The impact of academic resilience, academic self-regulation, and academic self-efficacy on First Generation College Students’ academic performance in online education.

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Accessibility
The impact of academic resilience, academic self-regulation, and academic self-efficacy on First Generation College Students’ academic performance in online education.

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A Thesis in the Field of Psychology
for the Degree of Master of Liberal Arts in Extension Studies

Harvard University
November 2022
Abstract

There are increasing number of First-generation college students (FGCS) entering academia, however the rate of attrition for this population is high, additionally drop-out rate for students taking their courses online is also high. FGCS are faced with added interdependent responsibilities such as financial limitations, parental or sibling caretaking, lack of guidance both from parents/guardians and high school counsellors. Additionally, some FGCS are afraid to speak up in class or ask questions fearing being judged or not belonging. Many of these factors can lead to attrition. Research of traditional in person programs has shown that the psychological features of resilience, academic self-efficacy and academic self-regulation interplay and contribute to a student’s academic success. This body of work aims to investigate how these psychological features contribute to a student’s success in an online environment. By understanding these features educators can mitigate attrition rates amongst this population who clearly set out to pursue an education to better their socioeconomic status and life outcomes.
Dedication

I dedicate my thesis to a number of individuals. First, my son, Seth who has unequivocally been an inspirational and driving force behind me. I hope my hard work inspires you to achieve anything you put your mind to. I love you. To my parents, thank you for always believing in me and encouraging me to go after my dreams no matter the magnitude. Thank you for also choosing to immigrate to Canada and for hurdling all the struggles that came along the way. And to first generation students, I hope this body of work will contribute to make acquiring an education possible.
Acknowledgments

I would like to acknowledge my family and friends who supported me for the past 5 years to make this dream a reality.

To my professors at the Harvard Extension School, thank you for teaching me to think critically, to better organize my time and for the ability to be a part of such rich and meaningful conversations with some of the brightest people on the globe. To Dr. Adrienne Tierney, my Research Advisor and Dr. Alexis Redding, my Thesis Director, thank you for pushing my thoughts and for your endless support. I couldn’t have achieved this without your guidance and dedication to my work.
Table of Contents

Dedication ......................................................................................................................... iv
Acknowledgments ............................................................................................................... v
List of Tables ....................................................................................................................... viii
Chapter I. Introduction ....................................................................................................... 1
  FGCS Factors that Contribute to Attrition ................................................................. 3
    Lower Social Capital ..................................................................................................... 3
    Financial Hardship ........................................................................................................ 5
    Factors which create conflict ...................................................................................... 5
  FGCS Factors that Contribute to Success ..................................................................... 7
    Resilience ....................................................................................................................... 8
    Academic Self-Efficacy ................................................................................................. 9
    Self-Regulation ........................................................................................................... 9
    Belonging .................................................................................................................... 10
  The Online Context ....................................................................................................... 11
  Conclusion ...................................................................................................................... 18
Chapter II. Method ........................................................................................................... 20
  Study Setting .................................................................................................................. 20
  Participants .................................................................................................................... 21
  Materials and Measures ............................................................................................... 22
  Data Collection ............................................................................................................. 23
<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Design</td>
<td>24</td>
</tr>
<tr>
<td>Procedure</td>
<td>24</td>
</tr>
<tr>
<td>Analysis</td>
<td>26</td>
</tr>
<tr>
<td>Chapter III. Results</td>
<td>28</td>
</tr>
<tr>
<td>College Readiness</td>
<td>28</td>
</tr>
<tr>
<td>Belonging</td>
<td>35</td>
</tr>
<tr>
<td>Imposter Syndrome</td>
<td>40</td>
</tr>
<tr>
<td>Love of Learning</td>
<td>48</td>
</tr>
<tr>
<td>Chapter IV. Discussion</td>
<td>53</td>
</tr>
<tr>
<td>Family Influence and Resilience</td>
<td>53</td>
</tr>
<tr>
<td>Family Influence and Self-regulation</td>
<td>57</td>
</tr>
<tr>
<td>Family Influence &amp; Self-efficacy</td>
<td>61</td>
</tr>
<tr>
<td>Chapter V. Conclusion</td>
<td>64</td>
</tr>
<tr>
<td>Research Limitations and Future Research</td>
<td>66</td>
</tr>
<tr>
<td>Future Research</td>
<td>69</td>
</tr>
<tr>
<td>Appendix A. Pre-screening Questionnaire</td>
<td>70</td>
</tr>
<tr>
<td>Appendix B. General Self-Efficacy Scale</td>
<td>71</td>
</tr>
<tr>
<td>Appendix C. Brief Resilience Scale (BRS)</td>
<td>72</td>
</tr>
<tr>
<td>Appendix D. Demographic Questionnaire</td>
<td>73</td>
</tr>
<tr>
<td>Appendix F. Qualitative Open-Ended Questions</td>
<td>76</td>
</tr>
<tr>
<td>Appendix G. Semantic Approach</td>
<td>77</td>
</tr>
<tr>
<td>References</td>
<td>78</td>
</tr>
</tbody>
</table>
List of Tables

Table 1. Participant Information ........................................................................25
Table 2. Specific Participant Scores. ..................................................................58
Table 3: Self-Efficacy Scores. ..............................................................................62
Chapter I.
Introduction

First-Generation College Students (FGCS) are classified as students whose parents or guardians have not attended college. FGCS in the United States enroll in college programs seeking the benefits of upward mobility (Amato et al., 2016; Markus et al., 2004) such as, increased occupational and housing opportunities, improved access to healthcare, and ending the intergenerational cycle of poverty (Gills, et al., 2008; Hochschild, 2017). FGCS who seek a college education often want to have a better quality of life than what they were born into; however, many FGCS struggle with completing their programs of study due to interdependent demands, cultural mismatch, financial constraints, and a lack of social capital.

Vuong and colleagues (2010) note that FGCS are twice as likely to drop out of a 4-year institution compared to those students Continuing Generation College Students (CGCS) whose parents have a university degree. Attrition is a key concern with FGCS, and many studies have explored this greater risk of leaving higher education without a credential (Buckner et al., 2003; Soria & Stebleton, 2012). Attrition includes dropouts, transfers, academic dismissals, and stop outs (those who returned to school following a period of absence). In a longitudinal study, Ishitani (2003) sampled 1,747 students (56% were classified as FGCS) and found that merely offering FGCS the opportunity to attend college was not enough. It was found that this group of students needed support regarding their low levels of academic and social integration. Through the study it was also found
that FGCS were 71% more likely not to continue with their program after the first year compared to CGCS because of the lack of integration.

Further, FGCS from Latinx, Chinese American and Indian American families may experience challenges in being academically successful compared to their CGCS counterparts due to the cultural demands of their family life (Azmitia et al., 2018; Langenkamp & Shifer, 2018; Stephens et al., 2014; Telzer & Fuligni, 2009). The interdependent demands often include providing parents with emotional support, language brokering in the form of translation, acting on behalf of parents whose first language is not English, providing life advice and looking after siblings (Covarrubias, 2018). Low-income FGCS may also be faced with decisions about dropping out of their program and foregoing paying their tuition fees to financially support their families (Covarrubias, 2018). These obstacles may hinder completion because they shift a FGCS’ focus from attaining an education to caring for their families.

For all students, the transition from high school to college can be a life changing event laden with new experiences and the beginning of independence (Stephens et al., 2012). Even though there is less information for adult and masters level students, the experiences faced by newly graduated high school students also exist across this other population of mature students (those over the age of 21). For all students, the transition to college is a life altering event, and FGCS are faced with the added conflicts of achieving the soft skill of gaining the independence promoted by post-secondary institutions and the cultural value of staying connected to their families, an experience coined cultural mismatch (Stephens et al., 2012). When students transition from high school to college, there is often the expectation from the post-secondary academic environment for them to
become individuał from their families. For example, students are expected to explore their own identities by making their own decisions as it relates to their personal, academic and life goals. Being independent is promoted in academic settings, which can create a conflict for FGCS whose culture may encourage students to make life decisions based on family input (Stephens et al., 2012). In academia being unique and an independent thinker is promoted, encouraged and rewarded through recognition. And, earning recognition means to have achieved the cultural expectations of being an independent thinker which can be applied to real life scenarios.

In the field of higher education, the FGCS population face a number of challenges compared to their CGCS peers as previously outlined. And, as a result, FGCS tend to have a lower first-semester GPA and may also develop anxiety when they transition from high school to college (Ting, 2003; Vuong et al., 2010). Consequently, we need to design better supports by focusing on the strengths these students bring and what helps them succeed in college.

FGCS Factors that Contribute to Attrition

Attrition amongst FGCS is based on a number of variables, such as lower social capital, financial hardship, social capital and the struggle between soft and hard independence and interdependent demands.

Lower Social Capital

One contributor to lower retention amongst FCGS is lack of social capital. Social capital has been associated to choosing the right college for a program of study, having the resources to ask questions, having a network of academic support that is linked to
individuals with parents who are highly educated in understanding the culture of education and its role in personal development, and having the confidence to ask questions and seek advice (Bourdieu, 1986). CGCS whose parents have attended college are better equipped for navigating through college and are generally better at seeking guidance either through faculty or their own parents. Having prior support creates a sense of confidence that a student will do well because they are equipped with the tools for success. FGCS on the other hand are typically not equipped with the same tools and access to resources. Academically speaking, FGCS are less likely to engage with faculty, exhibit less confidence in their academic work, are less likely to ask questions and are less likely to participate in extracurricular activities (Hammermeister et al., 2020; Soria & Stebleton, 2012). Engle & Tinto (2008) observed that FGCS from low-income backgrounds were less likely to partake in activities that promote success in college, some of these activities include; studying with peers, engaging and interacting with faculty, using the support services offered at their institution and being involved in extracurricular activities.

Having lower social capital is an important obstacle for course completion. Lower social capital contributes to lower academic engagement and lower retention (Pike & Kuh, 2005; Soria & Stebleton, 2012). Social capital has been linked to student success as it prepares and equips students with the understanding of college academic expectations. Parents of college students who have graduated from college understand the rigor involved in successfully completing a course and pass this knowledge down to their children (i.e., CGCS). FGCS on the other hand do not have the same exposure to the expectations and tools of being successful in college (Bourdieu, 1986; Coleman 1990)
therefore, lacking the same social capital as CGCS. Having social capital puts a student at an advantage in terms of navigating college life. Students with social capital have been primed by their parents and are more likely to ask questions in class, choose the best college for their area of study and are better prepared for the rigor involved in post-secondary study (Hammermeister et. al, 2020; Soria & Stebleton, 2012). In contrast, students with lower social capital may attend a college because of proximity to their parent’s home and might not otherwise choose the best college for their area of study (Covarrubias, et al., 2018; Hand & Payne, 2008; Sims & Ferrare, 2021).

Financial Hardship

Financial hardship is another factor which leads to attrition amongst low income FGCS. Those who face financial hardships sometimes have to choose between dropping out to help their families and staying enrolled in college. Additionally, low income FGCS often work part time jobs to fund their education as well as families and, as a result have less time to focus on their studies. Those from low socioeconomic status face financial hardship coupled with social challenges (Dyson & Renk, 2006) which include anxiety because of dislocation due to cultural, social, and academic transitions (Pascarella et al., 2004).

Factors which create conflict

Academic institutions promote independent thinking and individuality which may create conflict for low-income students who are culturally expected to fulfil interdependent cultural demands (Covarrubias et al., 2018; Jehangir et al., 2015; London, 1989; Rendón, 1994; Stephens et al., 2012). These interdependent demands may include
maintaining relationships and obligations to families in the form of financial support. Kusserow, (2012); Stephens et al., (2014) found that low-income families often promote interdependence as a means of survival since each family member is expected to contribute to supporting their family as a whole. Having limited financial resources as a family may put a strain on FGCS to contribute in order to keep the family afloat.

FGCS experience a sensation of feeling unsettled in college due to the separation from their families that they experience. Furthermore, these students worry that going to college will change the relationship dynamic with their families by distancing them from their families (1989). Their hesitation to accept the independence advocated for by colleges is a result of the difficulty posed by maintaining the interdependent relationships with their family members (Covarrubias et al., 2018). As a result of these obstacles, this demographic of students faces lower academic engagement and lower retention (Pike & Kuh, 2005; Soria & Stebleton, 2012). O’Keefe (2013) found that the students who dropped out reported not feeling welcomed or fitting in with the campus culture.

Soft independence is an emotion focused on a sense of independence in which students are encouraged to explore, ask questions, and build their own identities through the process. Contrasted with hard independence which leans on a survival focused sense of resilience (Stephens et al. 2012). Soft independence comes easier to CGCS from upper- and middle-class American societies, who are taught these requisite skills at a young age. In contrast, FGCS from working class backgrounds exhibit hard forms of independence, for example being tough, resilient and self-reliant. Children who come from these neighborhoods are taught to be tough, respect hierarchy and follow rules. The conflict between hard and soft independence is another factor which leads to FGCS drop
out. FGCS report feeling conflicted between the expectations of hard independence
(which they are brought up with) and soft independence which is encouraged by their
college community (Kusserow, 2012).

Research by Stephens et al., (2012) and Vasquez-Salgado et al., (2015) found that
managing interdependent commitments at home may cause conflict with the expectation
of being independent at college. Since colleges advocate and promote soft independence,
it creates a cultural mismatch between a FGCS’ cultural upbringing and college
expectations. The cultural mismatch theory proposed by Stephens et al. (2012) refers to a
framework for understanding how colleges may unintentionally contribute to attrition of
FGCS who do not have soft independence skills.

Although the conflict between hard and soft independence contributes to cultural
mismatch, Kusserow (2012) found that FGCS exhibited mixed reactions towards soft
independence, i.e., having more freedom and gaining maturity. Some students who
experienced soft independence classified it as pivotal in their experience of going to
college, while on the contrary some students were reluctant and fearful to entertain a
liberated form of independence. It is the continued commitment of these students to
family that creates a cultural mismatch (Stephens et al., 2012; Vasquez-Salgado et al.,
2015). Stephens et al. (2012) found that although both FGCS and CGCS report gaining
independence to become an autonomous individual as a motive for attending college,
FGCS reported more interdependent motives, such as helping their families out after
graduation which is a contributor for successful course completion.

FGCS Factors that Contribute to Success
Although a majority of FGCS drop out of their college program, there are a percentage of FGCS who successfully complete and graduate from college. The FGCS who are successful embark upon college with the desire to succeed, with family and community support, with wanting to change the status quo, with life experiences and with assistance in the form of learning (O’Shea, 2015, 2016). Academic resilience, academic self-efficacy, academic self-regulation, and a sense of belonging influence academic success and retention in distinct ways.

Resilience

Resilient students are classified as those who when faced with stressful events and conditions continue to exhibit high motivation to help them succeed (Alva, 1991; Waxman et al., 2003). Resilience is defined as ability to function at an unaffected level despite adverse events occurring, (Hooper et al., 2007). Those who are resilient are able to succeed despite hardship (Connor & Davidson, 2003) and adjust in proactive ways as a response to stress or trauma (Luthar et al., 2000).

Resilient college students have proven to have higher success rates in college, as they report having higher college adaptation and self-efficacy (Reed et al., 2019). Therefore, resilience to new experiences (for example, leaving home for college, adapting to new surroundings and peers) is more achievable for students who exhibit higher resilience. Literature presented by Hammermeister et al. (2020) suggests that developing resilience benefits students by providing them with an inoculating effect in response to exposure to stressful situations.
Academic Self-Efficacy

Academic self-efficacy the second psychological feature being studied is strongly associated with an individual’s sense of accomplishment, and as such is a contributor of enhancing internal, cognitive problem-solving strategies and in reducing withdrawal (Cicognani, 2011). Research by Bandura (1993) perceived that self-efficacy operates as an important contributor of academic development. A student’s belief in their ability to control and grasp their learning determines their aspiration levels of motivation and academic accomplishments. An ample number of studies have also shown that academic self-efficacy is positively associated with academic achievement (Byrne et al., 2014, Fenollar et al., 2007; Phan, 2010; Zajacova et al., 2005).

Furthermore, FGCS who persist in college have been shown to have higher self-efficacy, which makes them more likely to want to attend graduate school, become involved in extracurricular activities and establish mentorship with someone at their college (Gibbons, et al., 2011). Although the article by Gibbons et al. (2011) states that FGCS with higher efficacy are more likely to want to attend graduate school, the article referenced does not seem to indicate this statement.

Self-Regulation

The third psychological feature being studied is self-regulation. The concept of self-regulation first developed by Bandura (1986) is a key theme in social cognitive theory. Students who exhibit self-regulation use three cognitive mechanisms for achieving their goals: self-monitoring, self-judgment and self-reaction (Bandura, 1986).

This study will gauge academic success by using a student’s GPA. Student’s GPA is used to measure academic performance and is indicative of a student's academic
achievement. GPAs are used by academic institutions to capture how well a student has performed in a course and is therefore a valuable variable to predict academic success.

Belonging

Another factor which leads to a FGCS’ academic success is the feeling of a sense of belonging and support which contributes to a students’ self-efficacy to do well. FGCS often report feeling displaced in college, and those who are engaged in college life report feeling like they are a part of a community, it is that sense of belonging that encourages FGCS to stay enrolled and want to achieve. The feeling of belonging contributes to a student’s academic self-efficacy which in turn contributes to their mindset of being capable of doing the work which allows these students to persist toward graduation (Azmitia et al., 2018). In a study by Walton & Cohen, (2011) it was found that belonging is associated with college persistence. Studies show that a FGCS’ sense of belonging score correlated with their academic persistence, mental health and self-esteem. In a study of self-efficacy using a sample of sophomores from five of the 23 California State University campuses, a College Self-Efficacy scale was used to measure self-efficacy levels. Vuong et al., (2010) found that a student’s self-efficacy beliefs were related to their GPA and persistence rates, which is their determination to do well in school. Drawing upon these findings it is evident that a student’s belief in themselves contributes to their academic success. Those who dropped out of college reported feeling displaced, a sense of not belonging along to with financial hardship, feelings of being discriminated against, feeling unprepared academically, or having a sense of guilt related to leaving their families behind to pursue an education (Covarrubias et al., 2015; Hurtado et al., 2015; Steele, 2010).
The Online Context

Most of the research on FGCS has focused on traditional, in-person college settings. However, given that we know that there are differences between online and in-class learning, and that academic self-efficacy, academic self-regulation and resilience play a role in student success, it’s possible that FGCS might do better in this context because of the flexibility online courses offer. The literature is clear on the risks FGCS face, but the degree and type of risk is not monolithic – FGCS are a diverse group, and some have high levels of resilience. For these students, self-efficacy and psychological resiliency are likely key factors in their success, and it is possible that online learning provides them with a situation where they can manage their interdependent demands but also use these psychological factors to achieve success better than in traditional university settings.

Online learning is even more important now because of the COVID-19 pandemic. The face of education changed as travel became restricted and the internet became the main mode of course delivery in every institution around the globe. People across the spectrum of education experienced online education, many for the first time. Children as young as kindergarten were logging onto their laptops to have their classes delivered to them. Although the internet was the only way people could safely learn and offered an alternative during the pandemic. Yet, many of the same challenges still exits with persistence and success in online educational setting, especially for college students.

Students in online courses have a 10% to 20% higher failed retention rate than students in traditional face to face classroom environments (Herbert, 2006). And a total of 40% to 80% online students’ dropout of online classes (Smith, 2010). Furthermore, a
study by Jaggars (2011) suggested that for online students their mid-semester dropout rates are higher than on-campus students. When looking at an already marginalized group of students, FGCS, who come to college with reduced social capital, are at a higher risk of dropping out. These students come unprimed by their parents and are at a disadvantage of not knowing what to expect, Levy’s (2007) study indicates that students who are less prepared in an early semester of their program are more likely to drop out.

During the 2020-21 academic year, many colleges only had online learning. The number of in-person classroom learning settings, with all students and the professor in the same room, was low. Even without the pandemic, colleges have been gradually increasing the number of online classes to save money paying for bricks and mortar in the traditional classroom format (Francis et al., 2019).

Accountability and motivation were found to be closely related to student retention in the context of online courses (Heyman, 2010). A few factors that contribute to motivation which leads to student success are the course design, and a student’s reception in the form of their attitude and aptitude of the courses being taught online, as far as motivation is concerned, motivation is affected by the time it takes to complete a course, access to course materials, technical support and how applicable the course is to real world examples (Smart & Cappell, 2006). A study by Chen & Jang (2010) showcases that success in online education is also dictated by some of tenets of self-determination theory, a student’s sense of control, their understanding of the tasks required of them and their sense of belonging, in the form of inclusion. When these needs are being met students perform better and when these needs are not met students may not prosper in their program.
Although online learning is convenient and perceived to be easier than taking courses on-campus, there is often the same rigor and hard work involved. Researchers found that there are misconceptions about the ease and accessibility of online learning, as it still involves perseverance and effort (Bawa, 2016). Students who are unprepared for the hard work involved report dropping out of their program (Levy, 2007). In a study by Werhner (2010) student success, measured by exam grades was compared amongst online and on-campus cohorts taking the same course with the exact same course material. The results of the study showed that there was no statistical difference in student success between these two population groups. Therefore, disproving the perception of online classes being easier than traditional on-campus classes.

In a study by Schaarsmith (2012) students indicated that their reasons for enrolling in an online program were driven by financial reasons. They indicated that taking courses online saves them from having to pay for transportation to and from the institution and that online courses allowed them to concurrently work. The data from the research by Shay & Rees (2004) indicates that students enroll in college for the earning potential a degree holds. When students were surveyed about their reasons for opting for leaning online, they highlighted the convenience and flexibility it offers, since it allows for the ability to pursue an education while maintaining other facets of their lives.

Other factors which contribute to high attrition rates in online learning environments are the misconceptions students have about the workload, some face cognitive challenges, and some face challenges with their expectations of online programs in general. Some students may select online learning thinking it would get a good fit for their schedules in terms of balancing their day to day lives. These students
may not actually have the entry-level skills related to the course or may not be familiar with the technology used to deliver the course. This could lead to attrition and demotivation for students who are accustomed to the structure of in-person traditional classroom settings (Bradford, 2011; Driscoll, 2005; Kirschner et al., 2006; McQuaid, 2009; Paas et al., 2004; Schaarsmith, 2012; Shay & Rees, 2004; Spiro et al., 1988). The self-directed nature of online courses could deter some end-users who may face technological limitations with navigating the online environment.

Furthermore, research shows that a substantial number of online faculty have a minimal level of understanding of the ways in which online students learn. Often, faculty who are accustomed to teaching in a traditional face to face setting are asked to design and teach courses in an online format while having limited knowledge of how to do so. This could create the potential for courses to be designed in a manner that is not suited for online learners. Faculty who are inexperienced with teaching online may fall short on developing courses that are interactive, collaborative and dynamic for the online learning environment. Additionally, Bawa (2016) noted that some faculty may hold prejudice towards online classes, believing that online classes lack the value and work ethic of traditional in person classes.

Family commitment and social obligations of students could be contributing factors in low retention as well. Research has found that students who did not have normative value orientation found it difficult to interact socially with their peers (Evans, 2009; Rovai, 2003; Summers, 2003; Tinto, 2006), thereby feeling incompatible with the university environment and as a result dropped out of their program. Summers (2003) observed retention in community college students, and it was found that a student’s value
orientations dictated whether or not they were able to interact with their peers. Student’s whose value orientations were different from what is considered normal had a hard time socially integrating with their peers.

Despite the increased representation of online course many concerns still remain as to the quality and delivery of this means of education. It has been debated whether online courses offer the same rigor and hard work required to succeed as traditional in-person classes. Despite this belief there is a higher attrition rate for those taking online courses compared to those students who take traditional on-campus classes (Heyman, 2010). In the following paragraphs I outline the similarities and differences between these two learning environments, present information on why students who study online are less likely to persist and lastly what my study aims to discover about the psychological features required to be success in an online program.

Success in education in both traditional and online formats involves self-regulatory skills, these skills contribute to whether a student can persist and successfully complete their program. The study by Buote et al. (2016) examined 2 cohorts of undergraduate students (on-campus and online) both taking the same statistics software course; taught by the same instructor over a span of 10 years. Through data collected via an online survey and semi-structured interviews of both groups of students it was found that cognitive strategies and regulation were contributors of success in online learning. Cognitive strategies include repetition, quizzesing oneself, reiterating information to someone else and using real world examples. It was also found that self-regulation for both groups affected their academic success. Self-regulation is therefore a key finding to understanding student success. Studies by Schenker, 2007; Utts, et al., 2003; Ward,
2004; Zieffler et al., 2008) found that course delivery did not have an effect on how students performed in the course. There were also studies which found that there was a difference when it came to ‘knowledge transfer’ and ‘applied learning’ in both online and on-campus contexts (Hansen, 2008 & Rabe-Hemp et al., 2009).

A number of studies investigated hybrid learning environments (Katai & Toth, 2010; Utts et al., 2003; Vernadakis, et al., 2011; Ward, 2004) and it was identified as being superior to traditional approaches for undergraduate students (Vernadakis, et al., 2011).

Other factors which contribute to academic success in on-campus learning was found in a study by Bartz, et al., (2017), they were having a sense of belonging, harboring a growth mindset, and having personal goals and values. My study found that these same values contributed to the academic success of students in online programs (see Chapter III).

Where the learning experience differs in the 2 populations is highlighted in a few studies. The findings of the Barak et al., (2016) found that students who took their classes online had developed learning strategies which made them more skilled at processing information and learning. The strategies used by students online included planning and evaluating their skills to ensure they understood the subject matter being taught. This would make sense since online study is to a degree self-directed and requires a high level of organization. In a comparative study of two cohorts by Rabe-Hemp et al., (2009) students reported more or less the same feedback, students who took their classes online were more reflective, more independent in their learning strategies and participated more in online class discussions. Comparatively, students who took their classes on-campus
were more involved in in-person learning with their peers. Self-regulation is an especially important concept which contributes to student success, as it allows ‘learner choice,’ giving the learner the ability to dictate their individual learning style (Williams & Hellman, 2004). Since this study examines self-regulation in online environments this psychological feature is an important predictor of academic success.

Along with the increase in the number of FGCS enrolling in college programs is the exponential growth in the number of students who are enrolling in online courses (Bettinger et al., 2017) FGCS making up 14% of those students (Postsecondary National Policy Institute, 2022). In the academic year 2015-16, 56% of undergraduates nationally were first-generation college students (RTI International, 2019). Online courses have gained a lot of traction, with over 3 million students across the United States having enrolled in at least one online course (Francis et al., 2019). The virtual format of course delivery is attractive because it offers students flexibility with transportation, scheduling, and on-demand access to the courses themselves, and is worth examining how FGCS balance the intergenerational demands of their family life with their course work in an online setting. I studied how the psychological features of academic self-efficacy, academic self-regulation and resilience contribute to academic success of FGCS in an online course setting. I investigated whether FGCS report being able to manage their academic responsibilities alongside their other caretaking responsibilities, while taking their courses in an online learning environment. Academic success for the purpose of this study is measured using a student’s Grade Point Average (GPA); all participants were asked to self-evaluate their academic success.
Furthermore, Covarrubias et al., (2018) identified receiving emotional support from family and friends at home as well as developing supportive relationships with college peers, staff, and faculty as contributors of academic success and graduation. These students reported in the self-efficacy of believing that college would allow them to attain their future life and career goals. In the context of online courses, it is unclear whether taking courses online can build a sense of belonging which contributes to academic success that is comparable to campus-based students. Therefore, it is worth examining if FGCS who are taking courses online from their homes feel supported by their college peers and college community at home. This is relevant to this study because online learning is asynchronous in nature and offers students the choice of where to study and when to study (Williams & Hellman, 2004) and making these choices involves self-regulation.

Conclusion

Despite challenges with belonging, many FGCS persist, graduate, and become role models for their siblings and youth in their communities (Azmitia et al., 2018; Cooper, 2011). Persistent FGCS cited social and academic support programs, peer groups, residential colleges, academic departments, ethnic student organizations, sports teams, off-campus volunteer groups and student government that made them feel welcomed and kept them from leaving university. They also attributed others’ generosity for helping them overcome challenges, such as support with writing grants, and professors who lent textbooks to them (Azmitia et al., 2018). Additionally, evidence suggests that students who are skilled in self-regulated learning do better (Cho & Heron, 2015).
My study aims to test relationships between psychological features and academic success of FGCS in the online learning environment to see if students report higher levels of these psychological features in an online environment. Therefore, the proposed study investigates features of FGCS’s academic self-regulation, academic self-efficacy and resilience when applied to educational outcomes in online programs. The literature review did not identify any studies that looked at how FGCS with interdependent demands use psychological features of resilience and its relationship with academic success on online courses.
Chapter II.

Method

In order to test how the psychological features of academic self-efficacy, academic self-regulation and resilience contribute to First Generation College Students (FGCS)’ ability to manage interdependent demands and to be academically successful in an online program, I surveyed current FGCS students who have enrolled in at least one or more online undergraduate course at the Harvard Extension School.

My central research questions are:

1. How do FGCS at the Harvard Extension School manage their interdependent demands and coursework in an online setting.
2. Does academic self-efficacy influence FGS academic success in online courses at the Harvard Extension School?
3. Does resilience influence FGS academic success in online courses at the Harvard Extension School?

Study Setting

The Harvard Extension School is the continuing education school of Harvard University which is part of the Harvard Faculty of Arts and Sciences. The school offers liberal arts and professional courses, academic certificates, undergraduate and graduate degrees, and consists of a pre-medical program. The undergraduate students at the Harvard Extension School are primarily comprised of working adults who do not hold a bachelor’s degree from another institution, are not enrolled in a degree program at another institution, and who have a high school diploma which was awarded at least five
years before they enrolled in their degree course. The program is designed to be taken either full-time or part time and students are given the option of completing a portion of their degree solely in class or online. In addition to offering bachelors level degrees, the Harvard Extension School also offers master’s degrees. In order to qualify for a master’s degree, students need to have a bachelor’s degree, pass an entrance exam and earn a B or better letter grade in 3 out of 12 required courses. In the Fall of 2020, there were 314 full-time and 580 part-time students enrolled. As a mandate for graduation, three out of the twelve courses which make up the requirements of obtaining a degree must be taken on-campus. Since enrollment is not limited to students residing in Massachusetts and the United States, there is a percentage of international students who have the flexibility of taking their courses from anywhere in the world. Despite the rigorous work required to be successful in the program, the Harvard Extension School prides itself on offering flexibility which may ease work and home life balance.

Importantly, the Harvard Extension School offers students the opportunity to take classes both online and on-campus, and there are a mandatory number of courses that students have to take. This model offers students a hybrid experience, which according to the study by Vernadakis et al. (2011) is the most superior method of study.

Participants

A minimum of 15 self-identifying first-generation graduate and undergraduate college students enrolled in an online Harvard Extension School course were recruited for this study upon approval from the Harvard Extension School’s Assistant Dean of Academic Programs and from the Harvard Committee on the Use of Human Subjects. Participants were recruited through advertising on Facebook’s Harvard Extension
School’s group page and snowball sampling. All efforts were made to recruit a sample that reflects overall demographics at the Extension School, including gender, and age. This study was restricted to students who have taken one or more courses, and they were asked to provide their GPA. Since GPA can only be measured if a student has taken 1 or more course, this study was restricted to those students. For the purposes of this study, academic success is defined by measuring GPA and student self-evaluation. GPA was collected using the demographic survey (see Appendix A).

Materials and Measures

The participants consisted of 8 undergraduate and 7 graduate degree first generation students at the Harvard Extension School all of whom had taken classes online. The mix of students consisted of 4 participants who graduated from the Harvard Extension School and 11 current students. The sample included 60% women and 40% men. The ethnic demography of participants included 66.67% Caucasian, followed by 6.67% Latinx, 6.67% Asian American, 6.67% Black, and 6.67% Native American and Pacific Islander students. 20% of students were international students while the remaining 80% were based in the U.S. Statistics from the Harvard Extension School Division of Continuing Education (n.d.) website indicate that 47% of the graduating class of 2020 were women and 53% men. It also references that 83% of students were from the US, whilst 17% were from 50 other countries. The sample was selected to best reflect existing demographic data on enrolled students.

The study was conducted entirely online, the inventories were delivered using Qualtrics survey software. I first administered a questionnaire of 2 survey-based
assessments consisting of 16 total items, which were emailed to participants via a link to the survey. The participants were evaluated using two assessments:

(1) The General Self-Efficacy Scale (GSE). Developed by Schwarzer & Jerusalem, (1995), this scale is a self-report measure of self-efficacy (Appendix B). The 10-item General Self-Efficacy scale is correlated to emotion, optimism, and work satisfaction. Students responded to 10 items on a 4-point scale ranging from 1 = "I can always manage to solve difficult problems if I try hard enough being not true at all" to 6 = "I can always manage to solve difficult problems if I try hard enough being exactly true." Higher scores indicate higher self-efficacy, and lower scores indicate lower self-efficacy.

(2) The Brief Resilience Scale (BRS). The Brief Resilience Scale (Smith et al., 2008) was created to assess the perceived ability to recover from stress (Appendix C). The scale was developed to assess a unitary construct of resilience, including both positively and negatively worded items. The possible score range on the BRS is from 1 (low resilience) to 5 (high resilience). 6 items each valuable on a 5-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). This scale measures the ability to cope with adversity and unfamiliar events.

Data Collection
Design

The design is mixed methods and data collection was conducted in 2 parts, one being through a questionnaire and the other being through an interview.

Procedure

Participants were recruited online from Facebook’s Harvard Extension School group by a post inviting interested students to participate in a study about FGCS, and through snowball sampling. Interested participants responded using Facebook messenger and those who qualified were sent a short pre-screening questionnaire asking if they identify as FGCS, and if they have taken one or more class through the Harvard Extension School (see Appendix A). Shortlisted participants who met the criteria of FGCS enrolled in an undergraduate course were sent a link to a demographic questionnaire by email. Both graduate and undergraduate students responded to the call out on Facebook and were included in the study. Through the interview process I made note of which participants were graduate students and which were undergraduate students. Demographic information such as age, date of birth, sex, income, race, method of educational funding and employment status were collected, participants were also asked to select their GPA from a drop-down menu (see Appendix D). Participants were asked to fill out a questionnaire containing 16 questions related to their self-efficacy and resilience.

Two instruments, The General Self-Efficacy Scale (GSE) and The Brief Resilience Scale (BRS), were sent to participants by Qualtrics. Participants were asked to fill out the GSE and BRS on the Qualtrics questionnaire that was emailed to them. Once
all the surveys were completed, they were individually assessed and referred to during the subsequent interview.

Fifteen participants completed the surveys and were invited to participate in the interview (Table 1). The interview was conducted using a semi-structured interview protocol (Appendix G). The main themes of the questions were student’s experience navigating through college, their home life, their self-regulation, and sense of belonging. The interviews were conducted on Zoom and were recorded with participant consent. Interview responses were transcribed by me. I compared the notes taken during the interview against the data recorded to look for consistencies and to perform a quality check. All participants were then assigned a pseudonym to ensure their anonymity in subsequent reporting.

Table 1. Participant Information

<table>
<thead>
<tr>
<th>Name</th>
<th>Age</th>
<th>Affiliation at Harvard Extension School</th>
<th>Location</th>
<th>Current or graduated student</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amy</td>
<td>Over 25</td>
<td>undergraduate student</td>
<td>U.S.A.</td>
<td>graduated</td>
</tr>
<tr>
<td>Ryan</td>
<td>25 and under</td>
<td>master’s student</td>
<td>U.S.A.</td>
<td>graduated</td>
</tr>
<tr>
<td>Kayleigh</td>
<td>Over 25</td>
<td>undergraduate student</td>
<td>U.S.A.</td>
<td>graduated</td>
</tr>
<tr>
<td>Beverly</td>
<td>Over 25</td>
<td>master’s student</td>
<td>U.S.A.</td>
<td>current</td>
</tr>
<tr>
<td>Robert</td>
<td>Over 25</td>
<td>undergraduate student</td>
<td>U.S.A.</td>
<td>current</td>
</tr>
<tr>
<td>Maya</td>
<td>Over 25</td>
<td>master’s student</td>
<td>U.S.A.</td>
<td>current</td>
</tr>
<tr>
<td>Stacey</td>
<td>Over 25</td>
<td>undergraduate student</td>
<td>U.S.A.</td>
<td>current</td>
</tr>
<tr>
<td>Ralph</td>
<td>Over 25</td>
<td>undergraduate student</td>
<td>U.S.A.</td>
<td>graduated</td>
</tr>
</tbody>
</table>
Analysis

Upon completion of the inventories their individual completed questionnaires were downloaded and each of the participants scores were tallied manually. The methodology followed for scoring the BRS was as follows; the values between 1-5 of the responses for all six items were totaled (creating a range from 6-30). This value was divided by the sum of the total number of questions answered (6) to produce a final score, the final score reflects each participant’s resilience. The tallied scores were entered onto an Excel spreadsheet along with their self-reported responses to the demographic questions.

Thematic analysis was used to organize the interview data reported by the study participants. By analyzing the interview, common themes across participants were identified. Thematic analysis comprises a 6-step process: (1) familiarization, (2) coding, (3) generating themes, (4) reviewing themes, (5) defining and naming themes and (6) writing (Braun & Clarke, 2006). This study used a deductive approach as data was
analyzed and themes were matched to predefined themes based on the literature (Braun & Clarke, 2006). Further to this approach a semantic approach was used as there is an interest in participant’s stated opinions (Braun & Clarke, 2006; see Appendix G).

After transcribing each participant’s interview, I looked for salient codes. Codes were applied using two approaches, either because participants directly named the theme, or their description was identified as fitting the definition established for that code. For example, ‘imposter syndrome’ was either named by the participants or I identified accounts of feelings of not feeling worthy to study at Harvard that I identified as fitting the established criteria of imposter syndrome. When participants labeled and reported ‘imposter syndrome’ I made note of this against their names on a Microsoft Excel spreadsheet that I used to track participant data and themes. Once I read, and re-read transcripts to look for codes, I jotted down what each participant said under a column that related to a specific theme. After doing that I either left the theme as is or I broke the theme down into sub-themes (for example, family influence as it relates to each of the psychological features).
Chapter III.

Results

In this chapter I highlight several themes that surfaced from analyzing the data. The themes are college readiness, belonging, imposter syndrome and love for learning. Three of the themes apart from love for learning highlighted above paints a picture of the struggles FGCS face while pursuing a college education. Love for learning is a theme that showcases that despite the highlighted struggles FGCS face there is this element of having a deep passion for learning that acts as a driving force which propels students to succeed.

College Readiness

Applying to college from high school can be an overwhelming experience as it involves a multitude of responsibilities from choosing the right college and the right program. For some students, sourcing financial aid in the form of scholarships, and/or bursaries, and fulfilling the academic testing preadmission requirements which may also be required. In the absence of having parental guidance when applying to college from high school, guidance counsellors at high schools are the point of contact to offer assistance to ease the process of applying to college, yet many students do not have adequate guidance from school counselors. Entering and being a part of the college community requires a lot of preparation and for many FGCS the reality of their struggle is that they do not always have the support that well equips them for college.
Going to college is a commitment that requires both time and financial resources, therefore, choosing the best program at the onset is key to a student’s academic success. Notably, participants in my study reported switching majors midway of completing their degrees because they discovered other courses and programs which were more interesting and aligned better with what they wanted to do as a career. While in high school these students did not know about options other than the traditional, medicine, law, engineering and accounting programs of study. FGCS who are limited in their financial resources to begin, exhaust these scarce resources while pursuing a degree in a field that they were not completely vested in, sometimes causing them to face attrition (Ishitani, 2003).

The literature on college preparation has shown that FGCS are more likely to drop-out of a 4-year program compared to their CGCS peers due to their lack of academic preparedness. FGCS who withdraw from their degree program generally do so in their first year and have lower GPAs than their CGCS counterparts (Riehl, 1994). FGCS who drop-out cite several reasons for their attrition, such as being unprepared for the financial ask that come with going to college, the impersonal feeling that the college environment gives them and having poor time management skills (Hsiao, 1992). A report by Warburton & Nunez, (2001) examined the degree to which academic preparedness of FGCS in high school impacts their persistence and attainment in post-secondary school. By comparing metrics like grade point average, the number of remedial courses taken in college and the rate of persistence, the authors compared whether FGCS who deemed themselves academically prepared were comparatively successful to their CGCS peers. The findings of the study indicated that academic preparedness does positively impact
persistence in post-secondary education, and a parent’s level of education also impacts a student’s persistence and retention in college.

College courses require specific reading, writing, and thinking skills, for example reading and analyzing intricate texts and constructing original arguments, not often taught in high school (Wahleithner, 2020). For students who have one or more college educated parents/guardians, they have the ability to ask assignment specific questions to their parent/guardian when in doubt. However, FGCS do not have the same resource of falling back on a parent/guardian who has been to college, instead they have to source their own mentors to assist with understanding the requirements of their assignments. Not all students know how to find mentorship or feel comfortable asking for this kind of support.

On the topic of academic preparedness, the study by Wahleithner, (2020) discusses the lack of academic preparedness received in high school when it came to preparing students for the rigor involved in assignments. The study drew upon interviews from 18 FGCS who were in their first year of a 4-year program. The author was interested in their thoughts about whether or not they felt prepared for the literacy demands of post-secondary education. The students reported wishing that their high schools better prepared them by including opportunities to engage in original research and more complex reading assignments. Furthermore, students wished that they received more feedback and support with articulating their thoughts and ideas in the form of writing (Wahleithner, 2020).

The literature on academic preparedness illustrates that there is a lack of resources available to high school students in general to prepare them for academia. Whether it be
in choosing the right program of study to being prepared to write academically. FGCS unlike their counterparts do not have parents or guardians to reach out to for help with college related questions. Since they are the first in their families to go to college the entire process, including what to expect is entirely new to them. One participant in my study, Ryan, reported not knowing about the other areas of study that he could pursue because he wasn’t introduced to them in high school.

Additionally, preparation for college life as a student involves exercising independence as students are required to utilize soft skills to navigate their academic environment. They need to be prepared to be independent, be confident enough to ask questions and anticipate the expectations that come with going to college. FGCS being the first in their families to go to college do not always have the resource of a parent or guardian to ask preparatory college questions. They are therefore reliant on their guidance counsellors to provide advice. A third of the participants in my study reported being unprepared for college. They either stated that their high school did not offer any guidance or preparatory programs, or that they were not introduced to the various degree options that they could explore at college. In addition to the lack of preparation received from a guidance counsellor, some students reported that the institutions themselves failed them. For example, one participant, Kayleigh did not know how to double space her first assignment in college, which her professor required. She manually added a space after each word on her essay. This is a gap in the education system if she did not learn the fundamental skill of double spacing needed for writing academic papers and it was not introduced to her in college. She instead wasted her time doing a meaningless task and
did not have the confidence to double check and ask her professor or teaching staff for clarification before she manually added the extra spaces.

Another participant, Amy, stated that she did not receive any guidance while she was in high school. Amy is above 25 years of age and is enrolled in the master’s program at Harvard Extension School. From her experience as a high school student, she said she did not receive any guidance even though she had a guidance counsellor in school.

Guidance – I had a guidance counsellor in high school, but wasn’t like it is now, I didn’t receive a whole lot, I went to public school in Virginia, took classes at a community college, also worked for the government in accounting, while simultaneously taking courses on base at night. I did not receive formal guidance until I was in college.

She also mentioned that the state she went to school in was a public school, which was not equipped with supporting students in it. She painted a picture of her school being underfunded without the essential resources that would produce knowledgeable students who were confident to embark upon post-secondary education.

Another participant, Ryan who is above 25 years of age stated that the process of going to college was a challenge for him, he felt isolated when researching the best program for himself. Ryan’s parents are immigrants from China who urged him to go to college. That was the expectation they had of him; however, they were unable to walk him through the process to get there. In Ryan’s case, much like Amy’s, the high school guidance counsellors failed him in assisting him with the steps he would need to take to get to college. He described:
The process of going to college was really tough, I had to go through the entire process by myself without any help, so navigating through that was really, really tough. I looked up different colleges, I didn’t consider colleges until the end of high school, I think people mentioned SATs, ACTs in class, I had no idea what those were. There was some direction in school and there was talk about college, but it was ultimately me trying to figure out how to get to college, what are the steps in going about doing that.

Ryan also reported switching his major halfway through his program because he didn’t realize that there were so many options beyond business, medicine, engineering and law. His decision to switch programs cost him financially as he had to incur more student debt, being someone with limited financial resources.

Kayleigh’s account is another similar experience wherein she felt the educational system failed her. She is over the age of 25, came from a low-income family. During her interview she recalled growing up on welfare and having a disabled mother. Due to these circumstances, she qualified for aid vouchers which she could have used to apply to more colleges. However, she did not know of the options available to her until after she went to community college and did not benefit from this program. She only applied to schools near her home because she thought she needed to be close to home. She also stated that she went to an anchor school which was state controlled, and that she “took classes that did nothing to help her.” Furthermore, she felt she “was stuck in low level courses and that’s the way the state had her school set up.” Kayleigh felt that her high school did not set her up for success and that she was not informed about the resources she could have taken advantage of to fund her education.

Maya is another participant who is above the age of 25 with very similar sentiments. She explained that the counsellors in her schools were not helpful and that
her school was in an impoverished neighbourhood. She too recalled that if she knew about the options available to her, she would have gone to university right out of high school instead of getting married first, having a family, and then pursuing an education. Her account of not knowing about financial aid and scholarships she could have applied for is the reality for many FCGS. She explained the experience during her interview:

Even the counsellors in my high school…it was poverty-stricken neighbourhood, so it didn’t seem like the counsellors assisted very much in guiding any of the students about scholarships and financial aid. Had I known what was available to me at the time and how to access it, I would have gone to university. She would like to go back to her old community to ensure that is not happening.

In Maya’s case, her life experiences and desire to get a degree allowed her to never give up on that dream. She pushed through and made that happen for herself. Unlike Maya there are many would-be first-generation students who simply think going to college is a pipe dream and they don’t know about the funding options that are available to them.

Another participant, Lana, who is over the age of 25, put it more succinctly. When asked about receiving academic guidance said, “Academic guidance? God no! I had no guidance. And it was all very confusing” Her candidness in this response and her exclamation paint a very realistic picture of both surprise when such a question was asked as well as the reality of many FGCS. She referred to the process as being very confusing as she essentially single-handedly tried to figure it all out without any guidance.

A lot can be said about these participants who persisted through despite all their stated obstacles of having no guidance, or prior knowledge of resources available to them. They all championed their way to make their dreams of attending college, that too at Harvard University a possibility. Importantly, all of these students scored high on self-
efficacy, with scores that ranged from 35-40 out of a possible 40 points. Based on my preliminary analysis, these findings support the idea that there is a connection between self-efficacy and pursuing a college education despite the obstacles and challenges present to these FGCS. They also had normal to high resilience scores, but this pattern was not as clear cut as the self-efficacy scores and would require further exploration with a larger sample of students.

Belonging

Feeling a sense of belonging and being a part of the campus ethos at an academic institution is pivotal to student success as suggested by the literature on FGCS’ sense of belonging. Existing literature by Museus (2014) suggests that FGCS’ sense of belonging at an institution is largely shaped by their ability to find peers who they have commonalities with, the practical application of their coursework to their daily lives, being involved in projects which give back to their communities, being a part of a campus which accepts student’s for their values, and in turn share the same values as the student (Museus & Chang, 2021).

Literature suggests that the campus environment can have both positive as well as negative impacts on a FGCS’s academic performance (Stephens, Fryberg, et al., 2012; Jehangir et al., 2012). Research by Nunn (2021) states that colleges expected first-generation students to force themselves upon other student groups to mingle and become a part of the campus culture. It is argued that educational institutions are misguided in this approach because simply forcibly immersing oneself without being invited or welcomed to partake does not work for this population. Leaning on the sociological theories of Emile Durkheim, Nunn (2021) argues that there needs to be some
accountability on colleges to understand a FGCS viewpoint and background before expecting them all to organically assimilate into the student body.

Some additional research on belonging dictates that student adjustment is based on the quality of friendships they form while they are at college (Astin, 1993; Fass & Tubman, 2002; Lapsley & Edgerton, 2002). The influence friendships and community involvement have on student adjustment also contributes to a sense of belonging. For the purposes of my study, Extension students cultivate most of their peer-to-peer relationships online as they are taking a majority of their courses online in a part-time format. They are also working professionals, some with families to look after, and so their college experience is not traditional. The biggest contributor which hindered belonging in my focus group was not feeling supported once on-campus. Participants reported not having a space on campus to call their own and to gather.

Another interesting finding which relates to belonging is validation. Studies have found that a sense of validation positively and directly influences a students’ sense of belonging (Museus et al., 2017; Rendón, 1994). Validation is a key element of belonging, for many participants interviewed they mentioned that they did not feel a sense of belonging in the traditional sense at Harvard and not because they were taking their courses online. Although they cultivated relationships online with other Extension School students and fostered these relationships through WhatsApp and other social media platforms, there were some that reported that as far as a physical presence goes, there was nowhere on campus for Extension School students to gather. This speaks to validation and feeling like they are part of the Harvard community. Without a designated Extension School gathering space the criterion of validation is not met.
A lot of participants reported having a sense of belonging that they cultivated on their own by joining Facebook groups, WhatsApp groups and other social media group platforms. Cultivating friendships online is akin to making friends on-campus which during the first year is associated with a greater sense of belonging (Buote et al., 2007; Pittman & Richmond, 2008). Making new friends in college could contribute to a student’s self-worth and provide a perspective through which they can discover and refine new aspects of their identity.

Veronica talked about creating a Facebook group for women at Harvard Extension School so that students who identified as women had a commonplace where they could find resources, and opportunities to network with other women. When she talked about the Facebook group she talked about the pain point that her group faces when it comes to finding a designated place to meet on campus. She referred to it as the only drawback when trying to meet up on campus, she mentioned that she wished Harvard had done a better job of giving Extension School students a place where they could mingle and network.

Both Lana and Stacey shrugged the sentiments that Harvard Extension School students face due to the ‘Extension School’ title associated with their school affiliation. Lana stated “you know… I joined a few Facebook groups and despite what is said about Extension School students, I still feel like I belong.” This is a common finding when reviewing Extension School social media groups, there is debate on whether or not Extension School students are truly part of Harvard University. And, besides the stigma associated with the Extension School not being part of Harvard University many students
still consider themselves a part of Harvard University and are very proud of themselves for their accomplishment.

Furthermore, some students talked about the stigma upheld by Harvard College students against Extension School students, the former not accepting the latter as true students at Harvard University. This perception has a negative impact on students’ sense of belonging. For example, John said during his interview that “a lot of clubs don’t view Extension students as Harvard students… There are all these little markers that make you feel like you’re not “real” Harvard.” He also talked about debates that took place on social media platforms about what constitutes “real Harvard.” Ralph too made mention of some threads he came across online about whether or not the Harvard Extension School graduates are in fact true Harvard University grads.

Notably, both John and Ralph were proud of their hard work and dedication that it took to get there even if they had questions about the status of the Extension School. John explained that it took the same amount of work and effort to get through a Harvard Extension class as a Harvard College class since the courses at the Extension School were being taught by Harvard professors. Another student, Beverly whose boyfriend was awarded a fellowship at Harvard, which had given her the ability to sit in on some Harvard College classes said that she found the syllabus to be exactly the same. She said she found no difference between course expectations at Harvard College and Harvard Extension School. Despite these observations by Beverly, the perception of Harvard Extension students being outsiders by some members of Harvard College persisted.

The sentiments shared by the Extension School come as no surprise to the Harvard enterprise as it has long been upheld and noted that students in the Extension
School feel that a degree in extension studies does not accurately represent the hard work and effort it took to achieve that degree (Masci, 2021). In “Extension School Students Seek Degree Name Change, Consider Current Labeling ‘Unethical,’ ‘Disrespectful,’ Masci stipulates that graduates in the Extension School have commented stating that when they present the degree to the HR representative at a prospective job, they are left with “is your degree real...” this is insulting because it took effort to achieve the degree. Students feel that because the school is a continuing education school, and that they are continuing their education while simultaneously working, this feature of their degree needs better representation. The article also states that “Currently, all Extension School degrees label the field of study as “in Extension Studies” instead of referencing the student’s specific field. Some Extension School students said they believe this component of their degrees does not accurately reflect their programs of study.”

Existing literature suggests that campus environments can positively or negatively impact a student’s sense of belonging (Museus, 2014). The research suggests that campus belonging is positively shaped by relatability in the form of: having commonalities with peers on campus, having experiences which are familiar and being a part of learning which teaches invaluable lessons which can be taken back and applied to the student’s community. Having these experiences allows a student to feel integrated and fruitful in their learning environments.

These findings are pertinent to improving a FGCS’ on-campus experience, for if students are given the means and space to build connections with peers who share their lived experience, and if the education they receive is relevant to their lived experience,
they are more likely to be engaged in their learning and academic experience, further enhancing their sense of belonging.

Imposter Syndrome

Imposter syndrome was first identified in a study of high achieving women in academia, by Clance & Imes (1978). The women comprised of undergraduate, graduate and faculty members (Ramsey & Brown, 2018). It was observed that although these women were high achieving, they reported feeling guilty or underserving of their success. Their feelings thereby denote the traits of Imposter Syndrome. These women were high achieving by failed to recognize their efforts. People who suffer from Imposter Syndrome feel that a stroke of luck, charm, networking or simply being at the right place at the right time earned them their success (Bravata et al., 2020; Parkman, 2016). There can be 2 outcomes associated with Imposter Syndrome, one being burnout due to overachieving (Parkman, 2016) and the other, underachieving due to the belief that they will fail anyway (Ramsey & Brown, 2018).

Imposter syndrome has been found in non-traditional students, first generation students and ethnic minorities (Harvey & Katz, 1985; Parkman, 2016; Ramsey & Brown, 2018). And it can contribute to various psychological impairments for students who exhibit characteristics of the syndrome, such as anxiety, depression, psychological distress and a lack of confidence in their ability to succeed in academia (Parkman, 2016, Peteet et al., 2015).

Additional research on FGCS and imposter syndrome has discovered that they are more prone to experiencing imposter syndrome since their families do not fully
understand the demands of higher education. Which can result in them not receiving complete emotional support from their families (Peteet et al., 2015).

In addition to feeling psychological stress, FGCS are prone to feeling an overwhelming amount of distress; having to prove to themselves and their families that they are worthy of a college education, shrugging off feelings of not fitting into the campus culture and feeling backlash from family or peers for going to college to better their life outcomes (Peteet et al., 2015). In fact, participants in a study by Gibbons et al. (2019) reported that a main barrier to completing and earning a college degree was a student’s family. They attributed their family to them taking time off between semesters and in some cases attrition due to the lack of support received from their families.

Obtaining a post-secondary education is a momentous achievement for anyone, in particular a FGCS as they are the first in their families to obtain such an achievement. The prospects of earning a degree from an Ivy League school is an additional achievement. For FGCS, who enter academia with a limited social capital and are often under-equipped to navigate university by themselves earning a degree warrants a huge sense of accomplishment. In the context of my study, many students reportedly face a complex imposter syndrome, a feeling of inadequacy because they are not only the first in their family to enter post-secondary education but the select few who are able to pursue an education at an Ivy League school.

The participants surveyed all had rich stories of hardship, struggle and strive, all of which shaped them and propelled them to wanting more in their lives. Notably there were participants who felt that they were not bright enough to partake in discussions at Harvard, the institution name itself paralyzed some participants and made them second
guess themselves. One of the hallmarks of imposter syndrome is a sense of not belonging. From the participants surveyed; few had traits of imposter syndrome, and a few used the words “imposter syndrome” to report on their feelings of belonging to a school at Harvard. Since the participants surveyed are from the Extension School, few justified to me that attending the Extension School required the same amount of rigour, tenacity and hard work as attending Harvard College. Some students felt silenced in the classroom based on the level of intelligence they perceived their peers, professors, and teaching staff to have.

An interesting commonality that was found between the 6 participants who reported feeling imposter syndrome is that they all faced forms of financial hardship/struggle and they all reported providing emotional support and advocacy as well as life advice to their parents/caretakers. Four of these participants had normal resilience scores and high self-efficacy. One had high resilience and high self-efficacy and 1 low resilience but good self-efficacy (score 31 out of 40). All 6 students wanted better life outcomes. During the interview, all 6 participants highlighted to me of wanting to get out of the neighborhoods they grew up in, breaking the intergenerational cycle of poverty and simply wanting better for themselves. In respect to the age categories of the participants, one of the participants was under the age of 25 while the others were all above the age of 25.

Ryan whose parents are Chinese immigrants reported on being unprepared and as a result shy to speak up and ask questions. His sense of insecurity made him feel like he didn’t belong in university. He also took a semester off to refocus on his education and on whether his major was a right fit for him. Ryan reported:
Everyone was a lot more prepared than I was. I was really, really shy, I apologized to my teacher - I wasn’t very confident in myself, I was very uncomfortable speaking in class.

He also talked about his financial situation. He noted seeing his parents struggle financially and knew that it was not wanted he wanted for himself. He recalled that his parents expected him to go to college so that he would have a better life:

Financially it was tight, I have immigrant parents from China, I saw my parents going through hardship and I didn't want that. I have seen my parents struggle my entire life and I didn't want that.

Ryan’s feelings of not being prepared and feeling inadequate to be in college align with the sentiments of someone facing imposter syndrome. His upbringing and duel with financial struggles may be related to his feelings of inadequacy. Many more students like Ryan have similar stories of growing up poor and feeling like they are imposters at Harvard.

Kayleigh was another participant surveyed, although very communicative she said she kept most of her comments during in class discussions to herself. She even spent time outside of the classroom researching and finding the answers to her questions on her own. This wasn’t because she didn’t have class time to ask questions but because she was too shy and nerved to speak up and draw attention to herself in the classroom. Confident students, who are well primed for academia know that they are learning something new and thus are confident in themselves and their questions. The fear of sounding “stupid” and holding back one’s ideas and thoughts seem to stem from a one’s community and upbringing. Kayleigh too stated that she hated where she lived and wanted to get away from the bad neighborhood, she grew up in. Kayleigh recalled during her interview,
When it came to asking questions, I didn't really ask a lot of questions because I didn't want to look stupid. I would try to figure stuff out on my own so it didn't look like I didn't know anything. I stuck out like a sore thumb; I didn't really fit in.

The feeling of “sticking out like a sore thumb” kept Kayleigh quiet in the classroom.

Kayleigh is the student who was previously described for manually double spacing her essays. If she didn’t feel like an imposter and had a better sense of belonging, she may have questioned the need for adding an extra space between words only to discover that that is not what double spacing entails. Instead, she was unable to ask this question and wasted valuable time in this task.

In the following excerpt Kayleigh used the word ‘loser’ to describe how she would have perceived herself had she not been educated and stayed in the neighborhood she grew up in. She clearly had such a negative regard for her former neighborhood and way of life, she wanted more and better life opportunities so she could afford to make better choices for herself and her family. She stressed by stating she “needed” to get out of there to highlight the urgency of wanting to move out of her former neighborhood and get an education. Her upbringing in a “bad neighborhood” could also be the reason she felt like an imposter at college. It could also be the reason why she felt that she stuck out like a sore thumb:

I hated where I lived. I wanted to get away from the bad neighborhood I grew up in. I never wanted to be stuck living where I grew up. A lot of drugs, crime I was exposed to, I didn't want to be a loser. So, I needed to get out of there. I wanted to reinvent myself, none of the elements present in high school were present. I didn't realize degrees were needed for money coz both my parents were blue collared.

Another participant, Brooke, used the word “idiot” to describe how she might be perceived at a prestigious institution like Harvard. Brooke too grew up very poor and so
did not enter academia with any guidance from her family on what to expect, i.e. social capital:

I grew up very poor. I knew education was the way out. I know what the alternative is and that is how I stayed motivated.

She talked about an alternative to being educated and did not want to continue living her life in that alternative. She instead wanted a much better life for herself. In her case the driving factor of poverty and financial hardship propelled her to get a scholarship to a state university and then pursue a master’s degree at Harvard. From the participants interviewed there is a link between financial hardship and imposter syndrome, especially at Harvard.

A fourth participant named Stacey questioned whether or not she belongs, "do I belong at Harvard?" she exclaimed. She is pursuing an undergraduate degree and it is important to note that she has a 3.67 GPA and has only taken one class at Harvard. She is the only participant who has not taken 4 or more classes at Harvard Extension School. Therefore, she has not been accepted into her program yet as she has not fulfilled all the admission requirements. In order to be accepted a student needs to have achieved a grade of B or higher in all 3 prerequisite courses. One proseminar course, one statistics course and one course related to their field of study (e.g., Intro to Psychology for a Psychology major). Her question of “do I really belong” so early in her college career is telling of her perception of herself and her ability to be accepted into her program of study. Even though she is doing well in her course she still has these impeding doubts about whether she could belong to Harvard. In Stacey’s case, she was exposed to educated parents of children at the care facility she worked at, and it was through that exposure she saw
firsthand the life she wanted for herself. She stated during her interview, “I worked with kids whose parents are educated. I saw how it impacted their socioeconomic status. I knew I wanted better.” Again, there is an example of how her socioeconomic status impacted her perception of whether or not she belonged at Harvard.

A fifth participant, Veronica stated when asked about her experience as a student said that “…it was confusing to navigate, and I didn't feel like asking questions. It depends on the prof, to make me feel comfortable, there are some profs that make you feel uncomfortable especially the bigger class sizes and you don’t feel like chiming in.” She continued,

I was not vocal in the beginning...Being a single mom in the world, I had some self-esteem issues. You know like Imposter Syndrome.” The above excerpt was from an interview with a participant named Veronica. She attributed her life struggles of being a single mother and trying to make a presence for herself to her self-esteem issues which seeped into how she felt about herself academically. She further disclosed that her parents were lower middle class and that she married young. Her father got certificates but never went to college. She said it was tough growing up and she saw education as a guarantee to stability in life. “I lived a hard life, single mom with a new baby. There was bias against me because I didn’t have a degree and I was working as an executive who couldn’t move up the ladder. I had to make life changes.

She also stated that she was looking for higher aspirations in the form of an Ivey league school which brought her to Harvard.

For Maya, she felt intimidated being a student at Harvard, she sometimes held back speaking up in class because she felt she was already surrounded by professionals in the field. She reported that: “…it is intimidating, there are so many smart people at Harvard. Some of the folks in the course are already clinical psychologists taking the courses to add to their toolbox.”
Of the 9 participants who did not report on Imposter Syndrome, two participants also talked about her financial struggle and about having to make a choice between attending college and staying at home to help her family out. Isabelle recalled that she wanted a bachelor’s degree to “move up the ladder” and was accepted to both Dartmouth and Cornell but couldn’t afford it. She is a now older and above the age of 25, she has grown kids and is fulfilling her dream of getting an education. She said that she is educating herself for her family and that, "Bettering yourself leads to better opportunities." She has high self-efficacy, normal resilience, and high self-regulation. One participant named Robert who works in emergency services stated during his interview that:

It was time for me to finish my degree. I was raised by single mom. I couldn’t afford to go with the aid in the 80s. I had family to take of bills to pay so I couldn’t go to school. When I saw Harvard education that I could do it online I knew I could do it.

Although he faced financial struggles which prevented him from pursuing a degree straight out of high school, Robert did not feel like he was an imposter, he was very proud to be a student at the Harvard Extension School. When asked the question on whether he feels a sense of belonging at Harvard, he stated:

Sort of, I wish I felt more. Part of it is pandemic related, even when it was on campus, getting a student card was a process. It took forever to do that, it was hard to find out where to do that. A lot of clubs don’t view Extension students as Harvard students. There are all these little markers that make you feel like you’re not “real” Harvard.

Even though those were his sentiments when it came to feeling a sense of belonging, he was still very proud of himself for working towards his bachelor’s degree.
The three participants who did not report feelings of imposter syndrome had selected on the part of the questionnaire asking about what kind of parental support they provide, selected providing their parents/caretakers with emotional support and advocacy. They did not indicate or report on financial hardship being an obstacle when it came to pursuing an education. And, the remaining 4 participants did not report on Imposter syndrome, financial hardship or providing their parents or caregivers with any of the following: emotional support and advocacy, language brokering/translation, financial support, physical care, life advice and sibling caretaking.

Love of Learning

The desire to expand one’s knowledge base can propel academic success. However, studies that examine a FGCS’s love of learning as a contributor to academic success are scare. Research on the concept of Love of Learning by Lounsbury et al. (2009), used a 24 Values in Action (VIA) measure. This measure was administered to 237 university students to examine their character strengths relative to two indicators of academic success, which are student satisfaction and grade point average (GPA). It was found that Love of Learning, is a character strength which is directly linked to learning and academic performance. It was further found that students who express a love of learning partake voluntarily in behaviors that promote learning strategies and contribute to better grades. These behaviors include attending lectures, doing assigned readings, studying and grasping concepts taught well. Additionally, Lounsbury et al., (2009) found that students who were choosier and more mindful about how they spent their time did better at their courses. Each of the character strengths outlined by the VIA contributes to
life satisfaction, Love for Learning leads to developing and enhancing new concepts which can lead to both intrinsic and extrinsic fulfillment.

All the participants when asked about what they really loved about being a student said that they loved learning, this was the common theme that arose from each of my interviews. There was a passion in each of the participants voices when they answered this question. Yet almost half had reported feelings of imposter syndrome. For a participant to feel guilt or a sense of not fitting in as ascribed by imposter syndrome and to still have the desire to pursue an education speaks to the drive that these participants have.

Especially given that the participants in my study are FGCS, who are already a ostracized population with a lack of resources there is a clear connection between pursuing a college education and a love of learning. Even though each of the participants had differing scores on the self-efficacy and resiliency measures (score ranges were from 29-40 on the Self-efficacy measure, and 1.67-5 on the resilience scale) they all have a love for learning. Each participant talked about their love for learning in one form or another. This common element was seen across participants from different age groups, stages of life, countries and programs of study.

Learning empowers the mind and allows people to broaden their scope of knowledge. Having a curious mind and wanting to strengthen one’s knowledge base through formal education was the driving force behind the participants’ educational pursuits. Amy considers herself a “lover of education.” In her interview she said that one should never stop learning. She said, “I am fascinated with learning, take knowledge from different areas and apply it in different ways. There is always something to be
learned.” She talks about learning being fascinating and about various means in which knowledge can be applied. She acknowledged that learning is a never-ending process as there is always something new to be discovered. Another participant, Ryan, stated that he likes the growth potential that education gives. Through his college experience he was exposed to the various career paths available to someone. At first his career prospects were limited; I have detailed this in the previous section titled Lack of support. Ryan’s college experience helped to broaden his outlook on various career paths to which he is very grateful for. He stated the growth potential that comes with learning as being a factor that interplays with his love for learning:

I really like just being able to learn and grow from learning from different classes, being able to explore passions and interests. One of my biggest takeaways was the sheer number of different passions and careers paths one can have. In High school I didn’t realize there were this many career paths available – when I was in HS I thought maybe ill go into medicine, or research because that’s all I thought I could do. In college I switched my majors, I took a product design course and loved it by that point I couldn’t switch because I wouldn’t graduate on time. College really helped me learn and understand how many career fields are out there.

Beverly talked about her love for being curious and asking questions. She referred to learning as finding “happy discoveries.” The positive word of “happy” that she used to describe learning signifies the joy and excitement she feels when she thinks about learning. She also uses the word “love” to describe the feeling she associates with learning, “I love being able to be curious and ask questions. Dive into areas that are outside of comfort zones. “Happy discoveries.”

Robert, who is already well established in his career as a CEO did not need to attain a degree for job security or upward mobility. He simply wanted to satisfy a life accomplishment of getting a bachelor’s degree from Harvard. When asked what he liked
about being a study he said that he was already a CEO, and that his education wouldn’t advance his career but that he wanted to learn and achieve a life goal of getting a bachelor’s degree. Robert’s testament also highlights that he is willing to make the commitment of time and money to work towards a degree based on his desire to learn.

When Maya was asked about learning, she said,

I have always been a learner no matter what aspect of my life. The best part about being a student is the knowledge that I am gaining. I could be a life student – if I had the money and the time, I would be a life student.

Her choice of words “life student” shows how much she loves to learn and about how there is no time limit on learning. She said that the best part about being a student is the knowledge she is obtaining. Maya is over 25 years of age and used student loans to fund her education, she also scored high on all 3 measures.

For Lana, it was “a good excuse to be curious and not guilty about spending time researching a random topic. It’s been nice to have an excuse to be inquisitive.” She mentioned “guilty” to justify her curiosity but also wanted to label and give importance to her curiosity by calling it an “excuse to be inquisitive. Although her love for learning was described by her, Lana’s description suggests that there are also elements of imposter syndrome. For her to justify her curiosity to her friends and family and make “excuses” for researching lends itself to some of the tenets of imposter syndrome, where she masks her intelligence with an excuse.

For Carlos, being from South America, he had an appreciation for attending classes virtually through the HES. He mentioned that he “loves interacting with students from across the globe, with teachers.” Like Carlos, when Marcia was asked the question about “What do you really like about being a student?” she said with passion, “Meeting people,
meeting incredible minds: students, researchers, profs, learning, its demanding but I like it. I love school, I have been in school my entire life.”

Stacey, Ralph and Soula all said that they love learning. Ralph, a graduate of the master’s program stated, “I learned a lot from discussions. I love that we are all on the same page, we all want to excel, we are perfectionists. Rich discussion, I learned a lot. It enabled me to continuously improve myself.”

Salma said, “I love learning and new things…Learning about what interests me, being active with students…it gives me passion.” Veronica also shared in Salma’s passion for learning, she exclaimed, “I love learning, makes me feel alive, feel like I’m plugged into something big, profound… How great to be connected to think tanks and great leaders… Helping humanity.” Veronica’s statement was so powerful, as she described feeling like she was part of a greater pursue through her education. She also used the word ‘alive’ to describe a feeling of being awaken while enrolled in her master’s degree program.

It was interesting to find that all 5 participants shared in this trait of love for learning, which suggests that their passion is what drives them to continue staying positive about their learning experience. Since this demographic of students are online students and have additional challenges of being FGCS, it could be their character strength is what motivates and drives them. Despite feelings of imposter syndrome, lack of belonging this cohort of students all had GPAs ranging from B to an A. Their high grades could be a result of their love of education which is clearly a motivating factor.
Chapter IV.

Discussion

This chapter highlights the theme of family influence on pursuing a post-secondary degree that emerged from analyzing the data. FGCS are a disadvantaged population because they do not have the same social capital as CGCS. For CGCS it is expected that they fulfil the legacy of post-secondary education just like their parents/caregivers. FGCS are the first in their family to go to college and do not have the same legacy expectations. Upon analyzing the data from the FGCS sampled in my study the theme of family influence emerged. In this chapter I have presented the means by which I analyzed the data from students and discuss in detail my findings related to the theme of family influence.

Family Influence and Resilience

One of the measures used in my study to measure resilience was the Brief Resilience scale (BRS). It is a Likert-type scale which uses a range of 1-5 points to measure resilience. Scores between 1-2.99 reflect low resilience, scores between 3-4.30 indicate normal resilience and scores between 4.31-5.00 suggest high resilience. The measure is comprised of 6 questions and every other question is reverse scored so that each option (Strongly Agree, Agree, Neither, Disagree, Strongly Disagree) on the Likert-type scale has a value beginning at 5 to 1 or 1 to 5 sequentially.

Of the 15 participants surveyed 9 had normal resiliency scores, 2 had high resilience scores and 4 had low resiliency scores. One of the key findings of my study shows that 4 out of 15 participants who scored low on the resilience scale (a score
between 1 to 2.99 points) reported that there was an element of family influence that
drove them to pursue higher education. Familial influence in the context of the findings
of my study refers to influence from a parent, a grandparent or the participant’s own
personal agency of wanting to be a good role model for their children to pursue post-
secondary education. Of the remaining 9 participants, all had mid-range resilience scores,
4 of them mentioned parents in a different way as mentioned below.

It is important to note that although these participants scored low on the resilience
scale, their academic self-efficacy and academic self-regulation scores were high. Their
academic self-efficacy score was between 31 to 35 and they self-reported having high
self-regulation. This finding aligns with the research by Tate et al. (2015) who found that
self-efficacy and family values were predictive of a student’s pursuit of graduate school.

The participants who reported low resilience were all above the age of 25, had
careers and were a blend of 1 undergraduate and 3 graduate degree students. All but one
of the 15 participants had moderate to high self-efficacy scores, this participant had a low
self-efficacy score of 29 points out of a possible 40 points and had normal resilience and
high self-regulation.

The theme of family influence was found in 40% of all participants accounting for
those who scored low on resilience as well as those who scored high on resilience. The
important role family plays on FGCS pursuing higher education is clear. Being
accountable to a family member whether it be a grandparent, parent or child was found to
be the propelling factor to pursuing an education. Of the students who scored low on
resilience, there were 2 accounts made that their grandparent knew the value of an
education. Beverly, a student above the age of 25 who gained her entrance to study at
HES through her boyfriend’s fellowship recalled the struggle she faced and the advice her grandmother left her with in order to have better socioeconomic status. Beverly recalled, “my grandmother was a White laborer from the South but knew the value of an education. Going to college meant you made it.” Growing up very poor this participant knew from an early age that education was the way out, she also knew what “the alternative” was and that’s how she stayed motivated. Her lived experience of growing up in a socioeconomically disadvantaged family was shared by the majority of participants in my study. She had firsthand experienced of what it was like to grow up poor while witnessing her parents face financial hardships, she knew that she wanted better life outcomes. Her experience motivated and pushed her to attain a scholarship in high school which allowed her to afford to attend college and pave a much different path for herself than that of her parents.

I grew up in a very religious family and there were a lot of challenges (Pentecostal)… controlling type of religion. That led my parents to make short-sighted and bad financial decisions. I grew up very poor… Divorced parents created more financial burden. I knew the only way to get out of the socio-economic status and to get away from the controlling religious element was education… it was going to be my ticket out of there. My older brother instilled in me the love for reading and education. My grandmother was a farm laborer from the south, and she knew the value of an education – going to college meant you made it. I knew if I wanted to go to college, I had to be the one to get me there. I went to a small public school and benefited from a state program based on my socio-economic status which paid for my tuition. My room and board was covered for by scholarships…that was the only way I would have gone to college.

As exemplified from Bev’s interview, it was both her grandmother and brother who inspired her to pursue an education so that she could have better if not different life outcomes than her parents.
John who scored low on resilience but high on self-efficacy and self-regulation wanted to “prove to his kids that you can still do it.” As a mature student pursuing an undergraduate degree, he reported wanting to be a role model for his kids. He also reported that it is really hard juggling school with family responsibilities and that the school workload is heavy. He lost his mother at a young age, and stated that:

The thought of my mom influenced me to stay with it. My mom didn't get a degree but wanted her son to get a degree. So, when I feel burned out, I think of my mom.

John is an emergency services worker and was in the middle of his career, however the prestige of earning a degree and having the thought of his mother’s support motivated him to work towards a bachelor’s degree concurrently while working fulltime.

With respect to wanting to give family members a better life, Carlos wanted to study in the U.S.A from South America so that he could sponsor his parents upon completion of his degree and give them better life opportunities. He stated getting an undergraduate scholarship to the University of Texas but due to the recession lost the opportunity to get a job after he graduated. His willingness to further study in the U.S.A did not end there, his high academic self-efficacy motivated him to pursue and complete an MLA degree at the HES, he recalled wanting to sponsor his parents so they would have a better life in the U.S. He stated, "that's the mistake my parents made, they started working and delayed their education." It was very clear with Carlos that he was motivated to want a better life for himself and his family. His aspirations of wanting to cultivate a better life is a common feature of all participants, in his case he was looking for an opportunity to fulfil the American dream for his family and start a life somewhere with better life opportunities.
The other 7 participants who did not mention family influence during their interviews all had normal to high resilience (their scores are as follows: 3.83, 3.83, 3.67, 3.33, 5, 4.5, and 3.17). This finding was interesting as it leads to a correlation between low resilience and family influence. Through my research it was evident that participants with low resilience were successful academically because they were dedicating their education to a family member. In Beverly’s case it was her grandmother’s encouragement that opened her mind to the possibility of getting an education to better her life outcomes, and in John’s case the thought of making his mother and kids proud led him to pursue a degree.

Family Influence and Self-regulation

Participant’s academic self-regulation was gauged by asking three questions drawn from the Short Self-Regulation Questionnaire (SSRQ) which is a 31-item self-report measure of the ability to regulate behavior to achieve one’s goals (Carey et al., 2004). The questions were:

1. Tell me about how you meet deadlines for projects.
2. Tell me about how you stay motivated.
3. Tell me about your problem-solving skills.

The answers to the questions determined a participants’ level of academic self-regulation. Through the interview component of data collection participants were asked the 3 questions related to gauging their self-regulation. They reported on their organizational skills and described methods they used to keep track of deadlines. Participants described breaking problems down into smaller manageable chunks as a strategy for tackling
problems they encountered. Two participants reported that they tend to procrastinate but manage to get their projects and assignments submitted on time.

With the online delivery of their programs, participants acknowledged the need for discipline and time management, some participants stated that their life experiences (managing the responsibilities of a family and career) equipped them with strong time management skills. One participant is an emergency services personnel by trade and owes his self-regulation skills to his profession. This participant scored low (score of 2.33) on resilience but high on self-efficacy (score of 32).

The 4th student with a low academic self-efficacy score reported that her parents wanted her to get a degree. They told her, “You have to be educated to raise children.” It was through her parents influence that she pursued post-secondary education. This participant is from Greece, and although it is culturally different from the US, in that it is normative that when a student is in university their entire focus is to study and not worry about anything else (working a full or part time job, housekeeping, or worrying about meal preparations for example). We can see that parental push is a universal factor in pursuing an education. Her parents advised her that by being educated she would be a better parent (This participant is featured in Chapter 4).

Table 2. Specific Participant Scores.

<table>
<thead>
<tr>
<th>Participant</th>
<th>Academic Self-efficacy score</th>
<th>Resilience</th>
<th>Academic Self-regulation score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beverly</td>
<td>31</td>
<td>2.67</td>
<td>High</td>
</tr>
<tr>
<td>John</td>
<td>32</td>
<td>2.33</td>
<td>High</td>
</tr>
<tr>
<td>Carlos</td>
<td>35</td>
<td>1.67</td>
<td>Very high</td>
</tr>
<tr>
<td>Salma</td>
<td>32</td>
<td>2.33</td>
<td>High</td>
</tr>
</tbody>
</table>

Table depicting low resilience scores and high self-efficacy and self-regulation scores
The following are some of the accounts made by participants. Ryan, the first-generation American student born to immigrant parents from China.

I saw my parents going through hardship and I didn’t want that. I have seen my parents struggle my entire life and I didn’t want that. My parents wanted me to go to college. It was an expectation that I would work really, really hard in school. This participant’s recollection of his life while growing up includes some familiar examples of a non-Caucasian FGCS’ experience found in the literature. For example, he was a language broker for his parents who were not fluent in English. And although he had no idea what SATs were, he figured out the steps he needed to take to achieve going to college. In his case, being a FGCS he didn’t have the same resources or social capital as continuing gen students. Another participant recalled not knowing what double spaced meant, so she manually entered 2 space characters after each word on her essay. These encounters from students shows the gap in the education system for not properly equipping students with key tools they would need after high school if they were to pursue high education. In situations where students are first in their family, they are more likely to be unable to seek academic advice from their parents.

Amy, who also scored high on self-efficacy and self-regulation but normal on resilience reported that her parents told her that a bachelor’s degree is the new high school diploma. And so, she had to get one. Maya reported that she wanted a bachelor’s degree but was unable to afford it right out of high school. "I wanted a bachelor’s degree to move up the ladder. I was accepted to Dartmouth and Cornell but couldn't afford it.” She further emphasized that she was “getting it done for my family…I want to be a role model for my kids. Bettering yourself leads to better opportunities.”
One possible explanation for high academic self-efficacy scores amongst this population comes from the tenets of the Social Cognitive Career Theory (SCCT) (Lent et al., 1994) which is based on Bandura’s (1986) general social cognitive theory. Self-efficacy, a component of SCCT is thought to be a central element of an individual’s career development process (Tate et al., 2015). Self-efficacy beliefs influence one’s career path and since the participants of this study are mid-career; high self-efficacy scores amongst the participants in my study is supported. The study by Tate (2015) drew data from graduate students, who share demographic features that are similar to the participants in my study. Both pools of participants are already established in their careers and are pursuing a degree for upward mobility. Additionally, they are both in an older age group than the traditional 18 to 21-year-old undergraduate students. Therefore, the principles of better career attainment that graduate students work towards would apply to all the participants of this study.

Along with familial influence, there is a sub-theme of wanting to be a role model for one’s own children that has surfaced from the data collected. The participants in my study have been through post-secondary education and know the value it has on upward mobility. The post-secondary experience creates a cascading effect of wanting to pass on the education baton to their next of kin. For instance, a participant’s parent/grandparent influenced them, and they aspire to use that influence on their own children, or on the prospects of their own children. Kayleigh had the opportunity to join the Marine core right out of high school however, her grandfather pushed her to pursue higher education and wanted her to college. She was one of the participants who had completed her
master’s degree at the Harvard Extension School, and had stated with dignity and pride, that "when I have kids…I want them to say my mom has a master’s.”

There were 2 participants scored high on all 3 measures, academic self-efficacy, resilience and academic self-regulation and did not report that there was any family influence.

Family Influence & Self-efficacy

Self-efficacy was measured using the General Self-Efficacy Scale (GSE). The 10-item General Self-Efficacy scale is correlated to emotion, optimism, and work satisfaction. Students responded to 10 items on a 4-point scale ranging from 1 = "I can always manage to solve difficult problems if I try hard enough being not true at all" to 6 = "I can always manage to solve difficult problems if I try hard enough being exactly true." Higher scores indicate higher self-efficacy, and lower scores indicate lower self-efficacy. For this study the Self-efficacy scores ranged from 29-40 out of a possible of 40 total points.

When it came to family influence, there were a total of 8 participants who expressed that a family member had influenced them to pursue a post-secondary education. Of the 8, 4 participants had high self-efficacy, 3 participants had normal self-efficacy and there was 1 student with low self-efficacy. Additionally, 4 of the participants were undergraduate students while the other 4 were graduate students. Four of the participants were graduates of the Harvard Extension School and the other 4 were current students. The other 7 participants who did not mention family influence during their interviews all had high self-efficacy scores.
Table 3: Self-Efficacy Scores.

<table>
<thead>
<tr>
<th>Participant</th>
<th>Score</th>
<th>Level of self-efficacy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Marcia</td>
<td>40</td>
<td>High</td>
</tr>
<tr>
<td>Lana</td>
<td>40</td>
<td>High</td>
</tr>
<tr>
<td>Ryan</td>
<td>39</td>
<td>High</td>
</tr>
<tr>
<td>Stacey</td>
<td>38</td>
<td>High</td>
</tr>
<tr>
<td>Ralph</td>
<td>38</td>
<td>High</td>
</tr>
<tr>
<td>Kayleigh</td>
<td>37</td>
<td>High</td>
</tr>
<tr>
<td>Veronica</td>
<td>36</td>
<td>High</td>
</tr>
<tr>
<td>Amy</td>
<td>35</td>
<td>High</td>
</tr>
<tr>
<td>Maya</td>
<td>35</td>
<td>High</td>
</tr>
<tr>
<td>Carlos</td>
<td>35</td>
<td>High</td>
</tr>
<tr>
<td>Robert</td>
<td>34</td>
<td>High</td>
</tr>
<tr>
<td>John</td>
<td>32</td>
<td>Normal</td>
</tr>
<tr>
<td>Salma</td>
<td>32</td>
<td>Normal</td>
</tr>
<tr>
<td>Bev</td>
<td>31</td>
<td>Normal</td>
</tr>
<tr>
<td>Soula</td>
<td>29</td>
<td>Low</td>
</tr>
</tbody>
</table>

Participant self-efficacy scores.

For John pursuing a degree was a dream come true for him, due to financial constraints he was unable to go to college. During his interview he said he was not only making a lifelong dream come true but that he was doing it in honor of his mother who passed away and his children, to show them you can educate yourself at any age that you
are: “I love learning, thinking and exposure to new things. I like the classes, professors, discussions and subject matter.” John too is over the age of 25 and was excited when he talked about what he really loved about being a student. Like John many of the participants who owed their strife in college to a family member reported keeping their family member’s encouragement at the forefront of their mind.

The results of this study are not surprising as studies on family influence suggest that it affects a student’s self-efficacy, which in turn allows them to do well in university (Kim, 2014; Tate et al., 2015). High self-efficacy positively affected students’ interactions and relationships with their professors (Kim, 2014). Students whose family supported their educational pursuits were also more likely to attend graduate school.

Graduate School Self-Efficacy is an important predictor of a student’s career development (Betz & Voyten, 1997; Diegelman & Subich, 2001; Feldt & Woelfel, 2009). GSSE stems from Social Cognitive College Theory (SCCT) which purports that an individual’s beliefs in their capability enhances their career. Self-efficacy for graduate studies is comprised of 3 domains: academic, research and social self-efficacy (Williams, 2004). Academic self-efficacy is related to a student’s beliefs in their academic ability to complete assignments and excel in their course (Jackson, 2002; Zimmerman, 1995). Research self-efficacy relates to a student’s belief in their ability to research, collect, analyze, transcribe, and report data (Forester et al., 2004). Social self-efficacy is a student’s beliefs in their ability to create meaningful relationships with faculty, peers, advisors and other members of the student body.
Chapter V.

Conclusion

FGCS are a marginalized population who don’t have the same access to educational resources as their continuing generation peers. They often come to college unprepared for the independence that post-secondary institutions encourage. Some FGCS opt for completing their education online, often thinking that the online method of course delivery would be more suitable to managing work and their interdependent responsibilities. However, students in online courses face higher attrition as they may face challenges with the technological platform that the course is being offered through, with having basic knowledge of the subject matter, or because faculty are unprepared for teaching online courses. The high drop-out rate makes the sought after online unachievable for students let alone FGCS. Although attrition is high amongst FGCS, there are an ample number of those students who are successful. In this thesis I interviewed those students to see how the psychological features of self-efficacy, self-regulation and resilience contribute to their academic success.

In this thesis I sought to answer three distinct questions, 1) How do first generation students at the Harvard Extension School manage their interdependent demands and coursework in an online setting. 2) Does academic self-efficacy influence FGS academic success in online courses at the Harvard Extension School? 3) Does resilience influence FGS academic success in online courses at the Harvard Extension School?
What I found was that there was a relationship between family influence and all three of the variables measured. Most striking was that family relationships have a relationship to self-efficacy whether it be a parent, a grandparent or a student simply wanting to be a role model for their children or future children. Students who had high self-efficacy scores all reported a type of family influence being the driving force behind them pursuing an education. This finding ties in well with my first hypothesis, whereby I predicted that academic self-efficacy contributes to academic success. What I did not know then was that family influence contributed to higher self-efficacy scores.

For my next hypothesis I predicted that resilience may not play a bigger role for students who are taking their courses online. What I found was that resilience did not play a significant role in academic success. In my study, 86.6% of participants had normal to low resilience and were still successful in their academic pursuits. Resilience may not have played a significant role for FGCS in an online course environment, but it was necessary to measure this psychological feature as many studies its relevance to academic success.

By combining the information, I gathered from my interviews many themes emerged, they were college readiness, belonging, love for learning and imposter syndrome. Each of these themes tells a story from the perspective of a FGCS. College readiness spoke about the lack of resources available to FGCS when they were in high school, although 93% of the participants in my study were over the age of 25, they recalled being in high school and feeling so underprepared for post-secondary education. A lot has been learned through the lived experiences of the participants. Belonging was another theme which was rich in information. One would have expected that online
students would have reported not feeling a sense of belonging however the participants reported fostering their own sense of belonging online, by forming WhatsApp groups and Facebook groups. The only negative account for sense of belonging came up when participants stated that they did not have a designated place on campus to gather. They also spoke about the perception Harvard College and some students at Harvard College have of Extension School students. Love for learning arose when students expressed what they really liked about being a student, each of them talked about the inquisitive nature that comes with learning and about how much they loved having a reason to learn. This finding is important because FGCS face imposter syndrome, academic unpreparedness, financial struggles and many other obstacles, so further research on love for learning would be beneficial to understanding its impact on FCGS academic pursuits. The last theme that has been analyzed for this thesis is imposter syndrome, this finding was not surprising as many FGCS don’t feel like they belong at an Ivy league school.

Some implications for practice to better support retention would be to provide preparatory courses to adult learners who have been out of school for a long period of time. Faculty teaching online courses should undergo training and courses should be designed with online students in mind. To reduce attrition training faculty on creating dynamic, interactive lesson plans to foster student engagement. The courses should be interactive, engaging so that students on the other end of their computers don’t feel overwhelmed and lost in mundane course literature. Students should also have the option of taking a quick refreshed tutorial to walk them through the learning platform which they might find hard to navigate.

Research Limitations and Future Research
Study limitations include a number of participant recruitment challenges. Due to recruitment occurring on Facebook, there was a limited number of respondents to the study and a fully representative sample could not be achieved. Further, a larger participant list may have enhanced knowledge on the FGCS experience. Furthermore, during the process of recruiting, 120 surveys were filled by bots, requiring manual filtering of the participants who had messaged me on Facebook messenger against the completed surveys and some legitimate participants may have been inadvertently filtered out in the process.

A second participant limitation which occurred was when I started this body of work my aim was to open the research up exclusively to undergraduate students, which reflects the topic most prominent in the existing literature. However, Master’s students responded to the Facebook invitation. Due to a limited number of interested undergraduate FGCS, I decided to include master’s and graduated students in my sample and to expand the literature used for the study. A suggestion for future research would be to separate all 3 student groups and ensure that there are enough participants in each category to look for similarities and differences across student type.

The third participant limitation is that I included participants in the study who live outside the United States. Two of these participants (one from Greece and the other from Amsterdam) stated that going to university was part of the cultural norm and that caretaking and having a part time job was not the focus of being a student. The cultural expectations of their respective societies may have influenced their responses to the study. Without a larger international population to draw from in this analysis, the importance of these cultural norms could not be fully explored.
A fourth limitation encountered is the possibility of recollection bias in my sample. Since some of my participants were either graduate students or students who had already graduated, their recollection of their experiences as undergraduate students may not be as sharp or recent than if they graduated with 2-3 years of participating in my study.

While not a limitation, most participants were not living at home with parents, and many were parents themselves. This changed my initial definition of interdependent demands from sibling and parental caretaking to caretaking of children and grandchildren as this is applicable to my population. I expanded my review of the literature to account for the full range of caretaking experiences.

With respect to constructs, one of the constructs measured in this study, belonging, may be complicated to capture because sense of belonging may be affected by online courses, as attending in person classes develops socialization. Students who take their courses online may not feel that sense of community and may not experience persistence in the form of interacting with their peers to partake in group study or have the ability to ask professors questions in person directly after class. Students reported the following contributors to their academic success; social and academic support programs, peer groups, residential college, academic departments, ethnic student organizations, sports teams, off-campus volunteer groups and student government which may not all be available to students online.

Due to my small sample size, it may not be possible to generalize the results to a broader population. However, the objective of this study is to learn as much as possible
about the individual participants and their experiences as FGCS and the qualitative approach allowed for robust data that offered novel insights despite this limitation.

Future Research

Through this research the theme of belonging amongst graduate students surfaced. It would be worth looking at attrition rates of HES graduate students in relation to belonging. Some probing questions could be included in future questionnaires to determine if participants had taken on-campus as well as online classes. This information could offer an opportunity to consider online student’s experiences in comparison to those who have studied on campus.

In future studies, it would be beneficial to follow up with students longitudinally to see how their scores relate to actual persistence in college. Examining graduation trends (for example, the length of time a student takes to complete their course, if there was a stoppage in their studies, if they complete their program or if they decide to drop out) could add to our understanding of the student experience. Additionally, the ability to conduct a follow-up interview on students who dropped out to ask for reasons why they made that decision would also add additional insight. Having this information would allow researchers to better understand reasons for attrition amongst FGCS who are taking their courses online at Harvard Extension School.
Appendix A.

Pre-screening Questionnaire

1. How many undergraduate classes have you taken online through the Harvard Extension School?
   □ 1
   □ 2
   □ 3
   □ 4+

2. Do you identify as a First-Generation College Student?
   (First-Generation College Students are defined as students whose parents/guardians do not have a university degree.)
   □ Yes
   □ No

   Email address _____________________________
Appendix B.

General Self-Efficacy Scale

Example

Statement: 6. I can solve most problems if I invest the necessary effort.

Response:

<table>
<thead>
<tr>
<th></th>
<th>Not at All True</th>
<th>Hardly True</th>
<th>Moderately True</th>
<th>Exactly True</th>
</tr>
</thead>
<tbody>
<tr>
<td>6.</td>
<td></td>
<td>x</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1. I can always manage to solve difficult problems if I try hard enough.
2. If someone opposes me, I can find the means and ways to get what I want.
3. It is easy for me to stick to my aims and accomplish my goals.
4. I am confident that I could deal efficiently with unexpected events.
5. Thanks to my resourcefulness, I know how to handle unforeseen situations.
6. I can solve most problems if I invest the necessary effort.
7. I can remain calm when facing difficulties because I can rely on my coping abilities.
8. When I am confronted with a problem, I can usually find several solutions.
9. If I am in trouble, I can usually think of a solution.
10. I can usually handle whatever comes my way.
Appendix C.

Brief Resilience Scale (BRS)

Please notice that the scale is reversed for some questions.

<table>
<thead>
<tr>
<th>Respond to each statement below by circling one answer per row.</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Neither</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I tend to bounce back quickly after hard times.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>2. I have a hard time making it through stressful events.</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>3. It does not take me long to recover from a stressful event.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>4. It is hard for me to snap back when something bad happens</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>5. I usually come through difficult times with little trouble.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>6. I tend to take a long time to get over setbacks in my life.</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
</tbody>
</table>
Appendix D. Demographic Questionnaire

1. What is the age (years) category that you fall into:
   - [ ] 25 and under
   - [ ] Over 25

2. Please select the gender that best identifies you:
   - [ ] Man
   - [ ] Non-binary
   - [ ] Woman
   - [ ] Prefer to self-describe _______________
   - [ ] Prefer not to say.

3. Please select your race (For more than one race, please select more than one.):
   - [ ] Caucasian/ European
   - [ ] African American/ Black
   - [ ] American Indian
   - [ ] South Asian
   - [ ] Asian (Japanese Chinese Korean Filipino Vietnamese)
   - [ ] Hispanic
   - [ ] Pacific Islander
   - [ ] Other ____________

4. What languages do you speak at home? Check all that apply.
   - [ ] English
   - [ ] Spanish
   - [ ] French
   - [ ] Arabic
   - [ ] Hindi
   - [ ] Mandarin/Cantonese
   - [ ] Other: ____________

5. Do you identify as a first-generation college student? (Note: This study identifies first generation college students as students whose parents/guardians did not attend college or receive a college degree.)
   - [ ] Yes
   - [ ] No

6. What is your affiliation at the Harvard Extension School?
7. How many Harvard Extension courses have you taken?

☐ 1  ☐ 2  ☐ 3  ☐ 4 +

8. What is your GPA?

☐ A=4.0  ☐ A+=3.67  ☐ B+=3.33  ☐ B=3.0  ☐ B–=2.67  ☐ C+=2.33
☐ A–=3.67  ☐ C=2.0  ☐ B+=3.33  ☐ D+=1.33  ☐ B–=2.67  ☐ D=1.0  ☐ D–=0.67

9. Which field of the Bachelor of Liberal Arts are you in?

☐ Biology  ☐ Business Administration  ☐ Computer Science  ☐ Economics  ☐ English  ☐ Environmental Studies  ☐ Government
☐ History  ☐ International Relationships  ☐ Literature  ☐ Math  ☐ Psychology  ☐ Religion

10. How are you paying for college? Check all that apply.

☐ Athletic scholarship  ☐ Academic scholarship  ☐ Other scholarship  ☐ Work study  ☐ Job  ☐ Parents/family  ☐ Grants  ☐ Student Loans  ☐ Savings  ☐ Other __________
11. Are you employed while attending college?

☐ Yes
☐ No

12. If you selected “Yes” above, how many hours on average do you work per week?

☐ 1-10
☐ 11-20
☐ 21-30
☐ 31-40
☐ 41+

13. Do you have any dependents? (biological, adoptive, foster children)

☐ Yes
☐ No

14. Do you live with your parents/guardians?

☐ Yes
☐ No

15. Please select any of the statements that apply to you:
While in college I am providing the following support for my parents/guardians:

☐ emotional support and advocacy
☐ language brokering/translation
☐ financial support
☐ physical care
☐ life advice
☐ sibling caretaking
☐ None of the above

☐ Other ______________
Appendix F.
Qualitative Open-Ended Questions

General Goals/Journey

1. What brought you to the Extension School?
2. Tell me where you are with your education journey at the Extension School?
3. What are your goals for this degree? (if not answered probe for themes such as, breaking the intergenerational cycle, or what the degree means to the student’s future).
4. Tell me if you received academic guidance before applying to college.

Outside of School

5. Do you work?
6. Tell me more about where you are living; who is living with you? (If they live with family, ask about familial responsibilities and ask about how they spend their day.)
7. Does your family support your educational pursuits?

Student Experience

Positive experiences

8. Tell me about what you really like about being a student.
9. Speaking up in the classroom, how do you navigate that?
10. Do you feel a sense of belonging at the Harvard Extension School?

Negative experiences

11. Tell me about what is really hard about being a student.
12. Have you encountered any obstacles that have made it challenging for you to complete your degree? How did you resolve that? Who did you reach out to? (Professors, parents, nobody-you just made it work?)
13. Tell me about how you approach any difficulties you have encountered in college.

Self-regulation

14. Tell me about how you meet deadlines for projects.
15. Tell me about how you stay motivated.
16. Tell me about your problem-solving skills.
Appendix G.

Semantic Approach

a. Once interviews were completed, the data collected from these interviews were analyzed. I familiarized myself with the data.

b. The text (phrases and sentences) was coded to describe their content and each code described an idea or feeling. The transcripts of each interview were analyzed and everything that was deemed relevant was highlighted. The themes that were identified are Family influence as it relates to resilience, self-efficacy and self-regulation, lack of preparation, imposter syndrome, belonging and love for learning.

c. The codes that were generated were analyzed for patterns which assisted with the development of themes identified above.

d. The themes were reviewed and compared to the original dataset to ensure that there was an accurate representation of the data. During this step in the process a check against the data was conducted.

e. Themes were then defined and named, and a final list of themes were produced. The succinct list of themes aligns with the data gathered and is an accurate representation of the data.
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