Academic Success and Student Development in the Health Professions: An Action Research Study

Molly Ellen Higbie

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ACADEMIC SUCCESS AND STUDENT DEVELOPMENT IN THE HEALTH PROFESSIONS: AN ACTION RESEARCH STUDY

by

Molly Ellen Higbie

Bachelor of Arts
Western New England University, 2012

Master of Arts
New York University, 2014

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Accepted by:

Suha Tamim, Major Professor

Leigh D’Amico, Committee Member

Dan Friedman, Committee Member

Terrance McAdoo, Committee Member

Cheryl L. Addy, Interim Vice Provost and Dean of the Graduate School
DEDICATION

This dissertation is dedicated to my parents, Lori Andrews, Paul Higbie, and Kay Higbie, who have supported me and instilled in me a love of education and of helping others. They have reminded me to believe in myself and persevere through life’s challenges, including the many sleepless nights of writing this paper. To my fiancé, Pete, for being my cheerleader through this process. To my advising team for their patience and support for this project and their dedication to helping our students. To my teachers and advisors for sharing their passion for student success with me, especially my fifth-grade teacher who inspired me with her love of grammar, Cornell method note-taking, and weird words and made our class promise to dedicate an accomplishment to her- I am finally living up to my end of the deal. I owe it all to my fifth-grade teacher, Mrs. Jeansonne.
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To my dissertation chair, Dr. Tamim, thank you for your countless hours of encouragement, patience, and feedback. I could not have made it to the finish line without you.

To my colleagues turned friends, Dr. Bronwyn Cross-Denny, Dr. Christina Gunther, and Dr. Gail Samdperil who pushed me to enroll in this program, listened to my ideas, and talked me off the ledge many times. Thank you for leading by example and showing me how to be a strong, smart, and caring woman in academia.
ABSTRACT

The first year of college is a time of challenging transition for many. Students are adapting to a new way of learning as well as developing as adults. Using a mixed methods design, this action research study aimed to provide insight into the student experience for academically at-risk first-year students in a health professions program at a mid-size university in New England. Quantitative data showed that most students’ academic performance met or exceeded the minimum requirement for their major with support from their advisor through this intervention. Further, quantitative data showed that student development did occur for participants. Qualitative data allowed for a deeper understanding of the participants’ experience. Through student reflection activities, it was evident that executive functioning skill development, relationship building, and self-awareness are important components of personal development and academic achievement. An action plan was developed to suggest steps for moving forward following this study. Additional research is needed to understand the long-term effects of this intervention. Further, a deeper investigation into academic advisor training and development can improve the understanding of the impact of academic advisors on student success.
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LIST OF ABBREVIATIONS

CHP ................................................................. College of Health Professions
CMD ................................................................. Communication Disorders
EX ................................................................. Exercise Science
HPUN ........................................................ Health Professions Undeclared
HS ................................................................. Health Science
CHAPTER 1
INTRODUCTION

When entering college, students are flooded with emotions, challenges, and opportunities. First-year students arrive on campus with messages from parents, high school teachers, and guidance counselors that say, “once you are a college student you are on your own!” or “your professors will not be there to hold your hand in college!” This leads to students feeling that they must figure everything out alone and that they cannot ask for help.

In addition to the challenge of navigating a new living environment and social experience, first-year students are challenged with new learning demands and strategies (Cameron & Rideout, 2020). In high school, students are often taught material and are expected to memorize the information for an exam. When entering college, students are taught material and expected to apply the concepts to show their understanding. Students are expected to be self-directed learners but are not always shown how to do so. The development of critical thinking skills is stressed within the higher education environment (van der Zanden et al., 2019). This new way of learning can be challenging to adapt to within the first year. Students must work on learning how to learn, rather than how to memorize. Without these skills, students struggle academically and sometimes do not persist beyond their first year.

Beyond personal student success, struggling to thrive academically has implications for a higher education institution. Retention rates significantly impact the
finances of a higher education institution. When first-year students are unable to persist to their second year, there is a loss of revenue in tuition dollars (van Herpen et al., 2017). Further, student attrition reflects negatively on the institution’s ability to support student success. This could lead to a decline in new applicants for future first-year student classes.

Across the country and around the world, supporting first-year students academically and socially as they transition from high school to college is seen as a key priority. Areas of focus include academic mindset, academic perseverance, learning strategies, social skills, and academic behaviors (Breso et al., 2011; Farruggia et al., 2018; Walton & Cohen, 2011). Institutions commit substantial resources to student success and retention because of the overwhelming rates of student attrition. Snyder et al. (2018) found that in the 2014-2015 academic year four-year public degree-granting institutions spent an average of $2,813 on academic support and $1,649 on student services per full-time student. While these high amounts would indicate that these interventions are worthwhile, Mayhew et al. (2016) note the effectiveness seems to vary.

Schudde and Scott-Clayton (2016) found that 20% of first-year students in the United States in 2012 received a college GPA below 2.0, the typical threshold for academic probation. These students then find themselves at risk of dismissal from the institution. To address this concern, colleges and universities implement various interventions. Bowman et al. (2020) found more efficacy in simple interventions such as brief goal-setting meetings with pre-existing academic advisors. Others found success in more complex interventions such as student success courses, workshops, and peer mentor
programming (Bowman, et al., 2020; Gauthier, 2016). It is important to address the needs of the individual student at specific institutions.

Although there is little consensus on how interventions should be implemented, Mayhew et al. (2016) show the importance of supporting first-year students through their transition to improve persistence. Further evidence is needed to address the mental health needs of students and the impact on their learning. Interventions such as individual advising, student success courses, workshops, and peer mentoring programs have proven to have varying effects on the success and persistence of first-year students in colleges and universities (Bowman, et al., 2020; Gauthier, 2016).

In the College of Health Professions (CHP) at New England Catholic University (pseudonym), we try to dispel the myth that students must figure it all out without help from faculty and staff. During orientation and the months leading up to the fall semester, we assure students that faculty are here to help them navigate course material, office hours are there to be used, and staff members care deeply about student success. We provide students with peer mentors and explain how to work with a tutor or submit a paper to the online writing lab. However, there are consistently students who fall through the cracks because they are afraid to ask for help. Many times, these students are the first in their family to attend college or they are academically or socially underprepared and are in need of remediation. We are seeing this even more as we understand the lasting effect of the COVID-19 pandemic on social and academic development of students.

While our aim is to reach all students and support their success as they transition from high school to college, it can be challenging when tracking over 300 first-year students. First-year students within CHP have one academic year (two semesters and one
winter session) to meet the requirements to declare one of the three undergraduate majors: Communication Disorders, Exercise Science, and Health Science. If a student is unable to declare one of the three majors, they are moved to the College of Arts and Sciences at the close of the spring semester. Should they meet the requirements to declare in the future, they are welcome to do so. The requirements to declare each of the undergraduate majors include coursework in the natural sciences with laboratory instruction, introductory courses for each major, and a GPA requirement. Communication Disorders students must earn an overall GPA of 3.0 or higher by the end of their first year. Exercise Science students must earn an overall GPA of 2.5 or higher by the end of their first year. Health Science students must earn an overall GPA of 2.7 or higher by the end of their first year.

Unfortunately, students are not always successful in meeting the academic demands of their intended major. If students are identified as at-risk by their faculty early enough in their first semester, this can be addressed and supported. However, many times students are not identified early enough and do not know how or where to ask for help when they are struggling. These are the students that end up on academic probation for their second semester and usually fall behind in their course sequencing for their intended major of study or worse, end up leaving the University all together.

The current process to identify at-risk first-year students begins in December, when final grades for the fall semester are posted. Students are evaluated on their GPA as well as grades in key pre-requisite courses such as intro major courses, biology and lab, precalculus, and introduction to psychology. When a first-year student earns a GPA below 1.8, they are placed on academic probation. First-year students with a GPA of 1.9-
2.4 as well as students who do not pass a major required course at the end of the fall semester are notified that they are not meeting requirements to declare their major. Additionally, students on probation and with a GPA below 2.2 are enrolled in a supplementary success course and coached by an academic advisor during the Spring semester. At this point, it might be too late to turn around a low GPA or too challenging to make up for inadequate coursework. More must be done in the first fall semester to intervene and support struggling first-year students.

Through this action research study, I explored the needs of first-year students within College of Health Professions (CHP) at New England Catholic University. I utilized existing structures established within CHP and the University as well as adding new, earlier interventions and supports specifically designed for first-year students to decrease the number of first-year students on academic probation and unable to declare a major within CHP.

**Theoretical Framework**

College student development occurs throughout the matriculation of an undergraduate student. First-year students experience considerable growth, but need guidance and support from faculty, advisors, and administrators. Further, academic success must include the development of the whole person (Kuh et al., 2005). Arthur Chickering’s Theory of Identity Development will provide a framework for this study. Chickering’s theory is comprised of seven vectors, or tasks, which serve as the developmental projects faced by undergraduate students (Chickering, 1969). Each vector typically requires repeated exposure to appropriate developmental supports over one or more years (Chickering, 1969). Progress through the vectors is not linear. Students can
cycle through each vector multiple times as needed, building on skills each time (Wise, 2017). Further, the vectors are not age-specific, however most students experience the tasks during their first-year of college. The seven vectors are described below:

1. Developing Competence: Intellectual competence is a primary goal of the college experience. This vector additionally includes physical and interpersonal competence.

2. Managing Emotions: As students move from adolescence to adulthood, they must learn how to manage emotions such as anger and frustration.

3. Moving Through Autonomy Toward Interdependence: Being able to take care of oneself, both emotionally and practically, is critically important to growing up and becoming independent from one’s family of origin.

4. Establishing Identity: Defining oneself during the college years feels more urgent than at other points of life.

5. Freeing Interpersonal Relationships: This three-part vector begins when a student moves from valuing relationships based on need to valuing differences in people. Next, the student learns how to negotiate the differences. Finally, the student begins to understand the need for inter-dependence and seeks mutual benefit from relationships.

6. Developing Purpose: The student identifies their career and life goals and makes appropriate choices to achieve those goals.

7. Establishing Integrity: This challenging vector is achieved when the student is able to shift from a rigid value system to a more balanced value system where
the interests of others are aligned with the interests of self (Chickering & Reisser, 1993).

This study focused on the first three vectors: developing competence, managing emotions, and moving through autonomy toward interdependence. Attempting to cover each of the seven vectors within half of a semester would not provide the appropriate amount of support for students to progress through each stage. Focusing on the first three vectors set the students up for success as they moved into their second semester. The intervention provided intentional programming aligned with each of the first three vectors to support academically at-risk first-year students in their identity development in order to promote academic success.

**Purpose of the Study**

The purpose of this study was to explore how best to support the academic success of struggling first-year students within the College of Health Professions at New England Catholic University. Undergraduate students face immense pressure from both internal and external factors as they develop their personal and academic identities. The goal of the study is to identify strategies for student academic success while promoting student growth and development.

In this action research study, first-year students within CHP received both active and passive programming through individual academic coaching and email newsletters. These interventions utilized preexisting supports within the University as well as expanded offerings from the academic advising team intended to increase student persistence and success.
Significance of the Study

Action research was selected for this study in order to review and improve my own practice in supporting first-year students as they transition from high school to college. Strategies for supporting first-year students are largely debated amongst practitioners and researchers (Cameron & Rideout, 2020; Farruggia et al., 2018; Mayhew et al., 2016; Naylor, 2017). In addition to improving my own practice, this study aims to add to the literature on this topic. Although action research is not intended to be generalizable, this study could help to inform the practice of other higher education professionals working with first-year student populations (Efron & Ravid, 2020).

Research questions

The research questions that guided this study were:

1. What is the impact of a proactive intervention on academic achievement for academically struggling first-year students in a health professions program?
2. What is the impact of a proactive intervention on students’ identity development in Chickering’s first three vectors for academically struggling first-year students in a health professions program?
3. What skills do academically struggling first-year students in a health professions program find most useful when improving their academic performance?
4. What are the main factors that contribute to academically struggling first-year students’ identity development?
5. What role does an academic advisor play in the identity development of an academically struggling first-year student?

**Positionality**

As the Executive Director of Student Success and Engagement for the College of Health Professions, I am an insider to this study in collaboration with other insiders at the University (Herr & Anderson, 2015). Herr and Anderson (2015) assert that insiders use action research with the aim of improving their own practice “from the inside out” (p. 38). In this position, I support students’ academic and social success across the undergraduate years, and primarily focus on first-year student support. I also supervise the academic advisors who will be implementing the intervention in the study. I hope to use this study to improve my own practice of supporting first-year students as well as the programs offered by the College. Other collaborators will include academic advisors and faculty members. I plan to join with these individuals as “action research is best done in collaboration with others who have a stake in the problem under investigation” (Herr & Anderson, 2020, p.). The academic advisors within the college implemented the intervention and served as an academic coach for the students. I also needed to collaborate with faculty to understand students’ performance in the classroom.

Supporting the development and academic success of first-year college students has long been a passion of mine. As an undergraduate student, I was involved in a peer advising and mentoring program my Junior and Senior years where I advised and supported a case load of 40-45 first-year students throughout their transition from high school to our university. In this role, I first experienced the impact of student development theories such as Chickering’s Theory of Identity Development on the
growth of first-year students. I further became passionate about the academic success of first-year students when I worked as a writing tutor and first-year seminar assistant. Combining these interests led me to pursue a master’s degree in Higher Education and Student Affairs. My professional roles since graduating have included supporting students in their success both academically and socially.

I was fortunate to have a smooth and successful transition from high school to college. I felt prepared by my high school education to tackle the challenges of higher education. Learning came naturally to me. Not all students enter college prepared for the rigor of higher education. As the support to these students, it is important that I take into consideration their struggles and understand that there are many learning styles and levels. It is critical to avoid making assumptions with students, as it can be easy to think a student does not care about their schoolwork when it is possible they are struggling with personal issues, a learning disability, or executive functioning skills. It will be important to get to know each student to identify the supports necessary for their individual success. My experience and desire for the study to be successful could lead to bias within the study, however I recognize this possibility.

Research Design

This study was conducted using action research. Efron and Ravid (2020) define action research as different from traditional educational research because it is “constructivist, situational, practical, systematic, and cyclical” (p. 7). The goal of action research is to improve one’s own practice (Efron & Ravid, 2020). This study was used to improve the practice of academic advising for first-year students within the College of Health Professions at a mid-size, private university in New England.
A mixed methods research design was used to collect data for this study. Using both qualitative and quantitative data allowed for a richer understanding of the first-year student experience (Ivankova, 2015). Creswell et al. (2011) assert that mixed methods research is beneficial for studies exploring “real-life contextual understandings, multi-level perspectives, and cultural influences” (p. 4). Through this study, I aimed to understand the struggling first-year student’s academic experience as well as their identity development, therefore qualitative data was useful. Additionally, I hoped to use targeted interventions for academically struggling students. To measure the intervention’s effectiveness, quantitative data of student grades was collected and analyzed.

**Research Site**

The research site for this study was a mid-sized, private, Catholic university located in a suburban area of New England. The campus was a rapidly growing combination of residential and academic buildings located outside of a small city. The campus property within the state sat on 311 acres plus an international campus in Europe. Program participants were students within one of six colleges within the University, the College of Health Professions. The University had 10,756 total students: 6,506 undergraduates, and 4,250 graduate students. There was a 14:1 student to faculty ratio and the average undergraduate class size was 24.

**Participants**

Participants of this study were first-year students within the College of Health Professions who were failing one or more classes at the midterm of their first semester. Participants were working towards matriculation in one of three undergraduate programs within the College: Communication Disorders, Exercise Science, or Health Science.
All first-year students entering the College of Health Professions must meet certain minimum requirements within their first academic year before declaring their major. Until students can officially declare, they are labeled “Health Professions Undecided” or HPUN. Requirements for declaring each major are detailed in Table 1.1.

Table 1.1

*Major Declaration Requirements for HPUN Students*

<table>
<thead>
<tr>
<th>Intended Major</th>
<th>Minimum Cumulative GPA</th>
<th>Course</th>
<th>Minimum Course Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>Communication</td>
<td>3.0</td>
<td>CMD 200 Introduction to Communication Disorders</td>
<td>C</td>
</tr>
<tr>
<td>Disorders</td>
<td></td>
<td>CMD 201 Introduction to Communication Disorders Lab</td>
<td>C</td>
</tr>
<tr>
<td></td>
<td></td>
<td>BI 111 Concepts in Biology I</td>
<td>C</td>
</tr>
<tr>
<td></td>
<td></td>
<td>BI 113 Concepts in Biology I Lab</td>
<td>C</td>
</tr>
<tr>
<td></td>
<td></td>
<td>PS 110 Introduction to Psychology</td>
<td>C</td>
</tr>
<tr>
<td></td>
<td></td>
<td>EX 100 Introduction to Exercise Science</td>
<td>C</td>
</tr>
<tr>
<td>Exercise Science</td>
<td>2.5</td>
<td>BI 111 Concepts in Biology I</td>
<td>C</td>
</tr>
<tr>
<td></td>
<td></td>
<td>BI 113 Concepts in Biology I Lab</td>
<td>C</td>
</tr>
<tr>
<td></td>
<td></td>
<td>BI 112 Concepts in Biology II</td>
<td>C</td>
</tr>
<tr>
<td></td>
<td></td>
<td>BI 114 Concepts in Biology II Lab</td>
<td>C</td>
</tr>
<tr>
<td>Health Science</td>
<td>2.7</td>
<td>HS 200 Introduction to Healthcare and Health Professions</td>
<td>C</td>
</tr>
</tbody>
</table>

First semester first-year students are enrolled in a combination of university foundational core courses and required major courses. HPUN students who earn one or more failing grades in a major required course at the midterm of their first semester will be selected for participation in this study.
Data Collection Instruments

Five instruments were used to collect data for this study. Two instruments were used for quantitative data and three instruments were used for qualitative data. First, the University’s internal reporting service was used to collect quantitative data on students’ midterm and final grades to measure participants’ academic achievement. Second, a pre- and post- self-assessment was used to measure participants’ identity development. Next, individual student reflections collected during the intervention and semi-structured interviews at the end of the intervention were used to understand participants’ experience. Finally, a focus group was conducted to understand the academic advisors’ role in the intervention.

Data Collection Methods

Quantitative data will be collected to understand the effectiveness of programming. Participants midterm grades were collected pre-intervention and final grades were collected post-intervention. The primary data source for these grades was the University’s internal reporting service available to administrators. Students who were failing one or more classes at the midterm were invited to enroll in the intervention. A letter grade of C is the minimum passing grade for major courses. Following the intervention, final grades and GPAs of program participants were collected. Additional quantitative data was collected from a pre- and post-intervention self-assessment developed by Skip Downing (2017), comprised of 64 questions aligned with qualities and skills necessary for student success. Following the completion of the intervention, participants completed the self-assessment again to confirm or reject evidence of growth.
Qualitative data was collected through individual semi-structured interviews of participants and participants reflections throughout the intervention. The semi-structured interview questions asked participants about their experience at the completion of the intervention. Interviews were planned to take place before final exams. Participant reflections were collected throughout participation in the intervention. All student identifying information was removed to protect anonymity and limit researcher bias during analysis. Finally, a focus group with the academic advisors implementing the intervention was conducted to understand their role in the participants’ development.

**Data Analysis**

I used a convergent mixed methods study design. Herr and Anderson (2015) assert that qualitative “data analysis takes place throughout the data-gathering process and informs the ongoing intervention” (p. 103). Therefore, I collected qualitative data throughout the second half of the fall semester and analyzed it continually throughout the intervention. Both quantitative and qualitative data was organized by research question and analyzed to determine the change effect of the intervention.

Pre- and post-intervention quantitative data collected was reviewed for any significant change. All semi-structured interviews were transcribed. Then, the transcriptions and participant reflections were stored in password protected files on Sharepoint. I used Quirkos software to code words and phrases from collected qualitative data. The coded data were organized into categories and reviewed for patterns and themes. Finally, results of quantitative and qualitative data were compared.
Limitations

There were limitations to this study. Herr and Anderson (2015) remind us that “if a researcher is studying a program that is his or her ‘baby,’ then the tendency for self-promotion may be too great to overcome” (p. 42). Since the intervention that was used is my own creation, I needed to ensure I focused on the purpose of the study to improve the program’s effectiveness.

An additional potential limitation is the effect of COVID-19 on the participating students. The students in this study had their final two years of high school in online and blended formats due to the pandemic. This could skew their experience of transitioning into the college classroom as they now must transition from high school to college but also online or blended learning to fully on-ground learning.

Organization of Dissertation

Following this chapter will be a literature review on first-year student experience and academic support. Chapter three will share the methodological design and data collection methods for this study. Chapter four will discuss the research findings. Chapter five will conclude with an action plan, implications and recommendations based upon the research findings.

List of Definitions

Below is a list of terms relevant to this study:

*Academic advising* is a process of teaching and learning that is integral to the mission of higher education and supports student growth and development (Gordon et al., 2008).

*At-risk students* are described as limited in academic learning competencies (Korhonen & Rautopuro, 2019).
Attrition “is the diminution in numbers of students resulting from lower student retention” (Hagedorn, 2006, p. 6).

Matriculation is defined as enrollment at a university (Earl, 2020).

Midterm can be defined for this study as the halfway point of the first semester of study.

Retention is the “continued enrollment of a student from the first-year to second year” (Burke, 2019).

Student Engagement is the involvement of a student within higher education that leads to higher retention rates for an institution (Tight, 2019).
CHAPTER 2
REVIEW OF THE LITERATURE

The support of first-year students as they transition from high school to college as a function of the university has grown in popularity since the 1980s (Stuart Hunter, 2006). Programming such as the First Year Experience, First Year Seminar, and expanded orientation offerings are now almost expected components of student support services while older students might have heard that their neighbor would not make it through their first-year at opening convocation (Stuart Hunter, 2006). Buzzwords such as retention, engagement, and persistence overtake department meetings and published pieces alike. What is thought to be the birthplace of first-year experience programming, The University of South Carolina created a National Resource Center for the First-Year Experience and Students in Transition to support these endeavors and the educators who are tasked with implementing them on campus.

The problem of practice I address in this study is the academic supports for academically at-risk first-year students in the College of Health Professions at New England Catholic University through academic advising. Globally, there is increasing pressure to support first-year students both academically and socially throughout their transition from high school to college. Common topics these programs focus on include learning strategies, time management skills, adjusting to the culture of college, and developing social skills (Breso et al., 2011; Walton & Cohen, 2011; Farruggia et al., 2018). These programs take significant monetary resources as well as human resources to
implement successfully. Additionally, there is no one-size-fits-all curriculum for how these programs should be implemented (Mayhew et al., 2016). Interventions such as individual and group academic advising, personal academic coaching, student success courses, workshops, and peer mentoring programs have varying effects on the success and persistence of first-year students in colleges and universities (Bowman, et al., 2020; Gauthier, 2016).

To address this problem, an advising curriculum for academically at-risk students was implemented. Students were identified at midterm of their first semester for participation in this curriculum. Identified students worked with a dedicated academic advisor individually throughout the remainder of the semester. They also received passive programming through email communications. Individual advising material included time management and study strategies, goal setting, and discussions about adjusting to the rigors of a college program.

The aim of this study was to explore the needs of academically at-risk first-year students within College of Health Professions (CHP) at New England Catholic University. The research questions that guided this study were:

1. What is the impact of a proactive intervention on academic achievement for academically struggling first-year students in a health professions program?

2. What is the impact of a proactive intervention on students’ identity development in Chickering’s first three vectors for academically struggling first-year students in a health professions program?
3. What skills do academically struggling first-year students in a health professions program find most useful when improving their academic performance?

4. What are the main factors that contribute to academically struggling first-year students’ identity development?

5. What role does an academic advisor play in the identity development of an academically struggling first-year student?

This chapter will review current literature on student success programming and academic support for first-year students in higher education. Examples of current and historical trends in first-year student support will be explored to understand successful interventions as well as areas for improvement. An examination and critique of current student support models will be explored through this discussion. Next, I will show gaps in the literature which this study aims to fill. Finally, I will provide a justification for grounding the study in Chickering’s Theory of Identity Development (Chickering & Reisser, 1993).

A review of the literature identified several themes. Keywords were used in a search including first-year student, student success, academic advising, first-year experience, student support, retention, student engagement, student identity development, and student attrition in databases from University of South Carolina Library including ERIC, Academic Search Premier, JSTOR, Academic Search Complete, and Google Scholar. Peer reviewed journal articles and book sources were collected for this review. A literature review should provide a basis for building the proposed research (Machi & McEvoy, 2016). The goal of this literature review was to collect scholarly information on
current programming for first-year students, particularly those who are identified as academically at-risk. This literature review further identified gaps in the research available for the support of this population of students. This review also provided evidence to support the need for a specialized advising curriculum for academically struggling first-year students in CHP at New England Catholic University.

**Theoretical Framework**

Student development theories abound in the literature (Abes et al., 2019). Each provides a unique focus for implementing student support programming in higher education. These theories guide higher education and student affairs practitioners as they work with college students (Patton et al., 2016). Many student development theories emerged from direct research on college students, however earlier theories developed from academic fields such as psychology and sociology (Renn & Reason, 2013). Regardless of the programming, grounding any student support initiative in student development theory is critical. There is, however, a disconnect between theory and practice among student affairs professionals and researchers (Vander Schee, 2007).

Change Model and Sanford’s (1962) Challenge and Support Theory focus on the impact of environment on student development.

Practitioners utilize these theories to develop curricula and programming to support students’ intellectual growth and self-efficacy as it related to student persistence and academic success and explore changes in behavior of college students (Friedman & Mandel, 2009; Patton et al., 2016).

**Theory of Identity Development**

Arthur Chickering’s Theory of Identity Development provided a framework for this study. Chickering’s theory is comprised of seven vectors, or tasks, which serve as the developmental projects faced by undergraduate students (Chickering & Reisser, 1993). Each vector typically requires repeated exposure to appropriate developmental supports over one or more years (Chickering & Reisser, 1993). Further, the vectors are not age-specific, however most students experience the tasks during their first-year of college. The seven vectors are:

1. Developing Competence: Intellectual competence is a primary goal of the college experience. This vector additionally includes physical and interpersonal competence.
2. Managing Emotions: As students move form adolescence to adulthood, they must learn how to manage emotions such as anger and frustration.
3. Developing Autonomy: Being able to take care of oneself, both emotionally and practically, is critically important to growing up and becoming independent from one’s family of origin.
4. Establishing Identity: Defining oneself during the college years feels more urgent than at other points of life.

5. Freeing Interpersonal Relationships: This three-part vector begins when a student moves from valuing relationships based on need to valuing differences in people. Next, the student learns how to negotiate the differences. Finally, the student begins to understand the need for inter-dependence and seeks mutual benefit from relationships.

6. Developing Purpose: The student identifies their career and life goals and makes appropriate choices to achieve those goals.

7. Establishing Integrity: This challenging vector is achieved when the student is able to shift from a rigid value system to a more balanced value system where the interests of others are aligned with the interests of self (Chickering & Reisser, 1993).

Chickering’s (1969) seminal work is looked to as a cornerstone of student development theory, sparking decades of follow up research, including a follow up in the second edition of *Education and Identity* in 1993. Davis (2019) discusses the impact of Chickering and Reisser’s work in the development of student affairs programming and research. The theory is used in numerous conceptual frameworks for studies aiming to understand practical strategies for student affairs practice (Davis, 2019). Among the most valuable outcomes of Chickering’s work is the shift from viewing students’ personal development separate from career and cognitive development to viewing the students’ humanity as a whole (Davis, 2019).
This study focused on the first three vectors: developing competence, managing emotions, and moving through autonomy towards interdependence. While Chickering and Reisser (1993) state that development is not linear, it is also noted that knowledge and skills from each vector build on each other. More specifically, vectors one and two build to support development in vector three (Chickering and Reisser, 1993). Attempting to cover each of the seven vectors within half of a semester would not provide the appropriate amount of support for students to progress through each stage. Focusing on the first three vectors set the students up for success as they moved into their second semester. Each of the three vectors were addressed during different stages of the intervention.

The original goal of Chickering’s theory was to provide a framework for intentional design of programming for college students (Wise, 2017). In that vein, the intervention provided intentional programming aligned with each of the first three vectors to support academically struggling first-year students in their development in each vector to promote academic success.

Chickering and Reisser (1993) view competence in three parts: intellectual, physical, and interpersonal. All three components can be developed when a student has the confidence to achieve goals successfully (Chickering & Reisser, 1993). Liversage et al. (2018) find that when students develop general competence it leads to a greater overall sense of confidence in their abilities. Therefore, students must be supported in developing skills to think critically, attend to their physical wellness through recreation and art activities, and work effectively with others.
For the second vector, managing emotions, Chickering and Reisser (1993) assert the importance of recognizing and accepting emotions. This vector was updated in 1993 from the original publication to include anxiety, depression, and anger as well as caring, inspiration, and optimism (Patton et al., 2016). The transition from high school to college poses new challenges for students, such as living away from home and sharing living space with strangers as well as academic challenges. The literature shows a troublesome theme of student physical and mental health concerns during this period of change (Auerbach et al., 2019; Haktanir et al., 2021; Ray et al., 2019; Son et al., 2020; Shim et al., 2017). This is also a timely area of focus, as the COVID-19 pandemic has pushed mental health into the spotlight, especially for college students. Son et al. (2020) find that 71% of 195 students surveyed shared they feel an increase in stress and anxiety due to COVID-19.

The third vector Chickering and Reisser (1993) discuss results from increased emotional independence. Moving through autonomy towards interdependence begins when students are able to problem solve independently, ask for help when needed, and develop lasting relationships with friends, faculty, and staff. (Chickering & Reisser, 1993). This is an ideal vector for a student to work towards and through at the end of their first semester of college into their second semester. Moving towards interdependence allows for a successful second semester and subsequent years in higher education. Students feeling connected to their institution and their confidence in their ability to navigate the academic and social demands of college contribute greatly to their overall success (Melguizo et al., 2021).
While Chickering and Reisser (1993) provide direction for supporting student development in their acclaimed theory, there are gaps that should be mentioned. Reisser (1995) notes that Chickering’s original theory is limited because it is based on traditionally aged college students in small liberal arts institution. Further, the original theory does not explore gender differences (Davis, 2019). In the revision, both of these gaps are considered. Additionally, there is no discussion of the impact of race or oppression in the development of identity (Foubert et al., 2005).

Student development is a process that occurs throughout the higher education experience. It should not be separated from academic success. This study will examine student identity development and academic success in the first semester of a student’s time at New England Catholic University. If students are to develop throughout their experience, they must be provided with supports and programming that encourages this growth.

**Historical Perspective**

Intentional support specifically for first-year students in higher education is thought to have begun at University of South Carolina in the University 101 course in 1970 (National Resource Center for The First-Year Experience and Students in Transition, n.d.). Now virtually every institution has a program dedicated to the support of first-year students and their transition from high school to college. Dungy and Gordon (2011) aptly state:

> [A]lthough the conversation still continues today, student affairs educators must be concerned with the learning and success of the students in their charge: the
education of the whole student is still at the forefront of the daily work on campus. (p. 68)

While much of the college landscape has changed, the focus on student support remains a critical component of the student experience.

Between 1950 and 1970, administrations turned their focus towards attrition rates of first-year students by creating advising programs, teaching and learning centers, and expanding existing student services (Thelin, 2011). Pressure from the federal government beginning in 1972 to increase commitment to social justice and educational opportunity, threatened funding for higher education institutions that had poor retention and graduation rates (Thelin & Gasman, 2011). Thelin (2011) explains that federal funding was intended to support first generation and low-income students in higher education. This population also required additional support services at the college level. Therefore, institutions quickly realized in order to maintain their funding, they would have to spend money on programs designed to support student success (Thelin & Gasman, 2011). In addition to individual institution supports, national organizations were created to guide student affairs educators and higher education administrators.

The American College Personnel Association (ACPA) and National Association of Student Personnel Administrators (NASPA) were created in 1931 and 1953, respectively (Dungy & Gordon, 2011). At the time of the formation of these associations, segregation and the exclusion of women in higher education led to the development of the National Association of Deans of Women and Advisors of Girls in Colored Schools (DOWA) in 1929, National Association of Deans of Men in Negro Educational Institutions (DOMA) in 1935 (Dungy & Gordon, 2011). These associations merged to
form the National Association of Personnel Workers (NAPW) in 1954 and was later renamed National Association of Student Affairs Professionals (NASAP) which now has strong ties with NASPA (Dungy & Gordon, 2011). Love and Maxam (2011) discuss the National Academic Advising Association (NACADA) and their development of standards for the profession, citing the importance of advising for student development. NACADA was developed following the first academic advising conference in 1977 (NACADA, n.d.). Dungy and Gordon (2011) also discuss the development of The Council for the Advancement of Standards in Higher Education (CAS) in 1979 to guide the work of student affairs educators as well as the assessment of programs supporting college students. In addition, the National Survey of Student Engagement (NSSE) was developed in 1998 based upon the higher education reports of the 1980s (Longerbeam, 2016).

Today, there are numerous graduate programs dedicated to the support of undergraduate student development (Thelin, 2011). Annual conferences from organizations such as NASPA and ACPA provide up-to-date information on best practices in student affairs and development for practitioners and educators. While these supports are in place, information must be individualized to the needs of institutions and their student populations.

**Supporting Students Academically At-Risk**

Academically at-risk students come to higher education from various backgrounds and at varying levels of college readiness. Providing intentional support to these students early in their academic careers could allow for improved success throughout their college experience.
Engle and Tinto (2008) assert that 43% of low-income and first-generation college students do not earn a degree. Additionally, 60% of those students who left higher education without a degree withdraw after their first year (Engle & Tinto, 2008). Schademan and Thompson (2016) found that much of the college student population is first-generation, however, they have a significantly lower retention rate compared to their peer groups. Yee (2016) discusses the concern that while first-generation enrollment numbers are growing, students whose parents attended college continue to earn higher grades and graduate at higher rates.

Further, Thelin (2011) states, “although a student may have received an A in high school calculus, the frequent dilution of the high school curriculum provided no assurance that a student had the prerequisite knowledge a university mathematics instructor presumed” (p. 330). Students come to college with varying levels of readiness for the rigor of higher education. Lane et al. (2020) discuss the mismatched expectations between high school and higher education. Harper and Associates (2014) share results of a study of Black and Latino males in New York City high schools where most self-reported not studying at all during the week, a vast difference from the 13–14-hour average for first-year college students at 4-year institutions (Kuh, 2007). Harper and Associates (2014) further shares the participants felt they did not require studying on their own because they completed homework assignments during school hours, listened during class periods, and took notes during lectures. This is simply not enough to succeed in higher education. Setting clear expectations for first-year students is necessary as a first step toward student success, particularly for those at-risk academically.
Casanova et al. (2021) assert the critical need for institutions to view academic success beyond achievement in the classroom and engage in practices that promote students’ psychosocial development and well-being. Further, the ability to monitor students’ exhaustion and dissatisfaction using screening instruments could support practitioners in identifying at-risk students. Wilson et al. (2019) aim to understand the specific factors that contribute to student success and retention. The study examines the possibility of predicting student success based on students’ self-report of academic skills, resiliency, personality variables, emotional intelligence, and perfectionism (Wilson et al., 2019). Wilson et al. (2019) find a positive correlation between GPA and perfectionism as well as a negative correlation between an extraverted personality trait and GPA. Additionally, there is no significant impact of resiliency factors on GPA, however the findings indicate when resiliency is grouped with other factors there may be a positive correlation on GPA (Wilson et al., 2019). While personal factors largely impact student success, institutional factors also contribute to persistence.

**Related Research**

While the initial discussions of first-year student support began in the 1920s, studies and exploration surrounding academic advising and support of first-year students as well as retention are prolific in the recent literature. Further, discussions of student development, particularly student identity development continue to flood higher education educators’ and student affairs practitioners’ research. Both in the United States and globally, first-year student support and retention are at the forefront of research and practice (Espinoza & Genna, 2018; Fletcher & Tokmouline, 2017; Sneyers & DeWitte, 2018; Wibrowski et al., 2017). An additional area of exploration for researchers and
practitioners alike is academic advising and the role of the academic advisor in student success and retention (Elliott, 2020; Gordon, 2019; McGill, 2021; Mu & Fosnacht, 2019; Vianden & Barlow, 2015).

To explain the importance of these areas, a review of the literature for these topics was conducted. This includes student identity development, academic advising, and first-year student programming.

**Student Identity Development**

Discussions of college student identity development take place domestically and globally. Research on various student populations in the higher education context throughout the world show the importance of engaging on campus in both academic and co-curricular programming to allow students the opportunity for development (Ding & Curtis, 2020; Godwin & Kirin, 2020; Liversage et al., 2018). Jones and Stewart (2016) explore the shift in student development theory in the United States. The authors discuss the importance of the foundational theories and student development concepts that shape the history of the student affairs profession while raising the need for adjustments and improvements (Jones & Stewart, 2016). The new perspectives in student development theory require a continued commitment to interdisciplinary research and practice in United States higher education. This work is being explored further in institutions around the world.

Jensen and Jetten (2016) conduct an interpretative phenomenological analysis of Australian and Danish university student interviews about their educational experience. Utilizing in-depth personal interviews, the researchers explore areas of academic and professional identity in university students. From their interviews, the researchers share
four themes: “academic and professional identity development as a parallel
developmental process, entering higher education as an identity transition, descriptions as
future professional and loss of goal-orientation, experiences related to lacking
professional identity, and educators’ role in professional identity formation” (Jensen &

Jensen and Jetten’s (2016) study affirmed the complicated process of growing
academically and personally while students are enrolled in higher education. The growth
process must involve both the development of an academic identity or feeling of
belonging at the institution and a professional identity or how the student sees themself in
the future (Jensen & Jetten, 2016). This process begins immediately upon entering
college or university (Jensen & Jetten, 2016). These findings are further supported by
Kahu et al.’s (2020) study of student engagement and self-efficacy in the university
setting.

Kahu et al. (2020) conduct an empirical study using qualitative data collected
from 19 first-year university students in Australia. Kahu et al. (2020) find that both
personal and institutional factors influenced both positive and negative student self-
efficacy throughout the first-year of enrollment. Students increase their positive self-
efficacy when they are involved in both academic and co-curricular activities that
reinforced their confidence (Kahu et al., 2020). Further, the study finds that struggling
academically does not only lead to lower self-efficacy but also emotional well-being
concerns such as anxiety (Kahu et al., 2020). The researchers’ study confirms the
importance of student engagement for success and development while enrolled in higher
education (Kahu et al., 2020).
There are limited recent studies on this topic in the United States education system. Further research can be done to explore and update findings in previously conducted studies. This action research study can add to the current literature on student identity development in the United States higher education context.

**Academic Advising**

Academic advising is thought of as a critical component of student success, persistence, and engagement. Across institutions, academic advising takes various forms but is consistently utilized from the first year through graduation (Mu & Fosnacht, 2019). Academic advising is a partnership between student and advisor to support students in successfully matriculating and graduating while also creating goals and discussing options for the future (Fosnacht et al., 2017; Mu & Fosnacht, 2019). A student’s relationship with their academic advisor can also create a connection to the institution (Fosnacht et al., 2017). Snyder-Duch (2018) describes advising as emotional support in addition to academic, while still being separate from counseling. The role of an academic advisor is important and vast as a support system for first-year students.

Vianden and Barlow (2015) adapted a student survey and created the Student University Loyalty Instrument to inventory 1,207 undergraduate students about their experience at and connection to their institution. The researchers found a connection between academic advising, loyalty, and connection to campus (Vianden & Barlow, 2015). In addition to the student experience, Hart-Baldridge (2020) explores the experience of faculty members as academic advisors. Reviewing the experience of faculty academic advisors at a mid-sized, public institution in the Midwest, Hart-Baldridge (2020) utilizes semi-structure interviews to identify the outcomes of faculty engagement
in academic advising. Vianden and Barlow (2015) and Hart-Baldrige (2020) assert that high quality academic advising might influence student outcomes, whether from faculty or professional advisors. These studies strengthen the argument for effective academic advising services, particularly for first-year students. With high-impact practices in advising, students feel connected and supported by their institution and are more likely to succeed. However, a definitive process for academic advising could help institutions in implementing effective practices to support students.

McGill (2021) conducted a grounded theory study to identify a process for academic advising. The researcher conducted interviews with 17 advising professionals and analyzed documents from NACADA to corroborate the study findings (McGill, 2021). Through this study, McGill (2021) developed a substantive theory of the academic advising process. This model consists of four repeating, semi-linear stages, which are cyclical. The first stage is Connecting, when a student connects with an advisor who shows care and empathy for the student. When the advisor and student develop a relationship, the second stage of Synthesizing and Growing begins. During this stage McGill (2021) states, the student works with their advisor to make meaning of their academic and co-curricular experiences. Moving towards student academic identity development, the next stage is Acting (McGill, 2021). In this stage, students work with or without their advisor to engage in informed decision-making. The final stage is Experiencing, where students are able to explore more opportunities that they might not have explored before (McGill, 2021). Then, the process begins again when the student and advisor meet (McGill, 2021). This theory could provide guidance for the development of academic advising programs in higher education.
Academic advising plays an important role in this action research study, as the intervention took place with the students’ academic advisors. As stated, academic advising can support student success which is also a critical component of this study.

**First-year Student Programming**

First-year student programming occurs both inside and outside of the classroom. From orientation to peer mentor programs, to classes and lectures, colleges and universities spend significant funds and human resources to support students throughout their first year in higher education. Higher education institutions and researchers have conducted numerous studies highlighting critical support systems and programming for first-year students (Lakin et al., 2020; Mellor et al., 2015; O’Connell et al., 2019; Stebleton & Diamond, 2018; van der Zanden et al., 2019).

The most popular feature on a college campus is a first-year seminar, which has the goal of making the transition from high school to college smoother (Keup & Young, 2018). The importance of first-year seminars is widely recognized in the literature (Barefoot et al., 2005; Fitzpatrick et al., 2021; Guarneri & Connolly, 2019; Padgett et al., 2013; Reynolds et al., 2019; Upcraft & Gardner, 1989). While the goal of these courses remains similar across institutions, specific implementations vary. Keup and Young (2018) cite the National Resource Center’s categories for first-year seminars as:

(a) extended orientation

(b) academic seminar with uniform content

(c) academic seminar on various topics

(d) preprofessional or discipline linked

(e) basic study skills (p 94).
Keup and Young (2018) discuss the efficacy of the first-year seminar in their chapter “Investigating the First-Year Seminar as a High-Impact Practice” in the book *The First Year of College Research, Theory, and Practice on Improving the Student Experience and Increasing Retention*. While stating the importance of the first-year seminar, Keup and Young (2018) found:

[A]pproximately 40% of seminars are offered for only one credit and/ or as an elective rather than as part of the general education or major requirements, which can marginalize the course and substantially undermine the perception and achievement of quality of effort. (p. 101)

This indicates the need for students to feel invested in the work assigned to them in order to fully value the course materials. Additional studies show positive outcomes for student retention and academic success when students participate in first-year seminars. (Jamelske, 2009; Keup & Barefoot, 2005; Permzadian & Credé, 2016). Permzadian and Credé (2016) provide a quantitative review of the effectiveness of first-year seminars. Utilizing two theoretical frameworks on reducing stress within and supporting the transition and on improving knowledge and motivation, Permzadian and Credé (2016) assert that first-year seminars can positively influence retention and academic performance when they include specific learning objectives and resources. The findings show first-year seminars should provide:

(a) information about the realities of the social and academic demands of college to adjust inaccurate pre-entry beliefs and expectations, (b) assistance in managing adjustment difficulties and entry stress by teaching various coping skills and strategies, (c) information and training in skills that are important for academic
success, and (d) efforts to increase the motivation of students to succeed in college.

(Permzadian and Credé, 2016, p. 285)

Keup and Young (2018) further state that while some research shows what topics should be covered in first-year seminars and how instructors should frame content, there is little research showing what actually takes place in the classrooms. Through this all, the American Association of Colleges and Universities label first-year seminars as one of the ten high-impact practices that should be used to enhance student learning (Keup & Young, 2018). Culver and Bowman (2020) explore the causal impact of first-year seminars on student success using quasi-experimental analyses. Using a large, multi-institutional sample, Culver and Bowman’s (2020) findings provide implications for a larger range of student populations than many previous studies. Through analysis of data collected from students entering college between 2006 and 2008 who attended 49 liberal arts institutions using the Wabash National Study of Liberal Arts Education (WNS), Culver and Bowman (2020) posit that first-year seminar participation is positively and significantly related to both first-year GPA and satisfaction at the end of the first year. However, after a propensity score analysis, only satisfaction is found to be significant after the first year. Further, Culver and Bowman (2020) notice varied implementation methods of first-year seminars across institutions. Because of these differences, Culver and Bowman (2020) infer that first-year seminars’ effectiveness varies. Breaking from pattern found in the literature, Culver and Bowman (2020) find that aside from satisfaction with institution at the end of the first year, there is a lack of positive effect on grades.
An additional, common practice to support first-year students on college campuses includes peer mentor programs. Through a prospective study, Holt and Fifer (2018) examine the effect of peer mentor programs on first-year student retention while also investigating the most impactful peer mentor style. While examining data from two cohorts of mentors and their first-year student mentees, Holt and Fifer (2018) find that clear and explicit directions for mentors in terms of mentee contact and relationship building is critical for effective mentoring. Mentors should be given examples of ways to connect with mentees such as individual meetings but also quick check-in messages over email or text throughout the mentor relationship (Holt & Fifer, 2018). Further, mentors should be supported throughout the experience by program staff (Holt & Fifer, 2018).

Overall, Holt and Fifer (2018) find peer mentoring to be an effective instrument for first-year student support when properly implemented. In an additional study, Lane (2020) uses an integrative literature review to explore the emergence of peer mentoring programs as a retention tool. Upon review of the literature, Lane (2020) found four key themes emerge: Lack of a consistent peer mentoring definition, theoretical and methodological issues of concern, unexpected findings that impact program results, and international comparisons. The most recent literature does not provide a unified definition of peer mentor programs, and there are inconsistencies in theoretical frameworks for developing peer mentor programs (Lane, 2020). Lane (2020) suggests Tinto’s integration and social support framework should be utilized to assess the efficacy of peer mentor programs on first-year student retention but acknowledges the need for further research. Lane (2020) proposes the higher education professionals in the United States look to Australian and European institutions’ implementation of peer mentor programs as well as
their research on the topic. As peer mentoring programs as a method to increase first-year student retention continues to evolve, more research is needed to examine its effectiveness.

**Summary**

First-year student support is essential to increase persistence and improve retention for academically at-risk students. Colleges and universities offer first-year experience courses and seminars, expanded orientations, and specific advising programs for students transitioning from high school. Peer mentor programs provide additional support and resources for students in their first year. The transition from high school to college is a challenging time for many (Edwards & McMillan, 2015; Kahu & Picton, 2020). Further, one in three first-year students withdraw from college, providing support is essential for improving retention of this population (Feldman et al., 2017).

Student development theory should provide the basis for all programming in higher education. Chickering and Reisser (1993) provide an effective model for programming through the Seven Vectors of Identity Development. While development will naturally occur when students attend higher education, support from faculty and student affairs professionals can support students in their development process (Liversage et al., 2018). Utilizing Chickering and Reisser (1993) as the theoretical basis for this study provided a framework for the intervention to successfully support first-year students throughout their transition.

Providing effective advising and timely interventions for students that are academically at-risk can help improve retention and persistence of this population. The current disconnect in advising and first-year programs across institutions could benefit
from a consistent program guideline. In order to truly support first-year students, high-impact advising and first-year student curriculum must be developed.
CHAPTER 3
OVERVIEW OF STUDY

The purpose of this study was to address the academic success and identity development of struggling first-year students within the College of Health Professions (CHP) at New England, Catholic University. Undergraduate students face immense pressure from both internal and external factors as they develop their personal and academic identities. When entering college, students are taught material and expected to apply the concepts to show their understanding. Students are expected to be self-directed learners but are not always shown how to do so. The development of critical thinking skills is stressed within the higher education environment (van der Zanden et al., 2019). This new way of learning can be challenging to adapt to within the first-year. Students must work on learning how to learn, rather than how to memorize. Without these skills, students struggle academically and sometimes do not persist beyond their first year. The goal of the study is to identify strategies for student academic success while promoting student development using Chickering’s Seven Vectors of Identity Development as a framework (Chickering & Reisser, 1993). This action research study focused on topics connected to academic success of first-year students: academic mindset, academic perseverance, learning strategies, social skills, and academic behaviors (Breso, et al., 2011; Walton & Cohen, 2011; Farruggia et al., 2018). Participants were enrolled in a program to support their academic success. Participants met individually with
dedicated academic advisors during the second half of the first semester who followed a
curriculum based in Chickering’s Theory of Identity Development.

The research questions that were addressed in this study are:

1. What is the impact of a proactive intervention on academic achievement for
   academically struggling first-year students in a health professions program?
2. What is the impact of a proactive intervention on students’ identity development
   in Chickering’s first three vectors for academically struggling first-year students
   in a health professions program?
3. What skills do academically struggling first-year students in a health professions
   program find most useful when improving their academic performance?
4. What are the main factors that contribute to academically struggling first-year
   students’ identity development?
5. What role does an academic advisor play in the identity development of an
   academically struggling first-year student?

The theoretical framework that guided this study was Chickering’s Theory of
Identity Development. This theory was selected because of the amount of growth and
development first-year students experience when entering college. The Seven Vectors of
Identity Development are: developing competence, managing emotions, moving through
autonomy toward interdependence, developing mature interpersonal relationships,
establishing identity, developing purpose, and developing integrity (Chickering &
Reisser, 1993). The first three of seven vectors outlined in Chickering’s theory guided the
programming utilized in the study.
This chapter will discuss the research approach, setting, participants, the intervention, data collections instruments, data collection methods, and data analysis. An outline of the intervention along with a timeline are also discussed.

**Research Design**

This study utilized action research which allowed me as the researcher to improve my own practice of supporting first-year students as they transition from high school to the college level (Herr & Anderson, 2015). In my role, I am responsible for retention and engagement of our students. Efron and Ravid (2020) assert, “action research provides educators with a powerful strategy for being active partners in leading school improvement” (p. 13). Further, “action research is usually defined as an inquiry conducted by practitioners in their own education settings in order to advance their practice and improve their students’ learning” (Efron & Ravid, 2020, p. 13). This study allowed me to better understand the needs of struggling students and provide them with intentional supports to improve their academic performance and encourage their identity development.

I used a convergent mixed methods action research design to collect data for this study. Using both qualitative and quantitative data allowed for a richer understanding of the first-year student experience. Through this study I aimed to understand the struggling first-year student’s academic and personal development therefore qualitative data was useful. Merriam and Tisdell (2016) characterize qualitative research as “richly descriptive” with the purpose of understanding the “phenomenon of interest” (p. 15-16). Qualitative data allowed me to fully understand the student experience throughout the study. Additionally, I hoped to use targeted interventions for academically struggling
students. Students’ grades pre and post intervention were compared for the quantitative data measurement. Dawadi et al. (2021) discuss the benefits of mixed-methods research. Utilizing both qualitative and quantitative data assists in providing a full understanding of the topic (Dawadi et al., 2021).

**Research Setting**

The setting for this study was a mid-sized, private, Catholic university in New England. The campus is a rapidly growing combination of residential and academic buildings located outside of a small city. The campus property within the state sits on 311 acres plus an international campus in Europe. Participants of the study were students within one of six colleges within the University, the College of Health Professions.

The College of Health Professions (CHP) offers three undergraduate majors, two undergraduate minors, ten master’s programs, one doctoral program, and two graduate certificate programs. The mission of the University is rooted in the Catholic intellectual tradition and the liberal arts. The institution embraces social justice and educates students in mind, body, and spirit.

Outside of the classroom, undergraduate students can participate in over 100 clubs and student organizations, volunteer and service-learning programs, fraternities and sororities, NCAA Division I athletic teams, club sports teams, or intramural athletics. In addition, students in the three undergraduate majors within CHP can participate in internships with community partners and research projects with faculty.

First-year retention rate for the university is 83 percent while the graduation rate of students within eight years is 60 percent (U.S. Department of Education, 2021). CHP
overall undergraduate retention rate in Fall 2022 to Spring 2023 was 94.6%. First-year retention rate for Fall 2022 to Spring 2023 was 94.54%.

Sample

A unique and purposeful sample was used in this study. Merriam and Tisdell (2016) define a unique sample as one “based on unique, atypical, perhaps rare attributes or occurrences of the phenomenon of interest” (p. 97). This type of sample was used because the group of students were selected based on their academic performance within the first half of their first semester at the University. The original aim of the study was to enroll approximately 30 students. The exact number was determined after midterm grades were posted. When midterm grades were posted, 67 students were eligible for the program and invited to participate.

First-year students in the College of Health Professions must meet specific requirements to officially declare their intended major. Students have one academic year (fall and spring semester) to meet the requirements listed in Table 3.1.
Table 3.1

*Requirements to Declare a Major in the College of Health Professions*

<table>
<thead>
<tr>
<th>Intended Major</th>
<th>Minimum Cumulative GPA</th>
<th>Course</th>
<th>Minimum Course Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>Communication Disorders</td>
<td>3.0</td>
<td>CMD 200 Introduction to Communication Disorders</td>
<td>C</td>
</tr>
<tr>
<td></td>
<td></td>
<td>CMD 201 Introduction to Communication Disorders Lab</td>
<td>C</td>
</tr>
<tr>
<td></td>
<td></td>
<td>BI 111 Concepts in Biology I</td>
<td>C</td>
</tr>
<tr>
<td></td>
<td></td>
<td>BI 113 Concepts in Biology I Lab</td>
<td>C</td>
</tr>
<tr>
<td></td>
<td></td>
<td>PS 110 Introduction to Psychology</td>
<td>C</td>
</tr>
<tr>
<td></td>
<td></td>
<td>EX 100 Introduction to Exercise Science</td>
<td>C</td>
</tr>
<tr>
<td>Exercise Science</td>
<td>2.5</td>
<td>BI 111 Concepts in Biology I</td>
<td>C</td>
</tr>
<tr>
<td></td>
<td></td>
<td>BI 113 Concepts in Biology I Lab</td>
<td>C</td>
</tr>
<tr>
<td></td>
<td></td>
<td>BI 112 Concepts in Biology II</td>
<td>C</td>
</tr>
<tr>
<td></td>
<td></td>
<td>BI 114 Concepts in Biology II Lab</td>
<td>C</td>
</tr>
<tr>
<td>Health Science</td>
<td>2.7</td>
<td>HS 200 Introduction to Healthcare and Health Professions</td>
<td>C</td>
</tr>
</tbody>
</table>

First semester first-year students are enrolled in a combination of university foundational core courses and required major courses. The study will focus on the midterm grades of the required major courses.

Participants who earn one or more failing grades in a major required course at the midterm of their first semester were selected. The participants were identified when midterm grades were submitted by their faculty in the fall semester of their first year. A report was run using the institution’s internal data system to identify the program participants. Students identified through this report were not required to participate in the program but were strongly encouraged. In addition to quantitative data collection,
originally a purposeful sample of participants were selected to participate in semi-structured individual interviews to provide additional qualitative data. Time constraints at the close of the semester required a smaller number of participants to be interviewed, representing a sample each of the three undergraduate majors. A total of six participants were invited to be interviewed. Students were selected using Extreme Case Sampling based on their midterm GPA (Etikan et al., 2016). I planned to select two students from each intended undergraduate major with the highest and lowest midterm GPA. Unfortunately, due to time constraints and lack of response these interviews did not take place.

It is important to note that these first-year students have had their learning impacted by the COVID-19 pandemic. The majority of the students were in their second year of high school when the pandemic forced the country into lockdown. This means that many may not have experienced a traditional classroom learning style for two and a half academic years. The Fall 2022 semester brought back a more consistent and traditional learning experience, and students struggled with not only the transition to college but the return to classroom learning.

**Intervention**

Participants received both individual meeting sessions and follow up newsletters aligned with meeting topics for the intervention in this action research study. The purpose of the meetings and newsletter was to introduce participants to skills and qualities necessary for academic success and personal growth. The intervention took place over six weeks. Each student participated in four advising sessions and received three newsletters.
The intervention included both active and passive interventions through individual advising, and email newsletters. These interventions utilized preexisting supports within CHP and the University as well as expanded offerings from the CHP academic advising team intended to increase student persistence and success.

The primary form of support came from dedicated academic advisors assigned to each student. Prior to the intervention, during the first half of the Fall 2022 semester, I provided the academic advisors training for program implementation. The training reviewed Chickering’s Seven Vectors, academic success strategies, and campus resources. An outline of the advisor training agenda is provided in Appendix B. Trainings took place during two regularly scheduled team meetings. Advisors were given an outline of content to be covered at each meeting. The full outlines are included in Appendix C.

Each advisor met with their assigned participants individually, twice per month after midterms through the end of the semester. In each meeting, advisors discussed topics connected to student success and the first three of Chickering’s Seven Vectors: developing competence, managing emotions, and moving through autonomy towards interdependence (Chickering & Reisser, 1993). Following each meeting, students were given an assignment to practice or implement what they discussed that week. Meetings were approximately 45 minutes in length.

In the weeks when students did not meet with their advisor, they were sent an electronic newsletter to their university-issued email address. I, in collaboration with the academic advisors, created the newsletters. I disseminated the newsletter to all participants from the College of Health Professions general email address to the participants’ university-issued email address. The newsletter provided a summary of the
advisor meeting and additional resources related to the discussion in each meeting along with additional information to support their growth. Table 3.2 provides an overview of meeting topics as they align with the first three vectors of Chickering’s theory.

Table 3.2

*Meeting Topics Aligned with Chickering’s Vectors*

<table>
<thead>
<tr>
<th>Vector</th>
<th>Skills needed in Vector</th>
<th>Meeting Topics</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Developing Competence: Intellectual competence is a primary goal of the college experience. This vector additionally includes physical and interpersonal competence.</td>
<td>Increase in self-discipline&lt;br&gt;Use analytical and comprehensive thought&lt;br&gt;Development of forming points of view in dealing with experiences in life&lt;br&gt;Communicating in different relationships</td>
<td>Weeks 1-3&lt;br&gt;1. Time management strategies and creating a schedule&lt;br&gt;2. Effective study skills&lt;br&gt;3. Preparing for class and note taking during class&lt;br&gt;4. How to communicate with professors/Visiting professors during office hours</td>
</tr>
<tr>
<td>2. Managing Emotions: As students move from adolescence to adulthood, they must learn how to manage emotions such as anger and frustration.</td>
<td>Managing emotions so that feelings do not interfere with academics</td>
<td>Weeks 4-5&lt;br&gt;1. Building resilience&lt;br&gt;2. Emotional intelligence&lt;br&gt;3. Self-care strategies</td>
</tr>
<tr>
<td>3. Developing Autonomy: Being able to take care of oneself, both emotionally and practically, is critically important to growing up and becoming independent from one’s family of origin.</td>
<td>Organize activities and learn how to solve problems on their own</td>
<td>Week 6&lt;br&gt;1. How will you prepare for final exams? (Student led discussion)&lt;br&gt;2. Goal setting: Making a plan for Spring semester</td>
</tr>
</tbody>
</table>

There were two groups of collaborators in this study. The CHP academic advisors were the primary implementers of the intervention in collaboration with me. Additional collaborators were faculty who taught in first-year student classes. Academic advisors
were the first line of defense for student success. By the midterm, participants developed a relationship with their advisor, so it is logical for participants to remain with their advisor for the intervention. Faculty in the first-year courses were required to post midterm grades for their courses, something that was already University policy. I also served as an advisor for students identified as in need of support at the midterm; however, to avoid any potential bias, I did not include these students in the data samples. Finally, I planned to conduct all semi-structured interviews for selected participants at the close of the semester.

**Program Design**

The intervention was developed to support students in improving their academic performance. Appendix A provides a detailed research procedure timeline. One week before the intervention began, participants were asked to complete Downing’s (2017) Self-Assessment (Appendix D) and results were shared with their academic advisor. The self-assessment was delivered to their university email address using Qualtrics. The participants’ results were used in the initial meeting as a starting point for discussion and reflection. Participants revisited their results in their final meeting at the end of the semester.

Participants met with their academic advisor twice per month for a total of four meetings for the second half of the semester. On the weeks that participants did not meet with their advisor, they received an email newsletter. Objectives for each meeting and electronic newsletter aligned with Chickering’s first three vectors: *developing competence, managing emotions,* and *moving through autonomy towards*
interdependence (Chickering & Reisser, 1993). Both the meetings and the electronic newsletters had learning objectives designed to support student growth.

**Learning Objectives.** Learning objectives for each individual meeting and electronic newsletter were created and aligned with Chickering’s first three vectors, developing competence, managing emotions, and moving through autonomy towards and the identified skills and qualities found in successful CHP students (Chickering & Reisser, 1993). Table 3.3 aligns the meeting learning objectives with each vector. Table 3.4 aligns the electronic newsletter objectives with each vector. The learning objectives are as follows:

**Meeting One.** The introductory session encouraged students to:

1. Identify challenges involved in transitioning to college
2. Describe self-management techniques
3. Develop a plan for self-management

**Newsletter One.** The initial newsletter followed the first meeting. The objectives for the first newsletter included:

1. Identify study skills
2. Describe strategies to prepare for class
3. Describe ways to engage in course content

**Meeting Two.** Following the second meeting, students were able to:

1. Identify strategies for effective note taking
2. Recognize the importance of connection with faculty
3. Utilize tools for effective communication with faculty
Newsletter Two. Following the second meeting, the newsletter supported students in meeting the following objectives:

1. Identify self-care strategies
2. Implement self-care strategies

Meeting Three. During the third meeting, discussion led students to:

1. Define emotional intelligence
2. Define resilience
3. Identify strategies for reducing stress

Newsletter Three. The final newsletter guided students towards the end of the intervention. The following objectives were supported:

1. Define SMART goals
2. Identify qualities of a successful student
3. Identify qualities of a struggling student

Meeting Four. In the final meeting, advisors supported students in:

1. Identifying study strategies to prepare for final exams
2. Reflecting on their growth
Table 3.3

*Meeting Learning Objectives Aligned with Chickering’s Vectors*

<table>
<thead>
<tr>
<th>Meeting</th>
<th>Learning Objective</th>
<th>Chickering’s Vector</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1. Identify challenges involved in transitioning to college 2. Describe self-management techniques 3. Develop a plan for self-management</td>
<td>Developing Competence</td>
</tr>
<tr>
<td>2</td>
<td>1. Identify strategies for effective note taking 2. Recognize the importance of connection with faculty 3. Utilize tools for effective communication with faculty</td>
<td>Developing Competence</td>
</tr>
<tr>
<td>4</td>
<td>1. Identifying study strategies to prepare for final exams 2. Reflecting on their growth</td>
<td>Moving Through Autonomy Towards Interdependence</td>
</tr>
</tbody>
</table>
Table 3.4

*Newsletter Learning Objectives Aligned with Chickering’s Vectors*

<table>
<thead>
<tr>
<th>Newsletter</th>
<th>Learning Objective</th>
<th>Chickering’s Vector</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1. Identify study skills</td>
<td>Developing Competence</td>
</tr>
<tr>
<td></td>
<td>2. Describe strategies to prepare for class</td>
<td></td>
</tr>
<tr>
<td></td>
<td>3. Describe ways to engage in course content</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>1. Identify self-care strategies</td>
<td>Managing Emotions</td>
</tr>
<tr>
<td></td>
<td>2. Implement self-care strategies</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>1. Define SMART goals</td>
<td>Moving Through Autonomy Towards Interdependence</td>
</tr>
<tr>
<td></td>
<td>2. Identify qualities of a successful student</td>
<td></td>
</tr>
<tr>
<td></td>
<td>3. Identify qualities of a struggling student</td>
<td></td>
</tr>
</tbody>
</table>

**Instructional Strategies.** Instructional strategies that were utilized during individual meetings with academic advisors included student self-assessment, effective questioning, direct instruction, and reflection. The newsletters utilized multimedia, reading and reflection, student goal setting, and hands-on learning. Participant interactions with their academic advisor began with an opportunity to reflect and discuss topics each week. Advisors utilized brief moments of direct instruction to share content with the participants during their meeting, however most of the time was spent using effective questioning and reflection. The newsletters provided an opportunity to share information using multimedia and short readings. Students were prompted to practice skills outlined in each newsletter and reflect on their experiences.

**Data Collection Instruments**

Data was collected using both qualitative and quantitative instruments. Participant grades were collected using the university’s reporting service. Participants also
completed a pre- and post-self-assessment. Following each meeting, participants completed individual activities and submitted reflections. Then, participants were invited to complete a semi-structured interview. Finally, the academic advisors engaged in a focus group.

**University Reporting Service**

Quantitative data included participants’ midterm and final grades and were collected pre- and post-intervention. The primary data source was the University’s internal reporting service. This program was available to university administrators through a password protected internet site. Participant names and contact information were removed from the report prior to review. Participants’ university identification numbers were used to compare pre- and post-test data.

**Participant Self-Assessment**

Additionally, participants completed a pre- and post- self-assessment developed by Skip Downing (2017). The self-assessment, published in *On Course: Strategies for Creating Success in College and in Life*, was comprised of 64 questions designed to identify areas for improvement of soft skills necessary for college success. Following the completion of the intervention, participants completed the self-assessment again to confirm or reject evidence of growth. *On Course* is used in over 500 colleges and universities throughout the United States and Canada including University of New England, Aurora University, Wesley College, and University of North Carolina at Greensboro (On Course, 2023). Participants were given the 64 questions and asked to read and score each one according to how true or false the statement is about them.
Participants can assign each statement a number from 0 to 10 (Downing, 2017). The 64 questions are broken into eight categories to assess student choices:

1. Accepting personal responsibility
2. Discovering self-motivation
3. Mastering self-management
4. Employing interdependence
5. Gaining self-awareness
6. Adopting lifelong learning
7. Developing emotional intelligence

These categories aligned with the first three of Chickering’s Seven Vectors: developing competence, managing emotions, and moving through autonomy towards (Chickering & Reisser, 1993). Table 3.5 illustrates the proposed alignment between the self-assessment and Chickering’s theory.

Table 3.5

Alignment of Self-Assessment and Chickering’s Vectors

<table>
<thead>
<tr>
<th>Vector (Chickering &amp; Reisser, 1993)</th>
<th>Self-Assessment Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>Developing Competence</td>
<td>Accepting Personal Responsibility, Mastering Self-Management, Adopting Lifelong Learning, Discovering Self-Motivation, Believing in Myself</td>
</tr>
<tr>
<td>Managing Emotions</td>
<td>Gaining Self-Awareness, Developing Emotional Intelligence</td>
</tr>
<tr>
<td>Moving Through Autonomy Toward Interdependence</td>
<td>Employing Interdependence</td>
</tr>
</tbody>
</table>
Andrade (2019) discussed the value of self-assessment in student development in a review of the available research from 2013-2018. In this study, Andrade (2019) concluded that the process of self-assessment is important for students’ continued development and understanding of the learning process, particularly when the assessment is supported by continuous training. Further, Andrade (2019) asserted that the outcomes of the self-assessment are not as important as the process of the assessment itself. While it is not clear if Downing’s (2017) self-assessment has been rigorously tested for validity, the process of self-assessment for study participants will be beneficial for their growth and development.

There were three components of qualitative data that were collected in this study. Participants were asked open-ended reflection questions and to complete a semi-structured interview. Additionally, the academic advisors participated in a focus group. Utilizing multiple data protocols produced a more valid study (Herr & Anderson, 2015).

**Participant Reflection Activities**

Participants completed reflections activities after each meeting with their advisor to collect information about their experience throughout the intervention. See Appendix F for assignment prompts. Participants uploaded the submissions to a secure Microsoft Sharepoint folder for their advisor. Participant identifying information was removed and their university-issued identification number was used to analyze the data. The information provided was stored in a secure, password protected Microsoft Sharepoint folder.
**Semi-structured Interviews**

Additionally, participants were invited to engage in semi-structured interviews following the final week of the intervention. Interviews were planned to be conducted by the researcher and would not include the academic advisors to encourage honest feedback about the program. An interview protocol of seven open-ended questions encouraging participants to reflect on their experience in the program and their development can be found in Appendix G. Interviews were planned to take place in person or on Zoom, depending on the participants’ comfort and current COVID-19 protocols. Two participants from each intended undergraduate major each with the highest and lowest GPA, a total of six participants, were invited be interviewed. Due to time constraints and lack of interest, the interviews did not take place.

**Focus Group**

A focus group discussion with the academic advisors completed the data collection. The academic advisors were asked to share their experience during the intervention and discuss the patterns and themes identified in the participants’ reflections and interviews. Appendix H includes the focus group protocol.

**Data Collection Methods**

This action research study utilized a convergent mixed-methods design. Collecting both qualitative and quantitative data allowed for a robust understanding of the research questions. Table 3.6 provides an outline for alignment of data collection methods and research questions.
Table 3.6

*Data Collection Methods that Answer the Research Questions*

Quantitative data was collected to understand effectiveness of programming and

<table>
<thead>
<tr>
<th>Research Question</th>
<th>Data Collection Method</th>
<th>Instrument</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. What is the impact of a proactive intervention on academic achievement for academically struggling first-year students in a health professions program?</td>
<td>Quantitative</td>
<td>Midterm &amp; Final Grade reports</td>
</tr>
<tr>
<td>2. What is the impact of a proactive intervention on students’ identity development for academically struggling first-year students in a health professions program?</td>
<td>Quantitative</td>
<td>Pre- and post-intervention self-assessment</td>
</tr>
<tr>
<td>3. What skills do academically struggling first-year students in a health professions program find most useful when improving academic performance?</td>
<td>Qualitative</td>
<td>Semi-structured interviews</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Participant reflections</td>
</tr>
<tr>
<td>4. What are the main factors that contribute to academically struggling first-year students in a health professions program identity development?</td>
<td>Quantitative &amp; Qualitative</td>
<td>Self-assessment pre- and post-test</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Participant reflections</td>
</tr>
<tr>
<td>5. What role does an academic advisor play in the identity development of an academically struggling first-year student?</td>
<td>Qualitative</td>
<td>Semi-structured interviews</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Academic advisor focus group</td>
</tr>
</tbody>
</table>

Prior to the intervention, participants’ midterm grades were collected. Students who were failing one or more classes at the midterm were invited to participate in the intervention. Post-intervention, final grades and GPAs of
program participants was collected. The university’s internal reporting service was utilized to collect this information which was saved on a password protected spreadsheet in Sharepoint.

Quantitative data was also collected utilizing a self-assessment survey to answer research questions two and four both pre- and post-intervention. Participants completed the first self-assessment online using Qualtrics prior to their first academic advisor meeting. The 64-item assessment asked participants to read and score each statement for how true or false they believe it is about them between 0 for Totally False to 10 for Totally True (Downing, 2017). Participants’ scores were tallied and shared with the assigned academic advisor to use as a discussion point in the first meeting. Participants completed the self-assessment for the second time using Qualtrics prior to their final academic advising meeting. Scores were tallied and shared with the participant to use for reflection.

Qualitative data was planned to be collected through individual semi-structured interviews to gather information from students about their experience. Individual interviews will be used rather than focus groups to collect information that might be deemed sensitive or uncomfortable for students to share in larger groups. In addition to individual interviews, qualitative data was collected through participant reflection activities and an advisor focus group to answer questions three, four, and five.

**Data Analysis**

Both quantitative and qualitative data was analyzed in this convergent mixed-methods design study to determine the change effect of the at-risk student program. The collected data was organized and analyzed by research question. Quantitative data was
compared pre and post intervention for any positive increase in grades and GPA. Qualitative data was coded using Quirkos software. Codes were organized into categories and reviewed for themes. Identified themes were compared to and aligned with Chickering’s (1969) Seven Vectors of Identity Development.

**Quantitative Data**

GPA and student grades were collected at the midterm and end of the semester and then evaluated for improvement. Additionally, pre- and post-self-assessment scores were reviewed for growth for each participant.

**Qualitative Data**

The first step in this process was to review participant reflections. Next, the focus group was transcribed. Using the qualitative software, Quirkos, I coded words and phrases from all data points. I then organized all codes into categories and reviewed the categories for patterns and themes (Efron & Ravid, 2020). Figure 3.1 shows a screenshot of the categories in Quirkos.

![Figure 3.1 Quirkos Categories](image)

Figure 3.1 Quirkos Categories
Once this process was completed, I compared the results of the qualitative data with the results of the quantitative data to help guide my interpretation of the study outcome.

**Trustworthiness and Rigor**

Data collected from both qualitative and quantitative sources allowed for triangulation. Merriam and Tisdell (2016) defined triangulation as utilizing more than one data collection method in order to increase credibility in a study. Further, Creswell and Plano Clark (2018) stated that mixed methods design combines “the strengths and weaknesses of quantitative and qualitative methods” (p. 117). Each component of the mixed methods design required processes to ensure validity.

The pre- and post- self-assessment instrument was developed by Skip Downing, an expert in the field of student success strategies, for a published textbook (Downing, 2017). The textbook and self-assessment is widely utilized in student success courses and has been discussed in articles exploring successful implementation of academic intervention programs (Kamphoff et al., 2007; Zevallos & Washburn, 2014).

In qualitative studies, replication is not a goal (Padgett, 1998). However, there are many other methods to validate qualitative research. Creswell and Plano Clark (2018) advise utilizing at least three of the following methods to ensure validity. I utilized triangulation across data sources, researcher reflexivity, and member checking (Herr & Anderson, 2015). The triangulation process began when data collected from qualitative methods was converged and reviewed for themes and categories (Creswell and Plano Clark, 2018). In action research, reflexivity, or the ability to critically reflect on researcher bias is essential when validating a study (Herr & Anderson, 2015). I continually reflected on my personal beliefs, experiences, or bias throughout the data
collection process. Additionally, peer-debriefing during the focus group with the academic advisors implementing the intervention provided an opportunity to further validate the data (Stahl & King, 2020). Academic advisors had an opportunity to provide feedback on their experience and the data collected. Quantitative data was compared to the themes and categories identified when the qualitative data converged.

**Summary**

In this action research study, I explored the needs of academically struggling first-year students in the College of Health Professions. Participants were selected based on their midterm grades and GPA. Identified participants attended individual meetings with academic advisors, completed activities, and be sent newsletters to promote their academic success and identity development. The intervention program was evaluated for effectiveness using a mixed methods study design, collecting both qualitative and quantitative data. The study was conducted over the course of three months.

Mixed methods were used in this study to provide a deeper understanding of the student experience and effectiveness of the intervention. Qualitative data was collected through individual semi-structured interviews and participant reflection activities. Quantitative data in the form of participant grades and a participant self-assessment was collected pre- and post-intervention.

It was necessary for all research to be rigorous and reliable. Validity in action research was especially important as the purpose was to improve one’s own practice. It was critical to address my own bias as an insider to this study. I collected multiple forms of data, reflected on my experience, and discussed collected data with academic advisors.
Data was collected following the midterm of the Fall 2022 semester, upon IRB approval. All data was collected by the close of the Fall 2022 semester in December. Data analysis was conducted following the conclusion of the study and completed by January 2023.
CHAPTER 4

FINDINGS

This action research study aimed to identify strategies for student success and development in first-year students enrolled in a health professions program. Using Chickering’s Seven Vectors of Identity Development as a framework, a six-week program utilizing individual appointments with participants and their academic advisors was developed. Participants were identified using their midterm grades in required major courses. The participants must earn a C or higher in these courses to successfully progress in their intended major. With an increasing focus on student success and retention at our university, as well as the impact of COVID-19 on students’ academic and social development, this concern is of critical importance. The research questions that guided this study were:

1. What is the impact of a proactive intervention on academic achievement for academically struggling first-year students in a health professions program?
2. What is the impact of a proactive intervention on students’ identity development in Chickering’s first three vectors for academically struggling first-year students in a health professions program?
3. What skills do academically struggling first-year students in a health professions program find most useful when improving their academic performance?
4. What are the main factors that contribute to academically struggling first-year students’ identity development?

5. What role does an academic advisor play in the identity development of an academically struggling first-year student?

A mixed methods approach as described in chapter three was used to conduct this action research study. Data was collected over the course of the intervention to understand the participants’ experience as well as understand the impact of the intervention. Quantitative data included participants’ midterm grades and a pre-self-assessment and was collected prior to the intervention to understand participants’ academic achievement and beginning level of personal development and post-intervention participants’ final grades and post-self-assessment to explore the participants’ growth in academic achievement and personal development. Qualitative data was collected throughout the intervention to understand participants’ experiences and understanding of their development using written reflection assignments, and a focus group with the academic advisors implementing the intervention. Using a semi-structured, qualitative protocol, open-ended questions were used to explore the advisors’ experience working with the participants.

During the Fall 2023 semester, 308 first-year students were enrolled in the College of Health Professions. At the midterm, 67 students were eligible for the intervention. Prior to beginning, 37 students opted out of the intervention; 22 students started the intervention but withdrew before completing the program. The students who opted out either withdrew from the required major course or did not respond to the advisor’s invitation. The students who started the intervention but withdrew prior to
completing the program decided to change majors or decided to stop attending meetings. Additionally, they did not complete the post-self-assessment. Eight students completed the entire program working with two academic advisors. Table 4.1 provides an overview of participants’ majors and assigned advisors.

Table 4.1 Participants with intended major and assigned academic advisor

<table>
<thead>
<tr>
<th>Participant</th>
<th>Intended Major</th>
<th>Academic Advisor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alison</td>
<td>Communication Disorders</td>
<td>Xavier</td>
</tr>
<tr>
<td>Brianne</td>
<td>Communication Disorders</td>
<td>Xavier</td>
</tr>
<tr>
<td>Cait</td>
<td>Communication Disorders</td>
<td>Xavier</td>
</tr>
<tr>
<td>Daniella</td>
<td>Exercise Science</td>
<td>Xavier</td>
</tr>
<tr>
<td>Eve</td>
<td>Exercise Science</td>
<td>Xavier</td>
</tr>
<tr>
<td>Fiona</td>
<td>Exercise Science</td>
<td>Kami</td>
</tr>
<tr>
<td>Gabby</td>
<td>Exercise Science</td>
<td>Kami</td>
</tr>
<tr>
<td>Hope</td>
<td>Exercise Science</td>
<td>Kami</td>
</tr>
</tbody>
</table>

All participants reported being white and female. One participant additionally identified as Hispanic/Latina. All participants lived in on-campus housing during the semester.

This chapter provides an overview of the findings of data collection. A presentation of the qualitative and quantitative data and a discussion of the findings are explained. Using the multiple methods of data collected, triangulation is completed to discuss findings of the research.

**Results of Quantitative Data**

As discussed in chapter three, participants’ midterm and final grades were collected to evaluate any change in academic achievement. Participants also completed a pre-self-assessment and post-self-assessment to understand any change in personal development. Participants’ GPAs were only collected at the end of the semester, since GPA is not calculated at the midterm. This study looked specifically at grades below a C for courses required for students to progress in their intended majors which included
Concepts in Biology I Lecture, Concepts in Biology I Lab, Introduction to Exercise Science or Introduction to Communication Disorders and Introduction to Communication Disorders Lab, and Introduction to Psychology. At the midterm, all participants were enrolled in Concepts in Biology I Lecture and Concepts in Biology I Lab and earned grades below a C. Participants were passing the other required courses, therefore this study focused on GPA, Concepts in Biology I Lecture and Concepts in Biology I Lab.

Participants completed the pre-self-assessment prior to their first academic advisement meeting and the post-self-assessment at the end of the intervention. The self-assessment developed by Skip Downing (2017) included 64 questions related to qualities and skills necessary for student success and development. Participants discussed their pre-self-assessment results with their advisor during their first meeting and were asked to discuss their post-self-assessment results in their final reflection activity.

**GPA**

Three participants were intended Communication Disorders major that requires a cumulative GPA of 3.0 or higher. Five participants were intended Exercise Science majors which requires a cumulative GPA of 2.5 or higher. Participants’ term GPAs collected included all courses enrolled for the semester. Tables 4.2 and 4.3 provide an overview of participants’ term GPA and whether they met the minimum requirement for their intended major.

Table 4.2 Communication Disorders GPA

<table>
<thead>
<tr>
<th>Student</th>
<th>Communication Disorders GPA</th>
<th>Met requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alison</td>
<td>2.542</td>
<td></td>
</tr>
<tr>
<td>Cait</td>
<td>2.769</td>
<td></td>
</tr>
<tr>
<td>Brianne</td>
<td>3.044</td>
<td>X</td>
</tr>
</tbody>
</table>
Table 4.3 Exercise Science GPA

<table>
<thead>
<tr>
<th>Student</th>
<th>Exercise Science GPA</th>
<th>Met requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Daniella</td>
<td>2.375</td>
<td>X</td>
</tr>
<tr>
<td>Gabby</td>
<td>2.724</td>
<td>X</td>
</tr>
<tr>
<td>Fiona</td>
<td>3.334</td>
<td>X</td>
</tr>
<tr>
<td>Hope</td>
<td>3.334</td>
<td>X</td>
</tr>
<tr>
<td>Eve</td>
<td>3.835</td>
<td>X</td>
</tr>
</tbody>
</table>

Results of the term GPA show that five out of eight participants met or exceeded the minimum requirement for their intended major with participation in this program. While the study focused on specific grades for select courses, the program focused on overall academic performance. Discussions with academic advisors provided opportunities to practice academic success strategies across all courses enrolled, not just required major courses. Participants’ successful GPAs show these strategies were most likely implemented in multiple courses during the term.

Alison, Cait, and Daniella did not meet the minimum GPA requirement for their intended major. Additionally, Alison did not successfully complete the required science course, Concepts in Biology I Lecture or Concepts in Biology I Lab. This contributed to her low GPA. Cait and Daniella did successfully complete Concepts in Biology I Lecture and Concepts in Biology I Lab, however they earned the bare minimum grade required for lecture (C). Daniella also earned the bare minimum grade required for lab (C), and Cait earned a B- in lab. I will further discuss participants individual grades in their required science course and overall performance later in this chapter.

*Concepts in Biology I Lecture*

All participants were enrolled in Concepts in Biology I at the midterm and earned below the minimum requirement for their major. Seven participants completed the
semester enrolled in Concepts in Biology I; one participant withdrew from the course before the end of the semester. Table 4.4 provides an overview of the grades earned in Concepts in Biology I at the midterm and final for each participant as well as indication of grade improvement.

Table 4.4 Concepts in Biology I Lecture Grades

<table>
<thead>
<tr>
<th>Participant</th>
<th>Midterm Grade</th>
<th>Final Grade</th>
<th>Growth</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gabby</td>
<td>D+</td>
<td>C+</td>
<td>X</td>
</tr>
<tr>
<td>Brianne</td>
<td>F</td>
<td>C-</td>
<td>X</td>
</tr>
<tr>
<td>Hope</td>
<td>C-</td>
<td>B-</td>
<td>X</td>
</tr>
<tr>
<td>Daniella</td>
<td>D+</td>
<td>C</td>
<td>X</td>
</tr>
<tr>
<td>Cait</td>
<td>C-</td>
<td>C</td>
<td>X</td>
</tr>
<tr>
<td>Alison</td>
<td>C-</td>
<td>D</td>
<td></td>
</tr>
<tr>
<td>Fiona</td>
<td>D</td>
<td>W</td>
<td></td>
</tr>
<tr>
<td>Eve</td>
<td>F</td>
<td>I</td>
<td></td>
</tr>
</tbody>
</table>

Results of the final grades show that most participants (n=5) improved their performance in Concepts in Biology I with participation in this program. Further, four students passed the course, earning a C or higher for their final grade. This improvement could have been influenced by participation in regular meetings with academic advisors or by participation in individual activities and reflection assignments. An exploration of the qualitative data will provide insight into individual participants’ experience in the program.

Fiona withdrew from the course before the end of the semester. While she will need to retake the class to progress in their intended major, this decision shows effective academic advisement as she did not fail the course. Fiona was able to connect with her academic advisor, Kami, to discuss the implications of withdrawing instead of failing the class. This planning allowed Fiona to register for Concepts in Biology I in the Spring
semester instead. Eve did not complete the course by the deadline for final grade submissions and therefore had an Incomplete. Alison and Brianne did not pass the class and will need to retake it to progress in their intended major.

*Concepts in Biology I Lab*

All participants were enrolled in Concepts in Biology I Lab at the midterm. Most participants \((n=7)\) earned S for Satisfactory Performance at the midterm. The biology department indicated that students who earned an “S” at the midterm had a grade of C or better. Students who earned U for Unsatisfactory Performance at the midterm earned a grade below C. Seven participants completed the semester enrolled in Concepts in Biology I Lab; one participant withdrew from the course before the end of the semester. Table 4.5 provides an overview of the grades earned in Concepts in Biology I Lab at the midterm and final for each participant.

Table 4.5 Concepts in Biology I Lab Grades

<table>
<thead>
<tr>
<th>Participant</th>
<th>Midterm Grade</th>
<th>Final Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brianne</td>
<td>S</td>
<td>A-</td>
</tr>
<tr>
<td>Cait</td>
<td>S</td>
<td>B-</td>
</tr>
<tr>
<td>Gabby</td>
<td>S</td>
<td>B-</td>
</tr>
<tr>
<td>Hope</td>
<td>S</td>
<td>B-</td>
</tr>
<tr>
<td>Daniella</td>
<td>S</td>
<td>C</td>
</tr>
<tr>
<td>Alison</td>
<td>S</td>
<td>C-</td>
</tr>
<tr>
<td>Fiona</td>
<td>S</td>
<td>W</td>
</tr>
<tr>
<td>Eve</td>
<td>U</td>
<td>I</td>
</tr>
</tbody>
</table>

Results of the final grades show that most participants remained consistent in their performance in Concepts in Biology I Lab with participation in this program. Most students who earned an S for Satisfactory at the midterm passed the course by the end of the semester. As with Concepts in Biology I, this performance could have been
influenced by participation in regular meetings with academic advisors or by participation in individual activities and reflection assignments. An exploration of the qualitative data will provide insight into individual participants’ experience in the program. Fiona also withdrew from the course before the end of the semester, as students must be enrolled in both lecture and lab simultaneously. Eve also did not complete the course by the deadline for final grade submissions and therefore had an Incomplete. Alison did not pass the class and will need to retake it to progress in her intended major.

Overall, most participants’ academic performance improved over the course of the intervention. The skills discussed during the intervention could have impacted the growth in achievement. Participants who improved their academic performance and met the minimum GPA requirement were successfully able to progress into the second semester on track for major declaration. The qualitative data will further explore the participants’ experiences during the intervention and discuss their engagement with the material.

Pre- and Post- Self-Assessment

As outlined in chapter three, participants were asked to complete a self-assessment survey prior to their first meeting with their academic advisor and immediately after participating in the program. The self-assessment survey developed by Skip Downing (2017) measures the presence of qualities of student success and aligns with the first three of Chickering’s Vectors: developing competence, managing emotions, and moving through autonomy towards interdependence. As discussed in Chapter One, the primary goal of vector one developing competence is building intellectual competence along with physical and interpersonal competence. Vector two, managing emotions,
requires that students must learn to manage their emotions as they move into adulthood.

Vector three, *developing autonomy*, discusses taking care of oneself as a step towards becoming independent from one’s family. Participants answered 64 questions which calculated scores in each category (See Table 4.6).

Table 4.6 Self-assessment scoring key

<table>
<thead>
<tr>
<th>Score range</th>
<th>Proficiency</th>
</tr>
</thead>
<tbody>
<tr>
<td>0–39</td>
<td>Beginning</td>
</tr>
<tr>
<td>40–63</td>
<td>Developing</td>
</tr>
<tr>
<td>64–80</td>
<td>Competent</td>
</tr>
</tbody>
</table>

The first self-assessment served as a measurement of participants’ initial qualities and the second self-assessment served to confirm participants’ growth following the program. Figure 4.1 connects Downing’s self-assessment categories to Chickering’s first three vectors.
Chickering and Reisser (1993) posited that growth is not linear, and that college students move through the seven vectors at varying rates and may develop in each vector simultaneously at times. Therefore, it makes sense to look at each participant individually to discuss growth or change following the program.

**Eve**

Eve was an intended Exercise Science major who worked with academic advisor Xavier. During the semester, Eve experienced several health issues that led to her not completing her work by the end of the term. Additionally, Eve decided to change her major by the end of the program. Due to her illness, Eve’s participation in the program was inconsistent, however she completed both the pre-self-assessment and post-self-
assessment and kept in contact with Xavier. Table 4.7 provides an overview of Eve’s self-assessment scores and indicators of growth.

Table 4.7 Eve’s Self-Assessment Scores

<table>
<thead>
<tr>
<th>Category</th>
<th>Pre-Self-Assessment</th>
<th>Post-Self-Assessment</th>
<th>Growth</th>
</tr>
</thead>
<tbody>
<tr>
<td>Discovering self-motivation</td>
<td>14</td>
<td>57</td>
<td>X</td>
</tr>
<tr>
<td>Developing emotional intelligence</td>
<td>15</td>
<td>38</td>
<td>X</td>
</tr>
<tr>
<td>Mastering self-management</td>
<td>20</td>
<td>28</td>
<td>X</td>
</tr>
<tr>
<td>Gaining self-awareness</td>
<td>22</td>
<td>46</td>
<td>X</td>
</tr>
<tr>
<td>Believing in myself</td>
<td>25</td>
<td>64</td>
<td>X</td>
</tr>
<tr>
<td>Accepting personal responsibility</td>
<td>32</td>
<td>56</td>
<td>X</td>
</tr>
<tr>
<td>Adopting lifelong learning</td>
<td>36</td>
<td>42</td>
<td>X</td>
</tr>
<tr>
<td>Employing interdependence</td>
<td>43</td>
<td>53</td>
<td>X</td>
</tr>
</tbody>
</table>

Eve improved her self-assessment scores in all categories. Her most drastic improvement was in *discovering self-motivation, developing emotional intelligence, and believing in myself*. Eve identified she wanted to change her major halfway through the program.

Xavier shared, “Eve’s mood shifted when she identified a new major that she was more passionate about.” This could explain the improvement in Eve’s self-assessment scores.

Eve realized Exercise Science was not motivating for her, so she identified an area of study that was more motivating and reduced her stress levels.

Eve’s experience also highlights the importance of relationship building with academic advisors. Rather than struggle through her major or the program, Eve spoke with her advisor to identify a new path that was more meaningful.
Gabby

Gabby was an intended Exercise Science major who worked with academic advisor Kami. Gabby successfully earned grades above the minimum requirement for both Concepts in Biology I and Concepts in Biology I Lab. She improved her grade for Concepts in Biology I by three letter grades from the midterm. Gabby’s term GPA exceeded the minimum requirement for her major. She also improved in all categories of her self-assessment. Table 4.8 highlights Gabby’s self-assessment scores and areas of growth.

Table 4.8 Gabby’s Self-Assessment Scores

<table>
<thead>
<tr>
<th>Category</th>
<th>Pre-Self-Assessment</th>
<th>Post-Self-Assessment</th>
<th>Growth</th>
</tr>
</thead>
<tbody>
<tr>
<td>Believing in myself</td>
<td>34</td>
<td>51</td>
<td>X</td>
</tr>
<tr>
<td>Developing emotional intelligence</td>
<td>35</td>
<td>51</td>
<td>X</td>
</tr>
<tr>
<td>Employing interdependence</td>
<td>39</td>
<td>64</td>
<td>X</td>
</tr>
<tr>
<td>Gaining self-awareness</td>
<td>41</td>
<td>53</td>
<td>X</td>
</tr>
<tr>
<td>Adopting lifelong learning</td>
<td>41</td>
<td>56</td>
<td>X</td>
</tr>
<tr>
<td>Accepting personal responsibility</td>
<td>50</td>
<td>59</td>
<td>X</td>
</tr>
<tr>
<td>Mastering self-management</td>
<td>52</td>
<td>57</td>
<td>X</td>
</tr>
<tr>
<td>Discovering self-motivation</td>
<td>57</td>
<td>66</td>
<td>X</td>
</tr>
</tbody>
</table>

Gabby was dedicated to participation in the program and was planning to request support from her advisor if this program did not exist.

Gabby started strong in the areas of mastering self-management and discovering self-motivation. She initially indicated her comfort with time management strategies but was challenged by the amount of time required for studying in her major courses. Kami’s
observation of Gabby included that she would benefit from a confidence boost, which is confirmed by Gabby’s pre-self-assessment score as Beginning level in *believing in myself*. Throughout the program, Gabby reflected on the various skills and strategies shared and worked to implement them in her routines.

Gabby’s score for *employing interdependence* improved by 25 points, which is the most of any participant. Gabby shared with Kami that in addition to her advisor meetings and participating in activities, she was attending therapy. This could have impacted Gabby’s improvement in this category as she was connecting with a resource for support in a healthy way. Further, Gabby’s understanding of her need for support from resources on campus such as her advisor and her professors supports the growth in this area.

**Fiona**

Fiona was an intended Exercise Science major who worked with academic advisor Kami. Fiona withdrew from Concepts in Biology I and Concepts in Biology I Lab before the end of the semester. Her term GPA exceeded the minimum requirement for her major. Fiona’s self-assessment scores improved in all categories except for *developing emotional intelligence*. Table 4.9 provides an overview of Fiona’s self-assessment scores and areas of growth.
Table 4.9 Fiona’s Self-Assessment Scores

<table>
<thead>
<tr>
<th>Category</th>
<th>Pre-Self-Assessment</th>
<th>Post-Self-Assessment</th>
<th>Growth</th>
</tr>
</thead>
<tbody>
<tr>
<td>Employing interdependence</td>
<td>36</td>
<td>49</td>
<td>X</td>
</tr>
<tr>
<td>Adopting lifelong learning</td>
<td>36</td>
<td>70</td>
<td>X</td>
</tr>
<tr>
<td>Accepting personal responsibility</td>
<td>48</td>
<td>56</td>
<td>X</td>
</tr>
<tr>
<td>Believing in myself</td>
<td>49</td>
<td>63</td>
<td>X</td>
</tr>
<tr>
<td>Gaining self-awareness</td>
<td>51</td>
<td>59</td>
<td>X</td>
</tr>
<tr>
<td>Mastering self-management</td>
<td>68</td>
<td>76</td>
<td>X</td>
</tr>
<tr>
<td>Discovering self-motivation</td>
<td>69</td>
<td>80</td>
<td>X</td>
</tr>
<tr>
<td>Developing emotional intelligence</td>
<td>72</td>
<td>64</td>
<td></td>
</tr>
</tbody>
</table>

Fiona initially scored across a range from high Beginning to middle Competent in her pre-self-assessment categories and ended in middle Developing to high Competent in her post-self-assessment categories. Fiona took advantage of the program, consistently participating in her advisor meetings and submitting reflections on assigned activities. Kami described her interactions with Fiona as straightforward, which is confirmed by Fiona’s brief reflection submissions. In her final reflection, Fiona shared “Each strategy, advice, or general information we talked about in this passport to success program has helped me grow, learn new ways to study, and gave me general take-aways for my future.” Fiona’s results show her engagement in the program supported her growth.

Fiona’s improvement in the category of discovering self-motivation led to the highest score possible for the assessment. Fiona discussed her motivation for success frequently in her reflections. She also shared she often got distracted from her goals due to peer pressure to go out or participate in co-curricular activities. In her first reflection
when discussing the importance of school work, Fiona shared “I intend to stay more on track and do my important things first then move on to the fun stuff.” In her last meeting with Kami, Fiona shared that she felt more grounded and was able to decrease her procrastination by utilizing the time management skills she learned.

**Hope**

Hope was an intended Exercise Science major who worked with academic advisor Kami. Hope successfully earned grades above the minimum requirement for both Concepts in Biology I and Concepts in Biology I Lab and exceeded the minimum GPA requirement for her major. Hope improved in all areas of her self-assessment except for developing emotional intelligence. She consistently scored within the high Developing to middle/high Competent levels in both her pre-self-assessment and post-self-assessment. Table 4.10 includes an overview of Hope’s pre-and-post-self-assessment scores and areas of growth.

**Table 4.10 Hope’s Self-Assessment Scores**

<table>
<thead>
<tr>
<th>Category</th>
<th>Pre-Self-Assessment</th>
<th>Post-Self-Assessment</th>
<th>Growth</th>
</tr>
</thead>
<tbody>
<tr>
<td>Believing in myself</td>
<td>49</td>
<td>52</td>
<td>X</td>
</tr>
<tr>
<td>Adopting lifelong learning</td>
<td>51</td>
<td>64</td>
<td>X</td>
</tr>
<tr>
<td>Employing interdependence</td>
<td>52</td>
<td>54</td>
<td>X</td>
</tr>
<tr>
<td>Developing emotional intelligence</td>
<td>55</td>
<td>53</td>
<td></td>
</tr>
<tr>
<td>Gaining self-awareness</td>
<td>60</td>
<td>62</td>
<td>X</td>
</tr>
<tr>
<td>Accepting personal responsibility</td>
<td>62</td>
<td>63</td>
<td>X</td>
</tr>
<tr>
<td>Discovering self-motivation</td>
<td>67</td>
<td>73</td>
<td>X</td>
</tr>
<tr>
<td>Mastering self-management</td>
<td>69</td>
<td>71</td>
<td>X</td>
</tr>
</tbody>
</table>
Hope struggled adapting to Concepts in Biology I at the beginning of the semester but was otherwise a strong student. Her lowest category in both her pre-self-assessment and post-self-assessment was \textit{believing in myself}. Hope’s confidence surrounding asking for support from faculty was low. In her reflection on visiting a professor’s office hours, Hope shared she was initially nervous to meet with her biology professor as she had not interacted with the professor individually or participated in class. Following her meeting with the professor, Hope shared “I’m glad that I went and got some advice and study tips.” She realized the professor was happy Hope visited rather than annoyed or upset, which increased her confidence in asking for help.

While Hope scored high in \textit{discovering self-motivation} and \textit{mastering self-management} on the pre-self-assessment, she utilized strategies for time management learned during the program which improved her posttest score. Hope shared that she allows social media and television to distract her from taking actions toward meeting her goals. She shared that she wanted to lower her screen time which would increase the time available to finish important tasks.

\textbf{Brianne}

Brianne was an intended Communication Disorders major who worked with academic advisor Xavier. Brianne met the minimum GPA requirement for her major and successfully passed Concepts in Biology I Lab. She did not pass Concepts in Biology I Lecture but did improve her grade by three letter grades from the midterm to the end of the semester. Brianne improved her self-assessment scores in four categories: \textit{adopting lifelong learning, gaining self-awareness, believing in myself, and developing emotional...}
intelligence. Table 4.11 shows Brianne’s pre-self-assessment and post-self-assessment scores and areas of growth.

4.11 Brianne’s Self-Assessment Scores

<table>
<thead>
<tr>
<th>Category</th>
<th>Pre-Self-Assessment</th>
<th>Post-Self-Assessment</th>
<th>Growth</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adopting lifelong learning</td>
<td>40</td>
<td>43</td>
<td>X</td>
</tr>
<tr>
<td>Gaining self-awareness</td>
<td>41</td>
<td>48</td>
<td>X</td>
</tr>
<tr>
<td>Employing interdependence</td>
<td>50</td>
<td>49</td>
<td>49</td>
</tr>
<tr>
<td>Believing in myself</td>
<td>54</td>
<td>57</td>
<td>X</td>
</tr>
<tr>
<td>Developing emotional intelligence</td>
<td>54</td>
<td>58</td>
<td>X</td>
</tr>
<tr>
<td>Accepting personal responsibility</td>
<td>58</td>
<td>49</td>
<td>49</td>
</tr>
<tr>
<td>Discovering self-motivation</td>
<td>61</td>
<td>59</td>
<td>59</td>
</tr>
<tr>
<td>Mastering self-management</td>
<td>64</td>
<td>58</td>
<td>58</td>
</tr>
</tbody>
</table>

Brianne’s pre-self-assessment and post-self-assessment scores generally stayed within the same range of Developing for all categories, though her scores improved in four areas. In her reflection, Brianne shared her understanding of gaining self-awareness. She shared:

Over the course of this program, I have become aware that in order to get the good grades that I need to pass the class I am failing, I need to put in the effort and the hours of studying/doing the classwork. I can’t keep pinning the blame on my professor’s teaching style or wasting all of my free time watching Netflix or browsing the internet when I should be studying.

This also shows her understanding of self-motivation but not her ability to implement the skills she learned yet. Further, Brianne shared she is still working on accepting personal
responsibility. She stated, “At times, I often find myself blaming the teaching style, or the class size, or the confusing PowerPoints for my poor grades.” Again, she is aware of this barrier to her success but is not improving in this area.

**Alison**

Alison was an intended Communication Disorders major who worked with academic advisor Xavier. She did not meet the minimum GPA requirement for her major or grade requirement for both Concepts in Biology I and Concepts in Biology I Lab. Additionally, her final grade in Concepts in Biology I dropped by one letter grade.

Alison’s self-assessment scores decreased in most categories but did increase in the areas of *adopting lifelong learning, developing emotional intelligence, and believing in myself.*

Table 4.12 shows Alison’s pre-self-assessment and post-self-assessment scores.

<table>
<thead>
<tr>
<th>Category</th>
<th>Pre-Self-Assessment</th>
<th>Post-Self-Assessment</th>
<th>Growth</th>
</tr>
</thead>
<tbody>
<tr>
<td>Believing in myself</td>
<td>23</td>
<td>36</td>
<td>X</td>
</tr>
<tr>
<td>Developing emotional intelligence</td>
<td>29</td>
<td>34</td>
<td>X</td>
</tr>
<tr>
<td>Adopting lifelong learning</td>
<td>30</td>
<td>36</td>
<td>X</td>
</tr>
<tr>
<td>Gaining self-awareness</td>
<td>37</td>
<td>30</td>
<td></td>
</tr>
<tr>
<td>Mastering self-management</td>
<td>46</td>
<td>39</td>
<td></td>
</tr>
<tr>
<td>Accepting personal responsibility</td>
<td>47</td>
<td>40</td>
<td></td>
</tr>
<tr>
<td>Discovering self-motivation</td>
<td>53</td>
<td>48</td>
<td></td>
</tr>
<tr>
<td>Employing interdependence</td>
<td>56</td>
<td>45</td>
<td></td>
</tr>
</tbody>
</table>

Alison’s final self-assessment results show that she is in Beginning and early Developing levels of all categories. While she did decrease in most categories, she did
improve in believing in myself, developing emotional intelligence, and adopting lifelong learning. The improvements in Alison’s scores in these three categories moved her from middle of Beginning to higher Beginning. Alison remained about the same in the gaining self-awareness category and she moved from middle Developing to low Developing in the other categories. In her first activity reflection, Alison shared:

I have realized I need to use my time wisely when I have it and use it in the correct way. Unfortunately, at the moment I feel I spend most time in quadrant I [Important and Urgent] and/or IV [Not important and not urgent] because I tend to procrastinate and get side-tracked on other things.

This shows some self-awareness, but Alison’s final grades and scores show she did not implement the changes she expressed were necessary.

Meetings one and two focused on self-management and connecting with faculty as well as study strategies and note-taking skills. Alison’s improvement in the areas of adopting lifelong learning, developing emotional intelligence, and believing in myself could have occurred due to more engagement during individual meetings of this topic, or a better understanding of the program after participating in several weeks of content. Content delivered in meetings three and four focused heavily on emotional intelligence and building resilience, as well as reflection on the program and individual growth of the participant.

Cait

Cait was an intended Communication Disorders major who worked with academic advisor Xavier. Cait did not meet the minimum GPA requirement for her major. She successfully passed Concepts In Biology I Lecture and Concepts In Biology I
Lab. Cait’s final grade in Concepts In Biology I improved by one letter grade from the midterm. Cait improved her self-assessment scores in three categories: accepting personal responsibility, believing in myself, and discovering self-motivation. Table 4.13 shows Cait’s pre-self-assessment and post-self-assessment scores.

Table 4.13 Cait’s Self-Assessment Scores

<table>
<thead>
<tr>
<th>Category</th>
<th>Pre-Self-Assessment</th>
<th>Post-Self-Assessment</th>
<th>Growth</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adopting lifelong learning</td>
<td>51</td>
<td>45</td>
<td></td>
</tr>
<tr>
<td>Accepting personal responsibility</td>
<td>54</td>
<td>55</td>
<td>X</td>
</tr>
<tr>
<td>Believing in myself</td>
<td>54</td>
<td>57</td>
<td>X</td>
</tr>
<tr>
<td>Gaining self-awareness</td>
<td>58</td>
<td>54</td>
<td></td>
</tr>
<tr>
<td>Developing emotional intelligence</td>
<td>58</td>
<td>56</td>
<td></td>
</tr>
<tr>
<td>Employing interdependence</td>
<td>61</td>
<td>47</td>
<td></td>
</tr>
<tr>
<td>Discovering self-motivation</td>
<td>69</td>
<td>75</td>
<td>X</td>
</tr>
<tr>
<td>Mastering self-management</td>
<td>79</td>
<td>76</td>
<td></td>
</tr>
</tbody>
</table>

Cait’s self-assessment results show she is in the Developing and Competent levels for all categories. She improved minimally in accepting personal responsibility and believing in herself. She also improved in discovering self-motivation. Cait’s reflection on the time management activity indicated her comfort with finding motivation to complete her work. She shared that when she noticed she was initially struggling in Concepts in Biology I, she immediately registered for tutoring appointments and identified a study partner. This also shows her willingness to accept personal responsibility, as she identified an area of concern and worked to find a solution rather than place blame on others.
While Cait did not improve in the areas of developing emotional intelligence or mastering self-management, her scores remained close between the pre-self-assessment and post-self-assessment. In Cait’s reflection on emotional intelligence, she shared that during a stressful time “planning my day and taking breaks from studies to listen to music and breathe in some fresh air helped me to relax.” This shows Cait’s ability to manage her emotions and implement strategies to overcome obstacles.

**Daniella**

Daniella was an intended Exercise Science major who worked with academic advisor Xavier. She did not meet the minimum GPA requirement for her major. However, Daniella successfully achieved the minimum grade requirement for both Concepts in Biology I and Concepts in Biology I Lab. Daniella improved her self-assessment scores in three categories: *developing emotional intelligence, adopting lifelong learning, and discovering self-motivation*. She remained the same for *believing in myself*. While Daniella’s scores did decrease for the remaining categories, she did stay within the same proficiency levels. Table 4.14 shows Daniella’s self-assessment scores and areas of growth.
Table 4.14 Daniella’s Self-Assessment Scores

<table>
<thead>
<tr>
<th>Category</th>
<th>Pre-Self-Assessment</th>
<th>Post-Self-Assessment</th>
<th>Growth</th>
</tr>
</thead>
<tbody>
<tr>
<td>Employing interdependence</td>
<td>37</td>
<td>36</td>
<td></td>
</tr>
<tr>
<td>Developing emotional intelligence</td>
<td>42</td>
<td>45</td>
<td>X</td>
</tr>
<tr>
<td>Gaining self-awareness</td>
<td>43</td>
<td>42</td>
<td></td>
</tr>
<tr>
<td>Believing in myself</td>
<td>43</td>
<td>43</td>
<td></td>
</tr>
<tr>
<td>Adopting lifelong learning</td>
<td>45</td>
<td>56</td>
<td>X</td>
</tr>
<tr>
<td>Accepting personal responsibility</td>
<td>56</td>
<td>55</td>
<td></td>
</tr>
<tr>
<td>Discovering self-motivation</td>
<td>69</td>
<td>75</td>
<td>X</td>
</tr>
<tr>
<td>Mastering self-management</td>
<td>79</td>
<td>76</td>
<td></td>
</tr>
</tbody>
</table>

Daniella improved the most in the category of adopting lifelong learning. In a reflection Daniella shared that she initially felt participation in this program would be a waste of time but found value in the meetings and activities after meeting two. She also shared that the meetings provided an opportunity to ask questions and get feedback from her advisor, something she found valuable. This correlates with her improvement in the adopting lifelong learning category. Daniella ultimately understood the intention of the program and applied the skills and strategies discussed.

While Daniella’s score for mastering self-management decreased, she shared she found the time management activities discussed with her advisor useful. However, this content was covered in the first meeting when Daniella was unsure of the value of the program. In her time management activity reflection, Daniella shared “I’ve realized that most of my time I spend procrastinating by not doing my work that needs to get done.”
While she did have this realization, she may not have fully implemented the strategies learned to improve her scores.

**Overall Participant Growth in Pre- and Post-Self-Assessment**

There was no category where students improved across the board. Table 4.15 shows the number of participants who improved, declined, or stayed the same in each category.

Table 4.15 Participant Growth Following Post-Self-Assessment

<table>
<thead>
<tr>
<th>Category</th>
<th>Improved</th>
<th>Declined</th>
<th>Stayed the same</th>
</tr>
</thead>
<tbody>
<tr>
<td>Believing in myself</td>
<td>7</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Adopting lifelong learning</td>
<td>6</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>Discovering self-motivation</td>
<td>5</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>Developing emotional intelligence</td>
<td>5</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>Gaining self-awareness</td>
<td>5</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>Accepting personal responsibility</td>
<td>5</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>Mastering self-management</td>
<td>4</td>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td>Employing interdependence</td>
<td>4</td>
<td>4</td>
<td>0</td>
</tr>
</tbody>
</table>

Please see Figure 4.1 for a review of how the self-assessment categories align with Chickering’s vectors.

*Believing in myself* saw the most improvement of any category. This category encompasses students having the confidence to achieve their goals and persist in the face of adversity. The post-self-assessment shows that all participants improved, and Daniella remained the same. While this topic was not explicitly covered in any of the individual meetings, the entire program provided opportunities to improve self-confidence. Further,
this category is aligned with the first vector, *developing competence*, so it is plausible that this area was the strongest across all participants. While Chickering asserts there is no set order in progressing through each vector, *developing competence* is the first vector and most commonly the most developed in first-year college students. In the focus group, the academic advisors discussed their focus on their participants’ personal growth as well as academic improvement. Xavier shared the most meaningful component of the program for him was supporting students’ development. He noticed an improvement in maturity and that his participants articulated how they felt ready to use the skills learned in the future.

*Adopting lifelong learning* saw an equivalent improvement in six participants. Cait decreased minimally by six points. This category encourages students to find lessons each day in life, not just learning to pass an exam. This area also promotes a focus on using failure as a learning opportunity. It was surprising to see this area have so much improvement, as the CHP student population is often focused solely on improving their grades and not as much on the process of learning. However, the advisors shared this was a focus of their conversations with participants often during individual meetings which could explain the improvement. Further, this category is also aligned with the first vector, *developing competence*, which is consistent with other areas of high improvement.

*Discovering self-motivation* saw improvement in six participants: Cait, Eve, Fiona, Gabby, Daniella, and Hope. Alison and Brianne decreased minimally. Alison’s score decreased by 5 and Brianne’s score decreased by 2. This category involves students persevering and consistently moving towards their goals. *Discovering self-motivation* is also aligned with the first vector, *developing competence* therefore it is reasonable that
most participants improved in this area. Participants shared a focus on this topic in their reflections following their week one meetings, and again reviewed similar topics in week three with their advisor. This repetition could have supported the amount of growth seen in participants for this category.

*Developing emotional intelligence* saw an improvement in five participants: Alison, Brianne, Daniella, Eve, and Gabby. This category allows students to feel their emotions but not let those emotions allow them to get off track from their goals. This is aligned with the second vector, *managing emotions*. The advisors reported positive experiences during the emotional intelligence week. Kami shared that the timing of this content felt beneficial as students have experienced enough of the semester to understand why emotional intelligence is important and how it could be useful for both personal and academic success. Cait and Hope’s scores both decreased by 2, Fiona’s score decreased by 8. Interestingly, these participants completed the most reflections among the group. Although the decrease in scores was minimal, it is important to explore if provided more structure or guidance for the reflection components would have been beneficial.

*Gaining self-awareness* also saw an improvement in five participants: Brianne, Eve, Fiona, Gabby, and Hope. Although three participants’ scores decreased, the impact was minimal. Alison’s score decreased by 7, Cait’s score decreased by 4, and Daniella’s score decreased by 1. This area pushes students to recognize what they are doing is not working and then come up with a plan for change. This category aligns with vector two, *managing emotions*, as students must recognize they are off track and self-regulate to get back on track instead of staying paralyzed with fear. Many participants highlighted this
area during their reflection following week one. Participants identified areas where they are not using their time efficiently and discussed how they will make a change.

Accepting personal responsibility saw an improvement in five of participants: Eve, Cait, Fiona, Gabby, and Hope. Daniella’s score decreased by 1, Alison’s score decreased by 7, and Brianne’s score decreased by 9. This area urges students to believe they are in charge of the outcomes in their life. Many participants discussed this topic in their reflections and identified areas where they do accept personal responsibility or where they blame others for their failures. This category is also aligned with the first vector, developing competence, showing that some of the participants are progressing through the end of this vector. The advisors shared their happiness in seeing their participants accept responsibility for their learning and growth throughout the program.

Mastering self-management saw improvement in four participants: Eve, Fiona, Gabby, and Hope. This category discusses students’ ability to complete tasks that need to be done and was covered in the week one meeting and the first activity assigned to participants. The area aligns with the first vector, developing competence. Alison’s score decreased by 7, Brianne’s score decreased by 6, Cait and Daniella’s scores both decreased by 3. Advisors reported feeling more confident in delivering materials and facilitating conversations as the program progressed, so participants may not have absorbed this content as thoroughly as content delivered in future weeks’ meetings. However, both Kami and Xavier shared participants had positive feedback about the time management activity. Kami shared that several of her students utilized the activity to develop their to do lists throughout the remainder of the semester.
Employing interdependence also saw improvement in half of the participants: Eve, Fiona, Gabby, and Hope. This area encompasses the ability to build mutually supportive relationships. It is aligned with the highest vector used in the study, moving through autonomy toward interdependence, so it is logical that there was little improvement in this category. Cait’s score decreased by 14, Alison’s score decreased by 11, both Daniella and Brianne’s scores decreased by 1. While both the students and the advisors shared the positive impact of discussing relationship building with faculty, student reflections showed improvement is still needed in peer relationship building. Further, relationships with faculty can often feel one-sided in terms of support. Therefore, participants may not see the mutual benefit of the relationship at this stage in their development.

While there were no categories where all participants improved, there were several categories where most participants improved, which is to be expected. Chickering and Reisser (1993) contend that development does not occur for all at the same rate. However, the improvement for the majority of participants in the categories believing in myself, adopting lifelong learning, discovering self-motivation, developing emotional intelligence, gaining self-awareness, and accepting personal responsibility shows that some development did occur for some participants through participation in this program.

Although there was some growth for participants in each category, most participants remained within the same score grouping of Beginning, Developing, or Competent. Tables 4.16 through 4.23 show the score groupings for participants’ pre- and post-self-assessments along with their grades and GPA.
Table 4.16 Alison’s self-assessment score grouping

<table>
<thead>
<tr>
<th>Category</th>
<th>Pre-self-assessment</th>
<th>Post-self-assessment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Believing in myself</td>
<td>Developing</td>
<td>Developing</td>
</tr>
<tr>
<td>Developing emotional intelligence</td>
<td>Developing</td>
<td>Developing</td>
</tr>
<tr>
<td>Adopting lifelong learning</td>
<td>Developing</td>
<td>Beginning</td>
</tr>
<tr>
<td>Gaining self-awareness</td>
<td>Developing</td>
<td>Developing</td>
</tr>
<tr>
<td>Mastering self-management</td>
<td>Beginning</td>
<td>Beginning</td>
</tr>
<tr>
<td>Accepting personal responsibility</td>
<td>Beginning</td>
<td>Beginning</td>
</tr>
<tr>
<td>Discovering self-motivation</td>
<td>Beginning</td>
<td>Beginning</td>
</tr>
<tr>
<td>Employing interdependence</td>
<td>Beginning</td>
<td>Beginning</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Course</th>
<th>Midterm Grade</th>
<th>Final Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>BI 111</td>
<td>C-</td>
<td>D</td>
</tr>
<tr>
<td>BI 113</td>
<td>S</td>
<td>C-</td>
</tr>
<tr>
<td>GPA</td>
<td>n/a</td>
<td>2.542</td>
</tr>
</tbody>
</table>

Alison did not improve her score group in any category. Further, she moved from Developing to Beginning in Adopting Lifelong Learning. As previously discussed, Alison’s grades did not improve and did not meet the minimum requirements for her major. Alison is still early in her development process.
Table 4.17 Brianne’s self-assessment score grouping

<table>
<thead>
<tr>
<th>Category</th>
<th>Pre-self-assessment</th>
<th>Post-self-assessment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Believing in myself</td>
<td>Developing</td>
<td>Developing</td>
</tr>
<tr>
<td>Developing emotional intelligence</td>
<td>Developing</td>
<td>Developing</td>
</tr>
<tr>
<td>Adopting lifelong learning</td>
<td>Developing</td>
<td>Developing</td>
</tr>
<tr>
<td>Gaining self-awareness</td>
<td>Developing</td>
<td>Developing</td>
</tr>
<tr>
<td>Mastering self-management</td>
<td>Competent</td>
<td>Developing</td>
</tr>
<tr>
<td>Accepting personal responsibility</td>
<td>Developing</td>
<td>Developing</td>
</tr>
<tr>
<td>Discovering self-motivation</td>
<td>Developing</td>
<td>Developing</td>
</tr>
<tr>
<td>Employing interdependence</td>
<td>Developing</td>
<td>Developing</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Course</th>
<th>Midterm Grade</th>
<th>Final Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>BI 111</td>
<td>F</td>
<td>C-</td>
</tr>
<tr>
<td>BI 113</td>
<td>S</td>
<td>A-</td>
</tr>
<tr>
<td>GPA</td>
<td>n/a</td>
<td>3.044</td>
</tr>
</tbody>
</table>

Brianne remained in the score grouping of Developing for all categories except for Mastering self-management where she began in Competent and moved to Developing.

Brianne’s grades improved over the course of the program, but she also did not meet the minimum requirement grade in Concepts in Biology I Lecture. Brianne is also early in her stages of development.
Table 4.18 Cait’s self-assessment score grouping

<table>
<thead>
<tr>
<th>Category</th>
<th>Pre-self-assessment</th>
<th>Post-self-assessment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Believing in myself</td>
<td>Developing</td>
<td>Developing</td>
</tr>
<tr>
<td>Developing emotional intelligence</td>
<td>Developing</td>
<td>Developing</td>
</tr>
<tr>
<td>Adopting lifelong learning</td>
<td>Developing</td>
<td>Developing</td>
</tr>
<tr>
<td>Gaining self-awareness</td>
<td>Developing</td>
<td>Developing</td>
</tr>
<tr>
<td>Mastering self-management</td>
<td>Competent</td>
<td>Competent</td>
</tr>
<tr>
<td>Accepting personal responsibility</td>
<td>Developing</td>
<td>Developing</td>
</tr>
<tr>
<td>Discovering self-motivation</td>
<td>Competent</td>
<td>Competent</td>
</tr>
<tr>
<td>Employing interdependence</td>
<td>Developing</td>
<td>Developing</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Course</th>
<th>Midterm Grade</th>
<th>Final Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>BI 111</td>
<td>C-</td>
<td>C</td>
</tr>
<tr>
<td>BI 113</td>
<td>S</td>
<td>B-</td>
</tr>
<tr>
<td>GPA</td>
<td>n/a</td>
<td>2.768</td>
</tr>
</tbody>
</table>

Cait remained consistent in her score groupings throughout each category. Her grades improved and she met the minimum requirements in Concepts in Biology I Lecture and Lab. While Cait’s scores groupings do not indicate drastic growth, consistency indicates Cait is still developing.
Table 4.19 Daniella’s self-assessment score grouping

<table>
<thead>
<tr>
<th>Category</th>
<th>Pre-self-assessment</th>
<th>Post-self-assessment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Believing in myself</td>
<td>Developing</td>
<td>Developing</td>
</tr>
<tr>
<td>Developing emotional intelligence</td>
<td>Developing</td>
<td>Developing</td>
</tr>
<tr>
<td>Adopting lifelong learning</td>
<td>Developing</td>
<td>Developing</td>
</tr>
<tr>
<td>Gaining self-awareness</td>
<td>Developing</td>
<td>Developing</td>
</tr>
<tr>
<td>Mastering self-management</td>
<td>Developing</td>
<td>Developing</td>
</tr>
<tr>
<td>Accepting personal responsibility</td>
<td>Developing</td>
<td>Developing</td>
</tr>
<tr>
<td>Discovering self-motivation</td>
<td>Developing</td>
<td>Developing</td>
</tr>
<tr>
<td>Employing interdependence</td>
<td>Beginning</td>
<td>Beginning</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Course</th>
<th>Midterm Grade</th>
<th>Final Grade</th>
</tr>
</thead>
<tbody>
<tr>
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<td>C</td>
</tr>
<tr>
<td>BI 113</td>
<td>S</td>
<td>C</td>
</tr>
<tr>
<td>GPA</td>
<td>n/a</td>
<td>2.375</td>
</tr>
</tbody>
</table>

Daniella also remained consistent in her score groupings. Additionally, Daniella met the minimum grade requirements for Concepts in Biology I Lecture and Lab, however she did not meet the minimum GPA requirement for her major. Daniella scored in the *Beginning* range for *Employing interdependence* which may have contributed to her GPA falling below the minimum requirement, as she may not feel fully confident in asking for help from others yet.
Table 4.20 Eve’s self-assessment score grouping

<table>
<thead>
<tr>
<th>Category</th>
<th>Pre-self-assessment</th>
<th>Post-self-assessment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Believing in myself</td>
<td>Beginning</td>
<td>Competent</td>
</tr>
<tr>
<td>Developing emotional intelligence</td>
<td>Beginning</td>
<td>Beginning</td>
</tr>
<tr>
<td>Adopting lifelong learning</td>
<td>Beginning</td>
<td>Developing</td>
</tr>
<tr>
<td>Gaining self-awareness</td>
<td>Beginning</td>
<td>Developing</td>
</tr>
<tr>
<td>Mastering self-management</td>
<td>Beginning</td>
<td>Beginning</td>
</tr>
<tr>
<td>Accepting personal responsibility</td>
<td>Beginning</td>
<td>Developing</td>
</tr>
<tr>
<td>Discovering self-motivation</td>
<td>Beginning</td>
<td>Developing</td>
</tr>
<tr>
<td>Employing interdependence</td>
<td>Developing</td>
<td>Developing</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Course</th>
<th>Midterm Grade</th>
<th>Final Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>BI 111</td>
<td>F</td>
<td>I</td>
</tr>
<tr>
<td>BI 113</td>
<td>U</td>
<td>I</td>
</tr>
<tr>
<td>GPA</td>
<td>n/a</td>
<td>3.835</td>
</tr>
</tbody>
</table>

Eve’s score groupings showed the greatest improvement across categories, however her grades were not able to be analyzed. In the categories where Eve did not move score grouping, she remained consistent.
Table 4.21 Fiona’s self-assessment score grouping

<table>
<thead>
<tr>
<th>Category</th>
<th>Pre-self-assessment</th>
<th>Post-self-assessment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Believing in myself</td>
<td>Developing</td>
<td>Developing</td>
</tr>
<tr>
<td>Developing emotional intelligence</td>
<td>Competent</td>
<td>Competent</td>
</tr>
<tr>
<td>Adopting lifelong learning</td>
<td>Beginning</td>
<td>Competent</td>
</tr>
<tr>
<td>Gaining self-awareness</td>
<td>Developing</td>
<td>Developing</td>
</tr>
<tr>
<td>Mastering self-management</td>
<td>Competent</td>
<td>Competent</td>
</tr>
<tr>
<td>Accepting personal responsibility</td>
<td>Developing</td>
<td>Developing</td>
</tr>
<tr>
<td>Discovering self-motivation</td>
<td>Competent</td>
<td>Competent</td>
</tr>
<tr>
<td>Employing interdependence</td>
<td>Beginning</td>
<td>Developing</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Course</th>
<th>Midterm Grade</th>
<th>Final Grade</th>
<th>GPA</th>
</tr>
</thead>
<tbody>
<tr>
<td>BI 111</td>
<td>D</td>
<td>W</td>
<td></td>
</tr>
<tr>
<td>BI 113</td>
<td>S</td>
<td>W</td>
<td></td>
</tr>
<tr>
<td>GPA</td>
<td>n/a</td>
<td>3.334</td>
<td></td>
</tr>
</tbody>
</table>

Fiona remained consistent across all categories except for Adopting lifelong learning and Employing interdependence where she improved from Beginning to Developing. Fiona withdrew from Concepts in Biology I Lecture and Lab, so her grades could not be analyzed, however her GPA exceeded the minimum requirement for her major.

Withdrawing from biology before failing the course shows that Fiona utilized her resources to assess her needs, which relates to the improvement in Employing interdependence.
### Gabby’s self-assessment score grouping

<table>
<thead>
<tr>
<th>Category</th>
<th>Pre-self-assessment</th>
<th>Post-self-assessment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Believing in myself</td>
<td>Beginning</td>
<td>Developing</td>
</tr>
<tr>
<td>Developing emotional intelligence</td>
<td>Beginning</td>
<td>Developing</td>
</tr>
<tr>
<td>Adopting lifelong learning</td>
<td>Developing</td>
<td>Developing</td>
</tr>
<tr>
<td>Gaining self-awareness</td>
<td>Developing</td>
<td>Developing</td>
</tr>
<tr>
<td>Mastering self-management</td>
<td>Developing</td>
<td>Developing</td>
</tr>
<tr>
<td>Accepting personal responsibility</td>
<td>Developing</td>
<td>Developing</td>
</tr>
<tr>
<td>Discovering self-motivation</td>
<td>Developing</td>
<td>Competent</td>
</tr>
<tr>
<td>Employing interdependence</td>
<td>Beginning</td>
<td>Competent</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Course</th>
<th>Midterm Grade</th>
<th>Final Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>BI 111</td>
<td>D+</td>
<td>C+</td>
</tr>
<tr>
<td>BI 113</td>
<td>S</td>
<td>B-</td>
</tr>
<tr>
<td>GPA</td>
<td>n/a</td>
<td>2.724</td>
</tr>
</tbody>
</table>

Gabby improved in some categories and remained consistent in others. Gabby moved from *Beginning* to *Developing* in *Believing in myself* and *Developing emotional intelligence*. She moved from *Beginning* to *Competent* in *Employing interdependence*. Further, Gabby met the minimum grade requirements for Concepts in Biology I Lecture and Lab as well as her GPA. Gabby’s improvement in *Believing in myself* and *Employing interdependence* align with her academic improvement.
Table 4.23 Hope’s self-assessment score grouping

<table>
<thead>
<tr>
<th>Category</th>
<th>Pre-self-assessment</th>
<th>Post-self-assessment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Believing in myself</td>
<td>Developing</td>
<td>Developing</td>
</tr>
<tr>
<td>Developing emotional intelligence</td>
<td>Developing</td>
<td>Developing</td>
</tr>
<tr>
<td>Adopting lifelong learning</td>
<td>Developing</td>
<td>Competent</td>
</tr>
<tr>
<td>Gaining self-awareness</td>
<td>Developing</td>
<td>Developing</td>
</tr>
<tr>
<td>Mastering self-management</td>
<td>Competent</td>
<td>Competent</td>
</tr>
<tr>
<td>Accepting personal responsibility</td>
<td>Developing</td>
<td>Developing</td>
</tr>
<tr>
<td>Discovering self-motivation</td>
<td>Competent</td>
<td>Competent</td>
</tr>
<tr>
<td>Employing interdependence</td>
<td>Developing</td>
<td>Developing</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Course</th>
<th>Midterm Grade</th>
<th>Final Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>BI 111</td>
<td>C-</td>
<td>B-</td>
</tr>
<tr>
<td>BI 113</td>
<td>S</td>
<td>B-</td>
</tr>
<tr>
<td>GPA</td>
<td>n/a</td>
<td>3.334</td>
</tr>
</tbody>
</table>

Hope remained consistent across score groupings except for *Adopting lifelong learning* where she moved from *Developing* to *Competent*. Additionally, Hope improved her grades in Concepts in Biology I Lecture and met the minimum grade requirement in both lecture and lab as well as her GPA. Hope’s consistency and improvement supported her academic improvement and her ability to exceed the minimum GPA requirement for her major.

Overall, participants remained consistent in their score groupings in their pre- and post-self assessment. While this does not show marked improvement across the board, it does show that participants are still in their individual process of development. The
qualitative results will further explain individual participants’ development and experience.

**Results of Qualitative Data**

Qualitative data were collected throughout the study. Participants were asked to complete four individual activities and reflections each week following the meeting with their advisor. Each activity provided a reflection prompt. Participants were asked to complete the reflection and upload their thoughts through a Sharepoint Form. Reflection prompts asked participants to explore their experiences completing each activity and how they might use the information or skills in the future. While participants were asked to complete all four reflections, some participants did not submit each week. Table 4.16 outlines the participants’ reflection submissions.

Table 4.24 Participant Engagement in Reflection Activities

<table>
<thead>
<tr>
<th>Participant</th>
<th>Reflection One</th>
<th>Reflection Two</th>
<th>Reflection Three</th>
<th>Reflection Four</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fiona</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Cait</td>
<td>x</td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hope</td>
<td>x</td>
<td></td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>Brianne</td>
<td>x</td>
<td>x</td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>Daniella</td>
<td>x</td>
<td>x</td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>Gabby</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Alison</td>
<td>x</td>
<td></td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>Eve</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

In addition to the participant reflections, the academic advisors participated in a focus group following the end of the program. Questions asked the advisors to reflect on their experience working with their assigned participants and the material covered in the program.
Merriam and Tisdell (2016) suggest reviewing qualitative materials and identifying areas of repetition and patterns to construct themes or categories. I used this method with the participant reflections and focus group transcript. Upon reviewing the data, three major themes emerged: improved executive functioning, heightened self-awareness, and importance of relationship building.

**Improved Executive Functioning Skills**

Participants shared experiences of improved executive functioning skills throughout their involvement in the program. A common skill highlighted by participants was time management. Daniella identified the traits she believes are required to be academically effective. She shared, “to be a successful college student, I believe one must be determined, have good time management, and be open-minded. Something I learned while being a part of this program is to better time manage my work.” While discussing things she learned during the program, Cait shared she realized the importance of “Planning my day and taking breaks from studies to listen to music and breathe in some fresh air helped me to relax.” Gabby felt that her time management skills were already high prior to participation. She shared, however, a new perspective on her prior skills:

The only difference I can see myself making about how I use my time is what I do first because I usually take a break between classes and schoolwork, but I intend to start either shortening those breaks so I have more free time later in the day or waiting to take a break until I’ve at least completed a good amount of my work. At times, they reflected on their growth. Brianne shared “I feel like I procrastinate and push things off, until time starts to run out, which is why I started taking some steps in advance [such as working with a] biology tutor and making flashcards for exam next
week.” She further discussed that she now understands “I can’t just ‘wing things’ like I would find myself doing often in high school.” In Fiona’s final reflection, she summarized her experience by sharing “Each strategy, advice, or general information we talked about in this passport to success program has helped me grow, learn new ways to study, and gave me general take-aways for my future.”

Participants also shared the importance of self-confidence building. Brianne shared:

Having self-confidence and the ability to motivate myself will allow me to get the good grades I need. Believing in myself will also boost my confidence, which means I will be able to see better results, especially in my performance in class. Gabby realized she needed the reassurance of her professor to boost her confidence. After visiting office hours she reflected, “It turned out that my two questions were pretty simple to answer, and I just needed her input to assure that I was doing things correctly.”

These ideas were also discussed in the focus group. Xavier noticed his advisee’s maturity developing throughout the program and found this to be the most rewarding component of facilitation. He shared:

But they became more mature as the weeks went on. And they told me, like, these are things that they're going to use in the future, the knowledge that they learn or the skills that they gained through the program.

Xavier also shared a positive response to his advisees note-taking strategies following the meeting discussing this topic. He reflected:
I noticed that some of them changed their techniques for taking notes. Like a lot of them were just typing up their notes and doing an outline setting, having an outline for their notes, and then they switched to another strategy we discussed. He felt that this was a constructive topic for both him and the participants.

Executive functioning was a critical topic during the academic advisor meetings, and an important component of Chickering’s first vector, developing competence. It is positive that participants identified skills they feel more confident in using and that the advisors felt this was a useful way to spend their time with participants during individual meetings.

**Heightened Self-awareness**

Participants often exhibited moments of heightened self-awareness in their activity reflections. This most often surfaced when participants discussed changing their habits to improve their academic standing. A common phrase used by participants was “accountability for their actions.” Brianne shared:

> I would like to be able to take personal accountability for my actions and my poor grades. At times, I often find myself blaming the teaching style, or the class size, or the confusing PowerPoints for my poor grades. But I am having an open mind about this and have been taking accountability for my actions. I have realized that although I may not like the professor’s teaching style, I cannot change it, therefore I need to be able to adjust to it in order to be able to excel.

Daniella reflected by stating, “I’ve realized that most of my time I spend procrastinating by not doing my work that needs to get done.” Alison emphasized being frustrated with herself when she does not follow through with her goals. She shared, “If I continue this, I
will not reach my goals due to my procrastination in which I need to and plan on fixing. Sometimes I feel frustrated because of this habit and not being able to fix it.”

In the advisor focus group, these ideas were confirmed. Kami shared that she encouraged self-awareness when working with her advisees. She reflected:

My whole thing with my students from the very beginning when I meet them at the beginning of the year is really about well, why are you here, why did you choose this school, why this major, what do you want, and what are you bringing to the table to be successful?

Self-awareness was a focus of discussion for both advisors in their meetings with participants and aligns with Chickering’s second vector, managing emotions. Having participants identify areas for improvement or what is working for them is a significant step in students’ development through the vectors.

**Importance of Relationship Building**

Most discussed by participants was relationship building among faculty, advisors/tutors, and peers. Relationships appeared both positive and negative for academic success. Participants identified relationship building with faculty, advisors, and tutors as primarily positive when discussing academic success. Relationships with peers appear to contribute positively for some participants and as a hindrance to academic success for others.

Cait reflected that “attending office hours can be quite beneficial, especially if you are struggling to understand the material you are learning.” She later shared, “I have spoken to my professor a lot, so she knows me personally, and she can tell that I am really giving it my all.” Hope was nervous about speaking with her professor for the first
time. After her initial visit with her biology professor, she shared, “I’m glad that I went and got some advice and study tips.” Fiona was unsure about reaching out to her professor for guidance. In her final reflection, she shared “Now, I have been attending office hours every week since and I feel like it is helping.”

Kami felt that the participants learned the importance of connecting with faculty during the program. She appreciated the topic and that she was able to provide her participants with a script or outline to utilize if they were nervous. She shared that her participants reported their positive experiences with their professors. She reflected, “I had a student who was so nervous to visit her biology professor. It ended up that no one from her class had visited office hours yet that semester and the professor was thrilled to have her there.”

In her final reflection, Daniella discussed her connection with her academic advisor. She shared:

When meeting with my advisor, we came up with a system that allowed me to place my assignments and other activities in important and unimportant categories, which helped make a clearer list of priorities. I think that if I was put into this program without meeting with my advisor and just being emailed assignments to go through, I would have definitely not done it, so it was helpful to meet once bi-weekly. Talking with my advisor allowed me to ask questions and get feedback based on previous management skills I have tried whether they worked or not.
The advisors discussed the logistics of relationship building in the focus group. Both Kami and Xavier felt that the in-person meetings were more effective than meetings with students on Zoom. Xavier shared:

I think my meetings that were in person were much more productive than the ones that were on Zoom. Because I felt like both of us, both me and the student, were more focused. We could read each other’s body language in person while on Zoom was hard to tell if they were paying attention or not.

Kami agreed, adding that on Zoom “there's so many other things happening in the background.”

Brianne reflected on ways she can increase her motivation, including working with peers. Cait also found that “meeting with my friend from class twice a week as well to go over everything and study more” was a positive contribution to her success. However, Daniella reflected that “Most of the time I get distracted by friends.” Fiona also shared that “What sometimes keeps me from taking purposeful actions is if I know I want to go out and do something I need to get schoolwork done but the people around me will want to go out. I will put what I'm doing aside and come back to it later.”

Participants’ understanding of the importance of relationships shows their development and movement towards employing interdependence. Identifying positive and supportive relationships on campus shows that participants incorporated content discussed in their meetings to improve their academic performance and their personal development. Further, participants noticed when relationships negatively impacted performance indicates they are capable of revising relationships to build positive support.
systems which aligns with Chickering’s third vector, *moving through autonomy towards interdependence*.

**Triangulation**

Merriam and Tisdell (2016) assert that a mixed methods design allows for multiple sources of data to be used for triangulation. By triangulating the findings from multiple sources a deeper understanding of the data is reached.

Participants’ term GPAs showed that five out of eight met or exceeded the minimum requirement for their intended major. Results of the Concepts in Biology I lecture and lab final grades show that most participants improved their performance in with participation in this program. Overall, most participants’ academic performance improved over the course of the intervention. The skills discussed with academic advisors and applied during individual activities and reflections could have impacted the growth in achievement. This is also shown in the themes that emerged in the participant reflections and advisor focus group. Participants identified the development of executive functioning skills as a critical component to their academic success.

In addition to successful academic outcomes, participants demonstrated growth in their personal development, particularly in emotion management. This is shown in the improvement of five participants in the post-self-assessment category *developing emotional intelligence*. This is further revealed in the theme of heightened self-awareness that emerged from participants’ reflections and the focus group. Further, seven participants exhibited growth in the category *believing in myself* in the post-self-assessment. This is additionally displayed in the participants’ reflections discussing self-awareness.
First-year students require targeted support as they transition into college (Breso et al., 2011; Walton & Cohen, 2011; Farruggia et al., 2018). The participants’ improvement in both academic success and personal development show the efficacy of this intervention. With support from the academic advisors, participants were able to increase their academic performance and grow within Chickering’s first three vectors.

Summary

The goal of this mixed-methods action research study was to understand academically struggling students’ experiences in both academic and personal development. A six-week intervention of individual academic advising meetings was developed using Chickering’s Seven Vectors of Identity Development as a framework. Quantitative data was collected using a self-assessment pre-intervention and again post-intervention. Additionally, participants’ grades were collected pre-intervention and post-intervention. Qualitative data was collected during the intervention through participant reflection assignments and a focus group with academic advisors following the intervention.

Analysis of the quantitative data found that most participants met or exceeded the minimum requirements for their GPA and coursework to progress in their intended major. Additionally, most participants improved their scores across several areas of personal development. However, there was not consistent improvement across all areas for participants. As personal development is not linear or the same for everyone, this inconsistency is to be expected. Analysis of qualitative data added to the understanding of the participant and advisor experience during the intervention. Reflections from participants allowed for a deeper grasp of the participants’ thoughts and feelings towards
the intervention and supported the qualitative data. The advisor focus group confirmed much of the reflections from participants and added to the overall understanding of the impact of the intervention.
CHAPTER 5
IMPLICATIONS AND RECOMMENDATIONS

The aim of this study was to investigate the academic success and personal development needs of first-year students within the College of Health Professions at New England Catholic University. Through regular meetings with their academic advisor and individual reflection activities, participants identified as struggling academically at the midterm of their first year engaged in targeted intervention for both academic and personal growth. Participants completed a self-assessment prior to their first meeting with their academic advisor and again following their last meeting with their academic advisor. Participants met with their advisor four times over the course of six weeks to discuss academic success strategies and transitional concerns facing college students. Additionally, participants completed individual activities during the weeks they did not meet with their advisor. Following these activities, participants completed individual reflections. The study utilized Chickering’s Theory of Identity Development as a framework. The intervention focused on Chickering’s first three vectors or tasks: developing competence, managing emotions, and moving through autonomy toward interdependence. The research questions that guided this study were:

1. What is the impact of a proactive intervention on academic achievement for academically struggling first-year students in a health professions program?
2. What is the impact of a proactive intervention on students’ identity development in Chickering’s first three vectors for academically struggling first-year students in a health professions program?

3. What skills do academically struggling first-year students in a health professions program find most useful when improving their academic performance?

4. What are the main factors that contribute to academically struggling first-year students’ identity development?

5. What role does an academic advisor play in the identity development of an academically struggling first-year student?

This chapter will discuss the answers to the research questions as they relate to the findings discussed in the previous chapter. Next, implications for practice and an action plan will be shared based on the findings of this study. Finally, a reflection on the study, limitations and implications for future research will be described.

Research Question Findings

The questions that guided this study aimed to explore the relationship between academic success and student development. Additionally, the questions hoped to identify areas of support that successfully improved academic achievement and student development. This section will discuss the answers to each research question.

Research Question One: What is the impact of a proactive intervention on academic achievement for academically struggling first-year students in a health professions program?
The first research question was answered using quantitative data collected at the midterm and after finals. Results indicated improvement in participants’ academics through engagement in the intervention. Five out of eight participants met or exceeded the minimum GPA required for their intended major. Additionally, five out of eight participants improved their grade and four out of eight participants met or exceeded the minimum grade required in Concepts in Biology I lecture. Further, five out of eight participants met or exceeded the minimum grade required in Concepts in Biology I lab. Fiona withdrew from both lecture and lab, and Eve did not complete the course by the end of the semester.

The participants’ academic success is further confirmed in the qualitative data, as participants reflected on their experience and academic improvement. Participants shared noticed improvement in executive functioning skills which led to their academic success as well as self-confidence. These findings are consistent with Kahu et al.’s (2020) study which found that students who struggled academically had lower self-efficacy. Kahu et al. (2020) explored the experience of first-year students in Australia and found an improvement in academic performance as students’ self-confidence was reinforced. As participants connected with their academic advisor and developed skills to support their academic success, their confidence increased and they performed better academically.

**Research Question Two: What is the impact of a proactive intervention on students’ identity development in Chickering’s first three vectors for academically struggling first-year students in a health professions program?**

The second research question was answered using quantitative data collected from the pre-self-assessment and post-self-assessment. Results did not indicate a broad
improvement across all participants, but rather some improvement in different categories for each participant. This is consistent with Chickering and Reisser’s (1993) assertion that development is individual and does not follow a linear path.

These results were additionally confirmed in the themes that emerged from the qualitative data: improved executive functioning, heightened self-awareness, and importance of relationship building. Participants reflected on their experience and noted areas where they were able to apply the skills discussed in the meetings with their advisors and areas where they felt the need for improvement. This is in line with the literature which states when students develop general competence there is a greater overall sense of confidence in their academic abilities (Chickering & Reisser, 1993; Liversage et al., 2018). As participants experienced greater academic success, their confidence increased. This in turn let to even more improvement in coursework and willingness to engage with campus resources such as faculty, tutoring services, and academic advisors.

Research Question Three: What skills do academically struggling first-year students in a health professions program find most useful when improving their academic performance?

The third research question was answered using qualitative data. Participants completed reflection activities throughout the intervention. In these reflections, participants highlighted the importance of time management and note taking strategies and study skills. This was confirmed by the academic advisors in the focus group discussion. Both advisors shared their experience reviewing these skills with participants
was worthwhile. Additionally, participants shared their new-found understanding of the importance of building relationships with their faculty.

Lane et al. (2020) discussed students’ general misunderstanding of the expectations between high school and higher education which connects to participants of this study who found their study strategies from high school did not necessarily work at the college level. However, participants did not explicitly discuss the increased demands on time required for studying and class preparation. Kuh (2007) and Harper and Associates (2014) explored the time commitment students believe is required for studying and homework in higher education and found mismatched expectations for high school students and first-year students at four year institutions. High school students did not expect to study outside of school hours since they completed assignments at school and took notes during class while first-year students spent an average of 13-14 hours outside of class time on learning materials (Harper & Associates, 2014; Kuh, 2007). Participants in this study did not identify specific amounts of time spent on studying before or after the intervention. Further investigation into this area could provide more insight into the CHP students’ experience.

**Research Questions Four and Five: What are the main factors that contribute to academically struggling first-year students’ identity development? What role does an academic advisor play in the identity development of an academically struggling first-year student?**

The fourth and fifth research questions were answered using qualitative and quantitative data. Participant reflections highlighted the importance of relationship building as a support for development and academic improvement. Several participants
shared their positive experience working with their academic advisor. The advisors also shared observations on participants’ growth during the intervention including maturity and willingness to accept support. This is further supported by Fiona and Hope’s growth in the pre-self-assessment and post-self-assessment. Fiona and Hope were among the most engaged in advisor interactions and reflection activities and had some of the most growth in self-assessment categories. However, Gabby and Eve were not as engaged in all activities of the intervention but exhibited growth in all categories of the self-assessment. Although Eve was not engaged in the reflection activities, she was in consistent contact with her advisor. This led her to realize she wanted to change her major and helped improve her experience at the institution. This relationship shows the importance of a connection with an advisor in the first year.

These findings are consistent with Melguizo et al.’s (2021) understanding of the student experience. When students have confidence in their ability to navigate the academic and social demands of college, their overall success improves (Melguizo et al., 2021). Further, Friedman (2022) highlights the importance of community building for first-year students. When students have a sense of belonging, there is a positive impact on learning and persistence (Friedman, 2022). Finally, Vianden and Barlow (2015) and Hart-Baldrige (2020) confirm the positive influence of high-quality academic advising on student outcomes.

While there was growth evident in participants’ post-self-assessment, the participants’ reflections did not delve into aspects of identity development such as gender, sexuality, race or ethnicity, religion, or intersectionality of these identities. Tanaid and Wright (2019) also found that Chickering’s Seven Vectors did not provide an
effective lens to look at multiple identities of students. Researchers assert that exploring intersectionality in student development is critical to understanding the impact of systems of power and privilege on student development (Duran & Jones, 2020; Harris & Patton, 2019; Jones & Abes, 2013). Understanding the impact of intersectionality of students’ identity could provide further insight to the process of their development.

Implications for Practice

Student academic success and identity development are areas that allow for continued exploration and improvement. As we begin to see the lasting impacts of the COVID-19 pandemic on students’ academic preparedness and development, it is now even more critical to provide opportunities for student engagement with academic support resources at the college level. Dodd et al. (2021) found inequities across college students in both learning experience and wellbeing during COVID-19. These inequities underscore the need to focus educational and emotional resources to avoid intensifying the disparities (Dodd et al., 2021). Connecting with first-year students early to establish a relationship is critical in positively supporting their development and connection to the institution.

Through this study it is evident that there is a positive impact on student academic success when positive relationships are built on campus. Further, supporting students in skill development early in their college experience is critical for academic success. Connecting students to campus resources such as faculty, tutors, and advisors allows for confidence building and executive functioning skill development. Chickering and Reiser (1993) assert that repeated exposure to supports in each vector allow for successful
student development. By linking students to academic advising relationships, a support system can develop.

**Action Plan**

This study provided an understanding of the support academically at-risk students require to improve their academic standing and continue developing. The following action plan outlines possible improvements to this study for future programming both in the upcoming academic year and moving forward to future years.

*Attracting More Diverse Student Participants*

The program participants of this study were all white females who were not first generation, Pell Eligible, or classified as low income. However, eligible students included an additional 25 males and 33 females, 22 first generation students, nine Pell Eligible students, and four students categorized as low income. Additionally, three eligible participants identified as Black or African American, four students identified as Hispanic or Latino, one student identified as Asian, one student identified as international, and two students identified as two or more races.

Next year, I will work to encourage all eligible students to complete the program to ensure we capture all academically at-risk students. This will start by surveying students who did not complete the program and those who opted out of participating in the program to see why they did not choose to enroll. After understanding why these students chose not to participate, adjustments can be made to the program design.

*Advisor Training and Development*

To prepare for future programming, the academic advisors requested additional training opportunities designed to support their understanding of Chickering and
Reisser’s vectors. While training sessions for the advisors were built into the design of this study, both my own observations and the advisors reflections indicated a need for increased training opportunities.

Training materials were provided to each advisor summarizing each vector, limited training session time precluded us from having extended conversations about the topic. As this study and the literature highlighted the importance of academic advising in the role of student success, more can be done to improve the advisor experience (Fosnacht et al., 2017; Hart-Baldrige, 2020; Snyder-Duch, 2018; Vianden & Barlow, 2015).

During Summer 2023 I would add an additional training session to cover the vectors and the self-assessment categories to help advisors prepare more for the Fall 2023 semester. I would also ask more experienced advisors to share their suggestions with newer advisors to create an opportunity for idea exchange during our bi-weekly team meetings. Further training will also include providing suggested scheduling timelines over two weeks per topic for student appointments to ensure advisors are not overloaded with their work, as Kami shared it was sometimes difficult to fit all participants into her schedule within one week.

**Student Learning Materials**

Academic advisor feedback suggested creating more visually appealing handouts and resources for participants to take with them following individual advising meetings. While students were provided with handouts, they were often text-heavy and difficult to read quickly. New handouts can be reviewed by current students to provide feedback and insight on their effectiveness. Future iterations of this programming in Fall 2023 will
include quick handouts for participants that advisors can give them at the end of each meeting.

Additionally, the handouts will be housed digitally on the college’s website to allow all students the opportunity to engage with the learning materials of this program. In addition to the handouts, videos and infographics discussing each topic will be available. Videos will include resources available on YouTube, along with mini webinars created by the academic advisors. Current students will also be asked to share their experiences, successes, and learning moments in video clips or short reflections. These materials will be developed over the 2023-2024 academic year and available for Fall 2024 programming.

Using Predictive Analytics

Beginning in Fall 2024, I hope to use improvements to university software to identify academically at-risk students earlier in the semester. The university has purchased HelioCampus data analysis software will integrate existing software to allow us real-time access to enrollment, admissions and retention data. Indicators such as high school GPA, and high school math and science scores may allow us to intervene even earlier with this program and catch students before they earn low midterm grades. At present, access to student high school information is not accessible to all administrators at the university, but improvements in university software with HelioCampus will provide this access beginning next academic year.

Expanding Programming University-Wide

A long-term action item will be to expand this programming university-wide to support all first-year students enrolled at New England Catholic University. Each college
within the university oversees their own academic advisement model. However, a university-wide committee plans teaching and learning initiatives including advisement. A discussion in this committee has included plans to adapt this program within each college. This will be easier for some colleges than others, as enrollment varies across the institution. For example, CHP enrolls 300-400 first-year students annually who work with three professional academic advisors while the College of Arts and Sciences enrolls 500-600 first-year students annually who work with a combination of professional advisors and faculty advisors. There is interest in adapting this program to work for each college’s enrollment and advising structure.

These action items allow for both immediate and long-term updates to student success programming. Initially, expansion in advisor training will provide additional support for those implementing the intervention. Additional learning materials will be created and shared with students to allow for a deeper understanding of the learning material covered in individual meetings. Future plans to utilize university software and predictive analytics will help execute this program earlier in the semester. While this study initially focused on first-year students within a specific college at New England Catholic University, it can ultimately be expanded to provide all first-year students with academic and personal success support.

Limitations

Within this study there were several limitations identified: number of participants, varied abilities of the academic advisors, and time constraints. The first limitation was the number of participants. Only eight participants completed both the pre- and post-self-assessment while 67 students were eligible for the intervention. Participants were not
mandated to enroll in the program; however, they were strongly encouraged to consider participation. Mandating participation could have increased the number of participants; however, it could also have negatively impacted participants’ experiences as they could have felt forced to engage in the program.

The second limitation was the varied abilities of the academic advisors. At the start of the intervention, there were three academic advisors employed by the college, each with varying years and type of advising experience. During the intervention, it was evident that one advisor was not successfully meeting the deadlines of the intervention timeline and ultimately left the institution. An additional 25 students could have completed the intervention with this advisor. One advisor had many years of advising experience and had engaged with the self-assessment in their previous role. Therefore, this advisor felt more confident with the content and discussing the materials with their students. While it is not possible to control years of experience on an advising team, additional development opportunities for the advisors could have supported their success. This further confirms the critical importance of high-quality academic advisement.

The third limitation was time constraints. Due to the timing of data collection, there was little time for flexibility of scheduling student meetings and follow-up with participants to collect the post-self-assessment. Data was collected during the second half of the other semester and ended immediately preceding winter break for the students. This required all data collection to be completed before students left campus for break as students do not typically answer emails outside of the semester. Further, individual participant interviews were originally planned for the week of final exams. Due to time constraints and limited availability of participants, those interviews were not conducted.
Data collected also needed to be complete by December 2022 to allow for adequate time for analysis and discussion prior to the submission deadline. If there was additional time allotted for follow-up, more data could have been collected to contribute to the overall understanding of the student experience and to understand more participants’ identity development.

The final limitation is the pre- and post-self-assessment instrument. While the questionnaire was published in multiple editions of the book *On Course*, there is limited published information about the reliability and validity of the questionnaire. In the future, another instrument can be developed or used.

**Reflections on Action Research**

Reflecting on my experience during this study, I am pleased with my first attempt at action research. The study provided me with an opportunity to improve my own practice as both an academic advisor and as a leader of an advising team. Action research aims to make valuable change within a personal setting (Duesbery & Twyman, 2020). Through this study I was able to apply my own understanding of student development and student success strategies, and see how my understanding resonated with students and other advisors. While there were obstacles that created limitations to this study, overall, the outcome was positive, and students benefited from the experience.

Action research is cyclical (Duesbery & Twyman, 2020). While this study answered some questions, many more were exposed. The focus of this study was on the student experience. However, an unexpected outcome was learning about the importance of the advisor’s preparation in supporting the student. The cyclical nature of action
research allows me to continue to explore these questions and continually improve the academic advisement experience for students within CHP.

**Implications for Future Research**

There are additional studies that could be conducted as a result of these findings. The first study could be to follow up with these students at the end of their second semester and in subsequent semesters to review their academic performance and personal development. Participants’ GPA could be reviewed along with additional major course requirements. Further, participants could complete the self-assessment again to review any additional changes in identity development.

Additionally, this study highlighted a need for academic advisor professional development opportunities. Future studies can include a professional development curriculum for advisors working with academically at-risk first-year students. Understanding the advisor experience more deeply will allow for a more robust exploration of which student support resources provide the best results.

**Summary**

This study provided insight into the student experience for academically at-risk first-year students in a health professions program. Quantitative data showed that most students’ academic performance met or exceeded the minimum requirement for their major with support from their advisor through this intervention. Further, quantitative data showed that student development did occur for participants. Qualitative data allowed for a deeper understanding of the participants’ experience. Through student reflection activities, it was evident that executive functioning skill development, relationship
building, and self-awareness are important components of personal development and academic achievement.

An action plan was developed to suggest steps for moving forward following this study. Additionally training for advisors will be implemented to improve their ability to support students. Learning materials for students will be improved and shared on the university website to allow for easier understanding and access for both participants and the general student population. Utilizing university software and predictive analytics will allow for earlier intervention of at-risk students in the future. Finally, a long-term goal of expanding the intervention university-wide will allow for more students to benefit from the support.

Additional research is needed to understand the long-term effects of this intervention. Revisiting participants following their second semester and in future years can provide additional insight into their academic success as well as their personal growth. Further, a deeper investigation into academic advisor training and development can improve the understanding of the impact of academic advisors on student success.
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APPENDIX A

RESEARCH PROCEDURE TIMELINE

This action research study took three months to complete following Institutional Review Board (IRB) approval. The timeline included identifying participants, dissemination of pre-self-assessment, four meetings with participants and their academic advisor, three email newsletters sent to participants, post-self-assessment, semi-structured interviews, focus group, and collection of final grades of participants. Additionally, the timeline included coding, analysis, and writing of the study results. Table A.1 provides the timeline for the process.

Table A.1

<table>
<thead>
<tr>
<th>Date</th>
<th>Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>October 21, 2022</td>
<td>Download and review midterm grades. Select participants.</td>
</tr>
<tr>
<td>October 24-28, 2022</td>
<td>Students notified and connect with academic advisor. Pre-intervention self-assessment distributed.</td>
</tr>
<tr>
<td>October 31-November 4, 2022</td>
<td>Week 1: Advisor meeting 1</td>
</tr>
<tr>
<td>November 7-11, 2022</td>
<td>Week 2: Email newsletter 1</td>
</tr>
<tr>
<td>November 14-18, 2022</td>
<td>Week 3: Advisor meeting 2</td>
</tr>
<tr>
<td>November 21-25, 2022</td>
<td>Week 4: Email newsletter 2</td>
</tr>
<tr>
<td>November 28-December 2, 2022</td>
<td>Week 5: Advisor meeting 3</td>
</tr>
<tr>
<td>December 5, 2022</td>
<td>Week 6: Email newsletter 3</td>
</tr>
<tr>
<td>December 5-9, 2022</td>
<td>Week 6: Advisor meeting 4 (final)</td>
</tr>
<tr>
<td>December 10-13, 2022</td>
<td>Semi-structured interviews</td>
</tr>
<tr>
<td>Date</td>
<td>Task</td>
</tr>
<tr>
<td>-----------------------</td>
<td>-------------------------------------------</td>
</tr>
<tr>
<td>December 19, 2022</td>
<td>Academic advisor focus group</td>
</tr>
<tr>
<td>December 21, 2022</td>
<td>Final grades collected</td>
</tr>
<tr>
<td>December 27, 2022</td>
<td>Download and transcribe data</td>
</tr>
<tr>
<td>December 28-30, 2022</td>
<td>Data analysis</td>
</tr>
<tr>
<td>January 1-10, 2023</td>
<td>Write up results of data collection and analysis</td>
</tr>
</tbody>
</table>
APPENDIX B

OUTLINE OF ACADEMIC ADVISOR PRE-INTERVENTION TRAINING

Training 1

- Overview of program objectives
- Understanding Chickering’s Seven Vectors of Identity Development
  - Developing Competence
  - Managing Emotions
  - Moving Through Autonomy Towards Interdependence
- Review of Self-Assessment
- Challenges in transition to college

Training 2

- Study skills
  - Note taking
  - Working with faculty
- Self-management strategies
  - SMART goals
  - Quadrant II Time Management System
- Facilitating Reflection
APPENDIX C

PLANS FOR ACADEMIC ADVISOR MEETINGS

Meeting 1

**Topic:** Introduction and overview; Self-management

**Objectives:** Students will be able to

1. Identify challenges involved in transitioning to college
2. Describe self-management techniques
3. Develop a plan for self-management

**Introduction (5 minutes):** Advisor and student have opportunity to connect personally or continue personal connection established in first half of the semester. Suggested prompts for discussion include:

- Tell me about your high school experience.
- What are you involved in at the University?
- What is your favorite part about the University?
- What are you finding most challenging right now?

**What is a successful student? (10 minutes):** Advisor provides an overview of the skills and qualities necessary to be a successful CHP student. Review self-assessment results. Discussion prompt: What do you think a successful CHP student does? What qualities do they have?

**Transitional challenges (10 minutes):** Advisor will discuss topics such as:

- Changing relationships
- Academic expectations
- Balancing priorities (time management and scheduling)

Discussion prompt: What are you finding challenging as you transition from high school to college?

**Self-Management Techniques (10 minutes):** Advisor will discuss how self-management is an individual process. Strategies to be discussed include:

- To do lists
- Routines; Weekly vs. daily schedules
- Pomodoro Technique
- Quadrant II Time Management System

Discussion prompt: Have you ever noticed how much highly successful people accomplish? How do they make such effective use of their time?

**Review assignment (5 minutes):** In this activity, you will practice using the Quadrant II Time Management System.

1. Write a list of 15 or more specific actions you have taken in the past two days.
2. Using an entire piece of paper, draw a four-quadrant chart. Fill in your chart using the list you created in step 1. Place each item in the appropriate quadrant and include the amount of time spent on each activity.

3. Write about what you have learned about your use of time. What will you do now? To dive deep in this journal entry, answer questions such as the following:
   - What exactly did you discover after analyzing your time?
   - In which quadrant do you spend the most time?
   - If you continue using your time in this way, are you likely to reach your goals? Why or why not?
   - What most often keeps you from taking purposeful actions?
   - How do you feel about your discoveries?
   - What different choices do you intend to make about how you use time?

Adapted from Downing (2017).

Meeting 2

Topic: Effective note taking; Communicating with faculty

Objectives: Students will be able to
   - 4. Identify strategies for effective note taking
   - 5. Recognize the importance of connection with faculty
   - 6. Utilize tools for effective communication with faculty

Introduction (5 minutes): Review journal assignment from meeting one. Check in on student’s progress.

Note taking strategies (15 minutes): Advisor will discuss methods for note taking, noting that some strategies will work better than others for each student. Topics to discuss include:
   - Active listening & professor’s cues
   - Cornell Method
   - Concept maps
   - Outline

Discussion prompt: What does note taking look like for you right now? Do any of the options we discussed sound like they might work for you?

Communicating with faculty (15 minutes): Advisors will discuss with students the importance and benefit of creating relationships with faculty. Advisors will also explain that faculty members enjoy working one-on-one with students to dispel the myth that students are on their own when completing school work. Topics include:
   - What are office hours?
   - How to prepare for a meeting with faculty.
   - Professional communication

Discussion prompt: Have you communicated with a faculty member outside of class? Why or why not? How did it go?

Review of assignment (5 minutes): Visit at least one of your professors during their office hours this week. Use the planning outline to prepare. Submit a journal reflection discussing your experience.
Meeting 3
Topic: Emotional Intelligence and Building Resilience
Objectives: Students will be able to
   1. Define emotional intelligence
   2. Define resilience
   3. Identify strategies for reducing stress
Introduction (5 minutes): Review journal assignment from meeting two. Check in on student’s progress.
Defining emotional intelligence (8 minutes): Utilize hand out to explain emotional intelligence and its importance for student success.
Defining resilience (7 minutes): Utilize hand out to explain resilience and its importance for student success.
Review assignment (5 minutes): Write about a recent time when you felt overwhelmed, angry, sad, or anxious. Fully describe the situation that caused your emotional response; then describe the distressing feelings you experienced; finally, explain what you did (if anything) to manage your emotions in a positive way. Then, identify two or more strategies that you could use in the future when you experience this emotion. Explain each strategy in a separate paragraph. When you’re done, notice if simply writing about your stressors and ways to manage them may have reduced your level of stress. Adapted from Downing (2017).

Meeting 4
Topic: Wrap-up and Preparing for Final Exams
Objectives: Students will be able to
   1. Identify study strategies to prepare for final exams
   2. Reflect on their growth
Introduction (5 minutes): Review journal assignment from meeting three. Check in on student’s progress.
Review of study strategies (15 minutes): Review skills distributed in week 2 Newsletter. Discussion prompt: What strategies have you implemented since midterm? What is working? What didn’t work? Why?
Closing reflection (15-20 minutes): Student will be provided with opportunity to reflect on their experience in the program, using second self-assessment responses. Ideally the conversation will be student-led. However, if the student is quiet, proposed prompts include:
   • How have you changed this semester?
   • What changes do you still want to make?
Review of final assignment (5 minutes): In this activity, you will examine the changes you have made since the beginning of this course, and you will plan your next steps toward success in college and in life.
   • Write the eight areas of the self-assessment and transfer your scores from the first and second self-assessment.
   • Comparing the results from the two self-assessments, write in depth about the area(s) in which you have raised your score.
• Further comparing the results from the two self-assessments, write in depth about the area(s) in which you most want to continue improving. Identify the specific changes you’d like to make in your behaviors, thoughts, emotions, and beliefs in the months and years to come.

• Sum up the most important discoveries you’ve made and your plans for moving forward. *Adapted from Downing (2017)*
APPENDIX D

DOWNING (2017) SELF-ASSESSMENT

Self-Assessment
Read the following statements and score each one according to how true or false you believe it is about you. To get an accurate picture of yourself, consider what IS true about you (not what you want to be true). Remember, there are no right or wrong answers. Assign each statement a number from 0 to 10, as follows:

Totally False  0  1  2  3  4  5  6  7  8  9  10  Totally True

1. I control how successful I will be.
2. I’m not sure why I’m in college.
3. I spend most of my time doing important things.
4. When I encounter a challenging problem, I try to solve it by myself.
5. When I get off course from my goals and dreams, I realize it right away.
6. I’m not sure how I prefer to learn.
7. I know ways to increase my happiness.
8. I’ll truly accept myself only after I eliminate my faults and weaknesses.
9. Forces out of my control (such as poor teaching) are the cause of low grades I receive in school.
10. I place great value on getting my college degree.
11. I don’t need to write things down because I can remember what I need to do.
12. I have a network of people in my life that I can count on for help.
13. If I have habits that hinder my success, I’m not sure what they are.
14. When I don’t like the way an instructor teaches, I know how to learn the subject anyway.
15. When I get very angry, sad, or afraid, I do or say things that create a problem for me.
16. When I think about performing an upcoming challenge (such as taking a test), I usually see myself doing well.
17. When I have a problem, I take positive actions to find a solution.
18. I don’t know how to set effective short-term and long-term goals.
19. I am organized.
20. When I take a difficult course in school, I study alone.
21. I’m aware of beliefs I have that hinder my success.
22. I’m not sure how to think critically and analytically about complex topics.
23. When choosing between doing an important school assignment or something really fun, I do the school assignment.
24. I break promises that I make to myself or to others.
25. I make poor choices that keep me from getting what I really want in life.
26. I expect to do well in my college classes.
27. I lack self-discipline.
28. I listen carefully when other people are talking.
29. I’m stuck with any habits of mine that hinder my success.
30. My intelligence is something about myself that I can improve.
31. I often feel bored, anxious, or depressed.
32. I feel just as worthwhile as any other person.
33. Forces outside of me (such as luck or other people) control how successful I will be.
34. College is an important step on the way to accomplishing my goals and dreams.
35. I spend most of my time doing unimportant things.
36. I am aware of how to show respect to people who are different from me (race, religion, sexual orientation, age, etc.).
37. I can be off course from my goals and dreams for quite a while without realizing it.
38. I know how I prefer to learn.
40. I accept myself just as I am, even with my faults and weaknesses.
41. I am the cause of low grades I receive in school.
42. If I lose my motivation in college, I don’t know how I’ll get it back.
43. I have a written self-management system that helps me get important things done on time.
44. I seldom interact with people who are different from me.
45. I’m aware of the habits I have that hinder my success.
46. If I don’t like the way an instructor teaches, I’ll probably do poorly in the course.
47. When I’m very angry, sad, or afraid, I know how to manage my emotions so I don’t do anything I’ll regret later.
48. When I think about performing an upcoming challenge (such as taking a test), I usually see myself doing poorly.
49. When I have a problem, I complain, blame others, or make excuses.
50. I know how to set effective short-term and long-term goals.
51. I am disorganized.
52. When I take a difficult course in school, I find a study partner or join a study group.
53. I’m unaware of beliefs I have that hinder my success.
54. I know how to think critically and analytically about complex topics.
55. I often feel happy and fully alive.
56. I keep promises that I make to myself or to others.
57. When I have an important choice to make, I use a decision-making process that analyzes possible options and their likely outcomes.
58. I don’t expect to do well in my college classes.
59. I am a self-disciplined person.
60. I get distracted easily when other people are talking.
61. I know how to change habits of mine that hinder my success.
62. Everyone is born with a certain amount of intelligence, and there’s not really much I can do to change that.
63. When choosing between doing an important school assignment or something really fun, I usually do something fun.
64. I feel less worthy than other people.
**Self-Assessment Scoring Sheet**

<table>
<thead>
<tr>
<th>SAMPLE</th>
<th>SCORE #1: Accepting Personal Responsibility</th>
<th>SCORE #2: Discovering Self-Motivation</th>
</tr>
</thead>
<tbody>
<tr>
<td>A 6, 8</td>
<td>B 29, 3</td>
<td>A 1, ____</td>
</tr>
<tr>
<td>14, 5</td>
<td>35, 3</td>
<td>17, ____</td>
</tr>
<tr>
<td>21, 6</td>
<td>50, 6</td>
<td>41, ____</td>
</tr>
<tr>
<td>73, 9</td>
<td>56, 2</td>
<td>57, ____</td>
</tr>
<tr>
<td>28 + 40</td>
<td>_   14 = 54</td>
<td></td>
</tr>
</tbody>
</table>

**SCORE #3: Mastering Self-Management**

| A 3, ____ | B 11, ____ | 12, ____ | 4, ____ | 5, ____ | 13, ____ |
| 19, ____ | 27, ____ | 28, ____ | 20, ____ | 21, ____ | 29, ____ |
| 43, ____ | 35, ____ | 36, ____ | 44, ____ | 45, ____ | 37, ____ |
| 59, ____ | 51, ____ | 52, ____ | 60, ____ | 61, ____ | 53, ____ |
| _   40 - ____ = ____ | _   40 - ____ = ____ | _   40 - ____ = ____ |

**SCORE #4: Employing Interdependence**

| A 14, ____ | B 6, ____ | 7, ____ | 15, ____ | 16, ____ | 8, ____ |
| 30, ____ | 22, ____ | 23, ____ | 31, ____ | 32, ____ | 24, ____ |
| 38, ____ | 46, ____ | 47, ____ | 39, ____ | 40, ____ | 48, ____ |
| 54, ____ | 62, ____ | 55, ____ | 63, ____ | 56, ____ | 64, ____ |
| _   40 - ____ = ____ | _   40 - ____ = ____ | _   40 - ____ = ____ |

**SCORE #5: Gaining Self-Awareness**

| A 64, ____ | B 80, ____ | _   64 - ____ = ____ |
| 73, ____ | 56, 2 | 58, ____ |

**SCORE #6: Adopting Lifelong Learning**

| A 14, ____ | B 6, ____ | 7, ____ | 15, ____ | 16, ____ | 8, ____ |
| 30, ____ | 22, ____ | 23, ____ | 31, ____ | 32, ____ | 24, ____ |
| 38, ____ | 46, ____ | 47, ____ | 39, ____ | 40, ____ | 48, ____ |
| 54, ____ | 62, ____ | 55, ____ | 63, ____ | 56, ____ | 64, ____ |
| _   40 - ____ = ____ | _   40 - ____ = ____ | _   40 - ____ = ____ |

**SCORE #7: Developing Emotional Intelligence**

| A 64, ____ | B 80, ____ | _   64 - ____ = ____ |
| 73, ____ | 56, 2 | 58, ____ |

**SCORE #8: Believing in Myself**

| A 64, ____ | B 80, ____ | _   64 - ____ = ____ |
| 73, ____ | 56, 2 | 58, ____ |

Figure D.1 Self-assessment scoring template

**INTERPRETING SCORES**

A score of ...

0–39 Indicates an area where your choices will seldom keep you on course.

40–63 Indicates an area where your choices will sometimes keep you on course.

64–80 Indicates an area where your choices will usually keep you on course.
APPENDIX E

ELECTRONIC NEWSLETTERS

Newsletter 1 Content

1. Study skills
   a. Organizing study materials
      i. Using the Cornell method to organize and review material
   b. Creating a study space: https://collegeinfogeek.com/create-study-space/
2. Preparing for class
3. Engaging in course content
   b. Working with a tutor: https://www.sacredheart.edu/offices--departments-directory/center-for-teaching--learning/jandrisevits-learning-center/learning-support-services/find-a-tutor/
4. Assignment one reminder

Newsletter 2 Content

1. Self-care strategies
   a. YOU@SHU: https://www.sacredheart.edu/offices--departments-directory/counseling-center/you-at-shu/
      i. 5-4-3-2-1 Grounding: https://you.sacredheart.edu/thrive/article/2308/5-4-3-2-1%20Grounding
      ii. Stop Romanticizing Stress: https://you.sacredheart.edu/thrive/article/3980/I%20Used%20to%20Romanticize%20Stress%2C%20Here's%20Why%20I%20Stopped
2. Assignment two reminder

Newsletter 3 Content

1. SMART Goals: https://www.indeed.com/career-advice/career-development/smart-goals
2. Successful vs. Struggling Students

Successful Students …

- accept personal responsibility, seeing themselves as the primary cause of their outcomes and experiences.
- discover self-motivation, finding purpose in their lives by pursuing personally meaningful goals and dreams.
- master self-management, consistently planning and taking purposeful actions in pursuit of their goals and dreams.
- employ interdependence, building mutually supportive relationships that help them achieve their goals and dreams (while helping others do the same).

Struggling Students …

- see themselves as victims, believing that what happens to them is determined primarily by external forces such as fate, luck, and powerful others.
- have difficulty sustaining motivation, often feeling depressed, frustrated, and/or resentful about a lack of direction in their lives.
- seldom identify specific actions needed to accomplish a desired outcome and, when they do, tend to procrastinate.
- are solitary, seldom requesting, even rejecting, offers of assistance from those who could help.
APPENDIX F

ASSIGNMENT PROMPTS

WEEK 1: In this activity, you will practice using the Quadrant II Time Management System.
1. Write a list of 15 or more specific actions you have taken in the past two days.
2. Using an entire journal page, draw a four-quadrant chart like the example. Fill in your chart using the list you created in step 1. Place each item in the appropriate quadrant and include the amount of time spent on each activity.
3. Write about what you have learned about your use of time. What will you do now? To dive deep in this journal entry, answer questions such as the following:
   • What exactly did you discover after analyzing your time?
   • In which quadrant do you spend the most time?
   • If you continue using your time in this way, are you likely to reach your goals? Why or why not?
   • What most often keeps you from taking purposeful actions?
   • How do you feel about your discoveries?
   • What different choices do you intend to make about how you use time?
*Adapted from Downing (2017).*

WEEK 3: Visit at least one of your professors during their office hours this week. Use the planning outline to prepare. Submit a journal reflection discussing your experience.

WEEK 5: Write about a recent time when you felt overwhelmed, angry, sad, or anxious. Fully describe the situation that caused your emotional response; then describe the distressing feelings you experienced; finally, explain what you did (if anything) to manage your emotions in a positive way.
Then, identify two or more strategies that you could use in the future when you experience this emotion. Explain each strategy in a separate paragraph. When you’re done, notice if simply writing about your stressors and ways to manage them may have reduced your level of stress. *Adapted from Downing (2017).*

WEEK 6: In this final activity, you will reflect on the changes you have made since midterms.
• Write the eight areas of the self-assessment and transfer your scores from the first and second self-assessment.
• Comparing the results from the two self-assessments, write about the area(s) in which you have raised your score.
• Write about the area(s) in which you most want to continue improving. Identify the specific changes you want to make in your behaviors, thoughts, emotions, and beliefs.
• Sum up the most important discoveries you’ve made and your plans for moving forward. Adapted from Downing (2017).
APPENDIX G

SEMI-STRUCTURED INTERVIEW PROTOCOL

1. Tell me about your experience in this program.
2. What qualities do you feel are essential for a successful college student?
3. What is the most important skill you learned during this program? Why do you feel this is the most important?
4. What other skills or tools did you learn during this program that you found useful?
5. What content, if any, did you find not useful?
6. Describe your experience meeting with your academic advisor during this program.
7. Is there anything else you would like to share about your experience in this program?
APPENDIX H

FOCUS GROUP PROTOCOL

1. Share your experience working with students in this program.
2. What are your overall thoughts on the program materials?
3. What skills discussed do you think students find most useful?
4. What skills discussed do you think students found irrelevant?
5. Is there anything else you would like to share about your experience?