

University and Community College Partnership in Recruiting and Marketing for a STEM Teacher Prep Program: Progress and Missteps

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Abstract

Our program developed collaborative partnerships with seven east Texas community colleges liaisons representing eleven community college campuses to market and recruit students to a teacher prep program. Community college partners were chosen based on existing faculty relationships and reasonable distance for travel for both the liaisons, as well as, the students whom we hoped to visit our campus for a job shadow program and/or a scholarship interview. Central to these efforts was the selection of an on-site liaison, teaching in one of the STEM areas, who would aide in identifying, informing, and recruiting potential students to the T4 Program. These liaisons had already made personal connections with their community college students via their mentoring sessions and face-to-face conversations, both casual and formal. These relationships fostered confidence and the conversations exposed students to career possibilities that might not otherwise be presented to them. The opportunity to shadow a master teacher, Job Shadow, the week after their final exams was an excellent way for students to get an inside perspective on teaching. Reflecting on our findings and experiences, we have clearly heard from, and experienced the importance of choosing, highly motivated and passionate liaisons for promoting teaching as a career choice.

Keywords: recruiting, marketing, teacher preparation, internship, partnership

Introduction

A report in 2006, ‘Rising Above the Gathering Storm: Answering a Call to Action’, cited a surprising trend in the number of undergraduate students seeking degrees in science and technology (National Academy of Sciences, National Academy of Engineering, and Institute of Medicine of the National Academies, 2006). Four-year colleges and universities have taken note of this and are actively recruiting in the STEM fields. Additionally, community colleges are playing an increasing role in the formation of STEM professionals in the United States (Boggs, 2010; Strawn and Livelybrooks, 2012; Monis 2018; Hu & Ortagus, 2019). Furthermore, Strawn and Livelybrooks (2012) stated that “two-year colleges stand out in both the ethnic diversity of and percentage of first-generation college attenders among student populations, this view is supported by the work of Tsapogas (2004), Boggs (2010) and Wladis, Hachey & Conway (2015). Studies have found that that community college students are more likely to be first-generation attenders and are more likely to come from communities with limited vision of possibilities (Choy 2001; Hottinger & Rose, 2006; Harlow, A. J., & Bowman, S. L. 2016). It is clear that the community college systems can and will play an important role in providing well qualified and ethnically diverse students to the STEM pipeline for four-year universities and colleges (Wang, Palmer, & Wood, 2013; Doerschuk, Bahri, Daniel, Kruger, Mann & Martin, 2016; Wickersham & Wang, 2016; Bahr, Jackson, McNaughtan, Oster & Gross, 2017).

However, with the reduced support by states for higher education, institutions of higher education have responded by increasing tuition and apply new fees to help defray costs (Mitchell, Palacios & Leachman, 2015; Mitchell, M., Leachman, M. & Masterson, K., 2019). These increased expenses are putting financial burdens and barriers for many potential STEM students and have shifted the conventional role students see themselves in higher education. Many in higher education are taking the position that students are customers in a similar way

with regard to the purchase of goods and materials (Clayson & Haley, 2005; Durkin and McKenna, 2011; Guilbault, 2016 & 2018). According to Clayson and Haley (2005), "Many in education have begun to adopt a customer model for students. It is not explicitly stated, but evidence for this orientation can be found in many behaviors and procedures of higher education. Marketing promotions by universities to future students are almost identical to marketing promotions in any customer service environment" (p. 1). Academic departments have been encouraged to set down marketing plans (Hugstad, 1997). There is some evidence that institutions of higher education in the United States are becoming more like a commodity (Doti, 2004). Many students agree with the statement that "If I'm paying, I deserve a degree", such 'customer' viewpoints being highest among business, arts and science students (Delucci and Korgen, 2002; Obermiller, Fleenor & Raven, 2005). Whether intentionally or unintentionally, higher education has created the "student as customer" paradigm and is in part the reality that we have today.

Others do caution that "there needs to be clear understanding that tuitions facilitates education but does not cause it" (Eagle & Brennan, 2007). Conway, Mackay and Yorke (1994), states that it may be more helpful to regard students as 'consumers' of education service rather than 'customers' in the traditional sense. As a result, there has been recognition by colleges and universities that marketing strategies are needed to attract these increasingly cost-conscious students. In response to the more competitive nature of recruiting students, institutions and programs within higher education should examine the effectiveness of marketing and recruiting strategies to ensure their continued success.

Literature Review

Marketing strategies between four-year universities and community colleges, via partnerships, have primarily focused on general education students and recruiting them to the institution without regards to specific majors (Krampf & Heinlein, 1981; Han, 2014; Liu, 2008). Until recently, marketing strategies have not focused on the importance of building partnerships with community colleges at the program level, with some exceptions (Tsapogas, 2004; Strawn and Livelybrooks, 2012; Kalimullin & Dobrotvorskaya, 2016; Woods, Richard & Ayers, 2016). Recruiting participants into higher education, and particularly in teaching in a STEM area, has become increasingly challenging. Traditional strategies, such as media advertising campaigns and job fairs have become less effective. Some suggest targeted efforts to a specific gender on social network site like Facebook could be an effective strategy (Fenner, Garland, Moore, Jayasinghe, Fletcher, Tabrizi, Gunasekaran & Wark, 2012) that could be applied to STEM. Other studies focus on the use of social media to identify segments in the population of future students on the basis of social media use (Constantinides & Stagno, 2011).

The analysis of recruiting strategies, for specific academic programs, appears to be limited. One exception is the efforts reported by Abell, Boone, Arbaugh, Lannin, Beilfuss, Volkmann and White (2006), in their analysis of recruiting efforts for science and mathematics teachers into alternative teacher certification programs. The focus of their study was on recruiting post-baccalaureate students. Abell et al. (2006) identified “gatekeepers” that facilitate or constrain applicants to their programs. These gatekeepers were recognized as intentional or unintentional. Intentional gatekeepers are planned strategies, while unintentional gatekeepers are qualities, persons and resources that emerged from during data analysis (Abell, Boone, Arbaugh, Lannin, Beilfuss, Volkmann and White, 2006). In our study we focused on the strategies and issues with recruiting students from local community colleges. We were interested in the

success of recruiting strategies of graduates from community colleges into a STEM teaching program, “Talented Teachers in Training for Texas”, or simply, T4. Thus, our study was interested in identifying those strategies that were effective and what barriers to students entering the program might there be.

Traditional marketing strategies have been reported in the literature as having mixed success (Sands, Smith & Smith, 2000; McGrath, 2002; Mazzarol, Soutar & Thein, 2008; Chong & Roundtree, 2020). In our recruiting strategy we employed printed posters and flyers as one of the traditional methods. In addition, we implemented electronic media strategies (i.e., dedicated websites), QR codes, and promotional videos in this category. Non-traditional strategies, included the careful selection of on-site liaison, personal recruiting visits to classrooms and campuses, and financial incentives (e.g., stipends and scholarships) to students.

In 1961 (Lavidge & Steiner) proposed a model for setting and evaluating advertising objectives. This model consisted of six behavioral states, where each state moved the consumer closer to purchasing a product. The model proposed is a linear one, which begins with consumer awareness and continues with knowledge, liking, preference, conviction and ending with purchase (Kotler & Armstrong, 1991). Berger and Wallingford (1997) applied the principles of this model, proposed for general marketing by Kotler and Armstrong (1991), to institutions of higher education. In our study, we addressed where and how our efforts fit into the framework of evaluation proposed by these works.

An additional thought should be mentioned. In the Generation Z group, teaching may not represent a student’s end goal (Draper, Fraser and Taylor, 1998; Hanover, 2018). Rather, teaching may represent the first step to a career for which teaching could best prepare them for

other careers (Rinke & Mawhinney, 2017) or to start their own business (Carter, 2018; Hanover, 2018).

Context

The National Science Foundation program Talented Teachers in Training for Texas (NSF 136416, NSF 1556983), T4 for short, is a Robert Noyce Scholarship initiative based at Stephen F. Austin State University (SFA) and with the first two goals of:

1. [Creating] “experiences through which university STEM majors can examine careers in high school teaching through early intensive field experience.
2. [Targeting] aspiring STEM teachers for authentic engagement in a community of practice with a structured mentoring network (including experienced classroom teachers, aspiring STEM teachers, and STEM and education university faculty for two years before graduation and three years after entry into the teaching profession” (Hubbard, Beverly, Cross & Mitchell (2018, February, p. 132).

T4 Scholars are STEM majors who apply to the program and are selected based on GPA, recommendations, personal essay, time to graduation, and answers to prompts during a face-to-face interview. Attention was also paid to recruiting scholars for whom teaching had not been their original career intention and who would add to the diversity of the overall program.

Strategies, What We Tried

This program developed collaborative partnerships with seven east Texas community colleges liaisons representing eleven community college campuses. Community college partners were chosen based on existing faculty relationships and reasonable distance for travel for both the

liaisons, as well as, the students whom we hoped to visit our campus for a job shadow program and/or a scholarship interview. Central to these efforts was the selection of an on-site liaison, teaching in one of the STEM areas, who would aide in identifying, informing, and recruiting potential students to the T4 Program.

Traditional marketing tools consisting of printed flyers, posters and a dedicated website were developed and shared with the community colleges. QR codes were incorporated into posters and flyers to hopefully increase the traffic to our website and bring information more easily to the prospective students. Ten promotional video was produced and posted to the T4 website highlighting the experiences and included commentary from current T4 Scholars.

A non-traditional marketing approach was to offer a one-week internship to explore what teaching might be like, i.e., an early intensive field experience or Job Shadow. Recognizing that often times college students have financial needs that require them to begin to work full-time as soon as the spring semester in over, a \$450 stipend was offered to compensate students for participating in a week-long job shadow program. The Job Shadow program offered students the opportunity to shadow a STEM master teacher in their area of interest, mathematics, biology or chemistry. This was a chance for students to discover whether or not teaching was a viable career choice.

A more traditional financial incentive was the creation of T4 scholarships that would provide stipends for students during their junior and senior years at SFA. These T4 Scholars were then admitted into a multi-mentored program that would provide training, support and mentoring through their junior and senior year, as wells as, the first three years in their teaching positions.

During the eighth year of the T4 Program, a survey was developed and sent to our liaisons at the partnering community colleges. In this electronic survey we asked for feedback on their experiences and perceived successes. Survey questions included:

1. What materials and methods did you use to recruit for T4?
2. Rank how effective these efforts were in capturing the interest of students.
3. What aspect of the T4 program do you feel was most appealing to students?
4. What method do you feel was most important for recruitment?

After collection and analysis of the survey data, community college liaisons were invited to the SFA campus to form a focus group to follow up on the survey results, share experiences, strategies, and focus on the lessons learned. This approach is an indirect measure of our recruiting strategies as we did not survey the students directly.

In the final phase of this project, we began thinking about Abell, Boone, Arbaugh, Lannin, Beilfuss, Volkmann and White's "gatekeepers" (2006). We identified factors that we believed either facilitated or hampered application to our programs. Comparable to Abell et al. (2006), these gatekeepers were recognized as intentional or unintentional. Intentional gatekeepers are planned strategies, community colleges chosen for partnerships, requirements for applicants, incentives and resources, while unintentional gatekeepers are "qualities, persons and resources that emerged from during data analysis" (Abell et al., 2006). We identified the intentional gatekeepers as our timing of recruitment, application deadlines, financial incentives for the job shadow and T4 scholarship programs, personnel involved, non-human information (print and electronic) and geography. Unintentional gatekeepers included choice of community college liaison, student internet savvy and accessibility, word of mouth and luck.

Recruiting Strategies, What We Learned from the Focus Group

Seven community college liaisons participated in an electronic survey in the fall of 2017.

Anonymity of the community colleges is maintained in this paper. One participant taught biology, four chemistry, one mathematics, and one both biology and chemistry. Four of seven (57%) had taught between six and ten years, while two had been teaching for at least 16 years.

All participants made multiple classroom announcements and distributed flyers to their classroom as well as to the colleagues. Six of the seven (86%) made personal contact with 20 students or less, while one participant made contact with more than 30 students. Time demands on the participant spent recruiting were moderate with all reporting less than 40 hours total. Three of seven spent 11-20 hours, two spent 21-40 hours and one reported less than 10 hours recruiting students.

Participants were asked “What method do you feel most important for recruitment efforts this past year for the Talented Teachers in Training (T4) program?” Three of seven (43%) stated personal announcements in class, two (29%) stated face-to-face conversations, and two (29%) state persons visiting from SFA were most important. No participant selected flyers, posters, emails, blogs, or social media was most important for recruitment.

A focus group consisting of four of the seven community college partners was conducted in the spring of 2018. Two partners did not attend the focus group but sent brief written responses to the same questions asked in the focus group. Conversations during the focus group were recorded and later transcribed for analysis. In the following discussion are quotes from participants of the focus group, as they better convey the feelings and passion expressed by the participants.

Important Talking Points to Students

Participants were asked about what talking points they thought were important to students when recruiting. Three major themes arose from this question. Financial support for both “trying teaching” and the importance of a scholarship to fund the student’s last two years of college topped the list.

“I talked to them mainly focused first on ‘Hey, this is a scholarship that will pay, effectively, for your last two years of college, give you the opportunity to really focus on your school without having to have a job to pay for your college.”

A third theme was conversations with students about abundant job opportunities and the demand for teachers.

“I also promoted for mine the job opportunities, because I’ve talked to several students this week and they don’t realize like what a shortage there is in the teaching profession right now for S.T.E.M. teachers, and when I pull up and show, ‘You know, hey, if you have a degree in teaching, I said, I know six school districts right now that would put you to work tomorrow if you had your teaching certificate, and I kinda used that sort of as my hook.”

All participants indicated emphasizing the opportunity to tryout teaching, or find affirmation that teaching was a good career choice for them to pursue, during a job shadow experience. The paid Job Shadow and T4 Scholarship was a secondary feature when talking with students.

Important Talking Points to Colleagues

Participants were asked about what talking points they thought were important to colleagues when recruiting. Similar to the results found when talking with students, participants felt that the financial support, via stipends and scholarships and the opportunity to explore teaching were important.

"I would often get some questions from them [their colleagues] about, 'Well, what is this, what are we promoting here?', and again I ...put forward to them the idea of how supportive this program is, 'cause having talked with you guys, I love the idea that what y'all do with your students, that it makes an extension between how we want to support our students to do well and to succeed and then by getting them involved in y'all's program it's not like we're getting them up to this point and then just saying 'You're on your own' because ... you have your faculty that come in and support ... you make them feel like they're coming home, like they're not going to this strange land of education ... because I know my colleagues are really interested in helping the students be successful and succeed."

Interestingly, included in liaisons' conversation with their colleagues was the discussion of the support and mentoring that students in the program would receive from the T4 team during their experiences. The community college liaisons continually expressed a genuine interest in seeing their students succeed.

Personal Motivation for Promoting Job Shadow

Of particular interest was what makes a good liaison for a community college. Thus, a question was asked as to what personally motivated the participant to recruit for the job shadow program. Again, financial support in terms of stipend was a common theme. Several participants noted the importance of having a backup plan or second career path within their major. One participant, an alumnus of the university, expressed a great need for minority recruitment. In these conversations about the liaisons' motivation for recruiting for the T4 program, the passion of teaching in each participant was quite evident in their tone and content of the discussion. One participant expressed that teaching as a first choice was the motivation for recruiting.

"I'm absolutely with everyone else, in the same boat, in the sense that I feel like we all have a passion to get students that have a passion for teaching into that field, but also let them know of the opportunities that are there and available to help them be successful. I really like the aspect of the support that the T4 scholarship provides"

Several liaisons echoed that financial support was important and reduced the financial barriers that many first-generation students face and allowed them to attend a nearby university that allowed for continued family contact.

"[T]he money probably jumped out at me first of all...Oh! You can go and finish your whole degree here and do what you were planning on doing anyway and not have to pay all that money back,' ... because many of our students...I know are first generation

college students, and they're just struggling to be there, and so that idea that there's some help if they want it, if they get down the road, that's, for me"

Of particular importance to the T4 Programs was the recruitment of under-represented students into the STEM teaching field. One liaison expressed their motivation and the others echoed similar sentiments and motivations:

"...as a minority in the STEM field I also have a desire to increase and improve the quality of more minorities in STEM fields, so me personally I recruit everyone but I specifically like to target other minorities, too, and try to encourage them to pursue a STEM field and I tell them, 'Major in chemistry and minor in education. That way if you find out you don't want to teach, you still have a chemistry degree.'"

Obstacles Faced by Students

We were not only interested in what works for recruiting, we also wanted to learn what real-world obstacles prevented students from either applying or participating in programs. Competition from other schools, that are more familiar to students, was a common theme amongst all participants. Additionally, the lack of information about the teaching profession, especially the rewards and benefits was expressed by most of the participants. This is consistent with the findings of Marder, Brown and Plisch (2018) the STEM majors misunderstood or underestimates the comparative financial benefits of a STEM teaching career as compared to other STEM careers (2018). Common among many mid-career students, was the difficulty for students in deciding and committing to a career path. Most faculty believed that an additional

source of opposition to considering teaching as a career, was that most students are recalled particularly unpleasant parts about teaching and should instead focus on the more uplifting aspects of teaching:

"[T]he students that I [want] to encourage [to teach] is trying to counter the bad things that they see [misbehavior, discipline problems], but I talk to my students and they're sitting in a college classroom...who was that teacher or teachers that made you want to sit right here? And so I try to bring up, to emphasize those positive teaching experiences that they had to encourage 'Do you want to be that kind of teacher, if teaching is at all interesting to you? Would you want to make a difference like that? Because you're sitting here for a reason, whether, and I guarantee you some teacher in your life influenced the decision to be sitting here

Given that the world-view of early career college students can be quite limited, compounded by the fact that many students are first-generation, liaisons are vitally important in expanding students' knowledge of career possibilities. As one faculty member observed:

"[I]t's amazing sometimes to think that they don't realize that there's so many different places and ways you can teach and places you can go with it, and the opportunities it can bring, and then of course I tend to always share my personal experience with them in that I love teaching. I've always loved teaching, and I even got out of teaching and worked in industry for a while and found it so boring that I went back to teaching, and so it's one of those things that you try to set their mind at ease."

Most Effective Recruiting Strategy

All faculty members believed targeted, one-on-one recruitment was the most effective method.

Timing was considered crucial as most students decided before their second-semester sophomore year what the top four schools and programs they are applying to.

"I will say, me kind of choosing some students that I am familiar with in class that have in some way presented themselves in a position that I think they would be good teachers, good educators, and pull them to the side and said 'Hey, have you thought about this?' and then spending one-on-one time with them talking about it. It's really that individual interaction that has been the best recruiter...pretty much every student that I've done that with has applied."

"I can kind of feel which ones are interested and then have an opportunity either after class or they come by my office because they're comfortable with me since I'm their professor. And that opportunity to actually talk to them some, you know, one-on-one, and kind of answer their questions and stuff like that, I found was much more successful in getting them to follow up on it."

All faculty felt a more personal approach worked best. Personal invitations to students being mentored during informal sessions or one-on-one conversations were the most effective recruiting strategy.

Least Effective Recruiting Strategies

Reflecting on and building on findings from the survey, the focus group found flyers and posters to be minimally effective: “*I don’t believe I’ve ever talked to anybody that said, ‘Oh, I got your information off of the flyer’*”. Printed materials were found to be good conversation starters.

While QR codes are quick and efficient method of directing students to web-based information, participants expressed that many students either didn’t see the QR code or didn’t know how to use them. Notifications and reminders were deemed to be ineffective. Personal visits by T4 team members were undertaken each spring semester. However, it was pointed out that most second semester sophomore students (our target audience) have already chosen their top four schools to apply to when we held our on-campus recruiting efforts.

Other Activities That Might Help in Recruiting

Given that Generation Z students prefer advertisements that show real people in real situations (Hanover Research, 2018), YouTube videos or promotional videos focusing on this mode could be quite helpful. Faculty believed that peers, selected from current T4 recipients, would be better able to relate and communicate the benefits of teaching and the opportunities being offered:

“[M]aybe students of one video that includes students that are currently in the program, videoed in different places on campus, or even follow them as you’re walking and do it panorama mode-- I mean, I’m telling you that’s a big selling point”

Faculty also recommended repetition as a major factor in pushing students to action:

[T]he generation that we have now... they're so into the TV, the YouTube -- some kinda promotional video I think would be really helpful, ... So we're not just showing it one time, but maybe if you hear it more than once you're more likely ... for it to stick, so it would be something you could show, an introductory something...that could show once a week or every other a week all through the spring semester and I'm showing up telling them a little more about it each time."

Finally, targeting students who have not decided on a major, or are uncertain of the one they've chose, would be valuable. Interestingly, during the eighth year of the T4 Program, a promotional video was produced and posted to the T4 website specifically highlighting the benefits of the Master Teacher Job Shadow and including past participants in the Job Shadow. The effect of these videos will be discussed later.

Applying Lavidge and Steiner Model of Advertising Objectives

As mentioned in the introduction, Lavidge and Steiner (1961) proposed a model for setting and evaluating advertising objectives. This model consisted of six behavioral states or objectives, with each state moving the consumer closer to purchasing a product. We applied this model to our efforts and examined the effectiveness and practical aspects of each stage.

Awareness Objective

Berger and Wallingford (1997) were the first to apply these principles, proposed for general marketing by Kotler and Armstrong (1991), to institutions of higher education. In their paper, awareness was described as the consumer, hereinafter referred to as a prospective student by our

report, first has an awareness of the existence of the college or university. Printed materials, web page and flyers which we implemented addressed this first stage. In personal interviews with applicants for the scholarship program, applicants often commented on seeing poster and flyers and commenting on the presence of the web page. To this end, the printed materials in part made students aware of the program. However, it applies only to those students who either received a flyer or took the time to read a poster on the wall of their community college. As will be discussed, awareness is not the same as knowledge of content and understanding of the importance of the T4 program.

Knowledge Objective

At a minimum a prospective student should have knowledge of a college and be able to identify significant programs, requirements for admission, and standards of performance of the program (Berger & Wallington, 1997). While students we interviewed for the T4 Scholarships revealed some knowledge of these aspects, most were not aware of the program beyond the basic requirements for consideration (i.e., GPA, major, financial incentives). However, there was some evidence that the community college liaison had spent time discussing the details of the T4 program. One of the more actively recruiting faculty members, started her conversation by asking, ‘Who’s interested in becoming a teacher?’, and then she talked about the T4 scholarship.

“Hey, this is a scholarship that will pay, effectively, for your last two years of college, give you the opportunity to really focus on your school without having to have a job to pay for your college....really focusing on the fact that not only are you going to have

faculty members helping guide you through that last two-year process, really preparing you for that particular type of position and career..."

This quote, indicates the importance, when meeting with students, of knowing the benefits of T4, and of having an on-site liaison that can educate and promote programs to which students might be interested in.

Liking Objective

In the liking stage, perspective students are not only familiar with the college or university, but also have developed a positive attitude towards the institution (Berger and Wallington, 1997).

The person-to-person contacts and conversations, especially by former SFA students and alumni in their teaching position, are invaluable in providing a favorable impression of our institution.

One faculty liaison demonstrated precisely this stage in sharing:

"I received both my Bachelor's and my Master's from SFA, so that's one of my top motivations, this is my Alma Mater and I would love to see and where I am, believe it or not a lot of students don't know about S.F.A. so just exposing them to something different ... everybody there wants to go the A&M or U of H because [SFA] it's right there up the street."

This type of engagement by the faculty liaison provides the student with a more favorable opinion of SFA and may provide a competitive advantage.

Preference, Conviction, and Purchase Objectives

Preference, conviction and purchase were not examined in this study. In the preference stage, the perspective student has formed stronger, more favorable attitudes about the institution (Berger & Wallington, 1997). It is our premise that experiences and information gained during the Job Shadow program helped bring students to the SFA and the T4 scholarship program.. These last three stages are certainly worthy of exploration in a future effort.

Identifying Intentional Gatekeepers

Abell, Boone, Arbaugh, Lannin, Beilfuss, Volkmann and White (2006) identified “gatekeepers” that facilitate or constrain applicants to their programs. These gatekeepers were recognized as intentional or unintentional. Intentional gatekeepers are planned strategies. We identified and then examined the importance of selecting liaisons, entrance criteria, timing and deadlines, print materials and the presence of a web page.

Importance of Personnel Chosen at the Community College

Of particular importance is the selection of the liaison for a given community college. Based on the focus group discussions, it became clear that the passion and motivation a liaison brings to recruiting efforts is critical. Of the seven community colleges chosen for collaboration, two of those seven did not attend the focus group but did submit some minimal written responses. It may be a coincidence, but these same two community colleges showed very little participation in the program in terms of student applications and on-site presentations by their students.

The top three community colleges (Table 1), as measured by student applications and participation, were led by liaisons who during the recruitment effort and in the focus group

demonstrated exceptional passion for their profession and motivation for bringing information to their students about the T4 program. One faculty member of the focus group sums up the motivation our liaisons and demonstrates the passion that each member felt and is consistent with finding for recruiting for physical educators (Woods, Richard & Ayers, 2016).

“I’m absolutely with everyone else, in the same boat in the sense, that I feel like we all have a passion to get students that have a passion for teaching into that field, but also let them know of the opportunities that are there and available to help them be successful.”

Three of the colleges where geographically close (Table 1, community colleges A, C & E), less than 50 miles away and provided 70% and 80%, Job Shadow and T4 Scholarship applications, respectively. In contrast, one college system (Table 1, community college B) over 250 miles from SFA, comprised of 4 campuses did not yield a single application for either the Job Shadow or T4 Scholarship and did not participate in the focus group. Proximity to SFA, and thus familiarity with our campus, most likely played a role in determining whether or not students applied for our programs. Geographic preference for where students choose to attend college has been shown in many studies, they often stay in close proximity to home and work (Kim & Rury, 2011; Hillman, 2016; Jabbar, Sánchez, & Epstein, 2017).

Table 1. Number of Job Shadow and T4 Scholarships applications received during an eight year recruiting period.

Community College	Number of Job Shadow Applications								
	2012	2013	2014	2015	2016	2017	2018	2019	All Years
A	5	3	4	4	1	6	2		25
B					0	0	0		0
C					3	0	1		4
D					0	3	3		6
E					4	3	1		8
F					2	1	0	6	9
G					0	1	0		1
Total	5	3	4	4	10	14	7	6	53

Community College	Number of T4 Scholarship Applications								
	2012	2013	2014	2015	2016	2017	2018	2019	All Years
A	6	2	1		0	1	2		12
B					0	0	0		0
C					3	0	1		4
D					0	2	3		5
E					1	2	0		3
F					0	0	0		0
G					0	1	0		1
Total	6	2	1	0	4	6	6	0	25

*Spaces without values indicate that no liaison was active at that college in the given year.

During the 2014-15 academic year, one community college liaison left their institution (Table 1, community college A). Posters, brochures and information were still provided to the department responsible for recruiting for the T4 Program, in the absence of a liaison. However, for the period following this loss, applications for both programs fell off and were not re-established until the 2016-17 academic year when a replacement was found.

After eight years of recruiting and promoting the Talented Teachers in Training Program (T4), we believe that having a motivated and passionate community college liaisons are the single most important strategy that can be developed and implemented for a successful collaboration between community colleges and four-year institutions.

Importance of Entrance Criteria, Timing and Deadlines

Our recruiting for the Job Shadow and T4 scholarship generally began in late January. During the focus groups discussions, it became clear that an earlier recruiting period may have been helpful and that we should consider targeting second semester freshman differently than second semester sophomores. For those students who might consider teaching as a career it would be valuable to have first- and second-semester freshman targeted for recruiting for the Job Shadow. This would “plant the seed” for teaching in a STEM area during an academic period when students are often formulating career paths and choosing their major. The focus group also pointed out that by the early part of the second-semester sophomore’s academic career, i.e., typically spring semester, they have most likely already decided on their top four colleges where they intend to apply. Starting recruiting efforts for the T4 scholarship earlier, i.e., the fall semester, would place scholarship opportunities in their conscience before they begin selecting four-year colleges. Based on interviews for the T4 Scholarships (personal observations) and conversations during the focus groups, we were effective at communicating the entrance criteria and deadlines to both the community college liaisons and to the students.

Importance of Print Material

It was clear from the discussion in the focus group that posters did little to educate or capture the attention of prospective students. However, flyers and to some extent posters, were effective at raising awareness and providing a basis for conversations. As Lavidge and Steiner (1961) suggested, printed materials aid in making students aware of products, or programs in this instance, and may lead to eventual buy-in if followed up my other strategies such as one-on-one conversations with a mentor or advisor.

Importance of Webpage

In a study focused on digital marketing strategies based on a survey of 571 Millennials to determine which are effective in influencing behavior, graphics capture the attention of 73% of the respondents, while a simple professional layout captures the attention of 43% of the respondents (Smith, 2011). Our webpage included a link for application to both the Job Shadow and T4 Scholarship. Based on positive reviews by our focus group faculty and interviews with applicants, our webpage accomplished the task of communicating application criteria, due dates, and required materials for submission (recommendation and essay). However, many students appeared to be unaware of the concept of a QR code on print materials and how it can bring them more quickly to the web information they desire to find. These results suggest that the adoption level of QR codes is low. Sago (2011) also showed low levels of use of QR codes (13.5%) for integrated marketing communications purposes for college. Sago (2011) further revealed that males have more interest in, and are more likely to use, QR codes in comparison to females. More recent studies (Asare, I.T. & Asare, D., 2015); Fullerton, Brooksbank & Neale, 2018; Trivedi, Teichert & Hardeck, 2019) indicate that the use of QR codes may hold promise for marketing.

Identifying Unintentional Gatekeepers

Abell, Boone, Arbaugh, Lannin, Beilfuss, Volkmann and White (2006) also identified unintentional “gatekeepers” that facilitate or constrain applicants to their programs. These unintentional gatekeepers are qualities, persons and resources that emerged from during data analysis (Abell et al., 2006). These were identified and examined as well.

Importance of Face-to-Face: Word of Mouth

The situations described below, illustrate the importance of having more personal, face-to-face conversations with potential recruits. This type of interaction can more effectively identify recruits, dispel misconceptions, and address the lack of information a student may have when contemplating their career choice. In addition, genuine concern for a student and a passion for a potential career choice can be more effectively communicated during these informal conversations.

“Gosh, my head spins sometimes about how many students I’ve had that are now engineers and doctors and lawyers and other teachers and such, and so, I think they don’t realize how much of an impact that they can have in the teaching profession, and I like to talk to them about that a lot.”

“[C]hoosing some students that I am familiar with in class that have in some way presented themselves in a position that I think they would be good teachers, good educators, and pull them to the side and said ‘Hey, have you thought about this?’ and then spending one on one time with them talking about it, it’s really that individual interaction that has been the best recruiter...”

Importance of Video Clips

Getty (2015) suggests that storytelling or testimonials from students is another recommended marketing strategy. For the eighth year (2019) of the Job Shadow recruiting period we did not see an increase in the number of community college applicants (see Table 1) with the posting of

videos focusing on current T4 Scholars, but we did see an increase in the number of university applicants. Since we did not specifically ask the job shadow participants whether or not they viewed the videos we cannot know the effect the video may have had. However, during our focus group's discussion, the community college liaisons believed that videos, like we produced and posted, would increase the visibility of the T4 Program. Additionally, based on published reports on the importance of exposing students to their peers, and those peers sharing their positive experiences, the video may have significant influence on recruits with the continued implementation and marketing of these videos. This type of recruiting strategy certainly requires attention in future works.

Conclusions

When taking into account the two methods used to assess our study, Lavidge and Steiner's (1961) "Advertising Objectives" and Abell, Boone, Arbaugh, Lannin, Beilfuss, Volkmann and White's (2006) "gatekeepers", we can conclude that our recruiting was effective in helping students become aware, knowledgeable, and positively inclined toward our program. However, an opportunity may have been missed during the Job Shadow in making the T4 Program a preference and making a commitment to it. Future efforts will focus on highlighting the benefits of the T4 Program at SFA to those participating in the Job Shadow.

We can conclude that the most effective method for recruiting students into our program are the liaisons at the partnering community colleges. The focus group discussions made clear the passion and motivation that a liaison can bring recruiting efforts. These liaisons have already made personal connections with their community college students via their mentoring sessions and face-to-face conversations, both casual and formal. These relationships foster confidence

and the conversations expose students to career possibilities that might not otherwise be presented to them. Additionally, as described above, at one community college the liaison was an advocate for increasing ethnically diverse students to our program.

Research shows that information such as scholarships (Noel-Levitz, 2012) is effective in recruiting students. Based on the focus group and casual conversation with applicants, the opportunity to shadow a master teacher the week after their final exams was an excellent way for students to get an inside perspective on teaching. It was a time to try out teaching early in their academic career. The stipend associated with the Job Shadow removed the barrier to begin work immediately after classes were over since the stipend allowed them to take this opportunity without losing out financially on a week's pay.

Reflecting on our findings and experiences, we have clearly heard from, and experienced the importance of choosing, highly motivated and passionate liaisons for promoting teaching as a career choice. The current generation Z students are focused on passionate pursuit, not jobs (Hanover, 2018). Thus it is extremely important that programs who utilize liaison, mentors or other persons who make direct contact with students be motivated, dynamic and passionate about their pursuits.

One surprise was the perception of the timing of our recruiting efforts. During our focus group it was discovered that by the early part of the second-semester sophomore's academic career, i.e., typically spring semester, students have most likely already decided on the colleges where they intend to apply. Starting recruiting efforts for the T4 scholarship earlier, i.e., the fall semester, would place scholarship opportunities on their consciousness before they complete selecting four-year colleges. This would in essence "plant the seed" for teaching in a STEM area in the crucial period when students are formulating and choosing their major. Noticeably lacking

is data from the point of the students. Any future efforts to analyze recruiting efforts must include student data, since students are the ultimate consumer of any recruiting effort.

The least effective practice used was print advertising in the form of posters and flyers. This is consistent with results found for other four-year institutions (Chong & Roundtree, 2020). In addition, Chong and Roundtree (2020) found that “students mentioned visual and document design or advertisement presentation and appearance as the most compelling advertisement details, and they preferred advertisements with information about areas of study and other program and degree plan information.” They concluded that “students’ interest in the field, faculty reputation, job market prospects, financial aid, program flexibility, and the visual and document design of the advertisements were strong motivators in encouraging students to apply to a program.” Our efforts included much of this strategy, however, given our methods we are unable to make any determinations as to their effectiveness but deserve consideration in future recruiting efforts.

Finally, for some students teaching may not be their end goal (Draper, Fraser and Taylor, 1998; Hanover, 2018). Teaching can be a springboard for other careers. In this case a ready answer to “What can teaching lead to?” should be prepared in advance. Many of these students may be thinking of starting their own business. For these students, the entrepreneurial path may start with teaching.

The main purpose of our research was to assess recruitment efforts and advertising for our teacher preparation program, Talented Teachers in Training for Texas. Therefore, to improve the effectiveness of the recruitment and advertisements, we recommend the following:

- Identify passionate and motivated liaisons that can foster relationships with perspective students.

- Include details about financial assistance (stipends and scholarships) and other added value for students in communications with perspective students.
- Focus on the passionate pursuit of a rewarding career in teaching and not just looking for a job.
- The timing for recruitment is important and should happen early in the perspective student's academic career.
- Print materials are most effective if followed up with one-on-one conversations with perspective students.
- Use personal narratives, short videos, to direct prospective students to face-to-face visits and events.

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