commun	
J48	District efforts to identify IHEs that are both intinclude teacher training programs at four-year co	
J49	Provide all aspects of post-secondary teacher trait the district *	ning locally within 0

Note: * Indicates a code that was rephrased or added by Delphi participants noted in Table A1.

Several applicants combined complementary school support strategies. Nearly all of the applications containing plans for utilizing dual-credit education courses (J42) also intended to establish a structured program of study to become a teacher (J41). Ten applications included descriptions of partnerships with community colleges that would provide dual-credit offerings for high school students. Only three applications (Cedar, Myrtle, and Live Oak), however, described a plan that would clearly align high school, community college and university programs resulting in bachelor's degrees and state teacher certification (i.e., J42, J47, J48).

Cedar ISD's plan described this pathway in the greatest detail. Their application included process goals for establishing a dual-credit planning team consisting of district and community college representatives (J47). The partnership between the two institutions was described as "existing" (J42). The community college planned further partnerships with other 4-year institutions in the state, through formal course articulation agreements.

Students wishing to continue their studies at [Cedar] Community College will be able to directly enroll and complete their Associate of Arts in Teaching (AAT). An existing partnership between [the community college and a regional university] will further enable students who have completed an AAT at [Cedar] College to enroll at [regional university] via a satellite program and receive a 4-year degree and certification without leaving [the community]. ... Students who wish to transfer their credits to a different institution will be able to do so. [Cedar] College has existing transfers agreements with [three other institutions in the state] providing a seamless transfer process for students to these four-year institutions. (Cedar, 7, a4)

Both Magnolia and Live Oak described similar plans, and all three institutions confirmed they would work across institutions to retain students in the teaching pathway by eliminating barriers associated with credit loss and transferability.

There were several missing or infrequently addressed strategies in this group of applications, such as recruiting students with capabilities in hard-to-staff areas or content (B11). Strategies such as students attending professional development with district teachers (F27), which was recommended by a Delphi participant, the launching of online resources (I37), and student access to information on FAFSA, scholarships, grants, and loans (I38) could be easily and inexpensively included in the applications, Strategies such as training for mentor teachers (I40) and district efforts for to support language development to ensure academic success (J44) would require additional district resources.

Discussion

We examined the funded applications from a SEA program aimed at helping school districts establish pre-collegiate GYO programs. We noted the frequency with which application authors proposed to use strategies found in existing literature about GYO programs with the intent to evaluate the alignment between proposed programs and career development models for teaching.

Overall, we found positive signs in the district applications that the GYO programs being planned did draw on strategies described in the research literature. Across most application, there was explicit mention of a desire to recruit a diverse group of students to a career in teaching (Torres et al., 2004), and many plans included putting participants in job-related roles (Ward et al., 2001). Though not explicitly articulated in the applications, these types of actions are likely to communicate specific reasons for becoming a teacher, provide a setting in which skills may be developed, and cultivate beliefs about one's ability to be a teacher.

Looking Beyond Interest

Achievement motivation theories show how personal, social, and environmental factors create movement toward a career choice (e.g., Lent, 2020; Watt & Richardson, 2007), but there is

still considerable ambiguity about how those beliefs and values for teaching are initially cultivated and become a career goal (Schutz et al., 2001). In most of the applications we found plans were being made to recruit students based on a pre-existing interest in or value for teaching, but none included any actions aimed at cultivating interest, using social persuasion, or creating positive teaching and learning experiences with any students who may not, as yet, have expressed an interest in teaching (Leech et al., 2019). If the GYO plans are implemented as described in the applications, many adolescents who are well-suited to be teachers may be excluded because they have not yet formulated an interest in teaching or have not yet been put in situations where this interest might develop.

Perpetuating Whiteness

Perhaps the biggest surprise was the number of factors in the applications that are likely to work against diversifying the teacher talent pool. Almost all the applications included statements reflecting an intention to recruit students of color. With few exceptions, however, most of the plans did not include actions to eliminate what many researchers have consistently identified as factors contributing to adolescents' disinclination toward teaching (Cruz, 2013; Leech et al., 2019; Mau & Mau, 2006; Naughton, 2020). Nor did most of the application plans include strategies to avoid racial and gendered stereotypes of who should be a teacher (Andrews et al., 2021).

The places where school districts look for teacher talent often influences the talent they find. As researchers have previously pointed out (Leech & Haug, 2015; Naughton, 2020), students who have not had a positive educational experience may be less inclined to express an interest in teaching even though they possess the capabilities. Like the interpersonal factors maintaining the "whiteness" of teaching (Picower, 2009), the GYO plans appeared to perpetuate the very circumstance most application authors stated they were trying to overcome.

Although most applicants acknowledged the importance of having the "right" teacher to oversee the GYO program, the selection criteria in most applications seemed to work against the expressed goals of recruiting students from diverse demographic groups if they existed at all. Given that most districts intended to recruit students of color to become teachers, omitting race/ethnicity as a criterion for selecting the program leader is likely to undermine the success of most programs from adequately diversifying the teacher talent pool.

Maintaining a Broken System

Finally, many of the applications included intentions to arrange opportunities for students to earn college credit in education courses. Unlike the comprehensive systems described in the community college research literature (e.g., Monto, 2019; Walker et al., 2008), most of the plans lacked consideration of any steps beyond the initial efforts to enroll students in coursework.

Systems like those described in the district applications from Cedar, Magnolia, and Live Oak are rare in this State where pathways to teaching that lead through community colleges are often blocked by university systems with poorly aligned articulation agreements (Lee et al., 2019). Rather than building upon community-college coursework in education, many universities discard them. For students, this often translates into credit and time loss when transferring to four-year institutions. Ironically, in a state with perpetual teacher shortages and a rampant system of post-graduate, for-profit certification companies, the side-effect of this misalignment is an ongoing struggle to attract students to university teaching programs.

In addition, many of the applications failed to include strategies that are most likely to support the student population most intended to recruit. For example, none of the applications include supporting students to gain access to the Free Application for Federal Student Aid (FAFSA). Completion of this form is critical in the United States for receiving financial aid and minority

students often underutilize these resources (O'Connor et al., 2020). Likewise, none of the applications provided support for the language development of ESL students, even when that group was targeted for recruitment to teaching.

Implications and Recommendations

Several the findings reported here point to potential obstacles to accomplishing the goals of GYO programs. First, most plans in the applications focused only on students who had already expressed some interest in becoming teachers. This approach is very direct, but it may overlook those students who may have the capabilities or hold values consistent with equity and inclusion that might later find expression in a teaching career. Attention to how participants are recruited or how the program is framed (Bianco & Marin-Paris, 2019) might provide a more inclusive approach and yield the types of participants applicants identified as their preferred audience.

Second, just as district plans may ignore those students who do not already have an interest in teaching, their methods for choosing teachers to lead the programs may further distance students of color and continue to perpetuate a gendered and racial perspective on who should become a teacher. If, prior to culling out participants, some positive, enactive experience in a teaching role could be arranged for those with less explicit interest, beliefs about teaching ability could be changed in a way that presents an unforeseen career choice. Attention to what activities occur and who leads them is critical to the success of recruiting and retaining greater numbers of students of color.

Finally, application plans had the potential to create a systematic pathway to teaching, yet many aspects of the systems they proposed might actually become barriers to success. Failure to support high school students with college applications or help with initial steps to receive financial assistance could easily discourage students with a tentative commitment and limited family capital in post-secondary education. Once in community college, the consequences of credit loss and additional time to completion are likely to be discouraging outcomes of systems that have not ensured articulation of degree pathways across early-college, community college and university preparation programs. Short of dictating a single, statewide education degree plan that could be followed by community colleges and universities, the two institution types should find common cause in addressing teacher shortages. This might involve community colleges negotiating with multiple universities for which they are feeder schools to align to the same degree pathways. This alignment would result in multiple universities accepting the same agreed-upon degrees and all course credits transferred from the community college.

Limitations and Directions for Future Research

There are, of course, limits to the conclusions that can be drawn from a written application to a state-level grant program. For example, the relationship between the grant writer and the individuals charged with leading and administering the GYO program is unclear. It is possible that, when implemented, the program reflects all the best qualities identified in our review of the literature. In addition, written applications represent the state of a GYO program (in the mind of the authors) only at a given point in time, which is often prior to any steps being taken toward implementation. The evaluation of the success of the plans must ultimately rest in what happened further downstream as the plans and programs unfolded in the communities they were intended to serve, and as the high school students graduated and attended post-secondary schooling.

These limitations, however, also point to directions for future research. The SCCT and FIT-Choice models were conceptualized to unfold over time, but often have been evaluated by researchers using advanced statistical techniques that invite causal reasoning and which were created

with data captured at a single point in time. Given the longitudinal nature of career development (Rogers & Creed, 2011), it would benefit theory and practice to have a clearer picture of how interest and choice for teaching plays out over time and what factors along the pathway hold the greatest potential for retaining aspiring teachers.

It is also important to better understand how existing high-school GYO programs perpetuate gendered and racial perspectives on who should be a teacher. Future research efforts should be directed to better understand how to create an entry to teaching that is not based solely on interest during high school, and like those researchers who show the positive impact of own-race teachers on students (e.g., Egalite et al., 2015), also investigate the impact of having GYO programs led by teachers who represent the demographic of students found in their classrooms.

Finally, the most important work may be the hardest. In the future, researchers of GYO programs should utilize a theory-based approaches, like career-development and adolescent identity development, to study the implementation and outcomes of programs designed to stimulate interest and choice for teaching as a career. This work will require both case study and empirical approaches to consider contexts and the effectiveness of strategies in ways that simple program descriptions are not able to accomplish. With the accumulation of evidence from this type of work, we may finally be able to determine if the faith placed in high-school GYO programs is warranted.

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Appendix

Table A1

Individuals Who Provided Input on the Initial GYO Scoring Instrument

Position	Summary of comments	
Rural school district superintendent	No additions	
Rural school district counselor	No additions	
Ready, Set, Teach	Does almost everything on the list	
instructor	 Concerned about parents' messages to students Some of the best students have average grades 	
Field placement coordinator for an EPP	 Liked the idea of finding male mentors. Spending time with children because of taking dual credit classes Positive exposure to teaching impression is important "high school kids need more education "cheerleaders" so they see it as a positive career choice" Liked parents becoming involved as some parents say they won't pay for college is the student chooses education Liked having college recruiters come to the school and present 	
Deputy superintendent in a	Self-motivation is critical	

Position	Summary of comments
district with an active GYO program	 We look for students with drive to be a finisher / creator with self-confidence. At this age, I believe soft skills are important to becoming a teacher. Benefits to the individual is not clear Enactive experiences could also include peer coaching, projects and clubs
Texas Education	Comments were made by themes:
Agency employee who oversees GYO	Theme A: thought it was fine if "Benefits of the role to the individual" was weighted less
grants	 Theme B: suggested adding "identifying students from diverse backgrounds; identifying students who demonstrate ability in unconventional ways; spotlighting current high-performing teachers and their backgrounds/journeys" Theme C: consider adding visiting elementary or other district
	schools, participating in state or area events involving student organizations • Theme D: Noted "misinformation persists among families about
	 teaching, especially around salary" Theme E: Add in situations where they could "develop a demographically diverse perspective"
	Theme H: Students may need help in identifying IHEs that include their areas of interest and include teacher training programs
	Theme I: Add shortlist of examples of resources
CTE director who serves as a district-	 Have "administration present to students about the teaching profession and opportunities in administration" "Provide individual student scheduling in order to ensure
based site coordinator in a rural	 completion of program of study" "Provide all aspects of the post-secondary program locally without the need for travel"
district with an active RST program.	"Provide opportunities for students to attend 'professional development opportunities either in district or remotely"
	• Recruitment and promotion are critical – "Ensuring the correct ETC teacher The best teacher may not currently be housed in the HS"; high level of "buy in" with all administrators; training of mentor teachers; constant communication between ETC teacher and mentor teachers
Director of national teacher preparation center who works nationwide with	Suggested rephrasing statement 18 to address diversity students should "interact with racially diverse teachers (e.g., male and female teachers of color)"
EPPs to improve outcomes for teacher	
candidates.	

About the Authors

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Dr. Doug Hamman, Helen DeVitt Jones Endowed Professor of Teacher Education, previously served as founding chair of the Department of Teacher Education and, more recently, the Interim Associate Dean for Research at the College of Education in Texas Tech University. He was a teacher educator dedicated to uplifting the profession of teaching and expanding access to high-quality, university-based educator preparation programs—especially for rural and underserved communities. His most current research focused on teacher recruitment among high school students and teacher preparation programs at the university settings.

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