FACULTY PERCEPTIONS OF FOUNDATIONAL COURSES AND MOTIVATION TO TEACH

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A CAPSTONE PROJECT SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF DOCTOR OF EDUCATION

VANDERBILT UNIVERSITY, JULY 2021

Acknowledgements

There are countless folks who have encouraged and supported me through this journey. I'm happy to be able to mention just a few here…

- To Jim, who always reminds me that "I've got this!" Thank you for your optimism, and for being my sounding board. I'm lucky to not only love you completely, but to respect you as a professional and friend. I'm excited for everything we have ahead of us!

- To my mom, Glory, who made sure that a girl from South Broward High School could accomplish anything she wanted. Thank you for always believing in me and encouraging me, even when I'm kind of a pain. I love you!

- To Abigail, Matthew, and Amanda: You are what all this is for. I hope that you will read this someday, and let it be a reminder that you can do anything you want if you put your mind to it. I am so proud of who you are, and who you are becoming. I am grateful to be your mom!

- To Cohort 4 – what a trip! You all made this journey easier – thanks for the collaboration, vent sessions, and laughter!

- To my advisor, Dr. Cindy Nebel, thank you for always being available to answer quick questions (and longer/more complicated ones)! Your guidance has been invaluable.

- To Dr. Michael Harris and Dr. Molly Ellis at Southern Methodist University, for agreeing to work with me in the midst of a pandemic, and for your continued guidance on this project.

I'd like to dedicate this capstone to the memory of two very important people, who unfortunately could not be around to see it completed, but who remain with me in spirit:

- To my grandfather, Dr. Edward Marcus, the first in our family to get his doctorate at the age of 60. I wish I had gotten to know you better as an adult – I think we have a lot in common. Thank you for being a role model – I'm proud to have followed in your footsteps in so many ways.

- Finally, to my daddy, Bob Berman. You were a constant presence at all of my graduations. Thank you for always being proud of me. I wish you were able to be at this one too, but I have no doubt that you're celebrating with me, hopefully over a large Italian dinner!

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Executive Summary

Southern Methodist University (SMU) is a mid-sized, private, doctoral/research institution located in Dallas, TX. During their last reaccreditation cycle, SMU was tasked with a Quality Enhancement Plan (QEP) focused on improving student retention rates. In response to this QEP, the institution created a Foundational Courses Initiative, focused on improving student outcomes across foundational courses campus-wide. According to SMU's definition, foundational courses (also called "gateway" or "introductory" courses):

- Serve as a gateway to the major and/or discipline;
- Enroll large numbers of students or a significant percentage of first and second-year students;
- Are often taught by multiple instructors and offered at least yearly; and
- Have wide-ranging levels of student success.

SMU identified first and second-year students as a focus area for improvement, with the idea that building a solid foundation in these early years will make third and fourth-year support efforts more effective. As their QEP notes, "by starting with the earlier years in college, SMU is building its future" (p. 23).

One method that the Foundational Courses Initiative (FCI) identified for improving these gateway courses was to place the "top" or "best" teachers in these classes. However, the organization soon realized a problem: many top-tier teachers, often at senior levels, are resistant to the idea of teaching these classes, and quite often they end up being taught by adjunct or part-time faculty, new faculty with less teaching experience, or faculty who are not experts in the discipline of the course. Thus, this capstone seeks to explore why teachers are hesitant to teach foundational courses, and what incentives may entice them to do so. The author used a

framework of motivation research that explores intrinsic versus extrinsic motivation, namely, Deci and Ryan's (1980) self-determination theory. The specific questions that were asked are as follows:

RQ1: What are faculty perceptions of foundational courses?

RQ2: What motivates faculty to teach their courses?
-What excites them about teaching the classes they teach?
-What institutional supports motivate them?

RQ3: What motivates administration to select and support those individuals who teach foundational courses?

Findings

Overall, respondents had a positive perception of foundational courses, citing interactions with engaged students and getting students interested in their discipline as the top reasons to teach these classes. Class size, time and effort, and negative student attitudes/behavior were the top reasons not to teach the courses. Many faculty were unaware of institutional supports available to them, while others appreciated grading support, interactions with colleagues, and technology help.

Faculty were highly motivated by intrinsic factors, and less motivated by guilt and external factors. They most often felt competent in their teaching, but felt a sense of relatedness with others less often. Student learning and interactions appeared again as the most enjoyable thing about teaching, as well their own personal mastery of the content gained through the act of instruction. Departmental placement processes and supports varied widely – grading support, minimizing preparation time, and trading responsibilities between faculty seemed to be a common thread. Department chairs did seem to fully grasp the importance of

foundational courses, which means that they are likely to be pliable when considering incentives to alter faculty placements in their departments.

Recommendations

Based on faculty and chair responses, there are four broad recommendations that may increase faculty motivation to join the foundational classroom. Multiple actions are possible that fall under each recommendation. First, SMU should **reduce the time and workload associated with teaching foundational courses**. Associated incentives may include providing graders and/or teaching assistant help, allowing a course release or a shorter-term class, using creative and flexible scheduling, team-teaching, or reducing class caps. Second, **reduce the fear of being stuck teaching foundational courses, while also encouraging ownership of the courses when possible.** Consider rotating instructors in and out of foundational courses or offer for them to design a course of their choosing in a later semester, in exchange for teaching a foundational course. Also, assignment redesign incentives (a grant or award) can encourage instructors to shape a course according to their interests and personality. Third, **create opportunities for positive student interaction and supportive colleague relationships** when possible. Ways to do this might include involving foundational course instructors in things like major fairs or offering them the option to advise a discipline-specific student organization. Creating mentorship opportunities and utilizing former students as course-embedded assistants can also multiply these positive interactions. To increase peer interaction, develop an interdisciplinary group that supports foundational courses campus-wide, or a discipline-specific network for these instructors to collaborate. Even sponsoring monthly lunches to discuss "lessons learned" from foundational courses and exchange ideas can foster a community of which faculty want to be a part. Finally,

to combat the issue of faculty not knowing about departmental supports, **emphasize transparency of departmental and institutional support mechanisms.** For instance, a possible solution would be to draw attention to the most commonly used academic supports in official university documents, such as the faculty handbook, as well as including faculty in future conversations on this topic. These evidence-based recommendations attempt to capitalize upon the intrinsic enjoyment of teaching that the faculty respondents reported, as well as minimize the barriers that keep instructors from wanting to teach foundational courses.

Introduction and Context

The Organization

Southern Methodist University (SMU) is a private, doctoral/research institution located in Dallas, TX. With an enrollment of just over 12,000 students, SMU is comprised of seven schools, offering undergraduate and graduate programs in the humanities, sciences, and professional fields (Southern Methodist University, n.d.-a). SMU's annual tuition of $58,540 (Southern Methodist University, n.d.-b) is higher than the average amount of similar schools' tuition (College Tuition Compare, n.d.). Indeed, three out of four SMU students receive scholarships and/or financial aid (Southern Methodist University, n.d.-c). The student population is primarily white, with a minority percentage of total enrollment of 31%; Hispanic students comprise the largest portion of that (Southern Methodist University, n.d.-c). Just over half of the students list Texas as their home state, although SMU draws students from all over the country (Southern Methodist University, n.d.-d). Although the institution was originally founded in 1915 by what is now the United Methodist Church, SMU identifies as "nonsectarian" in its teaching (Southern Methodist University, n.d.-c).

SMU ranks #66 for National Universities in the US News & World Report Rankings, tying for this position with peers such as Fordham University, George Washington University, and Texas A&M University (US News, 2021). It has a reputation for prestige, and is moderately selective with its admissions, admitting just under half of their applicants in 2019 (US News, 2021). With regards to faculty, nearly 85% of the 767 full-time faculty hold terminal degrees in their fields; 59% identify as male, and only 19% identify as a member of a minority group (Southern Methodist University, n.d.-c).

In 2016, SMU presented its current Strategic Plan entitled "*Launching SMU's Second Century"* (Southern Methodist University, 2016). Acknowledging its solid financial standing (a result of well-executed previous plans), the new strategic plan notes that the institution is uniquely poised to focus on quality and global visibility. SMU has the luxury of spending time and resources to identify and improve areas that have the greatest chance of moving the needle from good to great. Although they perform quite competitively when compared to institutions inside Texas, the strategic plan recognizes that improving academic quality and outcome measures such as retention and graduation rates will be key to propelling SMU into the ranks of aspirational peers outside of their state (such as Duke University, Vanderbilt University, and the University of Southern California). This mindset, in conjunction with the university's Quality Enhancement Plan (QEP), ultimately led to the identification of the Problem of Practice that is the focus of this Capstone.

Background and Problem Overview

During SMU's last accreditation cycle, the Southern Association of Colleges and Schools – Commission on Colleges (SACS-COC) tasked the institution with a Quality Enhancement Plan (QEP) focused on improving retention. To accomplish this goal, they created the "SMU in Four" program, "to better monitor and support students encountering difficulties in their academic progress through SMU" (Southern Methodist University, 2020). Their broad goal is to improve first-year retention from 91% to 94% and the four-year graduation rate from 73% to 74% within three years. In order to maximize progress toward this goal, SMU identified first and second-year students as a focus area for improvement, with the idea that building a solid foundation in

these early years will make third and fourth-year support efforts more effective. As their QEP notes, “by starting with the earlier years in college, SMU is building its future” (p. 23).

This approach led to the creation of the Foundational Courses Initiative (FCI), a joint venture between the Center for Teaching Excellence and the Office of Student Academic Engagement and Success. By the FCI Team’s (2020) definition, foundational courses (also called “gateway” or “introductory” courses in this capstone):

- Are a gateway to the major and/or discipline;
- Enroll large numbers of students or a significant percentage of first and second-year students;
- Are often taught by multiple instructors and offered at least yearly; and
- Have wide-ranging levels of student success.

Recognizing the potential impact of these courses on freshmen and sophomores, the FCI Team was charged with ensuring that the courses guarantee rigor and student success, use research-based course design, and become the standard for high quality teaching at SMU (FCI Team, 2020).

The FCI Team also identified a primary driver in meeting the above goals: ensuring these foundational courses are taught by the most effective instructors. However, these “top” instructors have historically been resistant to teaching these courses, and department chairs who place faculty in classes have not traditionally assigned them there (M. Harris, personal communication, May 2020). Instead, these courses often end up being taught by adjunct or part-time faculty, new faculty with less teaching experience, or faculty who are not experts in the discipline of the course (M. Ellis, personal communication, June 9, 2020). The FCI Team identified this trend as a barrier to meeting their committee’s charge.

The purpose of this capstone project is to better understand faculty perceptions of foundational courses at SMU, what factors motivate them to teach, and the departmental dynamics that affect course placement and support. This evidence will then be used to substantiate recommendations made to the partner organization regarding effective departmental and individual incentives to encourage the best instructors to teach foundational courses. Such a change supports the goals of the FCI Team and establishes a pathway to succeed in moving the needle on retention, by targeting first and second-year students.

Problem of Practice

As noted, the problem of practice is that foundational courses, which impact most first and second-year students in some way, are being taught primarily by adjunct or part-time faculty, new faculty with less teaching experience, or faculty who are not experts in the discipline of the course (M. Ellis, personal communication, June 9, 2020). These courses are also typically challenging for students in their early years, causing high DFW rates (percentage of students getting a grade of 'D' or 'F', or withdrawing from the course; Gardner Institute, 2016; McGowan et al., 2017). Data provided by SMU is consistent with this assessment: nearly a quarter of the foundational courses with the highest freshman enrollment have DFW rates over 10% (Southern Methodist University, n.d.-e). Unfortunately, research shows that first-year students who do not successfully complete a gateway course are less likely to persist on to their second semester (Flanders, 2017). Because the stakes are so high to get more students successfully finishing foundational courses, it is necessary to motivate more effective instructors, and those who are more knowledgeable (senior, full-time and tenure-track faculty)

to teach these courses. These "top-tier" instructors, who are truly experts in their fields and have years of teaching experience, will have a noticeable and positive impact on student success in these courses, thus moving the needle on retention.

From this proposed problem, a natural question arises: is this situation, in fact, problematic, and do we know that these faculty characteristics actually make a difference in regard to student outcomes? Eagan and Jaeger (2008) found that student retention and performance in foundational or "gatekeeper" courses was "significantly and negatively" affected by having the courses taught by part-time faculty (p. 49). They suggested that since these gatekeeper courses are so vital to future success and yet challenging for the early-year students who are typically enrolled in them, full-time tenure-track faculty, who tend to be regularly available and integrated with campus resources may be a better choice to teach these classes than part-time faculty, who are typically less accessible. Umbach (2007) found similar results, as did Kirk and Spector (2009), who particularly examined first-year accounting courses, and concluded that not only did students taught by full-time, tenure-track faculty perform better in subsequent classes, but they were also more likely to choose accounting as a major. Other researchers have found mixed results with regards to position type but note that having experienced teachers with a terminal degree, using effective and active learning strategies, and avoiding "bottom tier" tenure-track faculty (as measured by teaching effectiveness scales) positively impacted student outcomes (Figlio, et al., 2015; Umbach & Wawrzynski, 2005, Xiaotao Ran & Xu, 2019). This research suggests that the goal to put top-performing, full-time teachers in these vital foundational courses has merit.

It is not clear at this time what is causing this problem, and why the teaching of foundational courses often falls to less-prepared, adjunct, and junior faculty. However, it is noteworthy that this problem is not unique to SMU but is common at colleges and universities nationwide (Keup, 2018; Smith, 2018.). Speculations can be made that have been supported: large class size, heavy workload, frequent demands of the student population, few connections to one's research agenda, and sheer boredom have appeared in writings on this topic (Druger, 2006; Flaherty, 2016; Smith, 2018, Sobel, 2018). However, few scholarly works have examined the motivation of faculty to teach or not teach these classes. Conversations at SMU have been focused on possible solutions and incentives -- priority classrooms, class meeting times, parking, access to small grants (FCI Team, 2020) – but a more thorough investigation of the root causes of this issue will be invaluable in determining an effective remedy. This capstone hopes to provide such data.

Literature Review

In an opinion piece, Smith (2018) writes that "'prestige' professors prefer to teach graduate courses in the area they are researching for their next book. When senior faculty teach an introductory-level course, it is often a matter of 'taking one for the team'" (p. 2). Knowing that SMU faculty often have similar opinions when it comes to teaching foundational courses (M. Ellis, personal communication, June 9, 2020), prior literature on faculty motivation will help guide recommendations. Writings on teaching support and incentives may bolster findings from the data and suggest a potential course of action. Finally, research that more closely examines the challenges of gateway courses may help us better understand why faculty

perceive them in certain ways. Notably, this review will *not* focus on effective teaching practices or the impacts of foundational courses on students. Although such topics may be referenced, they will not be thoroughly explored beyond the literature already discussed above, as these fields are vast enough to warrant separate examinations, and an adequate discussion is both difficult and unnecessary.

Faculty Motivation

Literature provides us with a starting definition of faculty motivation in particular: "the overall processes that give rise to faculty members initiating, sustaining, and regulating goal-directed behaviors" (Daumiller et al., 2020, p. 3). How can we establish practices and policies that get faculty to work toward an established goal? Bess's (1977) seminal work in this area suggests that the pervasive problem of low motivation to teach can be traced to both the "absence of external rewards" (p. 245) and a "lack of recognition of the importance of intrinsic motivation in instructional staff" (p. 244). In other words, in addition to teaching not being highly rewarded, faculty have certain internal needs, such as affiliation, novelty, and esteem that teaching, as currently structured, does not fulfill (Bess, 1977). Evans and Tress (2009) also highlighted faculty's need to achieve certain intrinsically driven goals, particularly the need for self-efficacy and self-esteem.

The need for affiliation and community can be observed in McCourt et al. (2017), who found that faculty who kept participating in a long-term group-based professional development opportunity did so primarily due to their enjoyment of the groups and group dynamics. Other studies routinely noted that faculty who taught and persisted in teaching first-year experience courses did so in part because of their increased involvement with students, heightened

interpersonal relationships, expanded interdisciplinary collaborations, and a greater sense of connectedness to the campus in general (Gordon & Foutz, 2015; Soldner et al., 2004; Wanca-Thibault et al., 2002). Interestingly, there may be some differences between disciplines in regard to connection being a motivator. In his study on mentoring practices among faculty, Lechuga (2014) noted that faculty in the social sciences reported a much higher demand for social support and network building than did their colleagues in STEM fields.

Another common motivating factor for faculty seems to be opportunity for self-improvement and increased competence. According to Fidler et al. (1999), faculty transferred new skills developed from teaching first-year courses into their other disciplinary-based courses, including better teaching strategies, improved attitude and morale, and a deeper understanding of students' lives. Soldner et al. (2004) also found "transformed perceptions on undergraduate teaching" (p. 31) to be a significant factor in motivating faculty to continue teaching first-year courses. Similarly, first-year course faculty studied by Wanca-Thibault et al. (2002) felt they had "been able to expand their teaching skills" (p. 33) and incorporate more technology in the classroom. Interestingly, these faculty also believed that teaching freshmen courses improved their career visibility, and ultimately, their political development and recognition on campus (Wanca-Thibault, et al., 2002) – an interesting blend of intrinsic and extrinsic motivating factors.

Deci, Kasser, and Ryan (1997, as cited in Lechuga & Lechuga, 2018) note that intrinsic motivators help faculty sustain their interest in teaching, rewarding them for effective practices with "spontaneous feelings of engagement, excitement, accomplishment, or awe" (p. 65). Indeed, most literature supports intrinsic factors as highly motivating for faculty. For instance,

Roth et al. (2007) found a positive correlation between intrinsic motivation and a teacher's sense of personal accomplishment, and a negative correlation with emotional exhaustion. These findings indicates that intrinsic motivators, such as self-efficacy, increased competence, and mastery of content can be energizing. Furthermore, multiple studies have examined faculty motivation to attend professional development events or trainings, and have identified intrinsic factors such as self-satisfaction, improved relations with students, and personal growth as strong drivers (Deutsch, 2013; Gordon & Foutz, 2015; Gorozidis & Papaioannou, 2014).

In reality, the effects of intrinsic versus extrinsic motivators are likely much more complex, and there is compelling evidence that also points to a role for external factors in changing faculty behavior. Bouwma-Gearhart (2012) provides an example of the convoluted nature of these motivators. She claims that STEM faculty members were motivated to participate in a teacher training workshop by an external factor, namely, the desire to garner approval from others by becoming a better teacher. However, the interview excerpts also demonstrated that the faculty members wanted to prove to *themselves* that they could be better teachers, which is closely related to the internal motivator of self-efficacy.

Another example can be found in Herman (2013), who examined recognition/reward related motivators, in relation to online teaching. She found that earning additional money was the most frequent external motivator used by colleges and universities. Even more noteworthy however, was that although 60% of administrators viewed additional financial remuneration as an important incentive for teaching online, only 27% of faculty thought the same. This finding may be important for considering how motivating factors align (or do not align) between faculty and administration.

Bess (1977) noted that external motivators were often lacking, thus negatively impacting faculty desire to teach. However, he also noted that external motivators alone are not enough – teaching must be intrinsically rewarding in some way (Bess, 1977). This concept is supported by Parker (2013), as well as a quote from a faculty participant in Jessup-Anger's (2011) study, discussing why she puts/does not put time or effort into a particular course:

> "I don't . . . put nearly as much thought [and] hours of time into it than I would if I were (a) getting paid or (b) it was a three-credit class. That's not to say that I don't . . . care about it, it's just that I've made it fun in part for a reason, because if it's not fun for me, I'm not going to do it."

Clearly, the relationship between external and internal motivators appears complex and warrants further investigation.

Teaching Support and Incentives

Faculty do not teach in a vacuum, and sometimes the actions of others can influence how they decide to act. Siddique et al. (2011) note that faculty members can be encouraged to perform better "if less work loads are placed on their shoulders and when they feel proud in developing their students and are accepted by their students, peers and leaders" (p. 732). Creating an environment that fosters such feelings of satisfaction and acceptance at the department level and above may be effective in motivating faculty toward a goal. In a classic essay, former vice-president and provost of the University of Richmond, Zeddie Bowen (1985), noted ten practical keys for leaders to keep in mind when considering incentives (Table 1). These keys demonstrate the importance of well-planned and executed incentives – simply giving faculty something may or may not produce the desired result, especially if mis-matched with their motivations.

Table 1

Bowen's (1985) Ten Practical Keys for Faculty Incentives

Key #	
1	Do not have unrealistic expectations
2	Renegotiate the priorities, do not just add new expectations, so that each individual can see how the new priority is to be accommodated in the day-to-day schedule
3	Create incentives that build on positives, on personal wants rather than needs
4	Tie the incentives to the primary motivators of the faculty
5	Tie specific and dearly defined goals or changes in behavior to specific and clearly defined rewards, which should be delivered as soon as the desired goal or behavior occurs
6	Individualize the incentives
7	Empower the recipient to use the incentives or rewards however and whenever it best suits him or her
8	Make programs selective and somewhat exclusive
9	Define the goals and measures and hold individuals accountable for reasonable achievement.
10	Be sure the goal is worthy of the time and expense. If it is not, abandon it.

In addition to individual faculty motivation, such supports or incentives may also have intrinsic or extrinsic value, and may influence behavior. Frequently noted intrinsic incentives include rewards that increase connections or allow for a shared intellectual exchange with students, freedom and autonomy in how they work, becoming better teachers or researchers, and opportunities for interdisciplinary collaboration with colleagues (Baldwin & Krotseng, 1985; Parker, 2003; Soldner et al., 2004; Wanca-Thibault et al., 2002). External rewards vary widely, but may include monetary incentives (grants, salary, etc.), new technology, recognition via awards, assistance to reduce workload, and retention of intellectual property rights for course material (Bowen, 1985; Herman, 2013; Parker 2003). Notably, Shoaib & Mujtaba (2018) acknowledge the appeal of these various types of incentives, but caution about using incentives for professionals such as faculty, as they may focus on select performance pieces and omit essential components. They argue that incentives should reward patterns of practice, rather than isolated incidents, a position echoed by Brownwell & Tanner (2012), who advocate for developing and rewarding a faculty member's entire "teaching" or "research" identity. As the

the expectations of faculty members change, so does the question of how to motivate them to meet and exceed those expectations.

Faculty Perceptions of Foundational Courses

Until recently, gateway courses have remained fairly unaltered, as faculty have collaborated across disciplines to redesign other courses, focusing on effective teaching and learning that supports student success (Brookins & Swafford, 2017; Koch, 2017). At the same time, these classes present a difficult task for faculty: introducing large groups of students to an *entire* discipline in just a few weeks (Kirkpatrick, 2010). Additionally, students may even select a major based on how well they connect with the material in these courses, which in turn impacts their future goals and adds pressure to faculty to "recruit" for their field (Brookins & Swafford, 2017). That these courses are so important for students, challenging for faculty, and yet have received so little attention is disheartening. Compounding these issues are concerning findings that students who do not succeed in gateway courses are (1) less likely to persist in college (Flanders, 2017), and (2) "disproportionately come from lower-income, first-generation, and underrepresented minority groups" (Koch, 2017, p. 14). Institutional leaders and faculty who care about equity in education no longer have the luxury of focusing solely on upper-level courses while keeping these vital classes just "rolling along."

Although there is a paucity of research on faculty perceptions of foundational courses, a few related studies paint a hazy picture of potential areas of exploration. For instance, Hora (2014, as cited in Ferrare, 2019), found that the beliefs of instructors about teaching and learning in STEM introductory courses can be placed somewhere along a continuum of student-centered versus teacher-centered. They may feel that the onus for learning is on the student

(they need to study and have resilience), on the teacher (to provide scaffolding and clear explanations), or most commonly, a mix of both to varying degrees. Faculty viewpoints on this matter may impact how likely they would be to want to teach such introductory courses. Another example can be found in the work of Archer and Miller (2011), who noted an inverse relationship between the use of active learning techniques and class size. In reality, methods like group work and peer evaluation, which are forms of active learning, may be well-suited for large classes, as they reduce the instructor's grading workload. This misconception may be hindering the desire to teach these classes but might be addressed with better training on managing large courses. This capstone seeks to enhance our understanding of other mechanisms such as these that impact faculty perceptions and desire to teach foundational courses.

Conceptual Framework

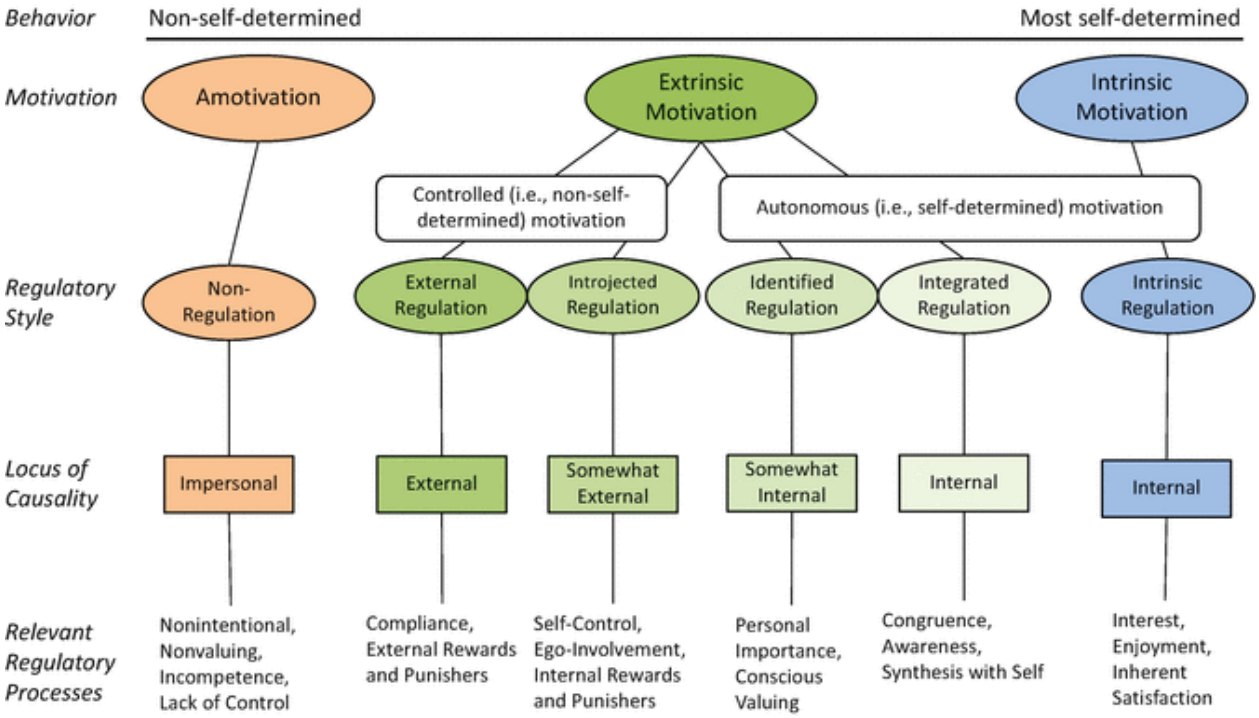
The concepts of intrinsic and extrinsic motivation, and how the two interact, was a prevalent feature in the literature. Therefore, this study will examine faculty motivation using a lens that features motivation types, namely Deci and Ryan's (1980) self-determination theory (SDT). SDT gets its name because it proposes two types of motivated behavior: self-determined behaviors, which are consciously chosen to meet internal and external needs, and automated behaviors, which are not (Deci & Ryan, 1980). Self-determined behaviors will be the focus here.

SDT postulates that intrinsically motivated activity is the most autonomous, or self-determined, behavior and is driven by the pleasure or satisfaction one gets out of the activity

(Ryan & Deci, 2017). Extrinsically motivated behavior, on the other hand, is driven by factors outside of oneself. Ryan and Deci (2000) describe four levels of extrinsic motivation that exist on a continuum of least autonomous to most autonomous, depending on how self-determined they are (Figure 1):

- **External Regulation**: Behaviors are fully regulated by external sources. Actions performed to satisfy an external demand and/or get a reward;
- **Introjected Regulation**: Behaviors are partially internalized in oneself but may not be congruent with other aspects of the self. Actions performed to avoid guilt or anxiety, or to placate one's ego/feel worthy;
- **Identified Regulation**: Behaviors are more internalized. Actions performed out of choice because they are personally important;
- **Integrated Regulation**: Behaviors have been evaluated and found to be in line with personal identity, values & needs.

Figure 1 The Self-Determination Continuum



From Ryan, R. M., & Deci, E. L. (2000). Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. American Psychologist, 55(1), 68–78.

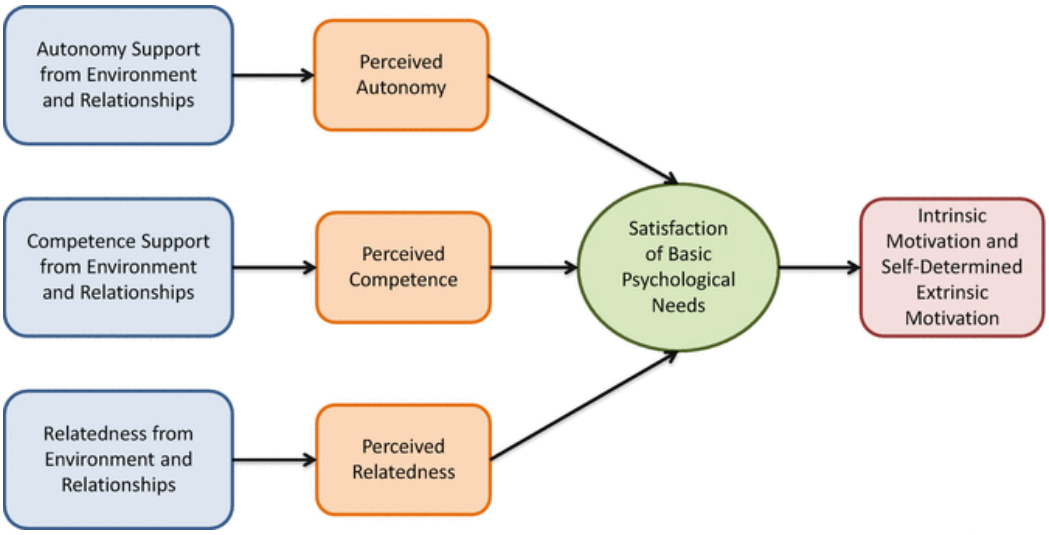
Ryan and Deci (2000) considered integrated motivation to be a form of extrinsic motivation, because actions are still performed to get to a distinct outcome, rather than for inherent enjoyment. However, many subsequent studies have opted to combine integrated and intrinsic motivation because they are so closely aligned (Ryan & Deci, 2000; Stupnisky et al., 2017; Stupnisky et al., 2018). This capstone will follow the trend of these later researchers.

Although the previous discussion has examined levels of individual control over behavior, SDT has a strong social element to it as well. Ryan and Deci (2000) postulated that the highly autonomous forms of motivation, which are closely associated with positive outcomes, are more likely to occur when people have three basic psychological needs met: the need for autonomy, the need for competence, and the need for relatedness. Based on Stupnisky et al. (2017) and Stupnisky et al., (2018) these terms are defined as follows:

- **Autonomy** is the need to have a choice in one's own actions, to be self-governing and not controlled by an external force;
- **Competence** is the need to perceive oneself as capable of completing required tasks and interacting effectively with their environment;
- **Relatedness** is the need to feel connected to others.

The relationship between the impact of environmental factors on perceptions and motivation can be seen in Figure 2.

Figure 2 Environment, Psychological Needs and Motivation



Legault L. (2017) Self-determination theory. In V. Zeigler-Hill & T. Shackelford (eds.) *Encyclopedia of Personality and Individual Differences.*

Given the impact of one's environment on motivation, SDT should be useful in identifying practices and policies that may foster the autonomous motivation of faculty. Indeed, researchers have been using SDT more and more frequently to examine faculty motivation and have found that it is a solid conceptual fit (Daumiller et al., 2020). For instance, Stupnisky, et. al. (2018) looked at faculty members' motivation for teaching across higher education institutions and found that "autonomous motivation was a positive significant predictor of teaching best practices" (p. 23). Roth et al. (2007) noted that faculty who are autonomously motivated to teach may help students be more self-determined in their motivations as well. Other studies have also confirmed SDT as a valid way to study the intrinsic and extrinsic motivations of specialized faculty in STEM (Bouwma-Gearhart, 2012) and online (Cook et al., 2009), as well as motivation for scholarly research (Lechuga & Lechuga, 2018). This study seeks

to contribute to this body of knowledge by applying self-determination theory to examine the motivation of SMU faculty members and administration to teach foundational courses.

Research Questions

The following research questions will guide this capstone project:

RQ1: What are faculty perceptions of foundational courses?

RQ2: What motivates faculty to teach their courses?
-What excites them about teaching the classes they teach?
-What institutional supports motivate them?

RQ3: What motivates administration to select and support those individuals who teach foundational courses?

RQ1: In order to begin developing solutions to the framed problem of practice, a more solid understanding is needed of how SMU faculty perceive foundational courses at the school, as well as their role in teaching those courses.

RQ2: Knowing what drives faculty to teach in general will better guide SMU in selecting effective incentives to encourage faculty to volunteer for foundational courses. Self-determination theory connects closely to RQ2; part of answering this question involved an exploration of how autonomously motivated SMU faculty are, and how well they feel their basic psychological needs are being met. The three needs, as posited by SDT, can serve as levers to change the behavior of faculty.

RQ3: Faculty do not decide entirely on their own which courses to teach. In reality, department needs, available funding, politics, and other factors affect these decisions.

Therefore, in order to make reliable recommendations as to a course of action, it is necessary to have a firmer grasp on the nuanced variables that may influence course placements.

Project Design

Data Collection: Survey

To answer both RQ1 and RQ2, a survey design was utilized, because these two questions seek to understand concepts on a broad scale across the population. The items addressing both questions were sent out in one survey, separated into sections.

Sample

Nearly all foundational courses at SMU are housed in the Dedman College of Humanities and Sciences. For this reason, only faculty in this college were included in the initial sample, as there are very few faculty in other colleges that would have the opportunity to teach foundational courses. After discussion with contacts at SMU, the sample was further limited to full-time faculty in the college, because (a) the consistency of this group made their contact information easier to identify, and (b) members of this group will be the ones receiving potential incentives, so understanding their perceptions and motivations would best help determine effective strategies. This process yielded a sample of 312 full-time faculty members. E-mail addresses for this group were provided by SMU.

The survey was sent out via Qualtrics in late September 2020, which tends to be a slower time in the higher education semester. An anonymous link was included with an initial survey ask, which was e-mailed to the SMU e-mail addresses for all 312 Dedman College faculty members. A reminder request was emailed one week later, and a final reminder a week after

that. Overall, 97 faculty members responded, for a response rate of 31%. Out of these surveys, 20 were mostly incomplete and were discarded, for a total *n* of 77.

Faculty perceptions

Section 1 consisted of ten 5-point Likert scale questions, measured on a scale from "Strongly Disagree" to "Strongly Agree," and two open-ended questions (Appendix A). In order to assure proper wording, the first question asked if the respondent was currently teaching a foundational course or had taught one within the past three years. Although many instruments measuring faculty perceptions exist, one specifically measuring perceptions of foundational courses could not be identified. Therefore, an instrument was created for this project. Items were written to reflect common stereotypes about teaching foundational courses – such as being boring and not furthering one's research agenda (Druger, 2006; Flaherty, 2016; Smith, 2018; Sobel, 2018) – as well as specific opinions voiced by faculty at SMU (M. Ellis, personal communication, June 9, 2020). Question format was based on an instrument used by Otter et al. (2013) in their study examining student and faculty perceptions of online versus traditional courses.

Faculty motivation to teach

Section 2 consisted of questions designed to assess the basic psychological needs (autonomy, competence, relatedness) and motivation (intrinsic, identified, introjected, external) of faculty, as viewed through the conceptual framework of self-determination theory (Appendix B). The instrument was based on that used by Stupnisky et al. (2017) and Stupnisky et al. (2018) to measure faculty members' motivation. There were 12 psychological needs measures (4 related to each of the 3 needs) that were prompted by the question "In your

teaching, how often do you feel the following?" and were measured with a 5-point Likert scale ranging from "Almost Never" to "Almost Always." Similarly, 12 motivation measures (3 related to each of the 4 types of motivation) were prompted by the question "To what extent are the following reasons for why you teach?" and were measured with a 5-point Likert scale ranging from "Not at all" to "Very Much." One open ended question was also included.

Demographics

Section 3 consisted of five demographic measures of department, faculty rank, tenure status, gender identity, and years teaching at SMU. Respondents were fairly diverse across these demographic variables. Additionally, 57% of respondents were teaching or had recently taught a foundational course. Descriptive statistics for these measures are in Appendix C.

Data Collection: Administrative Interviews

Research question 3 asks what motivates administration to select and support those individuals who teach foundational courses. The need to understand the intricacies and priorities of SMU's administration, the varying perspectives of administrators, and the differences between departments in the Dedman College of Humanities and Sciences led to the use of qualitative interview data to answer this question.

Sample

Dedman College is divided into three functional areas: Humanities (Division I), Social Sciences (Division II), and Natural and Mathematical Sciences (Division III), each housing 5-6 related departments (Appendix C). Department Chairs were selected as the sample for this portion of the study, because they are the administrators most closely connected to and responsible for faculty placements in each department. Based on recommendations from

contacts at SMU, a selection of Chairs representing each division were invited via e-mail to participate in a 45-minute interview via Zoom. If they did not respond to the initial invitation, a second interview request was sent a week later. Despite multiple requests going to all Chairs in Division III, no one from this area responded (possibly due to issues from the COVID-19 pandemic). Therefore, the final interview sample consisted of 2 Chairs from Division I and 2 Chairs from Division II. Semi-structured interviews consisting of 10 questions were conducted via Zoom with this sample, during the same period that survey results were being collected (Appendix D). The interview questions were designed to explore issues of faculty selection into foundational courses, departmental perceptions of foundational courses, support mechanisms for faculty, and departmental motives for faculty placement. A chart summarizing the connection between each survey/interview question and the corresponding research question can be found in Appendix E.

Data Analysis

RQ1: Perceptions of Foundational Courses

To address RQ1, average mean (M) and standard deviation (SD) scores were calculated from the 10 quantitative questions in Section 1, dealing with faculty perceptions of foundational courses. Questions are included in Table 2, and means of perceptions are in Figure 3.

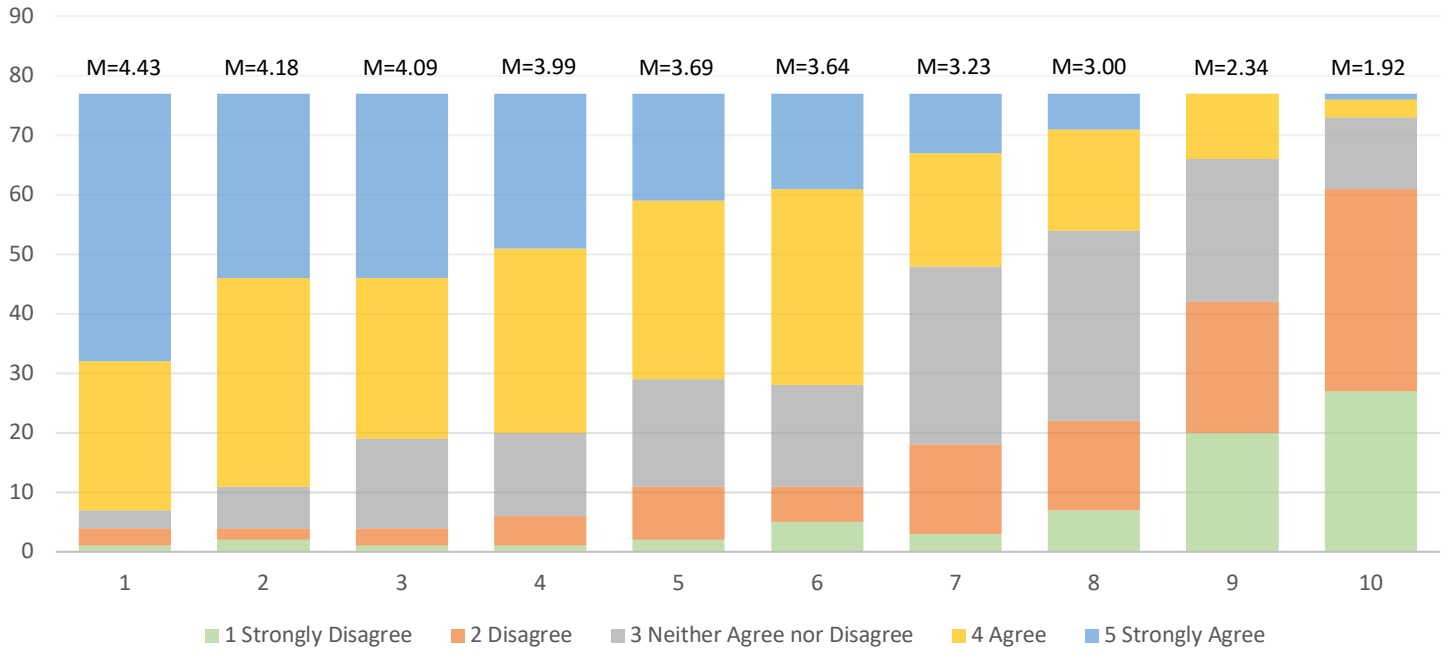
Table 2: Perception Survey Items (in order of means) & Descriptive Statistics

n=77

**Respondents who indicated they had not taught a foundational course in the past 3 years were given the bracketed text replacements, to improve the relevance of the questions.*

Question #	*Question Text*
Q1	Foundational courses are vital for students to progress successfully to upper-level classes.
Q2	In general, I am familiar with the goals and learning outcomes of foundational courses at SMU.
Q3	My department chair/supervisor has supported me in teaching my foundational courses [courses].
Q4	I enjoy teaching first and second-year students.
Q5	I would be happy to teach a foundational course again [interested in teaching a foundational course].
Q6	I [would] enjoy teaching foundational courses.
Q7	Teaching foundational courses takes more time than other courses.
Q8	Junior or part-time faculty should be teaching foundational courses.
Q9	Teaching foundational courses supports [would support] my research agenda.
Q10	Teaching foundational courses is boring/unchallenging.

Figure 3: Distribution of Responses for Foundational Course Perceptions (in order of means)



Overall, findings indicate a positive perception of foundational courses among respondents. Of note, the majority of respondents (79%) disagreed that teaching foundational courses was boring or unchallenging, but only a very small number (14%) felt that teaching these courses would support their research agenda. There was high familiarity with the goals of foundational courses (*M*=4.18) as well as a strong recognition of support from supervisors (*M*=4.09) and the importance of these courses for success in future classes (*M*=4.43). Interestingly, most respondents (75%) agreed that they enjoy teaching first and second-year students, and 62% would be interested in teaching a foundational course in the future. There seemed to be more uncertainty about whether teaching foundational courses is more time consuming (*M*=3.23) than teaching other classes, and about what rank and status of faculty should be teaching these courses (*M*=3.00).

Two open-ended questions were also analyzed, to provide additional insight into the perceptions of SMU faculty. Question #1 was:

- *Please describe the reasons that you (a) would like to teach a foundational course [again] and/or (b) would not like to teach a foundational course [again].*

Answers to this question were separated into positive comments (would like to teach a foundational course) and negative comments (would not like to teach a foundational course), and then coded according to common themes. Some comments contained more than one theme, resulting in 101 distinctly themed responses that fit into 13 identified reasons why respondents would like to teach a foundational course, and 10 primary reasons why they did not want to teach these courses (Table 3).

Table 3

Question #1: Codes and Response Frequencies

Positive Codes	Freq.	Negative Codes	Freq.
Recruiting Students to Major/Discipline	11	Takes a lot of Time/Work	7
Engaging with Students	11	Students Not Interested/Motivated	6
Sparking Learning/Interest in Students	9	Student Behavior	6
Importance of Courses/Topics	8	Class Size Too Big	6
Setting a Solid Foundation	7	Not Enough Departmental Support	4
Challenges Instructor/Fosters Instructor Learning	6	Prefer Upperclassmen/Older Students	3
Watching Student Growth/Progress	3	Students are Underprepared	2
Having an Impact on Students	2	Focus is Elsewhere/There are Better Suited Teachers	2
Prep Work Already Done	1	Doesn't Help with Research	2
Easier Subject Matter	1	Teaching Foundational Courses not as Prestigious	1
Invigorating/Exciting	1		
Enjoy Teaching Broad Topics in the Discipline	1		
Foster Inclusivity in the Discipline	1		

Positive Comments

Recruiting students was tied for the top response as to why respondents wanted to teach or continue to teach foundational courses. This code included both recruiting students to the major, and getting students interested in the instructor's subject matter. Instructors seemed to be passionate about bringing new students into the major:

> *"[Foundational Courses are] a good opportunity to increase interest in my subject, as well as reach possible undergraduate researchers."*
>
> *"…you have lots of room to shape their minds with respect to the discipline."*
>
> *"I enjoy getting students from around the University interested in my field and potentially recruiting new majors/minors."*

Engaging with students was also a frequently given answer. The most common sentiment was that respondents enjoyed the eagerness and excitement common in first-year students that

may not be as prevalent in upperclassmen. This finding supports the earlier referenced data from Q4, that the majority of respondents liked teaching students in their early years of college:

> *"I like getting to know first-year students, they have a refreshing approach to college."*
>
> *"Teaching first-year students is a pleasure: they are eager and responsive. They allow for/accept innovation in the course, and they are capable of learning radically new ideas and practices."*

Notably, the enjoyment of engaging with students may fulfill the basic need of relatedness, as described in SDT.

Other common responses included a great interest in being the one to expose students to new material, which then sparks their interest and a "newfound confidence" in learning. Respondents also found value in knowing that the content of foundational courses is so important, and sets a strong foundation for students to move forward:

> *"I like teaching these courses because I know that they are essential for understanding the world and the cultures in it."*
>
> *"I strongly believe that what we do in our course prepares students for success in their undergraduate careers and beyond."*

One unexpected finding was the frequency with which respondents noted their own growth and learning as a reason for wanting to teach foundational courses. This included the value of getting "back to basics" within their discipline, and the personal learning that comes from being able to "review and rearticulate" concepts in their field for new learners. Staying current with the field was another theme:

> *"I enjoy being reminded every year…of the cool aspects of my broader science. Knowing I will teach the foundational course 1 time per year also keeps me on my toes to look for new cool easily accessible material all year and across the discipline."*

For some, teaching foundational courses seems to support the basic need for competence, providing instructors with a road to enhance mastery of their discipline.

Negative Comments

As expected, there were also multiple reasons as to why instructors did not want to teach foundational courses. The amount of time and work that such courses take was the most frequently cited reason, with office hours, grading issues, and prep work being mentioned specifically. Many of the comments in this area also connected to other codes, such as large class sizes and unprepared students:

> *"…many students were not fully prepared for the course requirements. Getting them up to speed took more work."*

> *"Teaching foundational courses seems like a lot of work given the large number of students, and I would also be more afraid of making mistakes in a large course."*

> *"I have not taught Intro in almost 20 years, and at this point I am so far removed from current work in several of the content areas of the field…I would have to re-learn and update my knowledge… that prep would involve a much greater investment of time than continuing to teach advanced courses in my area."*

In contrast to respondents who noted the challenge of staying up to date as a positive effect of teaching foundational courses, others saw it as simply an additional task that detracted from their time to do research or teach more advanced courses.

Multiple comments also pointed to student attitudes and behavior as the reasons why they did not want to teach foundational courses. Students who are just there to fulfill a requirement and are "uninterested" in the topic seemed to be particularly draining on instructors:

"[Foundational courses] can be a lot of work babysitting uninterested students. Who wants to spend time this way?"

"There are so few students who obviously enjoy the class."

"I hate teaching them because most students are just there to check a box and don't care about learning at all."

Additionally, various student behaviors such as neediness, complaining, cheating, and having poor study skills were mentioned frequently.

A handful of respondents also noted that departmental factors, such as an emphasis on research or not enough teaching assistants, was a deterrent in teaching foundational courses. This factor was more thoroughly explored via Question #2:

- *Which institutional supports have been most helpful/motivating in regard to teaching foundational or other courses?*

68 responses were received in response to this question, and 20 codes emerged out of the themes (Table 4).

Table 4

Question #2: Codes and Response Frequencies

Codes	**Freq.**	**Codes**	**Freq.**
Little or No Support	12	Administrators	2
Grader/TA Support	9	Required to teach FC	2
Technology	8	Flexibility in Course Structure/Textbooks	1
Colleague Support	7	Librarian Services	1
Don't Know	7	Required Curriculum/Structure	1
Center for Teaching Excellence	4	First-year Honors Program	1
Smaller Course Sections/Coordination of Sections	3	Standardizing Materials	1
Words of Support	2	Teaching Effectiveness Symposium	1
Grants/Monetary Support	2	Encouragement to Develop New Courses	1
Developing Specialized Courses Later	2	Course Releases	1

The theme of little or no institutional support was quite prevalent in response to this question, which is notable because respondents did feel supported by their direct supervisors.

This distinction suggests that faculty view support from their chair as being distinct from university support. Many respondents simply said "none" or "no support," but a few comments went deeper. Foundational courses being "doled out" to the lowest-ranking faculty was mentioned multiple times and pointed to as being a source of disparity and resentment among faculty. The following comment from one respondent serves as an amalgamation of the themes found in this code:

> *"There is no reward for teaching high enrollment foundational classes which are considerably more work than upper division small enrollment classes. The teaching of these courses is inequitably distributed. A significant proportion of faculty in my department never teach large foundational courses. As a result, I routinely teach…more students than other members of the department. A teaching burden that is neither recognized nor rewarded. Inequitable work distribution fosters resentment and job dissatisfaction. Further, it is typically junior faculty who are required to teach the large courses and often are told to do so with an implied threat to their tenure as part of the same conversation. It is hazing and should stop."*

Of note, a separate code of "Don't Know" was identified and had a high number of responses as well, indicating that respondents who claimed there was no support truly meant that, as compared to simply not being familiar with available mechanisms. However, the number of respondents who did not know if there was support or not may be problematic in its own right.

Colleague support was another common theme, which directly connects to SDT's basic need for relatedness. Respondents were appreciative of their peers' feedback, role-modeling, and collaboration:

> *"Watching colleagues teach also jump starts me into trying new ways of teaching."*

> *"…the foundational course serves as a great collaboration all year with the other faculty member that teaches it. We've established a great mentoring situation and have nice teaching discussions related to the foundational course that I do not get with my other undergraduate and graduate courses."*

> *"Working with colleagues across language areas to create common goals, outcomes and assessments [has been a good support]."*

These findings imply that by enhancing connections to colleagues and creating mechanisms for feedback and mentoring, motivation may be increased.

Grader/TA and Technology support were also mentioned multiple times. Specifically, IT personnel were praised for providing good support for Canvas, as well as teaching technologies that allowed for varied classroom techniques. Other noted supports included the Center for Teaching Excellence, teaching grants, having smaller course sections/coordinating these sections, and words of encouragement or praise from administrators.

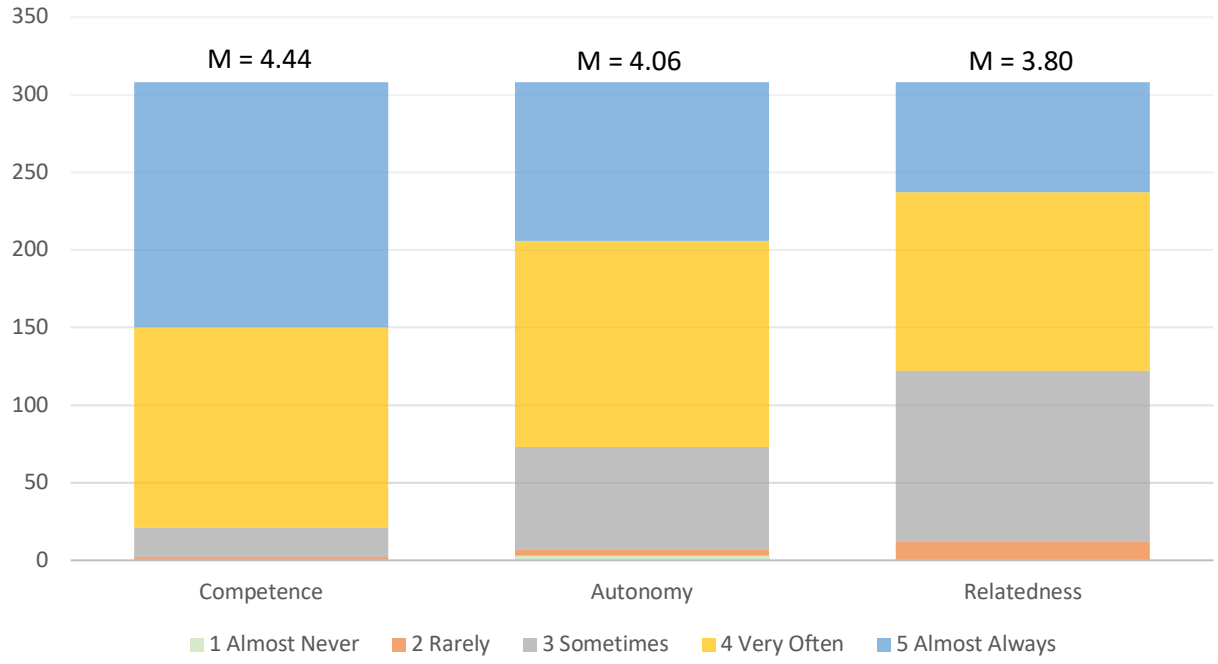
RQ2: Faculty motivation to teach

To answer RQ2, faculty responses to the basic needs inventory and the motivation type inventory (Appendices A & B) were analyzed. Additionally, one open ended question provided qualitative data to support these results.

Basic Psychological Needs

Section 2 of the quantitative survey asked respondents how often in their teaching they feel various indicators of the three key psychological needs – autonomy, competence, and relatedness. Each need had 4 questions associated with it. Ratings from these 4 questions were averaged, to obtain a score for each respondent for each of the 3 needs. Figure 4 shows the means across these needs.

Figure 4: Distribution of Responses for Basic Psychological Needs



Competence was rated most highly by respondents as being present in their teaching (*M*=4.44), which is perhaps not surprising given the impetus for faculty to be masters of their discipline. Autonomy, supported by the concept of academic freedom, was rated second (*M*=4.06), and relatedness came in third (*M*=3.80). Of note, the total number of respondents who claimed to "almost never" or "rarely" feel any of these factors in their teaching was extremely small: the 16% of respondents who said they rarely feel relatedness factors in their teaching was the largest percentage of these ratings across the board. Therefore, the vast majority of respondents feel competent, autonomous, and connected to others at least sometimes when it comes to their teaching responsibilities.

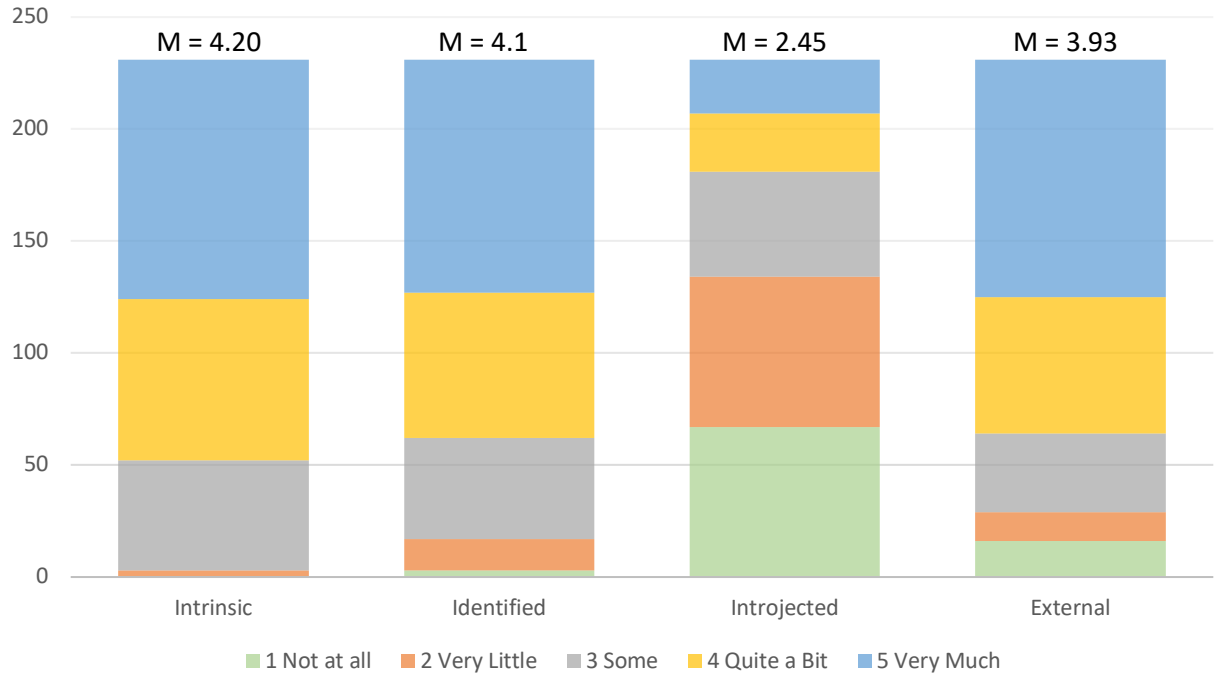
To determine if there were significant differences between how often respondents felt each of the three needs were met, a repeated measures ANOVA test was conducted, and

significant differences were identified, $F(2,152) = 47.62$, $p < .001$. Post-hoc comparisons using paired t-tests indicated that the mean scores for competence (M=4.44, SD=.49), autonomy (M=4.06, SD=.64) and relatedness (M=3.80, SD=.70) were all significantly different from each other. This finding indicates that faculty feel significantly more competent in their teaching than they feel autonomous or connected. Likewise, their needs for relatedness are met significantly less often than their needs for competence or autonomy.

Motivation Type

Section 2 of the quantitative survey also explored the degree to which faculty were internally vs. externally motivated in their reasons for why they teach. Again, according to SDT, the four types of motivation in order from most externally motivated to most internally motivated are external, introjected, identified, and intrinsic. Each of these four motivation types had three questions associated with it. Ratings from these three questions were averaged, to obtain a score for each respondent for each of the four types of motivation. Figure 5 shows the means across these needs.

Figure 5: Distribution of Responses for Motivation by Type



In line with much of the literature on faculty motivation (Deutsch, 2013; Evans & Tress, 2009; Gordon & Foutz, 2015; Soldner et al., 2004; Wanca-Thibault et al., 2002), faculty in this sample appeared to be motivated to teach by intrinsic factors (*M*=4.20), such as finding teaching pleasant and/or interesting. Identified factors, such as teaching being important for student success or to obtain desirable work objectives, were high as well (*M*=4.1). Interestingly, purely external motivating factors (*M*=3.93), such as obligation or pay, seemed to influence respondents more than introjected, or partially internalized, factors such as feeling guilty or bad (*M*=2.45). These findings indicate that faculty find intrinsic value in quality teaching and are appreciative of external rewards, but cannot likely be "guilted" into teaching.

It is evident that introjected motivation appears to be much less of an influencing factor than other aspects of motivation, but to determine if any significant differences exist between

the types, a repeated measures ANOVA test was conducted. Significant differences were identified, $F(3,228) = 75.82$, $p < .001$, and post-hoc comparisons using paired t-tests indicated that the mean score for introjected motivation (M=2.45, SD=1.06) was significantly different from the mean scores for intrinsic (M=4.20, SD=.74), identified (M=4.10, SD=.78), and external (M=3.93, SD=.96) motivations. This finding indicates that faculty are significantly less motivated by introjected factors, such as guilt, than by internal or purely external factors. No other significant pairwise differences were found.

Open-ended Question on Motivation

In order to more fully understand these quantitative results, an open-ended question was included in Section 2 of the survey:

- *What do you find most enjoyable/exciting about teaching?*

As with the other open-ended questions, answers to this question were coded according to common themes. Some comments contained more than one theme, resulting in 99 distinctly themed responses that fit into 13 identified aspects of teaching that respondents find enjoyable (Table 5). Some overlap is expected with the first question about why instructors would like to teach or not teach foundational courses, but this question was more targeted to motivation for teaching in general.

Table 5

Question #3: Codes and Response Frequencies

Codes	Freq.	Codes	Freq.
Student Learning/Excitement in Subject	20	Colleague Collaborations	5
Student Interactions	15	A-ha Moments	4
Personal Learning/Mastery	15	Impacting Student Lives	4
Engaged Students	14	Appreciation from Students	1
Seeing Students Apply Concepts in the classroom and the "real world"	7	Helps with Research	1
Exchanging Ideas	6	Connecting with Past Students	1
Watching Students Achieve Goals/Progress	6		

Helping students learn and become excited in the subject was the most frequently mentioned response by far. Faculty genuinely seem to get pleasure out of seeing students gain new knowledge and skills:

> *"I like bringing new insights to students and giving them tools to go further on their own."*
>
> *"[I enjoy] opening students' eyes to the world's diversity and complexity."*
>
> *"Sparking passion for the material and for the intellectual life in general [is exciting]."*
>
> *"I love seeing non-majors get excited about something they thought would be boring."*

These and other similar responses may also indicate why teaching students who are disinterested or who simply need to "check a box" is so disheartening. Working to change student perceptions of foundational courses may be motivational to faculty as well as the students.

Other topics that were prevalent and related to the top theme are having engaged students and having quality student interactions. Many respondents discussed their enjoyment of working with "positive students" who are motivated and engaged. However, a few also

noted that such students are not as common in foundational courses, which again, may speak to faculty lack of motivation to teach them:

> *"I enjoy most when students struggle with the material and ask good questions. I am most happy when they are able to engage with the material and potentially argue a point. I want student engagement, which unfortunately is not always forthcoming in Intro level courses."*

On the other hand, a number of participants noted their enjoyment at simply being around or getting to know students regardless of their engagement level, and a few noted that collaborations with colleagues was a highly enjoyable part of teaching. Once again, a potent connection to SDTs basic need of relatedness exists.

Once again, personal growth and mastery ranked near the top. A number of respondents noted their enjoyment of "continuously expanding and refreshing" their own knowledge through teaching, by "synthesizing" it in different ways. Respondents also noted that they frequently learned from their students:

> *"…their ideas and questions push me to think of the material in a new way."*
>
> *"…learning from them in class discussions and through their papers."*

The connection to SDT's need for competence became evident through such comments. Additionally, a tightly woven relationship between student interaction, mentoring, and mutual growth and learning emerges.

An interesting observation is the lack of responses that are directly connected to the need for autonomy. Faculty did <u>not</u> note the ability to run their classrooms as they like or have control over course material as particularly enjoyable parts of teaching, and yet 76% of respondents said they felt autonomy "very often" or "almost always" in their teaching. This paradox may indicate that autonomy is something that is simply expected or taken for granted,

and thus is not viewed as a strong motivating factor. In contrast, competence was also noted by 93% of respondents as being prevalent in their teaching, and yet a desire to improve one's proficiency and knowledge appeared quite frequently in the comments, indicating a continuous push for mastery as a motivational element. Relatedness on the other hand, was reportedly not felt as often in teaching, so the overwhelming number of comments about interactions and relationships with students may indicate a lever that might serve as an impetus for change.

Notable Demographic Effects

One final analysis was conducted with the quantitative survey data. To fully understand the ways in which faculty may differ regarding their motivation to teach, the effects of time teaching, tenure status, and departmental division on perceptions, psychological needs, and motivation type was explored.

Time-Teaching at SMU

Survey participants were asked how many years they had been teaching at SMU. Reponses are in Table 6.

Table 6

Time Teaching at SMU		
0-3 years	8	10.39%
4-7 years	8	10.39%
8-11 years	11	14.29%
12-15 years	15	19.48%
16+ years	31	40.26%

To examine perceptions, respondents were placed into 2 groups: 0-11 years and 12+ years. Independent t-tests revealed only one significant effect of time-teaching when looking at perceptions of foundational courses, and it is somewhat expected: faculty who have taught at

SMU for longer (12+ years) report being significantly more familiar with the goals and learning outcomes of foundational courses at SMU (*M* = 4.38*, SD* = .71) than those who have not taught there as long (*M* = 3.89*, SD* = 1.12), *t*(71) = -2.15, *p* = .04. There were no significant results when looking at basic psychological needs or motivation type. These results suggest the need to generate more familiarity amongst newer faculty with regards to the purposes of foundational courses.

Tenure Status

Survey participants were asked their tenure status. Responses are in Table 7.

Table 7

Tenure Status		
Tenured	43	55.84%
Tenure Track	7	9.09%
Non-Tenure Track	27	35.06%
Other/No Answer	0	0.00%

With the assumption that there might be a difference between faculty members who had obtained tenure and those who had not, respondents were divided into a "tenured" group and a "non-tenured" group, the latter of which was comprised of both tenure-track faculty and non-tenure track faculty.

Independent t-tests revealed significant differences in three perceptions between these two groups, at the $p<.05$ level. First, non-tenured faculty were more likely to agree that foundational courses are vital for students to progress successfully to upper-level classes (*M* = 4.68, *SD* = .47) than were tenured faculty (*M* = 4.23, *SD* = 1.02), *t*(75) = -2.34, *p* = .02. They were also more likely than tenured faculty (*M* = 3.02, *SD* = 1.01) to agree that teaching foundational courses takes more time (*M* = 3.50, *SD* = 1.02), *t*(75) = -2.04, *p* = .04 and were more likely than

tenured faculty (*M* = 3.81, *SD* = 1.01) to agree that their department chair/supervisor has supported them in their teaching (*M* = 4.44, *SD* = .70), *t*(75) = -3.08, *p* = .003. These results indicate that tenured and non-tenured faculty may view certain aspects of foundational courses differently. The reasons for this dichotomy warrant further exploration.

In looking at the psychological needs section, an independent t-test revealed one significant difference, *t*(75) = 2.13, *p* = .04. Tenured faculty reported feeling significantly more autonomy in their teaching (*M* = 4.20, *SD* = .58) than non-tenured faculty (*M* = 3.89, *SD* = .69). This result would be expected, as tenured faculty often have more control over how they do their jobs than do non-tenured faculty. This observation is noteworthy, however, because helping non-tenured faculty feel more autonomous in foundational classrooms might improve their motivation to teach these classes, especially if they don't feel the same type of autonomy in other areas. There were no significant effects of tenure status on motivation type.

Departmental Division

As noted, the Dedman College of Humanities and Sciences has 16 departments, divided into 3 divisions as shown in Table 8 below. Faculty were asked to indicate which department they taught in primarily.

Table 8

Department	Count	Percent
Division I - Humanities		
English	12	15.58%
History	5	6.49%
Philosophy	1	1.30%
Religious Studies	2	2.60%
World Languages & Literature	10	12.99%
Division II – Social Sciences		
Anthropology	4	5.19%
Economics	6	7.79%

Political Science	3	3.90%
Psychology	4	5.19%
Sociology	3	3.90%
Division III – Natural & Mathematical Sciences		
Biological Sciences	4	5.19%
Chemistry	2	2.60%
Earth Sciences	3	3.90%
Mathematics	5	6.49%
Physics	5	6.49%
Statistical Science	5	6.49%
Other/No Answer	3	3.90%

Participants who listed "other/no answer" were excluded from this analysis, leaving $n = 74$.

Independent t-tests revealed that the faculty of Division I – Humanities reported the following significant results:

- They were more familiar with the goals and learning outcomes of foundational courses ($M = 4.47$, $SD = .63$) than Division II - Social Sciences ($M = 3.65$, $SD = 1.23$), $t(48) = 3.10$, $p = .003$.

- They found teaching foundational courses to be less boring ($M = 1.47$, $SD = .63$) than Division II ($M = 2.15$, $SD = 1.04$), $t(48) = -2.90$, $p = .006$ or Division III ($M = 2.33$, $SD = .82$), $t(52) = -4.41$, $p < .001$.

- They felt that teaching foundational courses supported their research agenda ($M = 2.87$, $SD = .86$) more than Division II ($M = 2.00$, $SD = .79$), $t(48) = 3.60$, $p < .001$ or Division III ($M = 1.92$, $SD = 1.06$), $t(52) = 3.64$, $p < .001$.

- They were more likely to want to teach a foundational course (again) in the future ($M = 4.17$, $SD = 1.02$) as compared to Division II ($M = 3.60$, $SD = .75$), $t(48) = 2.12$, $p = .04$ or Division III ($M = 3.13$, $SD = 1.03$), $t(52) = 3.71$, $p < .001$.

- They felt more supported in their teaching by their department chairs/supervisors ($M = 4.43$, $SD = .68$) than Division II ($M = 3.85$, $SD = .99$), $t(48) = 2.48$, $p = .02$ or Division III ($M = 3.83$, $SD = 1.05$), $t(52) = 2.54$, $p = .01$.

- They reported higher enjoyment in teaching first and second year students ($M = 4.57$, $SD = .63$) than Division II ($M = 4.00$, $SD = .56$), $t(48) = 3.26$, $p = .002$ or Division III ($M = 3.21$, $SD = 1.02$), $t(52) = 6.02$, $p < .001$.

Additionally, Division III - Natural and Mathematical Sciences also reported:

- less enjoyment than Division II (M = 4.0, SD = .56) in teaching first and second year students, t(42) = 3.10, p = .003.

- less enjoyment in teaching foundational courses in general (M = 3.04, SD = 1.12), than Division I (M = 4.00, SD = 1.17), $t(52) = 3.04$, $p = .004$ or Division II (M = 3.75, SD = .64), $t(42) = 2.50$, $p = .02$.

These results suggest that faculty from Natural and Mathematical Sciences may require more targeted and different incentives than the other divisions, and that Humanities faculty may be quicker to buy-in.

There was one other noteworthy finding from the psychological needs and motivation type survey sections. Division III faculty reported feeling autonomy more often in their teaching (M = 4.36, SD = .48) than Division I (M = 4.05, SD = .62), [$t(52) = -2.04$, $p = .047$] or Division II (M = 3.75, SD = .75), [$t(42) = -3.30$, $p = .002$]. When considered in the light of earlier findings, finding ways to improve the perceived autonomy of Division I and Division II faculty, particularly non-tenured faculty, may be important in increasing motivation to teach.

RQ3: Administrative Motivation and Departmental Processes

RQ3 explores the departmental and institutional factors that influence which teachers end up in foundational courses, and why. Understanding these nuances will be vital for determining which incentives and/or supports are currently used or may be effective in the future for changing faculty behavior. Four chairs across the Dedman College of Humanities and Sciences were interviewed for 45 minutes each about processes, supports, and culture in their respective departments. Their comments revealed some critical commonalities and distinctions. (To respect confidentiality, the departments will be identified as departments A, B, C, & D).

How does the placement process for faculty work?

The process for determining which courses faculty teach each term seems to vary across departments, with differing levels of chair involvement and unique factors that influence who teaches what. In Department A for example, faculty in each sub-discipline get together, and decide what they want to offer. They know how many courses of each type, including foundational courses, need to be offered, and in general, getting faculty coverage (even at the senior faculty level) for those courses is not an issue. In contrast, Department C, which is a much larger department, has a more formalized process. The Director of Undergraduate Studies contacts the faculty and allows them to nominate three to five course preferences, creating a schedule based on these responses and allowing the department chair and faculty to review before finalizing. At this point, negotiating may occur.

Departments B & D utilize a large number of adjuncts and non-tenure track faculty, as compared to the other departments. Department B has developed a system that gives priority to tenure and tenure-track faculty:

> *"…there's not a lot of overlap in the specializations that we have…it's usually just everybody teaching an upper-level class in their particular specialization and then faculty who are tenure and tenure-track get rotated into the PhD program and Master's program as needed. So we kind of assign all the tenure and tenure-track faculty to their specific specializations at the upper level undergraduate or graduate level and then we use adjuncts and lectures to fill in the gateway courses."*

Department D also has a rank-oriented placement system, where tenured and tenure-line faculty primarily teach upper-level, content-oriented courses. In addition, they have a number of smaller sub-disciplines that occasionally only house one or two faculty members. In these cases, faculty teach all levels of courses. Given the disparities between just these four departments in terms of placement processes, it is likely that a variety of other systems are

operating across the remaining departments, which may impact the target of proposed incentives.

Who should teach foundational courses and why? What are the staffing concerns involved?

In asking who the ideal people are to teach foundational courses, a simple but obvious point of agreement between all four departments arose: people who are "good" in some way at teaching them. Some quotes further illuminate this point:

> *"…there's one person who's been [teaching foundational courses] every semester for quite a long time because she's good at it, and she's got it all organized. Some aren't good at it and know they're not good at it, so they don't teach it. Some really like it and are talented at it. [This teacher] really likes to teach it, and she's got good rapport with the students, you know. She pushes them and heckles them sometimes. People who don't like it, their evaluations show that. They shouldn't teach it." (Department A)*

> *"…the main criteria is, are you good teaching first-year students, so you're not going to scare them away from the major." (Department C)*

> *"I think you want good teachers to teach those classes because if you have bad teachers, you're not going to go on. We want students to understand the importance, to get excited by it and not just to feel like they're, you know, getting rid of a requirement. So, I would say my main priority would be…dynamic teachers that facilitate student learning and also get them excited about the possibilities of continuing to explore the discipline and move forward in their studies. (Department D)"*

These comments are encouraging, because all four department chairs noted the importance of putting the best teachers in foundational courses, although of note, they did not always correlate "best" with rank or status. Instead, "best" was mostly defined as faculty who are effective at engaging with large groups of first and second-year students, and who have a desire to teach these classes mixed with the personality to do so. One chair even referred to teaching foundational courses as a "theater performance": to teach these courses well, faculty have to be good at moving around the room, keeping students engaged. The chairs also seem to fully

grasp the relationship between strong gateway courses and the recruitment of students into the major, which, as we noted from survey comments, was also the top motivating factor for faculty to teach these courses. Here, we have identified a possible overlap between departmental goals and faculty motivation.

Not surprisingly however, putting the best teachers in these courses is far from simple, and there were numerous barriers to this goal that the chairs identified. Staffing needs and concerns were primary among these. For instance, Department B's chair discussed some constraints imposed by the institution:

> *"SMU has started a newer requirement…for our junior faculty when they come up for tenure, that they want them to have a portfolio of classes that they've been teaching. So [ensuring they teach a variety of classes] is one constraint we've had to deal with."*

> *"…a lot of the adjuncts that we do use to cover the gateway classes, I don't even know if all of them have a PhD and so…the university wouldn't let them teach above the introductory level. It's not like we could flip flop and then have the tenure/tenure-track faculty teach the gateway classes and the adjuncts cover the upper level electives."*

There also appears to be a notable pattern of senior and tenure-track faculty getting pulled out of undergraduate teaching to cover graduate level courses:

> *"…once we had a PhD program, that siphoned off faculty from these lower level courses, and ever since that happened, having enough faculty to teach foundational courses has become more difficult because people who might have taught those courses in the past are teaching graduate courses." (Department C)*

> *"We have classes in the Master's program or the Ph.D. program that are required, courses that we need to have staffed, and sometimes it's hard to find an adjunct if we would need to cover it. So, we need a permanent faculty member to cover it." (Department B)*

> *"…we're well aware of what graduate seminars need to be offered because some of them are required and some of them are elected. So all those things are considered vis a vis, the introductory courses." (Department A)*

Evidently, staffing and resource limitations are a major concern; in fact, when asked what might incentivize top faculty to teach foundational courses, one chair immediately answered, "five additional faculty members." This same chair also acknowledged that gateway courses are essentially "at the bottom of the totem pole" when it comes to staffing, given resource constraints. Knowing that new faculty lines are not easy to obtain, the question becomes how can we work within the constraints of our current staffing to motivate more interest in foundational classes, while still ensuring proper staffing of other courses.

What are the perceptions of foundational courses in the departments?

Comments from department chairs regarding perceptions of foundational courses often mirrored themes mentioned in the faculty survey. For instance, on the positive side, the concept of reconnecting with one's discipline was mentioned. Additionally, some of the joy of teaching first and second-year students appears to be linked to the ability to help them adapt and grow, as well as not having the pressure of seniors or graduate students:

> *"…having a lot of first year students has its own joys…especially in the fall semester, because you're kind of teaching them how to be college students." (Department D)*

> *"[Many professors] would much rather teach an undergraduate class…rather than teach a graduate course, where they know that they're going to have to be very careful and think about, you know, career advice." (Department C)*

There also seems to be the perception that, once you "get into the groove" of teaching foundational courses, they become more enjoyable as instructors take ownership of the course and teach them again and again. Here we see the concept of the need for autonomy, previously absent from comments, come into focus:

> *"They enjoy teaching the courses. They've made them their own, they became very comfortable with them. It was more, okay, you know, I can see doing this, but I would like to be able to develop these courses on my own. I said, of course, develop it any way you want. You can actually make up a foundational course if you want. Our course descriptions are very broad, you can just kind of make it what you want." (Department C)*

Negative perceptions included the "just checking a box" mentality that frustrated many survey respondents, as well as the challenge of having to teach to a "wide variety" of ability levels in one class. Other negative perceptions included:

- not being able to incorporate current research;
- "handholding" of younger students;
- no student involvement, only straight lecture for the entire class.

Furthermore, the fear of being pigeonholed into teaching only foundational courses was prevalent:

> *"The apprehension is more, if I teach this foundational course, I'm going to get locked into doing this and I won't get to teach the upper level courses that are more specialized, and not everybody is comfortable doing that." (Department C)*

> *"[The instructor] teaches one [foundational course] one semester and one the other, and we switch off those classes, and then she's designed some more advanced classes that she teaches. So, you know, if she only has to do that foundational course once a semester it's fine, and she feels more comfortable doing it with other things." (Department A)*

Thus, we see an interesting dichotomy develop between instructors who are bought in to foundational courses and enjoy teaching them repeatedly, so they can truly make them their own, versus those who may be enticed to teach one occasionally, but do not want to get locked in.

What support is prevalent in the department? What are some possible incentives?

The most common support mechanism discussed by all four chairs was Teaching Assistants and/or grading help. Faculty who completed the survey also noted this as a top

support, suggesting that incentives to lighten one's load may be effective. Department C's chair offered a good example of just how desirable a lessened workload can be:

> *"In our foundational courses, we don't require much writing of students. That is one of the main differences between foundational courses and upper level courses. And so that's one reason why people might be willing to teach them, is because the amount of grading is very different. So they're not grading a lot of longer papers."*

Other chairs also delineated the effort to reduce workload as an intentional incentive:

> *"…the incentive is that if you can get it going, and it's a class that you know you can teach every semester, it's one less thing to sort of worry about really intensively." (Department A)*

> *"[We try to] minimize new preps, particularly for junior faculty. We try and bring them along slowly, let them teach the same course over and over again as much as possible." (Department B)*

Such supports are a way to give faculty their time back. Other incentives that are currently operating in the same way include course releases, giving faculty a "break" by swapping out courses routinely, team teaching a class, and flexible scheduling so faculty can more easily take care of personal needs. All of these incentives speak to the need for competence in one's professional life, which is difficult to achieve when overwhelmed with work.

Adjustments to the promotion and tenure process were mentioned as well. For instance, one department chair described giving foundational course instructors leniency when it comes to course evaluations, knowing that they tend to be lower than for advanced classes (presumably because of class size and having pre-major students who are not as interested in the subject). Minor support mechanisms included paying for tickets or reimbursing students for going to course-related events, technology resources for faculty, and paying for blue books and other student testing supplies.

A few of the department chairs also noted community-based supports, which underline the need for relatedness. For instance, one department discussed observing other instructor's classes as a way to learn effective teaching techniques, and another noted a peer mentoring program in the department. There was also significant variation between departmental opportunities for collaboration:

> *"[There's] not much unless collaborating on a course. We come together for monthly meetings, or if there's some crisis or we need to do something or tweak the curricula, you know, then we do come together as a group." (Department A)*

> *"So, even outside of the work week, I know a lot of the faculty hang out and get together and things like that. Within the work week, you know, we probably go to lunch and or coffee with different groups of people once or twice a week…if somebody wants to go out and grab something to eat, they just walk around the department and see who's here, and gathers up whoever wants to go out." (Department B)*

> *"…a lot of our structures are built to support teaching… [we] formed a pedagogy committee, and then out of that, I have another colleague who started…a pedagogical exchange that we do every spring. It's sort of based around some theme and several people in the department give maybe a 10-minute presentation. Another group of colleagues put together an occasional series where they have someone give an informal, maybe 20-minute presentation on a topic, and then people talk about it. We also started giving funding for faculty to attend a conference, and then after they come back…everyone does a five-minute [summary of something they learned]." (Department D)*

Evidently, collegial support can look quite different across departments, with some only coming together on an as-needed basis, some relying on informal connections, and some having multiple structures in place to support teaching excellence. Increasing faculty sense of relatedness, which scored lower on the survey needs scale, may be a key area to leverage as in incentive.

Findings

RQ1: What are faculty perceptions of foundational courses?

Overall, SMU faculty respondents have a positive perception of foundational courses. They do not view them as being boring or unchallenging and, in fact, noted quite often that they themselves learn much from their interactions with students in these courses, and are challenged by reconnecting with the broader view of their discipline. Respondents expressed a high familiarity with the goals of foundational courses, particularly emphasizing that they set a solid foundation for students to progress successfully to upper-level material. They repeatedly highlighted the important role of these courses in recruiting students to a specific major, which was also a draw to teaching them. The majority of respondents liked teaching first and second-year students, noting how much they enjoyed the opportunity to introduce their discipline to students, sparking their interest in the subject and watching them grow and progress. Engaging with these students brought a unique joy to the faculty that was mentioned over and over. Indeed, most respondents said they would be interested in teaching a foundational course in the future.

Although quantitative survey results seemed to indicate uncertainty about whether teaching foundational courses is more time consuming than teaching other classes, respondents commented in the open-ended survey questions and the interviews that **the time and work required prevented them from wanting these courses**. Therefore, it seems that they may in fact, take more time and work than other courses, at least until someone has taught them multiple times and can make the courses their own. As much as faculty were energized by engaging with students, they were equally drained by having to deal with undesirable behavior (complaining, handholding, etc.), particularly from students who were not interested

in the course or who were simply "checking a box" to fulfill a requirement. Faculty were mixed regarding what rank and status of faculty should be teaching these courses. This uncertainty may stem from the perception, noted by department chairs, that the best person to teach foundational courses may not be based on rank or status, but on ability, desire, and personality. For instance, large class sizes were universally viewed as a negative, but some faculty are reportedly more adept at handling such a situation and were perceived as better options for foundational courses. Finally, the majority of respondents noted that teaching such courses did not support their research agenda. This observation may feed into the fear that faculty seem to have of being trapped teaching only foundational courses, unable to pursue their own interests.

RQ2: What motivates faculty to teach their courses?

-*What excites them about teaching the classes they teach?*
-*What institutional supports motivate them?*

In line with previous research (Deutsch, 2013; Evans & Tress, 2009; Gordon & Foutz, 2015; Soldner et al., 2004; Wanca-Thibault et al., 2002), and perhaps to be expected at a teaching-focused institution like SMU, **respondents reported the strongest tendency toward intrinsic motivation, finding teaching pleasant and interesting**. Identified motivation, where teaching is thought to be important either for obtaining personal goals or for the academic success of students, was also rated highly. Purely external motivation, such as pay or obligation, came in third, and introjected motivation, based on feelings of guilt or feeling bad, rated significantly lower than all the others.

Self-determination theory posits that these forms of motivation are not only individualistic but are highly social and driven by three basic psychological needs: competence, autonomy, and relatedness. **Faculty respondents reported experiencing a high degree of**

competence in their teaching, feeling capable and able to complete difficult tasks. Autonomy came in second, with faculty reporting the freedom to make their own choices and do what really interests them in their teaching. Finally, relatedness was last, where faculty felt supported and close to those they interact with professionally (colleagues, students, etc.). Although the differences were significant between these three measures, it's important to note that the even the mean of the lowest rated need (relatedness) was still over the midpoint, meaning that the majority of respondents feel their needs in these three areas are met at least sometimes in their teaching.

Further evidence of these findings can be found in the faculty comments. Respondents repeatedly listed student interactions, particularly those involving learning, growth and engagement, as the most exciting thing about teaching. Collaborations with colleagues and the simple reward of exchanging ideas with others also appeared frequently. Such descriptors highlight the faculty need for relatedness and connectedness. Personal learning and mastery was also a common answer, connecting to the need for competence. Emotional phrases such as "making an impact" and "seeing the a-ha moment" further bolster the finding that intrinsic factors are, and can be, a powerful motivator for faculty.

The question about institutional supports from a faculty perspective provides a picture that is a bit hazier. **Many faculty respondents claimed a lack of institutional supports, and others were unsure what supports did or did not exist.** However, every department chair was able to point to at least some supports, indicating that departments may need to be more explicit in pointing out the ways in which faculty are championed in their roles. Grader/TA support, which reduces time and workload, was mentioned by both faculty and department

chairs as a motivating incentive. Colleague support, in the form of mentoring and collaboration, is also seen as a highly motivating factor, although the extent and nature of such support seems to vary across departments. Finally, technology, which enhances both autonomy and competence, was also a motivating support according to faculty respondents.

RQ3: What motivates administration to select and support those individuals who teach foundational courses?

While the processes for faculty placement vary greatly across departments, the chairs who were interviewed all seemed to agree as to the importance of foundational courses in preparing students for advanced coursework and recruiting them into a given major. Because they comprehend the significance of these courses, they also support the need to have the best teachers in them. However, they **seem to identify the "best" teachers as a combination of those with specific attributes – personality traits, skills to deal with large groups of first and second-year students, and a desire to teach them.** As one chair noted "it's not in the best interest of the department to force people to do something they're not comfortable doing." However, if teaching foundational courses is more appealing, the skills to teach them well can be instilled.

In nearly all cases, **staffing needs and requirements are a top factor that influence departments when placing faculty**. They must ensure adequate coverage in graduate courses, seminars, sub-disciplines, and regional courses. Additionally, departments that use a high percentage of adjuncts may not have enough instructors with terminal degrees to cover their course offerings if they were to put senior faculty in lower-level classes. They must also consider the needs of those who teach in the department, such as portfolio requirements,

research interests, and promotion/tenure timelines. All of these factors heavily influence instructor placement in foundational courses.

Incentives that are frequently utilized by departments include course releases, graders and TA support, and minimizing new class preps. All of these function by saving the instructor time and lightening their workload, so they can then focus on their research, service, and/or other professional opportunities. There is also a good amount of "horse trading" that occurs on a case-by-case basis, where an instructor wants a particular incentive, and tries to work with the chair or with colleagues to arrive at a mutually agreeable solution. This might be agreeing to teach one course in exchange for being placed in a different one later, subbing in temporarily for one class in order to give an instructor a break, or various other options. Such deals essentially tip the scales to increase faculty autonomy, competence, or relatedness, with the effect of improved motivation.

Recommendations

Across the faculty survey and department chair interview data, some common themes emerge that can inform action. Furthermore, self-determination theory tells us that by increasing the degree to which faculty feel competent, autonomous, and connected in their jobs, we can create an environment that fosters more intrinsic motivation. Given the resource and staffing constraints expressed by department chairs, tapping into instructor's natural inclination toward internal motivation will be important. Thus, the following four recommendations encompass incentives to motivate faculty to teach foundational courses, while taking institutional processes and barriers into account.

1. Reduce the time and workload associated with teaching foundational courses.

Instructors seem reluctant to take on foundational courses because of the time and effort associated with doing so. Re-learning broad material, dealing with large classes, interacting with "needy" first and second-year students, and excessive grading were all cited as reasons *not* to teach them. Reducing this load improves faculty competence, or their ability to respond and act effectively. Additionally, research indicates that faculty are more productive and motivated when they have lighter, more balanced workloads that they themselves can influence (Kenny, 2018; Siddique, 2011). Perception of equity in workload can also impact faculty satisfaction and behavior (O'Meara et al., 2019), making faculty less likely to teach these courses if it seems they have an unfair burden (due to class size or other factors noted above).

Associated incentives may include providing graders and/or teaching assistant help with every foundational course, and assigning a coordinator to plan trainings and check-ins with them, so faculty don't have to spend so much time on personnel management. Consider allowing a course release or a shorter-term class, so that faculty have time to prepare to teach a foundational course. If staffing concerns prevent such arrangements, creative and flexible scheduling (i.e. mornings off, alternating days, remote work options, etc.) can help faculty find some undedicated time. Allow team-teaching of courses, to share the burden, and if possible, consider reducing class caps. Finally, technology was noted as a much appreciated support mechanism. Working with foundational instructors to provide access to desired technology can serve as an incentive that saves time and facilitates effective teaching and communication. Similar incentives that reduce faculty load and free up time will likely be well-received.

2. Reduce the fear of being stuck teaching foundational courses, while also encouraging ownership of the courses when possible.

Many faculty may enjoy teaching a foundational course, but seek balance with other courses that better support their research agenda. They need a certain degree of autonomy (Stupnisky et al., 2017; Stupnisky et al., 2018) and want the freedom to pursue their interests or dive deeper into a specific sub-discipline, which foundational courses generally do not allow. In exchange for this ability and the assurance that they will not get pigeonholed, faculty may be more likely to step in as the instructor of a foundational course. Consider rotating instructors in and out of foundational courses or offer for them to design a course of their choosing in a later semester, in exchange for teaching a foundational course.

At the same time, faculty who excel at teaching gateway courses, and who enjoy the experience, should be encouraged to continue to do so. Although these courses must meet certain objectives, faculty should be permitted to incorporate their own content into the course, within certain parameters. Consider an assignment redesign incentive (grant or award) that encourages instructors to shape a course according to their interests and personality. Allowing faculty to retain ownership of their content can also create buy-in and encourage top material. Teaching pre-designed content over and over doesn't meet the need for autonomy; it is when faculty can make the course their own that they truly seem to enjoy it (Kenny, 2018).

3. Create opportunities for positive student interaction and supportive colleague relationships.

Bowen (1985) noted that "among the best incentives are intellectually active and productive colleagues and bright and challenging students. Incentive programs cannot create

these incentives, they can only help them achieve their potential" (p. 43). The data collected in this study supports this assertion; faculty are energized by working with engaged students who are excited by the discipline. They particularly enjoy bringing students into their major and sharing ideas that impact their lives. While it may not be possible to completely remove the "just checking a box" mentality that plagues required introductory courses, there may be ways to shape student attitudes toward these classes, such as routinely connecting content to future goals (Weissman & Boning, 2003), and being transparent in why students are being asked to complete assignments (Winkelmes et al., 2019). There may also be chances to create more encouraging interactions, so that the negative ones are not as draining. Drawing faculty into activities where they will frequently interact with enthusiastic students in their same discipline may be motivating. For instance, involve foundational course instructors in recruitment events for the major, or offer them the option to advise a discipline-specific student organization. Creating mentorship opportunities has been shown to have multiple positive effects on faculty motivation (Lechuga, 2014); one way to do this is to utilize former students who performed well in a given foundational course as course-embedded assistants. In addition to giving faculty regular interaction with an engaged and motivated learner in their discipline, these assistants will save the professor time, and can deal with some of the minor "handholding" needs that may arise.

Secondly, the impact of peer interactions can be incentivizing as well, as noted by multiple faculty respondents. Some departments have identified and capitalized upon this need for relatedness, and others may not have as many formal mechanisms in place. Some potential options for maximizing the impact of colleague relationships include creating an

interdisciplinary group that supports foundational courses campus-wide, or a discipline-specific network for these instructors to collaborate. Such faculty learning communities have been found to enhance the use of effective teaching techniques (Fidler, et al., 1999), increase enjoyment and motivation of participants (McCourt et al., 2017), improve persistence of those teaching a first-year course (Soldner et al, 2004), and increase faculty agency (Campbell & O'Meara, 2014). Practices like team-teaching can also help faculty feel more connected. Finally, because personal learning was a commonly noted occurrence for those teaching introductory courses, sponsoring monthly gatherings to discuss new realizations and exchange ideas can foster a community of which faculty want to be a part.

4. Emphasize transparency of departmental and institutional support mechanisms

A problem that became evident in the course of this project was that many respondents claimed that there were little or no departmental supports to help them in their teaching endeavors, or were unaware of their existence. However, the data collected suggest that there are, in fact, multiple support mechanisms and incentives that are being used in practice. This divergence suggests that there may be a problem of perception; faculty are not seeing commonly used supports as available or beneficial. Efforts to heighten awareness and transparency may remedy this misconception, and have been well-received in other situations (Campbell & O'Meara, 2014; O'Meara et al., 2020). For instance, a possible solution would be to draw attention to the most commonly used academic supports in official university documents, such as the faculty handbook or perhaps a faculty dashboard, or to address such mechanisms at new faculty orientation. There is also a possibility that faculty are looking for

certain supports that are not widely used. In this case, involving faculty in a dialogue about incentives they would like to see, and having them spread the word to colleagues may help. Often, such incentives are discussed behind closed doors, but unfortunately, this can lead some to falsely believe supports do not exist.

These evidence-based recommendations attempt to capitalize upon the intrinsic enjoyment of teaching that the faculty respondents reported, as well as minimize the barriers that keep instructors from wanting to teach foundational courses. They seek to reduce the time and effort needed, and alleviate fears about being stuck teaching introductory topics with little connection to passions or research interests. Since interactions with engaged students and colleagues featured so prominently in faculty responses, increasing opportunities for such exchanges should improve motivation and desire to return to the gateway classroom. Finally, being more transparent in how the university supports faculty in the classroom can help to improve motivation by giving them a reward to pursue.

Implementing such incentives must be done in close consultation with department chairs and college leadership. There may be additional supports and obstacles that affect some areas and not others, so a thorough understanding of all the factors operating at a departmental level is necessary. Furthermore, although the data collected in this project point to a strong influence of intrinsic factors, external motivations were not completely insignificant. Chair interviews highlighted many constraints related to finances, staffing requirements and limits, and other resources with which departments must contend, so internally motivating incentives are important. However, if the opportunity exists for additional hires, pay, or other rewards, it would be worthwhile to explore these possibilities.

Discussion and Conclusion

This mixed methods project used a faculty survey and interviews with department chairs to provide a clearer understanding of faculty perceptions of foundational courses at SMU, as well as their motivation to teach or not teach those classes. It also explored departmental processes and incentives that could be useful in motivating highly effective instructors to teach these courses. Overall, respondents had a positive perception of foundational courses, citing interactions with engaged students and getting students interested in their discipline as the top reasons to teach these classes. Class size, time and effort, and negative student attitudes/behavior were the top reasons not to teach the courses. Many faculty were unaware of institutional supports available to them, while others appreciated grading support, interactions with colleagues, and technology help.

Faculty were highly motivated by intrinsic factors, and less motivated by guilt and external motivators. They most often feel confident in their teaching, and report feeling close connections with others less often in the role. Student learning and interactions appeared again as the most enjoyable thing about teaching, as well their own personal mastery of the content gained through the act of instruction. Departmental placement processes and supports vary widely – grading support, minimizing preparation time, and trading responsibilities between faculty seems to be a common thread. Department chairs do appear to fully grasp the importance of foundational courses, which means that they are likely to be pliable when considering incentives to alter faculty placements in their departments.

Human motivation is a complex topic that cannot be thoroughly explored in one project. Similarly, human learning, especially in the early years of college, is equally complex.

Foundational, or gateway, courses are extremely valuable for both sparking interest in academic disciplines and providing a solid foundation for future student success. Having the best teachers involved with these classes should further these ends, and help SMU reach it's retention goals. It is the author's hope that the data collected herein provides a clearer picture of faculty perceptions of foundational courses, and that the suggested recommendations will stimulate faculty's intrinsic motivation to teach, encouraging those best suited to teach these courses to give them a try.

This study design did have a number of drawbacks. First, because the sample only included SMU faculty in one college, there are limitations as to the generalizability of results. While the sample was solidly distributed across demographic characteristics, it was not an intentionally representative sample. With 77 usable survey responses out of a sample size of 312 , the response rate of 25% may not adequately represent the viewpoint of the majority of the faculty. The same issue exists with the department chairs; 4 out of 16 (25%) responded to the interview request, and none were from the fields of mathematics or natural sciences. Given evidence from the literature showing that STEM faculty may vary from other disciplines with regard to their motivation (Bouwma-Gearhart, 2012; Lechuga, 2014), this limitation may significantly impact generalizability. There may also be notable differences in the practices and needs of other departments that should be further explored.

Fortunately, this project lays the foundation for a number of future studies. Examining the relationship between perceptions/motivation and demographic variables such as length of time at SMU, gender, or rank may reveal other patterns. An exploration of whether attitudes among those who have taught foundational courses before versus those who have not may be

particularly fruitful. Another direction would be to apply the framework of self-determination theory to faculty motivation in other areas – for instance, factors influencing who assumes leadership roles at the institution. Exploring student motivation using this framework would also be a useful avenue to explore, and might help us better understand and reduce the "checking the box" mentality that is discouraging to so many instructors. The potential applications of this framework have been, and remain, broad.

Finally, this study contributes to the field of higher education by unpacking factors influencing faculty motivation, and focusing on their perceptions of foundational, or gateway courses. Although previous studies have used self-determination theory to explore faculty motivation, no literature exists that connects motivation to these classes in particular. This project seeks to guide intentional action for SMU, and contribute a new perspective to our understanding of faculty in foundational courses.

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Appendix A

Survey Section 1 Questions

To what extent do you agree or disagree with the following statements? (5 point Likert Scale)

In general, I am familiar with the goals and learning outcomes of foundational courses at SMU.
The learning outcomes of foundational courses are vital for students to progress successfully to higher-level classes.
Junior or part-time faculty should be teaching foundational courses.
Teaching foundational courses takes more time.
Teaching foundational courses is boring/unchallenging.
Teaching foundational courses supports/would support my research agenda.
I enjoy teaching first and second year students.
I enjoy teaching foundational courses.
I would be happy to teach a foundational course again/I would like to teach a foundational course.
My department chair/supervisor has supported me in teaching my [foundational] course(s).

Open Ended: Please describe the reasons that you (a) would like to teach a foundational course [again] and/or (b) would not like to teach a foundational course [again].

Open Ended: Which institutional supports have been most helpful/motivating in regards to teaching foundational or other courses.

Appendix B

Survey Section 2 -- Basic Psychological Needs & Motivation

"In your teaching, how often do you feel the following?" (5=Almost Always; 1=Almost Never)

Autonomy
I have a sense of freedom to make my own choices
My decisions reflect what I really want
My choices express who I really am as a teacher
I do what really interests me

Competence
I have confidence in my ability to do things well
I am capable at what I do
I can competently achieve my goals
I can successfully complete difficult tasks

Relatedness
The people I care about (students, colleagues, etc.) also care about me.
I am supported by the people whom I care about (students, colleagues, etc.)
I am close with people who are important to me (students, colleagues, etc.)
I experience warm feelings with the people I spend time with (students, colleagues, etc.)

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"To what extent are the following reasons for why you teach?" (5 = Very much; 1=Not at all)

Autonomous (Intrinsic) Motivation
It is pleasant to teach
I find teaching interesting
I like teaching

Autonomous (Identified) Motivation
It is important for me to teach
Teaching allows me to attain work objectives that I consider important
Teaching is important for the academic success of my students

Introjected Motivation
If I don't teach I will feel bad
I would feel guilty not teaching.
I do not want to feel bad if I do not teach

External Motivation
My work demands that I teach
Because my university obliges me to teach
Because I am paid to teach

Open Ended: What do you find most enjoyable/exciting about teaching?

Appendix C

Respondent Characteristics (n=77)

Department	**Count**	**Percent**
Division I - Humanities		
English	12	15.58%
History	5	6.49%
Philosophy	1	1.30%
Religious Studies	2	2.60%
World Languages & Literature	10	12.99%
Division II – Social Sciences		
Anthropology	4	5.19%
Economics	6	7.79%
Political Science	3	3.90%
Psychology	4	5.19%
Sociology	3	3.90%
Division III – Natural & Mathematical Sciences		
Biological Sciences	4	5.19%
Chemistry	2	2.60%
Earth Sciences	3	3.90%
Mathematics	5	6.49%
Physics	5	6.49%
Statistical Science	5	6.49%
Other/No Answer	3	3.90%
Academic Rank		
Professor (including endowed, distinguished, emeritus, etc.)	22	28.57%
Associate Professor	19	24.68%
Assistant Professor	7	9.09%
Other Full Time (clinical, visiting, instructor, lecturer, etc.)	26	33.77%
Other/No Answer	3	3.90%
Tenure Status		
Tenured	43	55.84%
Tenure Track	7	9.09%
Non-Tenure Track	27	35.06%
Other/No Answer	0	0.00%
Gender		
Male	29	37.66%
Female	41	53.25%
Non-binary	1	1.30%
I prefer not to disclose	6	7.79%

Time Teaching at SMU		
0-3 years	8	10.39%
4-7 years	8	10.39%
8-11 years	11	4.29%
12-15 years	15	19.48%
16+ years	31	40.26%
Teaching a FC currently/in past 3 years?		
Yes	44	57.1%
No	33	42.9%

Appendix D

Interview Questions
1. Please describe the process for determining faculty placements in your department.
2. What specific institutional/departmental factors are considered
3. To what extent do you consider faculty preferences?
4. What do you see as the purpose of foundational courses?
5. How do you determine who teaches foundational courses that fall in your department?
6. Under ideal circumstances, who should teach foundational courses?
7. What are the most frequently heard comments that you hear from faculty about teaching foundational courses?
8. What are the main ways in which you support faculty in their teaching responsibilities?
9. Have you ever utilized incentives to encourage faculty to teach certain courses? If so, what have you tried? What has worked/not worked?
10. What community or camaraderie exists between faculty in your department?

Appendix E

RQ1: What are faculty perceptions of foundational courses?
RQ2: What motivates faculty to teach their courses?

- What excites them about teaching the classes they teach?
- What institutional supports motivate them?

RQ3: What motivates administration to select and support those individuals who teach foundational courses?

Faculty Survey on Perceptions & Motivation (all faculty in Dedman College)

Research Question	**Question**	**Framework/Objective**
	Part 1	
Definition	*For the following questions, "foundational courses" are defined as introductory or general education classes that serve as a gateway to a major and/or discipline and generally enroll a high percentage of first- and second-year students (i.e. ANTH 2301, BIOL 1301, PSYC 1300, etc.)*	Defining foundational courses (they may be called different things)
Context	Do you currently teach a foundational course, or have you taught one within the past 3 years? (Yes/No)	Need this to word questions appropriately. Also, people who are already teaching a foundational course may feel differently than those who have not.
	5 point Likert Scale (Strongly Disagree – Somewhat Disagree – Neither Agree nor Disagree – Somewhat Agree – Strongly Agree) To what extent do you agree or disagree with the following statements:	
RQ1	In general, I am familiar with the goals and learning outcomes of foundational courses at SMU.	Familiarity with FC
RQ1	The learning outcomes of foundational courses are vital for students to progress successfully to higher-level classes.	Perception of FC General attitude toward FC
RQ1	Junior or part-time faculty should be teaching foundational courses.	Common perception of FC
RQ1	Teaching foundational courses takes more time.	Common perception of FC

RQ1	Teaching foundational courses is boring/unchallenging.	Common perception of FC
RQ1	Teaching foundational courses supports my research agenda. (if yes) Or Teaching foundational courses would support my research agenda. (if no)	Common perception of FC
RQ1	I enjoy teaching first and second year students.	Perception of FC Feeling toward FY students
RQ1	I enjoy teaching foundational courses.	Perception of FC
RQ1	I would be happy to teach a foundational course again. (if yes) Or I would like to teach a foundational course. (if no)	Perception of FC
RQ2	My department chair/supervisor has supported me in teaching my foundational course(s). (if yes) Or My department chair/supervisor has supported me in teaching my course(s). (if no)	Lead in to perceptions of institutional supports
RQ1/RQ2	Open Ended: Please describe the reasons that you (a) would like to teach a foundational course again and/or (b) would not like to teach a foundational course again. Or Open-ended: Please describe the reasons that you (a) would like to teach a foundational course; and/or (b) would not like to teach a foundational course	Perceptions of FC Motivation to Teach Courses
RQ2	Open Ended: What institutional supports have been most helpful/motivating in regards to teaching foundational or other courses?	Institutional supports & motivation
	Part 2 (Based on survey from Stupnisky, R. H., BrckaLorenz, A., Yuhas, B., & Guay, F. (2018). Faculty members' motivation for teaching and best practices: Testing a model based on self-determination theory across institution types.	

	Contemporary Educational Psychology, *53*, 15–26. https://doi.org/10.1016/j.cedpsych.2018.01.004)	
Prompt	"In your teaching, how often do you feel the following?" 5=Almost Always 4=Very Often 3=Sometimes 2=Rarely 1=Almost Never	Motivation – SDT RQ2 - How well do SMU faculty have their motivational needs met?
RQ2	I have a sense of freedom to make my own choices	Autonomy
RQ2	I have confidence in my ability to do things well	Competence
RQ2	The people I care about (students, colleagues, etc.) also care about me.	Relatedness
RQ2	My decisions reflect what I really want	Autonomy
RQ2	I am capable at what I do	Competence
RQ2	I am supported by the people whom I care about (students, colleagues, etc.)	Relatedness
RQ2	My choices express who I really am as a teacher	Autonomy
RQ2	I can competently achieve my goals	Competence
RQ2	I am close with people who are important to me (students, colleagues, etc.)	Relatedness
RQ2	I do what really interests me	Autonomy
RQ2	I can successfully complete difficult tasks	Competence
RQ2	I experience warm feelings with the people I spend time with (students, colleagues, etc.)	Relatedness
Prompt	"To what extent are the following reasons for why you teach?" 5 = Very much, 4 = Quite a bit, 3 = Some, 2 = Very little, 1=Not at all	RQ2 – Motivational Reasons for Teaching
RQ2	It is pleasant to teach	Autonomous (intrinsic) motivation /integrated motivation
RQ2	It is important for me to teach	Autonomous (identified) motivation
RQ2	If I don't teach I will feel bad	Introjected motivation
RQ2	My work demands that I teach	External motivation
RQ2	I find teaching interesting	Autonomous (intrinsic) motivation /integrated motivation

RQ2	Teaching allows me to attain work objectives that I consider important	Autonomous (identified) motivation
RQ2	I would feel guilty not teaching	Introjected motivation
RQ2	Because my university obliges me to teach	External motivation
RQ2	I like teaching	Autonomous (intrinsic) motivation /integrated motivation
RQ2	Teaching is important for the academic success of my students	Autonomous (identified) motivation
RQ2	I do not want to feel bad if I do not teach	Introjected motivation
RQ2	Because I am paid to teach	External motivation
RQ2	Open Ended: What do you find most enjoyable/exciting about teaching?	Motivations to teach
Context	Part 3: Demographic Info	Identify if there are differences between groups
	Department (pull down menu): (list all 16 depts)	
	Rank (pull down menu): Professor, Assoc. Prof, Ass't. Prof, Non-tenure (clinical, visiting, instructor, lecturer)	
	Status (pull down menu): tenured, tenure-track, non-tenure	
	Gender (pull down menu): M, F, Non-binary	
	Years Teaching at SMU (pull down menu): 0-3, 4-7, 8-11, 12-15, 16+	

Department Chair Semi-Structured Interview on Foundational Courses & Faculty Support

Research Question	Question	Framework/Objective
RQ3	1. Please describe the process for determining faculty placements in your department.	Selection of faculty
RQ3	2. What specific institutional/departmental factors are considered?	Selection of faculty
RQ3	3. To what extent do you consider faculty preferences?	Selection of faculty
RQ3	4. What do you see as the purpose of foundational courses?	Departmental perception of FC
RQ3	5. How do you determine who teaches foundational courses that fall in your department?	Selection of faculty into FC

RQ3	6. Under ideal circumstances, who should teach foundational courses?	Departmental perception of FC
RQ3	7. What are the most frequently heard comments that you hear from faculty about teaching foundational courses?	Departmental perception of FC
RQ3	8. What are the main ways in which you support faculty in their teaching responsibilities?	Departmental support
RQ3	9. Have you ever utilized incentives to encourage faculty to teach certain courses? If so, what have you tried? What has worked/not worked?	Motivating faculty to teach
RQ3	10. Please think about 2 or 3 faculty members you would consider "top performing" members of your department. What types of courses do they teach? Do they teach any foundational courses? Would you consider placing them in foundational courses? Would they be open to teaching them, and why or why not? Are there departmental incentives that might convince you to place them in those courses? (a selection depending on responses)	Departmental motivation to place faculty