Ten Strategic Points

Complete the Ten Strategic Points document below for your chair and committee members to reference during review of your proposal or dissertation. **The Ten Strategic Points represents the foundational elements of your study, must be aligned, and should be continuously updated as appropriate based on each iteration of your proposal or dissertation document.** For additional detail on the Ten Strategic Points refer to the full document located on the DC Network> Dissertation Resources>Folder 05 Dissertation Template. *Please Note: The Ten Strategic Points should be moved to Appendix A in the final dissertation manuscript before moving into Level 7 Form and Formatting.*

Ten Strategic Points The ten strategic points emerge from researching literature on a topic, which is based on, or aligned with a defined need or problem space within the literature as well as the learner's personal passion, future career purpose, and degree area. The Ten Strategic Points document includes the following key points that define the research focus and approach:		
Strategic Points Descriptor		**Learner Strategic Points for Proposed Study**
1.	**Dissertation Topic**- Provides a broad research topic area/title.	• How Students Describe Peer-Modeled Growth Mindset Tutoring at a Community College • The topic comes out of the problem space of the need to support students in first year, college-level courses as developmental coursework was phased out • It aligns to program of study, Doctor of Education in Teaching and Learning with an Emphasis in Adult Learning
2.	**Literature Review** - Lists primary points for four sections in the Literature Review: (a) Background of the problem and the need for the study based on citations from the literature; (b) Theoretical foundations (theories, models, and concepts) and if appropriate the conceptual framework to provide the foundation for study); (c) Review of literature topics with key themes for each one; (d) Summary.	Background of the problem • Assembly Bill 705 and 1705 in California has required phasing out of pre-transfer or developmental coursework at the California community college system. • Non-cognitive supports, like mindset training, are being integrated into colleges to help learners cope with challenging, college-level work (Capizzi et al., 2017). • Broda et al. (2018) conducted a study to assess online growth mindset interventions with first year students

		and results showed that a growth mindset intervention for Latino/a students' improved GPA. • Barclay et al. (2018) found that at-risk students held different mindsets and standards about themselves than students with higher GPAs. Historical treatment of problem being studied • Studies recommend growth mindset as ways to support the academic success of students facing significant risk factors (Barclay et al., 2018; Broda et al., 2018). Theoretical foundation • Dweck and Yeager proposed that mindset theory may influence the concept of effort beliefs, believing that effort is a positive thing that helps grow ability (2019). • Key concepts from theory: ○ Students who describe themselves with fixed mindsets are fearful of failure when they must use their **skills** to work on academically challenging assignments. ○ Learners who identify their intelligence with a growth mindset see **challenges** and **setbacks** as opportunity to grow. ○ **Effort** and **feedback** from a supportive ally are the means that can lead to mastery. Review of literature topics • *Theme 1: Non-Cognitive Factors* Aditomo (2015) concluded that there is a connection between mindset about intelligence and academic ability and its power to influence students in the face of academic challenges. Altunel (2019) found that learners developed more growth mindset towards learning with the help of growth mindset interventions. In contrast, Destin et al.

		(2019) saw a connection between learners' fixed mindset was connected to low academic achievement. Hoyert et al. (2019) found that university students on academic probation who attended a class with growth mindset interventions earned higher grades, indicating the value of learning about mindset theory for students who may be at risk for failing. • *Theme 2: Non-Cognitive Interventions* Barclay et al. (2018) found that growth mindset applied to academic settings can play an important role in student approach to academic effort and success. Research should explore how to incorporate variables like growth mindset into programs. Broda et al. (2018) identified a connection between effort and mindset. Karlen et al. (2019) found that an incremental theory (growth mindset) is related to perseverance of effort and consistency of interest. • *Theme 3: Role of Peer Support* Topping (2005) concluded that peer learning is effective in supporting learners' strengths and engages them as active participants in the learning process. Sheffler and Cheung (2020) found that the tenants of growth mindset delivered by a peer motivated students to value challenging academic tasks. Zander et al. (2018) saw a connection between growth mindsets along with peer support networks in providing academic support to learners. Khan and Watson (2018) also found that peers providing academic tutoring helped learners in a flipped classroom setting • *Theme 4: Non-Cognitive Skills and Writing* Driscoll et al. (2017) identified five dispositions that can be applied to writing development: attribution (internal or external

		motivation), persistence, self-efficacy, self-regulation (the ability to monitor revise, and improve writing), and value of learning experiences. These behaviors are also connected to college readiness. First year composition students commonly work with tutors to help them work on course assigned writing as well as non-cognitive skills; this can assist in completing these assignments and the course (Miller, 2020; Schubert, 2017).
3.	**Problem Statement** - Describes the problem to address through the study based on defined needs or problem space supported by the literature	Completion rates in composition courses are low at a two-year public institution of higher education in Southern California, and it is not known how students, who do not have the option to take developmental courses, describe the role of peer-modeled growth mindset tutoring in supporting their completion of a composition course.
4.	**Sample and Location** – Identifies sample, needed sample size, and location (study phenomenon with small numbers).	• general population for this study will be community college students in California • target population will be comprised of community college students who use the Writing Center, an average of 715 each semester • sample will consist of 25 participants, 12 for interviews, and two focus groups of 5-7 people who have meet with a peer-modeled growth mindset tutor at a community college
5.	**Research Questions** – Provides research questions to collect data to address the problem statement.	**RQ0**: How do community college students in Southern California describe their experience with peer-modeled growth mindset tutoring in supporting completion of a composition course? **RQ1**: How do community college students in Southern California describe the role of effort learned through peer-modeled growth mindset tutoring in

		supporting completion of a composition course? **RQ2**: How do community college students in Southern California describe the role of new strategies learned through peer-modeled growth mindset tutoring in supporting completion of a composition course? **RQ3**: How do community college community college students in Southern California describe the role of encouragement to persist through peer-modeled growth mindset tutoring in supporting completion of a composition course?
6.	**Phenomenon** - Describes the phenomenon to be better understood (qualitative).	The phenomenon to be studied is peer-modeled growth mindset tutoring as experienced by community college students.

7.	**Methodology and Design** - Describes the selected methodology and specific research design to address the problem statement and research questions.	• Methodology and design sections
		  ○ This study will collect rich data about the who and what of learner experiences with peer-modeled growth mindset tutoring.
		  ○ The study will take an individualized approach toward the students surveyed.
		  ○ This study will use interviews and focus groups to record the student experience with growth minded tutoring while taking college level courses.
		  ○ This study will use qualitative descriptive design to explore how peer-modeled growth mindset tutoring can be used to support community college learners by gathering perceptions of learners. This study will use mindset theory to study the phenomenon.

8.	**Purpose Statement** – Provides one sentence statement of purpose including the problem statement, methodology, design, target population, and location.	The purpose of this qualitative descriptive study is to explore how students at a two-year public institution of higher education in Southern California, who do not have the option to take developmental courses, describe the role of peer-modeled growth mindset tutoring in supporting their completion of a composition course.
9.	**Data Collection** – Describes primary instruments and sources of data to answer research questions.	• Qualitative: Interviews and focus groups • Site approval • Results of the expert panel review for qualitative studies • Results of the field tests • GCU Chair and Committee Approvals • AQR Approval • IRB Approval • Consent form from individual participants • Purposive sampling contacts population directly based on characteristics of a population and the objective of the study (Palinkas et al., 2015). • Chain or snowball sampling to request assistance from faculty to contact population (Penrod et al., 2003) • Data will be collected and stored on a laptop with password protection. • Data will be stored for at least 3 years. • Data will be backed up using a password protected flash drive. Data is protected by a code and password • Long-term confidentiality will be maintained by removal of personal data. • "de-identified" copy of all of the data and the data analysis will be stored in the LDP in the folder that will be placed there so that the AQR reviewers can review the data and data analysis. • Data will be destroyed when flash drive is wiped clean.

10.	**Data Analysis** – Describes the specific data analysis approaches to be used to address research questions.	• Data Source #1 – Open-ended semi-structured interviews – Thematic Analysis • Data Source #2 – Focus groups – Thematic Analysis

How Students Describe Peer-Modeled Growth Mindset Tutoring at a Community College

Submitted by

Elizabeth Gillis-Smith

A Dissertation Presented in Partial Fulfillment

of the Requirements for the Degree

Doctor of Education

Grand Canyon University

Phoenix, Arizona

February 2023

Dedication

An optional dedication may be included here. While a dissertation is an objective, scientific document, this is the place to use the first person and to be subjective. The dedication page is numbered with a Roman numeral, but the page number does not appear in the Table of Contents. It is only included in the final dissertation and is not part of the proposal. If this page is not to be included, delete the heading, the body text, and the page break below.

Acknowledgments

An optional acknowledgements page can be included here. This is another place to use the first person. If applicable, acknowledge and identify grants and other means of financial support. Also acknowledge supportive colleagues who rendered assistance. The acknowledgments page is numbered with a Roman numeral, but the page number does not appear in the table of contents. This page provides a formal opportunity to thank family, friends, and faculty members who have been helpful and supportive. The acknowledgements page is only included in the final dissertation and is not part of the proposal. If this page is not to be included, delete the heading, the body text, and the page break below.

Table of Contents

List of Tables xii

List of Figures xiii

Chapter 1: Introduction to the Study 1

Introduction 1

Background of the Study 7

Definition of Terms 13

Anticipated Limitations 16

Summary and Organization of the Remainder of the Study 18

Chapter 2: Literature Review 23

Introduction to the Chapter and Background to the Problem 23

Identification of the Problem Space 27

Theoretical Foundations 30

Growth and Fixed Mindset 30

Review of the Literature 37

Non-Cognitive Factors 37

Non-Cognitive Interventions with College Students 42

Peer Support 52

Non-Cognitive Skills and Writing 56

Problem Statement 69

Summary 72

Chapter 3: Methodology 78

Introduction 78

Purpose of the Study 80

Phenomenon and Research Questions 81
Rationale for a Qualitative Methodology 84
Rationale for Research Design....86
Population and Sample Selection....88
Study Sample and Sampling Strategy....89
Sources of Data....93
Research Data 93
Additional Data....96
Trustworthiness....99
Credibility 99
Dependability....99
Transferability....100
Confirmability....100
Data Collection and Management....102
Data Analysis Procedures 105
Ethical Considerations 109
Assumptions and Delimitations 112
Assumptions 112
Delimitations....113
Summary....114
Chapter 4: Data Analysis and Results....117
Introduction....117
Important Changes and Updates to Information in Chapters 1-3 118
Preparation of Raw Data for Analysis and Descriptive Data 119

Preparation of Raw Data for Analysis 119
Descriptive Data 120
Data Analysis Procedures 124
Reflexivity Protocol 124
Data Analysis Steps 125
Results 127
Presenting the Results 127
Limitations 133
Summary 135
Chapter 5: Summary, Conclusions, and Recommendations 137
Introduction and Summary of Study 137
Summary of Findings and Conclusion 138
Overall Organization 138
Reflection on the Dissertation Process 139
Implications 141
Theoretical Implications 141
Practical Implications 142
Future Research Implications 142
Strengths and Weaknesses of the Study 142
Recommendations 144
Recommendations for Future Research 144
Recommendations for Future Practice 145
Holistic Reflection on the Problem Space 146
References 148
Appendix A. Ten Strategic Points 171

Appendix B. Site Authorization....172
Appendix C. IRB Approval Letter....176
Appendix D. Informed Consent....177
Appendix E. Expert Panel Review....183
Appendix F. Interview Protocol....187
Appendix G. Focus Group Protocol....191
Appendix H. Changes to Interview Questions....194
Appendix I. Codebook....199
Appendix J. Transcripts....200
Appendix K. Feasibility and Benefits Checklist....201
Appendix L. Strategies to Establish Trustworthiness....205
Appendix M. Developing Qualitative Interview Questions Systematically....206
Appendix N. Sample Frames, Interview Duration, Transcript Expectations....212
Appendix O. Minimum Progression Milestones....213
Appendix P Additional Appendices....214

Chapter 1: Introduction to the Study

Introduction

Community college students entering higher education face many challenges. Community college students are a high-risk group of students when it comes to succeeding in the academic environment (Shapiro et al., 2017). The data for completion is low: 13% of community college freshmen receive an associate degree after two years, and 31% do so within three years (PPIC, 2019). The National Student Clearinghouse (NSC) released data on completion rates of U.S. community college students, reporting that 30% of full-time community college students complete their program goal within six years, while two-thirds of part-time students were no longer enrolled at the end of six years (Juszkiewicz, 2020). The data shows that community college students need support to complete their educational goals.

Other factors also influence the success of community college students. Differences of sex, age, and race all show differences in the success rates of community college students. Women complete at higher rates than men (39% and 44%); adult learners over the age of 24 complete at a lower rate than those 20 or younger (44% and 35%); and White students complete at a higher rate than African American students (49% compared to 29%) (Juszkiewicz, 2020). They may be interested in taking classes that will help prepare them for college-level work, also known as remedial or developmental coursework, but from 2018 onward these courses are likely no longer available in the California community college system due to Assembly Bill No. 705, which limits the way community colleges can offer courses that do not fulfill graduation requirements. The 2017 passage of Assembly Bill 705 in California, an amendment to the Seymour-

Campbell Student Success Act of 2012, required the phasing out of pre-transfer or developmental coursework at the California community college system. Colleges in California are struggling to find other ways to support learners as academic supports like developmental courses are removed (White et al., 2021).

Another indicator of readiness for college that indicate the potential for success is high school grade point average (GPA). A large study by Bahr et al. (2019) with over 400,000 college students taking college level and developmental coursework concluded that cumulative high school GPA is the most consistently useful predictor of college performance in math and English coursework and that a minimum high school GPA of 3.0 is needed for college math while a 2.6 G.PA. is needed for college-level English. Allensworth and Clark (2020) found that high school GPAs are clear predictors of college completion. These studies indicate that 75% of students should be able to pass the college level courses to which AB 705 has provided students access (Hern, 2019). The continued problem is that although the data indicates that students should pass these classes, the pass rates are not as high as they should be, showing the continued need for research about the support that students need at community college. The findings of these researchers supported the passage of California State Assembly Bill 705, state legislation that phased out prescriptive placement of students into remedial or developmental education (Bahr et al., 2019).

After the passage of AB 705, self-reported high school GPA was used to place students into college-level coursework in state institutions. Hern (2019) reported that since the passage of AB 705, transfer-level English classes increased from 48% to 87% in course schedules at California community colleges; transfer-level math sections also

increased in offering, from 36% to 68% of sections offered. A statewide analysis of passing rates of transfer-level English and math showed that success rates among those who enrolled into these courses declined since 2018 (Brohawn et al., 2021). A slight increase in the number of students passing these courses seems to show a positive outcome to the state legislation, but the data also indicates that gaps between racial/ethnic groups continue to persist as more students enroll in transfer-level courses; the recommendation is to continue to explore strategies that support universal success rates, especially to address the gaps related to racial/ethnic groups in terms of success rates (Brohawn et al., 2021).

The proposed study includes the use of mindset theory as presented by Dweck (2012). Tutors at the proposed study location are trained to tutor with a growth mindset; much like the model in Miller's (2020) study. Peer-modeled growth mindset tutoring differs from regular tutoring or from growth mindset interventions mainly because it allows peers to model growth mindset strategies in a context where students can then practice them. Peer-modeled growth mindset tutoring occurs when peer tutors are trained to encourage the students they work with to use growth mindset concepts while working on academic challenges, modeling effort, new strategies, and persistence in the tutoring process.

The research that needs to be better understood focuses on how to improve the low completion rates in composition courses at community colleges. Studies that look at the ways non-cognitive supports, like peer-modeled growth mindset tutoring, can support completion of composition courses and overall student success (Miller, 2020). Those in the community colleges are often the most at-risk groups attempting college transferable

coursework in their first year (Shapiro et al., 2017). The purpose of this qualitative descriptive study is to explore how students at a two-year public institution of higher education in Southern California, who do not have the option to take developmental courses, describe the role of peer-modeled growth mindset tutoring in supporting their completion of a composition course. Peer tutors trained in growth mindset model and support improved effort for those they tutor, provide new learning strategies, and support increased persistence through encouragement (Miller, 2020; Sheffler and Cheung, 2020). The use of peer tutors trained in growth mindset tutoring differs from traditional tutoring due to its focus on the attributes of growth mindset: feedback, persistence, sustained effort, and belief in self. This study will explore how this type of tutoring may lead to students adopting growth mindset to apply to their academic work.

The problem space for this study is created by AB 705 legislation that has removed developmental courses, so community college adult learners must enter directly into college-level courses creating higher fail and dropout rates than previously seen as students face increased challenge without support. It is not known how community college adult learners, due to legislation removing developmental courses, entering into college level courses will face the increased challenge with the support of tutors trained with growth mindset. The degree attainment rates are already low in students who begin at community college: only 29% of students who start at a community college complete an A.A. within six years (Shapiro et al., 2017). There is, however, a gap between college readiness and college academic success. White et al. (2021) identified the need for research that highlights the student perspective on tutoring at the community college. The educational offerings provided to students in California are changing due to AB 705

implementation. It requires all students to begin in college level coursework and finding ways to support students as they begin college becomes key. The link between learning skills to support their academic development within the context of a tutoring setting has not been researched, but reports from community colleges indicated the need for both. White et al. (2021) conducted qualitative interviews with 83 individuals from 14 colleges who played a key role in AB 705 implementation. Their responses indicated that strong tutoring support, including concurrent tutoring support was important to student completion of transfer-level math and English in their first year. Twelve of the 14 institutions surveyed named challenges that had to do with shifting mindsets around student capacity to succeed in transfer-level courses, naming growth mindset as a key to successful implementation (White et al., 2021).

Most students who begin their college experience at a community college are ready for college-level work, but the completion rates still show that 30% of students do not complete their first-year course work in math and English (Brohawn et al., 2021). This study will explore the perceptions of community college students and their experience with peer tutors trained to provide growth mindset tutoring. Research is needed to understand how a tutor with a growth mindset can support community college students with their first-year courses, supporting the non-cognitive and academic skills that help students complete those courses.

The concept of growth mindset tutoring is found in writing center research. Miller (2020) trained a tutor in mindset theory by reading Dweck's (2009a) book, *Mindset*, discussing the use of interventions to teach a growth mindset, and watching videos on mindset theory and neuroplasticity; meetings were also held during the semester to

further discuss how writing ability is developed. At the community college where this study will be conducted, general writing tutors are trained in a similar manner: an introduction to growth mindset is one of the units of training modules, including several articles by Dweck on neuroplasticity and growth mindset coaching, personal mindset assessment, and videos on growth mindset. Tutors engage in written reflections regarding writing ability and development. Monthly meetings focus on these topics throughout the semester as well. Growth minded tutoring provides a positive atmosphere to address academic challenges, with a focus on the belief in student ability to grow and learn; Miller (2020) identified that writing tutors trained in growth mindset tutoring model the growth mindset by helping students understand that improving writing applies not only to the assignment but also to future writing tasks. They also endorse the concept of effort and reflecting on their writing experiences (Miller, 2020).

From the studies conducted by the RP Group, centered on the use of data and evidence to find effective practices within the state's community colleges (Booth et al., 2013; Brohawn, et al., 2021), the California Community College and Student Engagement study on mindset and student success (CCCSE, 2019) and Miller's (2020) study on growth minded tutoring, there is continuing scholarship of the unique combination of growth mindset tutoring centered on the support of students' non-cognitive or soft skills alongside academic support, which are an important part of mindset theory (effort, facing challenge, metacognition, and engagement). The above studies found tutoring and growth mindset to be important parts of the equation to provide support for community college students in their first-year courses.

Background of the Study

Since 2018 all California community college students may enroll in college-level math and English, with no developmental course options available for them due to the passage of California Assembly Bill No. 705 (AB 705). With legislation removing these developmental classes, there is a need to find ways to support student success within this environment. Only 13% of California community college students who begin as freshmen earn an associate degree after two years (Jackson et al., 2019). California community college students complete an Associates of Art degree within six years at 48% (Jackson et al., 2019); also included in that number are students who transfer or complete 60 units. Although the California state legislation AB 705-aligned approaches to assessment and placement have increased enrollment in the transfer-level courses, the success rates in transfer-level English and math classes have decreased by eight percentage points and five percentage points for English in the past year (Brohawn et al., 2021). The California Community College Chancellor's Office records that 59% of all first time English students completed college composition in one term, which is a two-percentage point drop from the Fall 2019 (Mejia et al., 2020). AB 705 allows students to access college level coursework, but it has not addressed how to provide students with the needed support to complete these courses. This study on student experience with tutors who provide positive academic assistance through growth mindset training will give insight to a technique that provides students with academic and motivational support.

Another California legislative action instituted the Student Centered Funding Formula, which attempted to address challenges that community colleges continue to face; lack of completion of degrees and certificates and achievement gaps. The state is

awarding student achievement by connecting funds to student completion of English and math classes within a year of enrolling at a community college; also known as performance-based funding, this practice is used in many states, where different measures for performance are tied to funding of educational institutions (Ortagus et al., 2020). The legislation has provided more access to college-level courses for community college students. However, this shifts responsibility to the college as student completion it tied to a new funding formula.

Practitioners in the California community college need to explore ways to engage students with academic programs as well as non-cognitive supports that have been found to increase academic success. Farruggia et al. (2018) conducted a study with first year college students in a writing course that showed a relation between college success and academic mindsets (elf-efficacy, sense of belonging, academic motivation), perseverance, and learning strategies (time management) study of an intervention that a positive academic mindset impacted academic performance and retention. Because of research like this, other research projects are exploring how noncognitive interventions can support students' academic progress (Miller, 2020). Miller's study used mindset theory in a tutoring environment, and the study focused on the interaction of a growth mindset trained tutor with writing students. Miller found that the peer tutor acted as a supportive ally, modeled growth mindset, and encouraged students to engage in academic challenge by using new strategies with a mindset that it would lead to growth. Non-cognitive supports, like mindset training, have been integrated into colleges to help learners cope with challenging, college-level work (Capizzi et al., 2017). Broda et al. (2018) conducted a study to assess online growth mindset interventions with first year students and results

showed that a growth mindset intervention for Latino/a students' improved GPAs. Mindset encompasses the non-cognitive skills of academic self-efficacy, belonging, and academic motivation; more research is needed to understand how students learn and apply non-cognitive skills to support their academic progress (Farruggia et al., 2018).

The use of peer support to model noncognitive skills, like growth mindset, self-efficacy, sense of belonging, academic motivation, perseverance, and time management is another intervention model that also helps students to begin practicing noncognitive skills (Sheffler & Cheung, 2020). Open access registration of the community college means that students are able to begin their college career with a variety of educational preparation and backgrounds; AB 705 legislation has cut developmental coursework, requiring students to enroll directly into college level coursework. With research indicating that peer influence as well as noncognitive supports can support students during their college careers, research on tutor training with a growth mindset is an area that should be investigated. White et al. (2021) also showed a need for research for tutoring, tutor training, and understanding the noncognitive or soft skills that support community college students.

More community college students have access to first year composition courses, and 10 of the 14 colleges reported that the increased demand of finding and training tutors has become more challenging (White et al., 2021). The 14 California community colleges interviewed used a variety of tutoring formats, but the request for embedded tutors often could not be filled due to an increased demand for tutors in general tutoring centers and for embedded tutoring. Only 58% of colleges interviewed offered tutoring services through an academic success center or math and writing center, while 33% of

colleges provided embedded coaches and tutors who are available both inside and outside the classroom (White et al., 2021).

Current research shows a need for more research in the areas of tutoring and growth mindset. A qualitative study focused on AB 705 implementation conducted by researchers from the Research and Planning Group for the California Community Colleges (The RP Group) recorded an English department chair expressing the need for more tutors (White et al., 2021). The interviewee stated that the California State Chancellor's Office needs to create a tutor training program that would be accessible to all campuses. This request indicates a need for more research to support community colleges and tutors. The researchers found an increased demand for tutors across the community colleges as well as the need for a shift in the mindset of those who work with college students in first time courses (White et al., 2021).

The need for soft skills, or non-cognitive behaviors, is also seen as an important strategy to meet the needs of students in the community college system. White et al. (2021) reported that 71% of faculty interviewed have struggled to teach soft skills within their course content. According to the faculty, AB 705 has increased the need for students starting at transfer level courses to develop study skills, time management, and other life skills. While these non-cognitive skills are often taught by counseling faculty, students may be better supported by contextualized integration of these skills while working with a tutor to learn how to use them while facing the challenges of transfer level coursework.

A few colleges that are part of the California community colleges are collecting data in order to know how to best support students as developmental coursework is phased out due to AB 705. White et al. (2021) found that out of 14 California community

colleges only two are collecting both quantitative data and qualitative data as they analyze the impact of AB 705. All 116 colleges in the California community college system are dealing with the changes created by AB 705, so there is a need for more research in this area. White et al. (2021) emphasized the importance of student feedback from surveys and focus groups to understand what has worked well and what needs to improve how colleges support students in college level coursework. Miller (2020) pointed out a connection between tutoring and mindset change, calling for further studies to explore different elements of the process. Studying the experience of students working with a growth mindset tutor, could highlight the impact of mindset-focused tutoring in order to provide greater insight into the results of promoting a growth mindset when working with writers (Miller, 2020).

The research is needed is to identify how peer tutors who use growth mindset can help students to adopt a growth mindset while they are taking college level courses in their first academic year. Sheffler and Cheung (2020) found that the tenants of growth mindset delivered by a peer motivated students to value challenging academic tasks. This study showed a promising connection between mindset theory and peer support, impacting students' attitudes and perspectives about challenge and effort. Students who worked alongside with peers endorsing a growth mindset viewpoint showed increased task value. As community college students make the transition to college level work, this study indicates that growth mindset and peer support may be an important influence that will support student success. The researchers proposed future studies that would involve peer groups that could influence students' mindset around learning outcomes. Many studies show that students who have a growth mindset are more open to learning, willing

to confront challenges, and able to persist past social and curricular hurdles while in school (CCCSE, 2019). Miller (2020) recommended the use of mindset theory in training general tutors, not just embedded tutors, because the tenets of mindset theory, like the focus on effort, trying new strategies, and a supportive ally, could influence student attitude and behavior as tutors work with students who come in for assistance, contributing to strengthening student success and college completion (Sheffler & Cheung, 2020).

Definition of Terms

The following terms were used in this study to discuss the phenomenon that was under exploration. The phenomenon to be studied is peer-modeled growth mindset tutoring as experienced by community college students.

AB 705. Assembly Bill 705 in California has required phasing out of pre-transfer or developmental coursework at the California community college system (Shaw et al., 2018).

Academic challenge. Academic challenge refers to the amount of preparation or reading hours which undergraduates spend on coursework (Payne et al., 2005).

Community college. A community college is a higher education institution is designed to provide students with the first two years of college-level education. Students attend two-year institutions in order to complete certification, a degree, or transfer (Daniels et al., 2019).

Dispositions. Dispositions refer to the attitudes that students hold about their qualities that can support learning, like habits of mind, personal skills, and behaviors;

dispositions play an important role in the learning process that includes time on the tasks, the learner's experience, and the context (Driscoll et al., 2017).

Fixed Mindset. Fixed mindset refers to people who believe that intelligence is fixed avoided challenges or quit when they encounter them and experienced less academic success (Dweck, 1999).

Growth Mindset. Growth mindset refers to people who believe that intelligence is malleable are considered to have a growth mindset. They will use effort and take feedback in order to improve more. They also engage in activities like goal setting, increasing effort, and managing challenges (Dweck, 1999).

Growth Mindset Tutoring. Growth mindset tutoring refers to a practice where tutors are introduced to mindset theory and neural plasticity so that they tutor students/tutees with a belief that the students/tutees are capable of improving. The tutor models growth mindset and influences the students/tutees to adopt a growth mindset as well, positively influencing students/tutees' attitudes and behavior (Miller, 2020).

Noncognitive Factors. The practices or behaviors like academic mindsets, academic perseverance, learning strategies, social skills, that support academic behaviors that can lead to academic success (Farrington and et al., 2018).

Peer Group. Peer groups is defined as any set of similarly aged persons who share a common interest, identity, or engagement in sustained interactions (Sheffler & Cheung, 2020)

Peer Tutoring. Peer tutoring refers to a situation when peers, at similar educational levels and social groups, not professional teachers, help other students learn (Topping & Ehly, 1998).

Anticipated Limitations

Anticipated limitations are inherent to the method and design used, which the researcher has no control over, such as bias. A limitation is a situation that could impact the study, but may be out of the researcher's control (Simon & Goes, 2013).

- Limitations of data sources.
    - Self-reported data. Participants will respond to open-ended questions in interviews and focus groups. This data collection relies on participants to respond to the questions depending on their understanding of the questions. Bias may exist based on experience and recall of the participants.
- Limitations of the sample and sampling strategy.
    - Sample. The target sample is limited to college students geographically located in Southern California who are taking or have completed a composition course and worked with a peer-modeled growth mindset tutor.
    - The sample is limited to those who choose to participate in an interview or a focus group.
    - Purposive sampling contacts population directly based on characteristics of a population and the objective of the study (Palinkas et al., 2015).
    - Chain or snowball sampling to request assistance from faculty to contact population (Penrod et al., 2003)
    - Potential researcher bias. The researcher is a California Community College faculty member in an English department and co-coordinator of a writing center which could affect the analysis and interpretation of the data.
- Limitations of research questions.
    - Students' perceptions about mindsets may differ among participants, which may influence their responses to questions about mindset statements.
    - Some students may need help engaging in reflective thought regarding their experience with tutoring and growth mindset.

This study will be located at a Southern California community college. The proposed qualitative study provides a limited description of student experience. A qualitative descriptive design study allows participants to use their own language to describe their experiences, thereby limiting the research to the available vocabulary of the participants. The transferability and applicability of the findings could be used at other community colleges in California, the largest community college system in the U.S., with 116 colleges in the state. Tutoring is currently seen as very important to meet the needs of students created by AB 705; tutoring is used to help support students who begin transfer-level coursework in their first year of college (Aschenbach et al., 2022). The tutoring that takes place at the proposed study location uses only tutors trained in peer-modeled growth mindset tutoring. Although it comes with limitations, the study's design allows for accurate description and real experiences.

Summary and Organization of the Remainder of the Study

Mindset theory has been studied in the education at many student levels. The application of this theory in a peer tutoring environment is still being explored by educational scholars. There is much to understand regarding the role of peer influence and growth mindset in the community college setting. Miller (2020) demonstrated that growth mindset trained tutors could effectively help students persist and complete course work while facing academic challenges. Learner attitudes about effort and motivation are key to engaging in productive struggle in order to learn new concepts in challenging environments; the support of tutor trained in growth mindset may play an important part in assisting community college students in their academic achievement.

Project Timeline:

November 2022 Receive feedback, return for approval

November 2022 Address revisions

December 2022 Address revisions

February 2023 Submit to AQR2

March 2023 Proposal defense

April 2023 Submit IRB

April 2023 Begin data collection

May 2023 Data analysis and Chapter 4

May 2023 Chapter 5 and submit for review

May 2023 Address revisions and submit for AQR5

June 2023 Dissertation Defense and submit to Form and Format

July 2023 Send to Dean for signature

Alignment Table

Alignment Item	Alignment Item Description
Problem Space Need:	Due to the implementation of AB 705, legislation that phases out developmental courses at California community colleges, completion rates are falling in composition courses are low at a two-year public institution of higher education in Southern California
Problem Statement:	Completion rates in composition courses are low at a two-year public institution of higher education in Southern California, and it is not known how students, who do not have the option to take developmental courses, describe the role of peer-modeled growth mindset tutoring in supporting their completion of a composition course.
Purpose of the Study:	The purpose of this qualitative descriptive study is to explore how students at a two-year public institution of higher education in Southern California, who do not have the option to take developmental courses, describe the role of peer-modeled growth mindset tutoring in supporting their completion of a composition course.
Phenomenon:	The phenomenon to be studied is peer-modeled growth mindset tutoring as experienced by community college students.
Research Questions:	• **RQ0:** How do community college students in Southern California describe their experience with peer-modeled growth mindset tutoring in supporting completion of a composition course?

- **RQ1:** How do community college students in Southern California describe the role of effort learned through peer-modeled growth mindset tutoring in supporting completion of a composition course?
- **RQ2:** How do community college students in Southern California describe the role of new strategies learned through peer-modeled growth mindset tutoring in supporting completion of a composition course?
- **RQ3:** How do community college community college students in Southern California describe the role of encouragement to persist through peer-modeled growth mindset tutoring in supporting completion of a composition course?

Methodology/Research Design:	Qualitative methodology and descriptive design.

The proposed study will address the problem that many students face as they take college-level courses their first year without needed preparation. Completion rates in composition courses are low at a two-year public institution of higher education in Southern California, and it is not known how students, who do not have the option to take developmental courses, describe the role of peer-modeled growth mindset tutoring in supporting their completion of a composition course. The study is designed to gather perceptions of community college students in college-level courses who experience peer-modeled growth mindset tutoring. The problem developed as a result of Assembly Bill 705, which allowed all entering California community college students the opportunity to enter directly into college-level, transferable courses in English and math (AB 705).

There is a need to investigate the experiences of students as they take these classes with only tutorial services available to provide both academic and motivational support because developmental course work is no longer available. Three themes

emerged from the literature review, including the impact of non-cognitive supports, the use of effort, and peer tutoring. Three research questions are proposed to provide direction for interviews that will be used to collect data from participants as they describe the phenomenon, peer-modeled growth mindset tutoring as experienced by community college students.

- **RQ0:** How do community college students in Southern California describe their experience with peer-modeled growth mindset tutoring in supporting completion of a composition course?
- **RQ1:** How do community college students in Southern California describe the role of effort learned through peer-modeled growth mindset tutoring in supporting completion of a composition course?
- **RQ2:** How do community college students in Southern California describe the role of new strategies learned through peer-modeled growth mindset tutoring in supporting completion of a composition course?
- **RQ3:** How do community college community college students in Southern California describe the role of encouragement to persist through peer-modeled growth mindset tutoring in supporting completion of a composition course?

It is anticipated that the participants will consist of 12-15 students who will volunteer for the interviews, and two focus groups of 5-7 different people, all of whom have meet with a growth mindset tutor at the community college where the study will be conducted.

The feasibility of the study is supported by the availability of participants who attend a community college and who have worked with growth mindset tutors (see Appendix K). Data collection surveys and zoom platforms are readily available. The next step will be to schedule interviews with available participants. All available protections will be used to conceal participants' identities.

Chapter 2 will present the literature review, designed to elaborate on the themes of mindset, academic struggle, and peer tutoring. As the community college system in

California was required to quickly move to a system where learners were encouraged to complete the college level composition and math courses within the first year of enrollment, without the option of taking developmental courses, it is important to find practices to put in place that can help students work through the academic challenges that they will face. Peer tutors trained with growth mindset practices may be one effective practice that can provide needed support both for motivation and academic practice that may lead to increased first year completion.

Chapter 2: Literature Review

Introduction to the Chapter and Background to the Problem

There is a need for continued research to support student enrolling in and completing first year courses in a system that has removed traditional supports for underprepared students due to AB 705, such as course prerequisites. The proposed study on student experience with tutors who provide positive academic assistance through growth mindset training will give insight to a process that provides students with academic and motivational support. The traditional educational model that has viewed students in a deficit minded frame, with descriptive words for students like unprepared, not ready, in need of remediation, has been replaced with a student asset-based perspective, with the idea that students bring a variety of strengths that need to be developed in order to help them adding support like co-requisite courses, embedded tutors, and required appointments with counselors. This chapter provides a historical view of the initiatives and efforts that have been instituted to provide college students with the support needed to successfully complete an academic program of study. It also provides a review of the literature and important themes about supporting first time students as they begin college level coursework. The main topics that this chapter will review are non-cognitive factors, non-cognitive interventions, peer support, and non-cognitive skills and writing.

The literature review relied upon research within the past five years from 2017-2022 on the subjects of academic support and interventions in education, mindset, and peer learning environments. The phenomenon that was researched focused on community college students and studies that explored how growth mindset interventions were used to

influence success and completion, using short lessons, semester long courses, tutoring experiences, and peer influence. Literature was located by searching online sources, journals, and articles. These sources included the library resources of Grand Canyon University, as well as databases such as EBSCO, ProQuest, Google Scholar, and SAGE Journals Online. Search terms included *growth mindset interventions, undergraduate education, learning assistance, community college, non-cognitive supports, peer learning, peer-modeled growth mindset tutoring, productive struggle, academic achievement, effort, writing tutoring, academic performance, habits of mind, effort, engagement, adult learners*, and *adult students* within the title or subject line.

Background to the Problem

Due to legislation removing developmental courses, community college adult learners must enter directly into college-level courses creating high fail and dropout rates than previously seen because students face increased challenge without support. Completion rates in composition courses are low at a two-year public institution of higher education in Southern California, and it is not known how students, who do not have the option to take developmental courses, describe the role of peer-modeled growth mindset tutoring in supporting their completion of a composition course. More students in the community college find themselves in first year, college-level courses as developmental coursework is phased out. Barriers to sustaining student completion of academic programs at the community college level are present, as the data on completion of courses as well as programs indicate. There is evidence that these barriers can be overcome with innovative, student-centered approaches (Hern, 2019). Much of the recent

history of student success legislation focused on this perspective with many initiatives designed to combat low community college completion rates (Shaw et al., 2018).

The California legislature has passed many bills that have addressed the issues of low student completion and success in the community college system. Historic attempts to establish best practices to support student success and completion can be traced back to 1987 when the California legislative passed Assembly Bill 3 (What is Assessment? 2018). Almost 20 years later, in 2005, the Basic Skills Initiative (BSI) was introduced as a way to provide students with the essential skills needed for college success (Illowsky, 2008). Five years later 2010 Senate Bill 1143 (Liu) to develop recommendations for improving student success: Adopt common assessment, placement, mandatory orientation, education plans, and declaration of a program of study for all incoming community college students. Also in 2010, a review of the BSI culminated in an addition of Equity-Mindedness, Cultural Competence, and Universal Design for Learning as a means to enhance success for all students (Córdova et al., 2010).

In 2012 another legislative act, Senate Bill 1456, The Student Success Act of 2012 (Lowenthal), addressed several recommendations made by the Student Success Task Force required community college campuses to participate in a common assessment system and post a student success campus scorecard as a condition for receiving student success categorical funding. Assessment is a holistic process through which each college collects information about students in an effort to facilitate their success by ensuring their appropriate placement into the curriculum (What is Assessment? 2018).

By 2015 the California Community College Chancellor's Office published *California Community Colleges Student Success and Support Program Handbook,*

supporting the development of a Common Assessment Initiative (CAI) or CCCAssess. Two years later, in 2017, the move to create and implement a common placement test, CCCAssess, for common assessment of math, English and English as a Second Language for the California Community Colleges (CCC), was cancelled indefinitely (CCC, 2020). Further legislative solutions included 2018-AB 705, 2021-AB 1705 recommending the discontinuing of any placement measures along with courses that were not transferable. The bill mandated the use of co-requisite classes, changes to course outlines, providing course embedded tutoring that would be offered in parallel to college level math and English courses that would support student completion of these typical first year courses (AB 705).

Identification of the Problem Space

Supporting student success and completion at the community college level has been a topic of interest at the state government level. Completion rates in composition courses are low at a two-year public institution of higher education in Southern California, and it is not known how students, who do not have the option to take developmental courses, describe the role of peer-modeled growth mindset tutoring in supporting their completion of a composition course. Many California state initiatives attempted to present solutions and provide recommendations to increase student completion. The California legislative initiatives (AB 705 and AB 1705) sought to remove the barriers that were thought to be best practices to support student success. Booth et al. (2013) reported on the responses of 900 students from 13 California community colleges on their views of what best supported their educational success. From this came the six factors of student success that has been widely disseminated as

important elements to consider as programs to support completion are developed: focused, nurtured, engaged, connected, valued, and directed. This report provided valuable student perspective, along with the many legislative changes and state initiatives, to review and assess the number of students completing the first-year coursework; it is improving slowly, but not in great numbers. The state initiatives to support student success have focused on skills and completion, while the student survey shows that non-cognitive skills outside of academics are also valued by students. Community colleges are open access institutions, so most any student regardless of high school completion can enroll in classes and begin their academic work. Since placement tests and remedial coursework can no longer offered, students begin in college level courses while also needing non-cognitive and academic support for the coursework.

With traditional academic supports removed, the shift from a deficit to an asset model of student learning non-cognitive supports that use the concepts of mindset theory need to be studied in college settings like peer tutoring. Wolter (2016) explained that teacher leaders need to place equity at the center of education by removing the use of deficit mindsets when viewing students from culturally, linguistically, physically, and academically diverse backgrounds. A deficiency model of education will only continue to create a learning environment where students from different backgrounds find themselves being judged by their perceived lack of preparation. Completion rates in composition courses are already low at community colleges, and it is not known how students, who do not have the option to take developmental courses due to AB 705, describe the role of peer-modeled growth mindset tutoring in supporting their completion of a composition course. A study on peer tutors and their influence on students' ability to persist in the face

of academic challenge would highlight techniques and strategies that would support first-time students experiencing academic challenge. This would add to the studies that look at how academic outlook, effort, non-cognitive, and growth mindset interventions for college students support provides for academic success.

Theoretical Foundations

Growth and Fixed Mindset

Integrating mindset theory into academic settings and programs has been proposed as a way to support student learning after failure or when facing academic challenge (Yeager et al., 2019, 2016). Dweck and Yeager (2019) recommended creating an environment that fosters a growth mindset to affect motivation and learning and that organizations that embody this can be a potentially powerful force in supporting students. This environment could help provide the motivation for first time college students who are taking challenging courses in their first year.

The framework of mindset theory works to understand what motivates people to expend more effort as greater challenges are faced. It explores learning and achievement in students facing difficult situations in an academic setting. The mindset theory or model, Dweck and Leggett (1988) suggested, helped to explain why helpless individuals appear to focus on their ability and its adequacy (or inadequacy), and mastery-oriented ones appear to focus on mastery through strategy and effort. This model was used (and is continued to be used) to understand motivational processes in children and adults. People with fixed mindsets often avoid challenges and are less resilient when challenges appear. Studies seem to indicate that when students have a growth mindset to support their work

of tackling academic challenges, they may have a better chance of succeeding in their academic endeavors.

Dweck and Leggett (1988) proposed a model to illustrate how cognitive, affective, and behavioral features of the adaptive and maladaptive patterns can be seen to follow directly from different goals, based on their studies and research. For some learners, challenges are either viewed as threatening to their self-identity or as an opportunity to learn something new depending on the mindset of the learners. The helpless pattern is characterized by an avoidance of challenge and a lack of achievement in the face of obstacles, while the mastery-oriented pattern involves the seeking of challenging tasks and the sustainment of effort despite failure (Dweck & Leggett, 1988). From this model, two goals were most often observed, that of performance goals and that of learning goals.

When this model was applied to the domain of intellectual achievement and identified two classes of goals: performance goals (to earn favorable judgments of competence) and learning goals (to increase competence) (Dweck & Leggett, 1988). Later studies also found that focus on performance goals created a vulnerability to the helpless pattern, but the pursuit of learning in the same situation promoted the mastery-oriented pattern (Dweck, 2009). When learners saw their intelligence as a fixed entity, they often adopted performance goals, yet learners who viewed intelligence as a flexible quality more often adopted learning goals. Learners who focused on performance were more vulnerable to maladaptive behavior patterns. Learners who focused on learning goals were able to adopt challenge seeking, persistence, and sustained performance in the face of difficulty. The model identified an incremental theory of intelligence where

intelligence is an increasable, controllable quality, while those with an entity theory of intelligence believed that intelligence is a fixed trait (Dweck & Leggett, 1988).

Mindset theory is applied to people to understand different motivations to engage and work through challenging situations. Dweck established the theory that identified how fixed and growth mindset concepts could help explain why some students are able to face learning challenges with a more positive outlook (Dweck, 2012). Many studies used a formal intervention either as course or an online unit to help students change their thinking about their capacity to face and overcome academic challenges. Multiple studies on mindset interventions show evidence for the connection between growth mindset and a positive perspective about intelligence and how it supports learners. In one study, university students took an intervention infused with growth mindset after they had failed a class to help them cope with academic challenges (Capizzi et al., 2017). When learners are exposed to growth mindset concepts about brain neuroplasticity, they put in more effort, so future investigation should explore how to incorporate growth mindset into programs (Sarrasin et al., 2018, Barclay et al., 2018).

The defined observable actions of mindset can be seen in responses to questions that follow; how a learner rates their ability to change their intelligence indicates mindset (Dweck, 1999). Agreement to the following questions would indicate a fixed mindset; disagreement would indicate a growth mindset.

1. Do you think you have a certain amount of intelligence, and you can't really do much to change it?

2. Do you think that your intelligence is something about you that you can't change very much?

3. Do you think you can learn new things, but you can't really change your basic intelligence?

Those with a growth mindset were also found to have a more positive attitude toward learning; they did not focus on the negative implications of challenges they faced. Growth mindset characteristics were identified as supporting a positive attitude toward learning, with a value on feedback and constructive criticism in order to build on their skills (Kannangara et al., 2018). The theory of growth mindset has been found to provide students with added motivation; studies have looked at a variety of interventions, but few have looked at the intersection of peer tutoring influence supported by growth mindset.

Dweck's mindset studies began with studies focused on children; the use of mindset in secondary schools as well as higher education has brought the exploration of performance and learning goals to different levels of education. Dweck (1999) and the early work on mindset theory started a significant movement in helping students and educators develop new ideas about intelligence and capacity for learning, identifying the implicit theories about abilities that influence unconscious goals when tackling challenging learning tasks that adult learners face when the return to the school environment. Dweck and Yeager (2019), seminal mindset theory educational researchers, recommended creating an environment that fosters a growth mindset to affect motivation and learning and that organizations that embody this can be a potentially powerful force in supporting students.

Research is needed to better understand how mindset theory can support student learning in the context of peer learning. Dweck and Yeager (2019) explained that future research is important to understanding the mindset environment and how social contexts

influence student environments. One study indicated that when students have a growth mindset to support the work of facing academic challenges, they may have a better chance of succeeding in their academic endeavors (Miller, 2020). Students who describe themselves with fixed mindsets are fearful of failure when they must use their skills to work on academically challenging assignments. Learners who identify their intelligence with a growth mindset see challenges and setbacks as opportunity to grow. Effort and feedback are the means that can lead to mastery for students with a growth mindset. Dweck and Yeager proposed studying organizations that use mindset to shape the beliefs, values, and behaviors of the members of those communities (Dweck & Yeager, 2019). Dweck and Yeager have proposed that mindset theory may influence the concept of effort beliefs, believing that effort is a positive thing that helps grow ability. This theory may support students in a learning environment where because of the removal of developmental courses in math and English, find themselves taking transfer level courses instead of pre-transfer coursework.

Dweck and Yeager (2019) proposed that further research should continue where educational environments create spaces where teaching and learning foster a growth mindset. Barbouta et al. (2020) findings confirmed Dweck's mindset theory that the beliefs that students hold about themselves (incremental vs entity) predicted their academic performance and thus satisfaction. Tutoring centers that used the concepts of mindset theory to train tutors work with learners as they encounter academic challenge to model learning with a positive outlook while engaging in productive struggle and incremental successes (Miller, 2020).

The purpose of this qualitative descriptive study is to explore how students at a two-year public institution of higher education in Southern California, who do not have the option to take developmental courses, describe the role of peer-modeled growth mindset tutoring in supporting their completion of a composition course in order to understand how students experience improved effort, new learning strategies, and increased persistence when encouraged by a supporter like a peer tutor. Dweck and Yeager (2019) identified the importance of research that studies environments where collaborative learning strategies welcome challenges and where mistakes are viewed with an eye for their potential rather than failure, pointing to a gap in the research that could be filled by a study of peer tutors and their influence on students' ability to persist in the face of academic challenge.

Dweck established the theory that applies mindset to academic contexts. For the purpose of this study, the elements of mindset theory regarding personal beliefs about development of writing skill and the motivation to apply effort when facing a challenge. The added support of a tutor who models the concepts of growth mindset and are able to help students face learning challenges with a more positive outlook. The theory has been applied by other researchers to school settings from elementary school to college, and provides educational practitioners with a concept to help gauge and review motivation, student success, and completion. Students at community colleges need non-cognitive skills that support academic behavior. With many community college students enrolling in courses regardless of their level of preparation, and with placement tests and remedial coursework discarded, students begin in college level courses needing non-cognitive and academic support for the coursework. Tutoring can provide both of these elements, and

the state of California (AB1187) is continuing to legislate initiatives that support exploring effective tutoring practices for transfer-level courses.

Review of the Literature

This review of literature will cover the following four topics of importance to this proposed study around academic support and completion for students, which are as follows: non-cognitive factors, non-cognitive interventions, peer support, and academic attitudes about writing. These elements are important to understanding the research that proposes the ideal conditions that contribute to student success and completion. Research on themes of student preparation and attitude as well as the institutional environment offers ideas about what has been found to support students who persist and achieve their academic goals.

Non-Cognitive Factors

By examining the role of non-cognitive factors in the academic environment, studies showed the important connection between beliefs in ability and extending effort during academic challenges. The non-cognitive influences on academic effort are important to explore while community college students face increased challenge in academic settings. Non-cognitive factors include metacognition, positive academic attitudes, habits of mind, engagement. Non-cognitive factors are different from academic skills, like reading, writing, or analyzing themes, because they are what fuels the academic skills: they are they attitudes or dispositions that support learners' motivation.

Academic Effort

The concept of effort in academics supports learning when students face challenging work. The findings showed a connection between attitudes about innate

ability and effort in the academic world. Aditomo (2015) found that attitudes about academic ability predicted both learning goals and effort although it did not predict course performance.

Students who experience progress or success when they exert effort are more likely to persist in embracing challenges. There seems to be a connection for students between their attitude about their innate ability to survive the academic world and their willingness to exert effort. A positive mindset about academic ability predicted both learning goals and effort and non-effort (Aditomo, 2015). Learning goals and effort influenced the way students work toward these goals despite setbacks, allowing them to embrace challenges instead of giving up. A thriving student recognizes the responsibility they hold over their own choices and actions and focuses on their strengths by applying them in different ways (Kannangara et al., 2018). Petjärva et al. (2019) found that the lack of non-cognitive skills influenced the dropout rates in first year college students. The researchers concluded that beliefs about non-cognitive traits improved the academic progress in higher education. The non-cognitive skills of metacognition, a positive academic attitude, habits of mind, and engagement, and interventions can all provide support for student success and completion.

Metacognition

Non-cognitive skills like metacognition supports students' ability to understand how they learn as well as how they respond during challenging learning moments. The Council of Writing Program Administrators (2011) found that metacognition is reflecting on one's own thinking as well as educational processes. The National Research Council described metacognition as one of the top three strategies that produce usable in-depth

learning (Pellegrino & Chudowsky, 2003). Metacognition is the students' knowledge about their own learning can help them improve their learning; expert learners monitor their problem solving, are able to sense when they have limitations in their knowledge, and avoid oversimplifying problems they are working on. These traits are often connected with a student's metacognitive ability that can influence learning outcomes (Pellegrino & Chudowsky, 2003).

Metacognition is supported when it is explored in the context of learning in an academic subject, like math or writing. Acosta-Gonzaga and Ramirez-Arellano (2021) found that positive emotions were significantly related to metacognitive strategies only in the blended context. Hammond (2020) also identified metacognition as an important factor in student learning because the skill supports focus on cognitive planning and information-processing moves. An academic task requires reflecting on the task and deciding on what needs to happen to support the numeric or linguistic skills. Metacognition is a key student success skill as it supports students when they are faced with challenging academic tasks, and they are reflecting on cognitive protocols, tools, or strategies will be needed to complete them.

Academic Attitude

A positive academic attitude is a second non-cognitive category that has been shown to help students in post-secondary schooling because it supports self-efficacy and belief in ability to meet the challenges higher education can bring Academic mindset supports student ability to continue on in the face of new material and challenging assignments. Academic attitude has an important role in the learning process. Students' positive academic outlook play an important role in educational achievement. Rattan et

al. (2015) believe mindsets should have a larger role in educational institutions. Two key academic mindsets, growth mindset and belonging mindset were influential in this study, showing that students with growth mindsets believed that they could take steps and use strategies to support their learning in spite of difficult events.

If students think they have the ability to learn, they will come at problems or challenges during learning with different techniques than if they do not have the ability to learn. Ongoing research is important to identifying other beneficial academic attitudes that strengthen the educational environment for all students. Future research should support collaboration between researchers and policymakers who want to support student learning and achievement at all levels. Studies identify that a positive academic outlook can impact achievement, and the lack of positive outlook can negatively affect achievement. Destin et al. (2019) linked a learner's outlook that did not support effort to low academic achievement. While Kannangara et al. (2018) found that learners with a positive attitude towards effort valued feedback and constructive criticism and had more positive attitudes toward learning. The persistence that a positive academic outlook supported sustained interest and attention for completion of academic goals (Council of Writing Program Administrators, 2011).

Habits of Mind

The third major category of non-cognitive skills is a collection of student traits called habits of mind. These characteristics were categorized by Costa and Kallick (2015). These researchers have identified 16 habits of mind that can support learners as they consider their motivation and assess their learning, including asking questions to stimulate curiosity, analyzing, and problem solving. These habits support behaviors and

include activities like persisting, managing impulsivity, thinking flexibly, thinking about thinking (metacognition), and remaining open to continuous learning (Costa & Kallick, 2015).

The role of habits of mind in the student learning are also identified by several professional organizations involved in the teaching of writing in higher education. *The Framework for Success in Postsecondary Writing* (2011), published by the Council of Writing Program Administrators, along with the National Council of Teachers of English, and the National Writing Project identified eight key habits of mind as ways to support students' *success in writing.* These organizations and the research of Costa and Kallick (2015) link the way learners use the habits of mind to support their positive academic attitude which supports the learning process. The Framework includes the eight habits of mind as curiosity, openness, engagement, creativity, persistence, and responsibility, flexibility, and metacognition (Council of Writing Program Administrators, 2011).

Engagement

A fourth important non-cognitive category is engagement. Students' engagement with activities can support college completion. Engagement is having investment and involvement in learning (Council of Writing Program Administrators, 2011). The role of engagement in the discussion of student success and retention became important when higher education began to take into consideration the role of the institution (Tinto, 2006). Tinto's research on student retention focused on the role the institution played in the student experience and the historical trend of the research has been to study student engagement (Tight, 2020). Student engagement has become an important element in the study of student retention and success.

Hammond (2015) discussed the importance of the learning partnership in working with students who need to develop a positive mindset toward academics. Educators develop this mindset in students when they reinforce the concept that that all students have the capacity to learn; this in turn works to counteract the messages that they are not smart enough or capable enough to learn. Hammond (2015) offers other practical ways to empower and engage learners who feel like school is not where they belong. This is another way to counteract the power struggle in the classroom; acknowledging that learners and educators all have something to bring to the learning process, regardless of past grades and performance.

Non-cognitive skills support and impact student academic success and completion. Sustaining academic effort, metacognition, academic attitude, habits of mind, and level of engagement are all non-cognitive skills that contribute to student success in different ways. Although basic academic skill is necessary to success in the educational environment, the non-cognitive skills have an effect on student motivation levels, which also contribute to student success and completion. Tight (2020) recommends involving the student directly in the research to discover what helps them stay engaged with both their studies and what will help them complete college courses successfully.

Non-Cognitive Interventions with College Students

There have been many examples of non-cognitive skill interventions with students with the intent to assist them in integrating practices that might support their academic work. Researchers have worked with students in a variety of academic settings: elementary school, middle school, high school, and higher education. The participating students in these intervention studies are from a variety of backgrounds and have

differing experiences with academic success. Costa and Faria (2018) found in their review of the literature specified that a more malleable theory of intelligence or a more positive academic self-perspective tends to be associated with higher levels of academic achievement. The interventions offered a variety of conclusions; since some studies show non-cognitive skills are connected to academic success, efforts to understand how to teach student to use these skills to increase student success and completion continue.

Interventions Impact Beliefs about Intelligence

The interventions that explore students' self-concepts and evaluations about their own abilities were discussed in a meta-analysis by Costa and Faria (2018). The research focused on those studies that tested for implicit theories of intelligence and academic achievement. The studies spanned the levels of students in middle school, high school, and college with implicit (incremental or entity) theories of intelligence using any of the following quantitative measures of achievement: language, literacy, reading, math, biology, or GPA. The researchers also wanted to explore the impact of implicit theories of intelligence across cultures and on different academic subjects, bearing in mind demographic, academic, and cultural differences. The meta-analysis looked at motivational patterns in an attempt to identify if implicit beliefs about intelligence has significant effects on academic and emotional outcomes. Costa and Faria (2018) concluded that although it is modest, there is a positive association between students' positive academic self-perspective and their academic performance, supporting the research findings in the field. Their findings did confirm that educational level and cultural background can influence the implicit intelligence scores with academic achievement. Further research should continue to explore the connection between self-

concepts within an academic environment, academic achievement and how it influences motivation.

Another meta-analysis looked at interventions that used the concept of neuroplasticity to help students change their perspectives about their ability; neuroplasticity is the brain's ability to change as a response to learning experiences (Owens & Tanner 2017). Sarrasin et al. (2018) compiled a meta-analysis of 212 studies that had researched teaching neuroplasticity to students. The ten studies used in this meta-analysis provided conflicting evidence; the studies involved academic motivation in a several different categories: general, reading or math achievement; and brain activity. The studies compared academic achievement in a variety of subjects with different exposure to the intervention. The ages of subjects in the studies ranged from elementary school to undergraduates, and some of populations were identified at risk. Sarrasin et al. (2018) identified that teaching neuroplasticity had a positive effect on motivation, achievement, and brain activity, and they concluded that differing results in the research findings may have depended upon the differing ages of the participants as well discipline area. The final review acknowledged the interventions seemed more beneficial for at-risk students in middle school, especially in the area of math, while also providing an effect on motivation and academics.

Mindset interventions have also been used as a means to boost student capacity for facing academic challenges and increasing student success. Sisk et al. (2018) explored the effectiveness of mind-set interventions, designed to increase students' growth mind-sets with the expectation that this will strengthen their academic success. The meta-analysis focused on interventions given in educational environments around the world.

Similar to the use of teaching neuroplasticity with the design to support increased capacity for student growth, the concepts of intelligence as fixed or as able to grow are introduced to students to increase their view of their own intelligence. The meta-analysis completed by Sisk et al. (2018) indicated that interventions are most significant during the important developmental stage of adolescence, and for individuals with lower socioeconomic status. Studies for the meta-analysis were chosen based on their use of mind-set measurement collected prior to an intervention, a measure of academic achievement, and measuring the relationship between mind-set and academic achievement in English as well as studies that used an intervention, a control group, and a comparison of the measure of academic achievement in English. Although the overall effects were weak for both meta-analyses, the results did support claims that high-risk and economically disadvantaged students may benefit from interventions. Further studies are needed to see if mind-set interventions combined with other interventions, like tutoring or support classes, increase effectiveness.

There have been several large studies on elementary and high school students using mindset interventions to impact academic achievement. Yeager et al. (2016) focused on learners during a transitional time in their educational lives, the change from elementary to junior high school. The quantitative study attempted to add to the body of knowledge about what makes some students resilient and able to not only complete harder material but also thrive in a new environment offering new challenges and rigor, both academically and socially. The study involved 373 students of a variety of ethnicities, with moderately high achievement scores in math; half were eligible for free lunch. A questionnaire was given to the students at the beginning of their time in junior

high school measuring their responses to questions about their ability to change their intelligence, their learning goals, their beliefs about effort, and their response to failure. The results of this questionnaire showed that their theory of intelligence became an important indicator of their mathematics achievement. Future studies could take similar interventions and redesign them to improve the outcomes for students undergoing life transition.

Yeager et al. (2019) worked with 65 regular public schools in the United States that included 12,490 ninth-grade adolescents to offer a growth mindset intervention. This intervention achieved a meaningful proportion of the largest effects seen with lower-achieving students. The online growth mindset intervention, teaching that intellectual abilities can be developed, saw improved grades among lower-achieving students and increased overall enrolment to advanced mathematics courses. The study saw improvement in student academic success across the transition to secondary school. This social–psychological intervention was conducted with a qualitative methodology. The data collection used a sample of schools representative of the entire population of ninth-grade students attending US public schools. The analysis found that lower-achieving adolescents earned higher GPAs in core classes at the end of the ninth grade when assigned to the growth mindset intervention. The finding that the growth mindset intervention could redirect academic outcomes were sustained when peer support aided in the adoption of intellectual challenges. Future research should study new interventions to address other challenges students face that combine the importance of belief change and school environment. Yeager et al. (2019) identified the need for interdisciplinary research to understand the numerous influences on adolescents' developmental trajectories.

The use of growth mindset has been integrated to support students in college math courses; Boaler et al. (2022) integrated a mathematical mindset approach intervention to support first year calculus students; the study found that the intervention not only improved student assessments, but it also changed students' ideas about mathematics, their potential, and the value of collaboration. This mixed-method study used Dweck's mindset theory to create a mathematical mindset intervention that helped students value struggle in the learning process, collaboration with peers, while also reevaluating their own academic ability. This intervention combined the academic support with attention to non-cognitive supports. The researchers contributed the success of the students in the study to the mindset messages that normalized struggle and emphasized the potential of all students the collaborative practice of the course material. Boaler et al. (2022) proposed that future research should implement this approach in more diverse contexts with a wide range of students.

Limeri et al. (2020) studied students enrolled in a challenging Organic Chemistry class and were given extra credit to complete the four surveys throughout the semester. Initial surveys were used to find the 20 students to interview, primarily showing a mix of growth and fixed mindset responses. The surveys used Dweck's eight-item mindset survey focused on chemistry and general intelligence. The researchers chose an exploratory and descriptive approach because there has been minimal empirical work done on mindset change in mid-level undergraduate students. From qualitative analysis of students' written survey responses and interview transcripts, the researchers determined that students attribute their beliefs about intelligence to five factors: academic experiences, observing peers, deducing logically, taking societal cues, and formal

learning. These five factors could potentially inform the design of mindset interventions. The first factor was students' past academic success. Mindset interventions may influence students by asking them to reflect on past times when they have learned or overcome a struggle, reminding them that they are capable of doing so. The researchers suggested that future interventions should tap into the positive feedback loop between mindset beliefs and academic performance. If academic experiences trigger a positive feedback loop between academic experiences and mindset beliefs, then intervening at an early stage may be critical to achieving positive student outcomes. Helping students overcome early struggles may help them adopt a stronger growth mindset, making it more likely they will continue to overcome future struggles and further affirm their growth mindset.

Intervention Impact on Academic Probation

Students who have experienced academic challenge and failure are a group that need help to succeed and complete their educational goals. Several studies involving at risk students who have previously experienced problems at school have found success in introducing non-cognitive concepts to boost academic performance. Sarrasin et al. (2018) identified in a meta-analysis of 10 studies that neuroplasticity interventions in middle school, at-risk students provided a positive effect on motivation and academics. Hoyert et al. (2019) found in a quantitative study that university students on academic probation who attended a class on mindset concept interventions earned higher grades, indicating the value of learning about non-cognitive practices for students who may be at risk for failing. Altunel (2019) found in a quantitative study that university level language learners who were introduced to the concept of mindset also developed an improved attitude towards the complex work of language learning with the help of improved

motivation through interventions. These studies seem to indicate that interventions can support students' improved non-cognitive practices, like attitudes toward school success and effort

Petjärva et al. (2019) studied the high dropout rate of undergraduate technology students and first year engineering students in Estonia. The study focused on the role of implicit beliefs of ability as an indicator and the relevance of ability beliefs in reflecting the academic progress of Estonian students at higher levels of education. Their hypotheses were as follows: 1) The fixed mindset and low effort of the first-year students predict lower progress in science subjects while higher academic self-efficacy and interest indicate better progress in science subjects; 2) It is possible to bring about positive changes in engineering students' implicit ability beliefs and effort regulation with an intervention that addresses ability beliefs. To test this hypothesis, a questionnaire was used to assess learner's beliefs about their implicit ability, learning motivation and study behavior. To evaluate the validity of subscales, or in order to assess whether the devised instrument is suitable for measuring the beliefs and learning motivation of the students in the field of technical higher education, the questionnaire was piloted before the intervention study. The general sample included 270 students, who were given a growth mindset intervention. One group was given the intervention, and another group was given no intervention. Students both groups in the sample were interviewed twice using identical questionnaires. The study found that the students' academic self-efficacy, fixed ability beliefs, and low effort regulation were the strongest indicators of grades; interest did not influence students' academic achievement (Petjärva et al., 2019). The intervention effected the students' ability beliefs and effort regulation. This study

concluded that supporting a growth mindset towards intellectual ability and that addressing beliefs associated with learning is important at all levels of education (Petjärva et al., 2019). The researchers also concluded that in order to bring about a lasting change in the level of the learning process, support for development-oriented and learning-enhancing beliefs must be also be shared with those who support the teaching and learning in higher education.

Intervention Impact on Diverse Groups

These interventions have been successful across diverse group as well. One important study was completed by Destin et al. (2019). These researchers investigated the role of a non-cognitive intervention on students from different socio-economic groups. The study used the National Study of Learning Mindsets is a survey given to ninth grade students. It measured academic mindset, socio-economic status (SES) and grads of 16,281 students in 76 U.S. high schools. The study found that high school students with a positive outlook had higher academic achievement. The researchers identified that the history of educational and social inequality also plays an important role in socioeconomic inequality in education. Kearney et al. (2020) evaluated the influence of non-cognitive factors among a diverse student body using the School Climate and Academic Mindset Inventory. The SCAMI includes academic mindset and social emotional learning factors in their assessment of students. The scale was found to be helpful in understanding the specific mechanisms by which school climate and other non-cognitive elements lead to improved academic achievement,

Another study looked at the influence of non-cognitive interventions on students. Beltran (2018) used a mindset intervention with Latinx students in higher education. This

study used focus groups with ten students in a STEM summer bridge program at a small private Hispanic-serving university in California. Beltran (2018) found that mindset can influence the academic performance of vulnerable populations, but that additional learning mindsets, belonging, self-efficacy, and relevance, affect academic achievement are also important to success. Beltran (2018) also identified in the study that mindsets are malleable and can be developed with short-term intervention, and career ambitions were salient to student goals. Integrating growth mindset, belonging, relevance, and self-efficacy into the curricula can strengthen the effectiveness of programmatic efforts. Further studies should continue to investigate what can support students' non-cognitive dispositions.

Interventions also have also established relationships between self-perceived academic performance satisfaction and growth Mindset existed. Barbouta et al. (2020) findings confirmed Dweck's mindset theory that the beliefs that students hold about themselves (incremental vs entity) predicted their academic performance and thus satisfaction. The results suggested a correlation between academic performance satisfaction and growth mindset score, growth beliefs about intelligence and fixed beliefs about talent. The study also confirmed Duckworth's findings that grit seems to grow with age. Future studies should examine a student population in two or three different time frames, while obtaining grit scores, self-perceived academic achievement, and GPAs in order to provide more valid and reliable grit indicators (Barbouta et al., 2020). If studies are showing a connection between mindset, grit, and academic achievement, then it supports a study to see if students at a community college can grow their mindset through the exposure to peer tutors trained in mindset theory.

Interventions that focus on the training and integration of non-cognitive supports that connect to students' beliefs about their capacity to learn and develop academic skills also show some benefit to students who are struggling with academics. The successful use of short-term interventions on students from different backgrounds show that students can benefit from the introduction of these concepts. The interventions also show benefit to a variety of socio-economic levels, diverse race and ethnicities, and varying academic achievement levels.

Peer Support

These studies may indicate that positive emotions such as enthusiasm or enjoyment along with peer encouragement may support students to use more sophisticated metacognitive and cognitive strategies. Leung (2019) identified in a meta-analysis the use of both structured and unstructured tutoring programs. Peer learning uses the constructivist educational theories to support the idea that peer to peer learning is an active and constructive process that is supported when learners use previous knowledge applied toward the learning situation to understand the learning outcome critically (Keerthirathne, 2020). The role of peer support has also been found effective in engaging students as active participants in the learning process (Zander et al., 2018). Along with the integration of non-cognitive skills, peer support in the academic setting provided students with support to succeed and complete in their academic coursework.

Non-Cognitive Concepts and Peer Support

Non-cognitive concepts like positive academic outlook, mindset, help-seeking, and engagement are combined to offer students effective academic support. Zander et al. (2018) found that growth mindsets support academic self-efficacy which indirectly

supported students' integration in academic support networks and highlighted the benefits of providing help in academic networks among college students. Topping (2005) concluded that peer learning is effective in supporting learners' strengths and engages them as active participants in the learning process. Zander et al. (2018) saw a connection between positive academic outlooks along with peer support networks in providing academic support to learners.

Effective peer learning made use of non-cognitive elements. Topping (2005) provided a theoretical model of peer learning that explored five categories of processes that influence effectiveness of peer learning, finding that affect, or the emotional impact of tutoring, was an important part of an effective model. Non-cognitive factors played an important role in the successful peer learning model: self-regulation, metacognition, and self-esteem. Topping (2005) concluded that peer learning builds on individuals' strengths and engages them as active participants in the learning and that peer tutoring can be effective when it is used with a clear purpose, context, and population. The theoretical model provided in this article provides a way for practitioners to evaluate how the process of peer learning works. Peer learning is increasingly found in colleges and universities where the many benefits of it can be studied and observed.

Social Element of Peer Support

The role of peer support is part of the social element that supports learning. Vygotsky (1980) developed the social constructivism approach that proposed that higher functions emerge as a relationship between the learner and the others around him. Steyn and Van Tonder (2017) found female students often see learning as an active rather than passive attempt, seen in both an individual cognitive and a socially interactive activity

and that students in hybrid learning conditions performed better than students in pure online or exclusively face-to-face, where the tutors creating a supportive adult learning climate.

Learning from peers' feedback and modeling is also an important part of the role of peer influence and support. Sheffler and Cheung (2020) found evidence of peer influence on mindset in short, 15-minute interactions. Limeri et al. (2020) identified observing peers as one factor that influenced undergraduates' mindsets, with future studies recommended to explore positive feedback during academic struggle. A qualitative descriptive study to understand the experience of community college learners at a writing center would provide new knowledge to understand how mindset modeled by peer tutors supports learners with academic writing assignments. Melguizo et al. (2017) found that these policy reforms are creating concern about colleges' ability to improve outcomes in an environment of constrained resources. The urgency to find practices that can be implemented to support students using resources that are available and currently in use is calling practitioners to find low-cost innovations that can make a difference in the success and completion of the most at-risk students.

Peer learning can also come from students watching other students model non-cognitive skills that support academic behavior. Based on social cognitive theories of learning, the intervention used videos from former students who modeled the changes that allowed them to be successful in a biology college course, focusing on the studies that show students are more successful in these classes when they practice metacognition, self-regulation, self-assessment, and reflection. This study was a randomized controlled trial to test the effects of mindset interventions. Hecht et al. (2022) suggest that the

mindset approach provides students with a new view of struggle; rather than struggle being an indicator of one that sees it as a progression to more strategic learning. The study consisted of three 15-minute intervention activities, a survey, course grade, persistence data, and then the analysis phase. One important connection as to why this intervention was successful for underrepresented students, is that they were able to see students they identified with discussing their strategies to overcome struggle and challenge.

Academic Element of Peer Support

The strategic use of peer tutors in specific courses, such as peer assisted learning (PAL), is also a way to provide peer support as well as academic support to students. Verbeem and Harper (2019) found that peer to peer support is effective at supporting students at the university level. Focus group participants recorded that that PALs helped develop confidence and other skills in the students who participated. Khan and Watson (2018) also found that peers providing academic tutoring helped learners in a flipped classroom setting. Researchers concluded that peer leaders are able to offer helpful support to students seeking assistance and future research should continue to find ways to support peer-to-peer assistance. The combination of the non-cognitive concepts presented by peer learners provides an effective means of support for students. Balilah et al. (2020) suggested that PAL should be evaluated through by talking with students about their experiences with peer academic support. The recommendation for future study was to collect feedback from students, both tutors and tutees as well as faculty involved with the program to assess of outcomes by pre-and post-intervention assessment of the students.

Peer support is another means outside of the traditional academic classroom environment that support student success and completion. As peers both model and present the use of non-cognitive skills to students, the combination of these two elements provides students with another means to accessing academic achievement. The social dynamic as well as the academic support provides a unique grouping of student success strategies that research indicates is an effective means to support students in the academic context.

Non-Cognitive Skills and Writing

Learning assistance professionals and researchers have looked at the role of internal factors on students and the influence they have on academic skills. Schubert (2017) found that the research literature in writing studies has overlooked the influence of non-cognitive factors like mindset on student writers. Driscoll et al. (2017) also explain that although internally held beliefs about ability are important to the learning process, their role in the writing process have not been studied and are new as an inquiry focus. Keerthirathne (2020) also described how peer learning shares attitudes and knowledge about academic skills. Non-cognitive skills can support students who are attempting college-level composition and writing courses for the first time, and studies have shown the connection between peer tutoring and self-efficacy for first year college students can support developing academic skills.

Internal Dispositions and Writing

Internal dispositions are personal qualities that support the learner's academic behavior. Driscoll et al. (2017) used the term dispositions to mean those attitudes about personal qualities that can influence student learning: among the list are habits of mind,

intrapersonal factors, and intelligent behaviors. Perkins et al. (2000) explained that the ability-centric focus of intellectual ability works to identify the tasks a student can perform, but the researchers also identified eight habits that support how learners use their academic abilities: they include traits like curiosity, openness, engagement, creativity, persistence, responsibility, and flexibility. Dispositions influence how students engage and participate in the process of learning to write at the college level.

Students engaged a variety of skills as they develop their ability to write at the college level. Conley and French (2014) define self-efficacy as the level of confidence a student has in their own ability complete a challenging task; it is also connected to academic performance, use of effort, and willingness to engage in new behaviors when faced with academic challenge. Driscoll et al. (2017) identified five dispositions that can be applied to writing development: attribution (internal or external motivation), persistence, self-efficacy, self-regulation (the ability to monitor revise, and improve writing), and value of learning experiences. These behaviors are also connected to college readiness. Students who do not experience success in college have often not experienced this kind of self-efficacy, the belief that one can overcome when faced with a challenge (Perin, et al., 2017).

The study of literacy learning in higher education is influenced by systems of socio-economic, political, and cultural inequity and it is important to continue studying these traits as they influence learner writing process (Driscoll et al., 2017). Students may experience conflict when the value of academic language seems to clash with personal, community, or cultural values. Philippakos (2020) identified that the writing process is both a cognitive and metacognitive activity, where student writers need to use a variety of

strategies to complete writing assignments, along with reflective activities that help them identify the strategies used, what was accomplished as well as setting goals and learning objectives for future writing activities. Literacy and writing skills are multifaceted and require a variety of academic and non-cognitive skills.

The use of metacognitive strategies can help adult learners support learning experiences. In a comparison study of writers identified as basic writers and those ready for college level writing courses, the results indicated that self-efficacy levels between the two groups was significant, with the basic writers experience lower self-efficacy and motivation (Philippakos et al., 2021). Mau and Harkness (2020) reported that Finland, Singapore, and South Korea used reflective feedback to facilitate this process, focusing on the strengths and growth areas of student learning. As adult learners reflected on their own learning, metacognitive activity strengthens the learning experience. Driscoll and Zhang (2022) also found that metacognition, thinking skills about one's own learning are important in supporting students as they build writing skills in college-level writing courses.

Peer learning can also be effective, as the non-cognitive elements support academic progress indirectly. Conley and French (2014) concluded that students with a variety of non-cognitive skills, like motivation, goal setting, self-efficacy, metacognition, extending effort, and a positive academic attitude, can be significant to success when faced with challenges in English. Plaskett et al. (2018) examined a program that connects incoming students with mentors from similar high-poverty school districts, like those within the major city from which the mentees originate. Only 50% of first-generation college students are likely to finish college with a degree, so mentoring programs are

ways to provide support for new students who are unprepared for college experiences. This study found that first-generation students matched with successful first-generation and/or low-income upper-class mentors were most successful at creating relational instrumentality (Plaskett et al., 2018). The data in this study found that trusting relationships, with a focus on the mentee, where both are committed to the process are key to building a strong mentor-mentee relationship for first year college students.

The data indicates that high school GPA can indicate readiness for college level courses. Bahr et al. (2019) identified that students with certain GPAs are more prepared for college courses. Although research shows that non-cognitive skills support academic behavior, there is currently little inclusion in the curriculum that encourages students to work on non-cognitive skills that could support their academic progress more directly. Non-cognitive skills have been identified as important supports to for academic progress.

Supports for Underprepared Writing Students

Students who are experiencing lack of growth and progress in their writing skills may be not have the dispositions that support this learning. Bandura (1977) explained that self-efficacy theory can provide insight to the way learners view their beliefs about their own capabilities, so that student with low self-efficacy may view challenging work harder than it is, keeping them from even trying to complete the work. For students without the dispositions like a positive academic mindset or help seeking behaviors, they may continue to struggle without asking questions or seeking help to support their progress. Driscoll and Wells (2012) called for more research on learners in writing courses so understand what they bring with them in college writing courses and how dispositions support learning in those courses.

One strategy is to introduce non-cognitive skills to student writers. Driscoll and Zhang (2022) uncovered the dispositions that unprepared students may lack that negatively influence accessing the needed academic skills for success in higher education, finding the absence of modeling of these factors in the academic context. Perry et al. (2019) concluded in a meta-study of over 50 research projects that metacognition is a strong predictor of academic performance and that the effective teaching of metacognitive skills can make a significant difference for pupil outcomes. Hattie's (2011) extensive research identifies strategies like self-evaluation, help seeking, problem solving, and ongoing feedback are all ways to integrate metacognition into student practice. Unprepared students can benefit from the introduction to non-cognitive strategies.

Several studies have found important connections to student dispositions and writing development. Driscoll and Zhang (2022) conducted a study using a longitudinal approach, collecting nine years of qualitative data in the writing samples of two writers over the course of their development. Their research identified the importance of dispositions in a writer's development along with previous experiences with writing, time, and significant writing experiences in developing writerly skills. The researchers followed two writers and found that resources like support and opportunities, along with the student's identity as a writer, and their disposition, like mindset and help-seeking, were found to be important contributors to a writer's development. Nelson et al. (2012) found that at risk students who were offered support the created a bridge between classroom and support services to strengthen learning and engagement were found to persist first year college courses as well as achieve higher final grades that those not in

the program. Strengthening dispositions seem to offer students support for their academic achievement.

Open access community colleges, with very few requirements for admission, are open to all students, regardless of previous academic progress and achievement. Due to a variety of educational, cultural, and financial experiences, students who are entering directly into college-level courses may need additional academic support. Writers who face college-level writing that requires skills that include word usage, sentence creation along with making rhetorical choices about the purpose, tone, and audience. The task of writing a paper can create overload as well as feelings of cognitive inadequacy or disengagement, which may result in a variety of situations that hinder students from doing any work. Motivation can significantly affect performance on writing tasks and the level of persistence (Philippakos et al., 2021). Writing can be challenging at many levels for low achieving writers who were, prior to AB 705, placed in basic or pre-college writing classes. Students who enter directly into college level courses must face these complex writing tasks without assignment scaffolding or support unless they are able to access non-cognitive behaviors like help-seeking and self-efficacy.

Research on Tutoring

At the community college level, there are several different ways that writing tutoring is offered where peer tutors provide support for undergraduate students, offering practice in using non-cognitive skills to support academic behavior. Wilson and Arendale (2011) identified four different tutoring models: peer-led team learning, structured learning support, emerging scholars programs, and supplemental instruction. A community of students who have similar academic aspirations and a willingness to help

other students is another feature that the models share. Sometimes students with lower grades are required to take a co-curricular course; some institutions will place a tutor in a course with high failure rates. The effectiveness of these programs frequently depends on peer tutors who have received training and on the support of the faculty or staff involved (Wilson & Arendale, 2011). Additionally, tutors are associated with courses; in some cases, this is done formally as a Student Instructor (SI), where a student who has successfully completed the course attends class and provides tutoring and seminars for enrolled students, scheduling workshop hours and subjects while collaborating closely with the professor. A writing center may offer tutorial programs that are available to all students enrolled in writing classes across a range of subject areas as well as to specific first year writing courses depending on the funding and organization of different colleges or universities.

Peer to peer learning programs have also been successful at creating a positive school environment and a feeling of belonging, another important non-cognitive student support. Although these are not academic skills, they seem to support successful academic behaviors. Allbright et al. (2019) found that schools that used peer to peer programs cultivated better social-emotional learning. One concept that was integrated was growth mindset, with a focus on the use of mistakes in a positive way, adding "yet" to "I can't do [something] yet. There were multiple practices that were put into practice including creating a positive school environment and student behavior, promoting relationships through extracurricular activities, and classroom practices. Duran et al. (2020) used multiple linear regression analyses to examine data from 7,888 students and found that belonging was associated with participation in numerous collegiate

environments. The researchers used a survey designed to assess the relationship between on-campus experiences and student outcomes from two private and six public 4-year institutions across the U.S. Duran et al. (2020) discovered important connections regarding the role of peer relationships contributing to belongingness and the impact on success and completion. The study also found that a supportive campus environment including peer support improved students' belongingness. A supportive peer network was also a predictor for belongingness. Further studies should work to understand student perspectives on sociocultural issues with peers and how this relates to belonging.

Structured Learning Assistance (SLA) is another method for providing peer support to students in college writing courses. A quantitative quasi-experimental design looked at performance data of students in English 101 classes who had also attended SLA support sessions. The study found that students in a college-level writing course who worked with advanced students who provided support passed the course in greater numbers, from 66.5% to 82% (Giraldo-García & Magiste, 2018). The SLA model provides students with a tutor who attends the course and models attendance, note-taking, and other learning strategies. The tutor also works with the faculty member to support student progress by offering more practice, strategies, and guidance than a traditional course.

This study on the SLA model found that the more hours the students participated in the SLA tutorial activities, which included information about services across campus along with effective learning strategies, problem solving skills, and collaborative activities, the better the students did in the college writing course (Giraldo-García & Magiste, 2018). There are many benefits to this kind of peer-learning, as it supports the

academic development as well as non-cognitive strategies that support student learning. Giraldo-García and Magiste (2018) used Vygotsky's socio-cultural theory of learning and development and the role of more experienced peers in the learning process of the student, illustrating how students can reach higher levels when they interact with more advanced peers. Their research found that further studies could benefit the understanding of first year students' point of view as to how these experiences influenced their academic performance.

Peer to peer learning has also been found to support students' collective feeling of self-efficacy, another non-cognitive skill. Khan and Watson (2018) studied how communities of practice are developed through peer learning in flipped classrooms, where debate and discussion are encouraged. In this model, as the peer learning develops, the teacher relinquishes authority to students and assumes the role of a facilitator. Students work in groups and make use of peer learning, with many opportunities for feedback from peers, tutors, and the lecturer. The study showed an 11.6% higher mean examination mark on average compared with the traditional classroom.

Another non-cognitive skill that is supported by peer learning and tutoring is growth mindset. Miller's (2020) semester-long, mixed methods study identified that course embedded tutoring could influence student mindset, with a recommendation to see how training tutors with mindset theory could influence students who worked with those tutors. Miller (2020) demonstrated that growth minded tutors could effectively help students persist and complete course work while facing academic challenges. The research also found in a blind reading of student writing, the revised papers better in terms of organization, style, and mechanics than those of students who had not worked

with the tutor. Miller's findings indicate that a growth minded tutor can improve students' writing performance and influence their mindsets as well. The conclusion of this study established that writing centers can play an important role in promoting non-cognitive skills like growth mindset.

Peer learning programs have also been successful at creating a positive school environment and a feeling of belonging. Although these are not academic skills, they support successful academic behaviors. Allbright et al. (2019) found that when growth mindset was integrated in the learning environment, with a focus on the use of mistakes in a positive way, adding "yet" to "I can't do [something] yet, the feeling of belonging was strengthened. The study also found that a supportive campus environment including peer support improved students' belongingness. Further studies should work to understand peer learning models and how these programs support belonging, which supports academic achievement.

Interestingly, both tutee and tutor benefited from the peer-to-peer learning experience. Abbot et al. (2018) studied peer tutoring to fill the gap of the absence of tutor voice in the literature. The case study exploring peer tutoring in higher education provided insight into the world of the tutor, providing new information on the role of the professor-student relationship, the importance of role expectations, and the issue of tutor positionality. Brown (2008) studied eleven students with writing projects from across the disciplines along with nine peer writing tutors. Future research should continue to explore the tutor experience as well as focus on how tutoring supports the tutors' learning. Future studies should involve more participants, with more diverse population with more time for longer interviews in order to ask follow-up questions. The study's conclusions

focused on more training for tutors and specific assignments that could be used to effectively train new peer tutors, which supports the methods that could be used in surveying students after they have worked with a tutor who has been trained in mindset theory.

To summarize, non-cognitive skills can be are used to support academic behaviors as well as college level writing skills. Studies have showed the connection between writing and internal dispositions like metacognition, habits of mind, and self-efficacy (Driscoll et al., 2017; Philippakos, 2020). Several studies have also found that students could benefit from mentor relationships that allowed them to observe successful student behavior (Driscoll & Zhang, 2022; Plaskett et al., 2018). The demands of college level writing are complex, and peer support can provide assistance through the process (Philippakos et al., 2021). Miller's (2020) study on learner attitudes about effort and motivation in challenging environments are important to understanding the effects of growth minded tutors. More research is needed to understand how peer tutors can support community college students in their academic success and completion. Students can develop non-cognitive skills to support their academic success and completion through different avenues, such as increased engagement, success through challenges, and interventions that focus on the neuroplasticity of the brain. Peer support has been found to be an effective means to support academic progress.

Problem Statement

Completion rates in composition courses are low at a two-year public institution of higher education in Southern California, and it is not known how students, who do not have the option to take developmental courses, describe the role of peer-modeled growth

mindset tutoring in supporting their completion of a composition course. The problem to be addressed in this study is that due to legislation removing developmental courses, community college adult learners must enter directly into college-level courses creating higher fail and dropout rates than previously seen because students face increased challenge without the needed support. Peer tutoring with a growth mindset may lead to increased effort, to application of new learning strategies, and to encouragement to persist for students who don't have an opportunity to take developmental courses.

The population of interest includes all California community college students over the age of 18. The sample will be taken from the target population, which includes California community college students enrolled in English composition courses who are 18 years of age and older. Based on what is known in the literature, this problem can be addressed by introducing non-cognitive skills and practices to help learners engage in more effective academic behavior. What is still needed in the research are studies that look to the student experience in order to understand how peer tutoring, modeling growth mindset and supporting non-cognitive skills, can support academic behavior for students in college level courses. Mosanya (2020) identified that mindset also has an impact on learning, motivation, resilience, and performance. First year composition students commonly work with tutors to help them work on course assigned writing; this can assist in completing these assignments and the course (Miller, 2020; Schubert, 2017). Non-cognitive supports, like mindset, help seeking, and self-efficacy, are non-cognitive skills that support academic behavior. Within the context of tutoring these skills could provide motivational and attitude change offering students new strategies that can help them complete first year courses.

The research literature presents a problem that still needs to be understood; how non-cognitive skills support students taking college courses for the first time. Farruggia et al. (2018) concluded that academic mindset can be broken down into the non-cognitive skills of academic self-efficacy, belonging, and academic motivation; they recommended that future research should examine this by testing different profiles of mindsets on academic performance and retention. A better understanding of how students learn and apply non-cognitive skills to support their academic progress is needed. Studies indicate that peer support is one way for students to see non-cognitive skills modeled (Miller, 2020; Schubert, 2017). The issue of concern is that as community colleges remove access to developmental courses, which have traditionally provided students with academic support, students could benefit from understanding how non-cognitive skills support academic behavior during first year general education courses. Although the California state legislation AB 705 has increased enrollment in the transfer level courses, the success rates in transfer-level English and math classes have decreased by eight percentage points and five percentage points for English in the past year (Brohawn et al., 2021). Historically, community college students are already completing coursework at a low rate, with 13% of California community college students earning an associate degree after two years and only 48% of all students completing an Associates of Art degree within six years (Jackson et al., 2019).

Since the passage of AB 705 occurred in 2018, California community college educators and administrators are only beginning to experience the consequences of the bill, with early statistics showing that it may create another barrier for students who are no longer able to access developmental or pre-transfer courses. Although more students

are taking college level English courses, success rates are decreasing by 5% in English courses (Brohawn et al., 2021). This legislation requires that colleges implement programs to support students in their first transfer level courses; the need for research on how to best support students is strong. The legislation also prohibits students from being tested and then placed into lower than college level courses. Community colleges can use this new legislation as an opportunity to find new ways to support students in their first-year courses.

Summary

Research literature on non-cognitive supports show the power in the behaviors that come from a growth mindset to support students in their academic endeavors. There are a variety of strategies and techniques that educational researchers have implemented to help students learn to use these support skills to boost their academic achievement. A positive mindset about academic ability predicted effort in learning (Aditomo, 2015). Destin et al. (2019) also found a connection between learners' outlook that supported effort and academic achievement. Researchers continue to study how adult learners tap into motivation to face increased challenge in first year college courses. Tight (2020) recommended involving the student directly in the research to find keys to engagement that will support students completing college courses successfully. Growth mindset characteristics, or non-cognitive traits, were identified as supporting a positive attitude toward learning, with a value on feedback and constructive criticism in order to build on their skills (Kannangara et al., 2018). With low completion rates in composition courses, two-year public institutions of higher education in California are in need of practices that will support students who do not have the option to take developmental courses. Kearney

et al. (2020) evaluated the influence of non-cognitive factors among a diverse student body, finding that non-cognitive practices, like growth mindset, in students lead to improved academic achievement.

Completion rates in composition courses are low at a two-year public institution of higher education in Southern California, and it is not known how students, who do not have the option to take developmental courses, describe the role of peer-modeled growth mindset tutoring in supporting their completion of a composition course. Educational researchers are calling for future research in the area of growth mindset and non-cognitive skills, to understand how they support students during academic struggle. White et al. (2021) expressed the need for research for tutoring, tutor training, and understanding the non-cognitive or soft skills that support community college students in first year composition courses.

The traditional educational model of viewing students in first year college courses in a deficit minded frame, with descriptive words for students like unprepared, not ready, in need of remediation, has been replaced with a student asset-based perspective, more in line with Dweck's mindset theory, with the idea that students bring a variety of strengths that need to be developed in order to help them. Dweck's (2012) growth mindset theory presents the concept that as students view their intelligence as malleable and able to change, they are more motivated to engage in the effort and new strategies that are needed to succeed in college-level composition courses.

The mindset theory offers a theoretical framework that can be used to explain why some learners focus on their lack of ability while other learners focus on the strategies and effort that help them face challenging work (Dweck & Leggett, 1988). This

model can be used to understand motivational processes and the use of non-cognitive traits like academic effort, metacognition, academic attitude, habits of mind, engagement and help seeking in college students in. Studies seem to indicate that non-cognitive factors support successful academic behaviors. Successful students describe failure as way to grow while completing academically challenging assignments; challenges and setbacks as seen as opportunities to grow (Dweck & Yeager, 2019; Yeager et al., 2016, 2019). The mindset theory helps peer tutors support students develop a growth mindset to support them during academic challenges with writing. Dweck's theory (2009) provides the means for looking at how students describe their experiences with college writing and how a peer tutor engages and supports them through the writing process.

There is a need for continued research to support student completion of first year courses in a community college system that is removing traditional supports for underprepared students, such as placement testing and course prerequisites. The topics this chapter covered were non-cognitive factors that support student success, non-cognitive interventions that support student success, peer support of students, and the connection between non-cognitive skills and writing. The purpose of this qualitative descriptive study is to explore how students at a two-year public institution of higher education in Southern California, who do not have the option to take developmental courses, describe the role of peer-modeled growth mindset tutoring in supporting their completion of a composition course. First year composition courses often provide the first college course experience for students; they provide students with an understanding of the complex task of writing as a foundation for future academic experience. Students who work with tutors find it helpful as they work on college writing assignments; this can

assist in completing these assignments and the course (Miller, 2020; Schubert, 2017). Non-cognitive supports, like mindset, help seeking, and self-efficacy, within the context of tutoring could provide motivational and attitude change offering students new strategies that can help them complete first year courses.

The following chapter describes and justifies this study's methodology and design. Chapter 3 also presents the purpose of the study, research questions, population, sample sources of data, data collection method, and data analysis process. It also reviews trustworthiness and ethical considerations. There are many studies on student support and interventions using non-cognitive skills and peer tutoring, but to understand the student experience through their descriptions will add new information to this topic.

Chapter 3: Methodology

Introduction

The purpose of this qualitative descriptive study is to explore how students at a two-year public institution of higher education in Southern California, who do not have the option to take developmental courses, describe the role of peer-modeled growth mindset tutoring in supporting their completion of a composition course. Helping students find the motivation to put forth effort and try new learning strategies can provide important support for academic achievement (Destin et al., 2019). Kannangara et al. (2018) found that learners with a positive attitude towards effort valued feedback and had more positive attitudes toward learning. Other non-cognitive supports like academic effort, metacognition, academic attitude, habits of mind, and engagement are key for students to face academic challenge. Students who believe they can face challenge do better than those who doubt their abilities, and studies indicate that exposure to the non-cognitive concepts can support students academically (Dweck, 1999; Dweck & Yeager, 2019; Yeager et al., 2019). Non-cognitive supports have been shown to provide motivational and attitude changes, offering students new strategies that can help them complete first year courses.

The problem statement and research questions of the study focus on uncovering the experiences of students seeking support from a peer tutor trained in growth mindset. All tutors at the community college where the proposed study will take place have been trained to work with students using a growth mindset perspective. AB 705 imposed new curriculum restrictions limiting the access to developmental courses that are often taken prior to first year college courses. Students who experience tutoring with a growth

mindset tutor may attempt more effort and persistence as they take college level courses. Miller (2020) found that writing tutors who have been trained to tutor with a growth mindset provide several important elements to the learning process: they model a growth mindset by showing students that improving writing applies not only to the assignment but also to future writing tasks. The peer tutor learns to address the academic issue in the paper as well as support the student's growth and development as a learner. At the community college where this study will be conducted, all writing tutors are trained in a similar manner as those in Miller's study (2020): training modules include an introduction to growth mindset, using several articles by Dweck on neuroplasticity and growth mindset coaching, assigning personal mindset assessments, and viewing videos on growth mindset. Tutors engage in written reflections regarding learning, participate in follow up meetings that focus on these topics, and learn to foster a positive atmosphere when helping students face academic challenges by focusing on the belief in student ability to grow and learn. Due to legislation the prevents community colleges from offering developmental courses, community college adult learners must enter directly into college-level courses, creating higher failure and dropout rates than previously seen because students face increased challenge without support.

Chapter 3 contains a description of the study methodology and design, presenting the reasons that support a qualitative descriptive design for this study. This chapter will discuss the research questions and the data sources that will be used to collect data for each question and the population and sample in the study. Chapter 3 also contains a discussion of trustworthiness; data collection, management, and data analysis procedures; ethical considerations; and assumptions and delimitations.

Purpose of the Study

The purpose of this qualitative descriptive study is to explore how students at a two-year public institution of higher education in Southern California, who do not have the option to take developmental courses, describe the role of peer-modeled growth mindset tutoring in supporting their completion of a composition course. By conducting interviews and focus groups, the researcher will work to understand perceptions of students who experience growth mindset tutoring while completing a first-year composition course. First year composition students commonly attend tutoring to help them work on course assigned writing. Tutoring can help students complete these assignments and the course (Miller, 2020; Schubert, 2017; White et al., 2021). There is a need to better understand students' descriptions of tutoring with growth mindset experiences and how it affects student effort and persistence.

Phenomenon and Research Questions

The proposed qualitative descriptive study will investigate the phenomenon of peer-modeled growth mindset tutoring as experienced by community college students. The research questions will address students' perceptions and descriptions of their experiences with peer-modeled growth mindset tutoring. Due to legislation removing developmental courses, community college adult learners must enter directly into college-level courses creating high fail and dropout rates than previously seen because students face increased challenge without the needed academic and motivational support. The following research questions will guide this qualitative descriptive design study:

- **RQ0:** How do community college students in Southern California describe their experience with peer-modeled growth mindset tutoring in supporting completion of a composition course?

- **RQ1:** How do community college students in Southern California describe the role of effort learned through peer-modeled growth mindset tutoring in supporting completion of a composition course?
- **RQ2:** How do community college students in Southern California describe the role of new strategies learned through peer-modeled growth mindset tutoring in supporting completion of a composition course?
- **RQ3:** How do community college community college students in Southern California describe the role of encouragement to persist through peer-modeled growth mindset tutoring in supporting completion of a composition course?

The questions address the issues presented in the problem space: the need for future studies to understand how growth mindset tutoring supports students during college-level coursework without the typical developmental classes that has been used to provide academic support for learners. RQ0 speaks directly to the problem space, focusing on how students describe the benefits of tutoring during their composition course.

The next research questions, RQ1 and RQ2, focus on how the non-cognitive support of peer-modeled growth mindset tutoring is experienced by students as they complete college level course work in their first year of college without any opportunity for developmental or pre-transfer coursework. Interview and focus group questions will ask students to describe how their effort towards the academic work changed and how they adopted new strategies after working with a peer tutor who was trained in growth mindset. The third question, RQ3, looks at persistence. Interview and focus group questions will ask about the role of the peer tutor as supportive ally who provides encouragement through growth mindset tutoring to persist during academic challenge. These allow for students to describe their experiences in college-level courses while working with peer-modeled growth mindset tutoring.

The study will take an individualized approach toward the students sampled, using interviews and focus groups to record the student experiences with peer-modeled growth mindset tutoring while taking college-level courses. One-on-one interviews and focus groups will be used in this study. One-on-one interviews are used to glean rich detail and answers, and are often used in qualitative studies (Crouse et al., 2011), and Ochieng et al. (2018) identified focus groups as a qualitative approach to gain data from a selected group of individuals to document content of the discussion to supplement the data collection. Rather than data that focuses on numbers and comparisons, researchers who chose qualitative studies want data that will allow them to explore all of the elements of an event in language that is used in that natural environment (Sandelowski, 2000).

Rationale for a Qualitative Methodology

This study will collect rich data about learner experiences with peer-modeled growth mindset tutoring. Driscoll and Perdue (2014) argued that a replicable, aggregable, and data-supported (RAD) research design works well for writing center inquiry and should be used because it allows researchers to build knowledge and collect data to support a set of evidence-supported best practices with methods that can be replicated. Qualitative methodology should be used with the researcher who wants to collect rich data about learner experiences with peer-modeled growth mindset tutoring and to use an individualized approach toward the students surveyed. Lambert and Lambert (2012) also identified that qualitative studies provide straight forward description, which is useful when researchers want to know the *who* and *what* of a phenomenon.

Quantitative methodology focuses on numerical statistical data. Hochbein and Smeaton (2018) identified that quantitative data is used to implement interventions, curricula, and reforms when supported by strong research evidence. The focus for this study is not quantitative in nature. Yilmaz (2013) defines quantitative studies as those focused on outcomes, generalization, prediction, and cause-effect relationships through deductive reasoning. Liggett et al. (2011) also explained that writing center researchers often use descriptive studies with observation of behaviors, events, and social phenomena, with little interruption to the context as possible. Researchers who chose qualitative studies want data that will allow them to explore all of the elements of an event in language that is used in that natural environment (Sandelowski, 2010). The generalized approach works well for quantitative studies, but a qualitative study narrows the focus to center on individual experiences and descriptions.

The study will take an individualized approach toward the students surveyed, using interviews and focus groups to record the student experience with peer-modeled growth mindset tutoring while taking college-level courses. Vasileiou et al. (2018) found that open questions, asked later in the interview, produced richer data, which supports qualitative research. This study will use qualitative methodology to explore how peer-modeled growth mindset tutoring can be used to support community college learners by gathering perceptions of learners. This study will use mindset theory to study the impact of non-cognitive supports on the phenomenon.

Rationale for Research Design

A qualitative descriptive design allows the researcher to explore and produce new understandings and rich descriptions (Magilvy & Thomas, 2009). It describes the

phenomenon (Bradshaw et. al., 2017). This study will use qualitative descriptive design to uncover new understandings and rich descriptions of peer-modeled growth mindset tutoring as experienced by community college students. This study will use mindset theory to find patterns to further delineate the framework.

Other qualitative designs include phenomenological, narrative, case study, and grounded theory. A phenomenological design seeks to understand how people experience a particular situation, focusing on a lived experience and providing a frame of reference for a rigorous studying of human phenomena (Giorgi, 2012). A narrative design is understood to be an ethnographic approach to eliciting understandings; it also has a greater focus on narrative construction from a variety of perspectives (Pavlenko, 2002). It is also an exploration of the stories humans tell to make sense of lived experience (Lewis & Adeney, 2014). A case study is used to discover and examine an individual or institution that is bounded by time and place. (Nilmanat & Kurniawan, 2020). Grounded Theory is used when little is known about a phenomenon to develop a theory or model grounded in the data (Chun et al., 2019).

The proposed study does not use lived experience of the tutoring experience or create a frame of reference to study the phenomena, therefore the phenomenological design is not preferred. The study will not record stories of tutoring using the narrative or lived experience methodology. This study is not bounded by time and place in relation to tutoring, nor will it focus on one individual or similar group of individuals from one institution, so the case study was not proposed. The study's purpose does not involve creation of a model for growth mindset tutoring, so grounded theory was not an option for the proposed study. Although there are other qualitative designs to choose from like

phenomenological, narrative, case study, and grounded theory, those were not chosen for this study due to the benefits brought by a descriptive design.

Population and Sample Selection

Qualitative studies work with large populations consisting of appropriate members who fit the phenomenon (Asiamah et al., 2017). The general population at the 2-year college where this study will take place includes approximately 14,000 students, with 76% 24 years or younger and 24% over 25 years old. The target population will be approximately 900 students at this college who are enrolled in a first-year composition course with a goal to complete the course and pursue an associate degree or transfer and who work with a tutor. The sample will consist of a subset of the target population who can be called upon to describe their experiences (Asiamah et al., 2017). Email addresses of the target population will be collected from the Writing Center databases; permission has been given to do so by the Dean of Institutional Effectiveness. The target population will be invited to participate in the study, with a recruitment of 30 to 40 to account for attrition: 12 for interviews, and two focus groups of 5-7 people. All of the participants will have met with a writing center tutor at a community college located in California where the study will take place. Qualitative studies tend to require a minimum sample size of 13 to reach data saturation (Vasileiou et al., 2018), so this sample size will be within parameters established for this type of research. Participants will be reminded that the data collected will be confidential and only used for the goals of the current study.

Study Sample and Sampling Strategy

The Institutional Research Office at the community college provided site approval to conduct this study (See Appendix B). Sampling strategies used will be purposive, and

will extend to snowball and convenience sampling should the need to increase the sample size arise.

Plan A: Purposive sampling will be used by the researcher, asking the Writing Center Coordinators to collect email addresses of students. These email addresses will come from the Writing Center database of email addresses of students in composition classes who have worked with a tutor. Emails will be sent to students who took composition courses and worked with a tutor. An email will be sent to students asking them to respond if they are over 18 and have worked with a tutor while taking the class. The informed consent letter as well as the study description will be included. Purposive sampling, based on characteristics of a population and the objective of the study, will be used by contacting the population directly (Palinkas et al., 2015). The study will use direct email to send the informed consent letter as well as the study description. All participants will receive a $10 Starbucks gift card to be emailed following their interview.

Plan B: Another strategy will be to use chain or snowball sampling to request assistance from faculty to contact population (Penrod et al., 2003) should the initial sampling plan not result in an adequate sample size. Requests will be sent to faculty to send out an invitation to their composition students; if they have attended a session at the Writing Center and are over 18 years of age they will be invited to respond. The recruitment email can also be sent to all students from previous semesters who have taken composition and worked with a tutor, including an option to indicate preference for one-on-one interview or focus group participation. The informed consent letter will be sent out as well.

Plan C: Finally, convenience sampling based on participants' accessibility and/or proximity to the research at the Writing Center **(**Bornstein et al., 2013) will serve as a back-up plan for recruiting**.** Convenience sampling based on participants' accessibility and/or proximity to the research at the Writing Center will be used if required **(**Bornstein et al., 2013)**.** Recruitment via flyers displayed and passed out to students who visit the Writing Center, are in a composition class and are over 18 years of age. The description of the study, the participant requirements and expectations will be presented to these students when they come for an appointment.

According to Braun and Clarke (2013), 10-20 interviews are appropriate for a standard qualitative research project. The target population consists of the eligible participants based on the study's criteria (Penrod et al., 2003). The inclusion criteria include being a student over 18 who is taking a composition course and working with a tutor. Exclusion criteria would include students under 18 or those not taking a composition course.

Sources of Data

Research Data

Sources of qualitative data for this study will include open-ended, digitally recorded one-on-one semi-structured interviews, and two focus groups. No video cameras will be used during the interviews or focus group. Students in the sample will participate in either an interview or a focus group. Multiple data sources capture different descriptions to ensure a broad and thoughtful study (Sandelowski, 2000). The semi-structured one-on-one interview questions and focus group protocols were developed with the study's design, problem statement, and problem space in mind. Questions are

focused on students' experiences and perceptions during tutoring while in a college level course. Braun and Clarke (2006) recommend that the narrow research questions support broader research questions that, when analyzed, provide data that will provide answers; these questions may be refined as the project develops. The interview and focus group questions were reviewed and approved by an expert panel and field tested for design and clarity (Appendix E and H).

Research Data Source #1. The first research data source will include open-ended semi-structured interviews with students who have taken or are taking a composition course at a two-year college (see Appendix F for interview protocol). Vasileiou et al. (2018) found that researchers proposed an initial analysis sample of 10 interviews with the goal of achieving saturation. Hennink et al. (2017) found that code saturation was reached at nine interviews, up to 16 interviews provided a deeper understanding of the research. Interviews will be held in person with the Zoom platform used as an alternative if needed. Zoom or a digital recording device will be used to record the interviews.

Interview questions were designed to align with the study's three research questions (See Appendix F). Kegler et al. (2019) explained that many qualitative studies used interviews or focus groups as the main approach to collecting data. The following research questions guided the creation of questions for this qualitative descriptive design study:

- **RQ0:** How do community college students in Southern California describe their experience with peer-modeled growth mindset tutoring in supporting completion of a composition course?
- **RQ1:** How do community college students in Southern California describe the role of effort learned through peer-modeled growth mindset tutoring in supporting completion of a composition course?

- **RQ2:** How do community college students in Southern California describe the role of new strategies learned through peer-modeled growth mindset tutoring in supporting completion of a composition course?
- **RQ3:** How do community college community college students in Southern California describe the role of encouragement to persist through peer-modeled growth mindset tutoring in supporting completion of a composition course?

The interview questions address the issues presented in the problem space: the need for future studies to understand how students use non-cognitive supports like growth mindset to help them pass college-level coursework without the typical developmental coursework that has been used to provide academic support for learners. RQ0 speaks directly to the problem space, focusing on how students describe the role of academic support to complete first year courses; the interview questions ask participants to reflect on difficult assignments and experiences with feeling stuck during their writing process. RQ1 and RQ2 focuses on how the non-cognitive support of peer-modeled growth mindset tutoring provides assistance to students who must complete college-level course work in their first year of college using effort and new strategies. RQ3 focuses on encouragement to persist experienced while working with peer-modeled growth mindset tutoring. The framework of mindset theory is used when mindset and effort are included in the questions. These allow for students to reflect on the non-cognitive skills that have supported their academic behaviors while taking college- level course work and who worked with tutors who has been trained to work with students with a growth mindset.

Interview questions were field tested prior to the study being conducted, and feedback from the process was used to slightly modify the questions. Two students who completed their first-year composition course with a peer tutor trained with growth mindset were recruited for the field test. They were sent the informed consent agreement to read and sign prior to the interview. The interviews were held using Zoom; the

interviews were recorded, and transcripts of the interviews were reviewed for accuracy. Field test participants also provided suggestions about the clarity of the questions and any other feedback about the experience. This provided the opportunity to practice using Zoom for interviews as well as to revise questions. This information gathered during field testing will not be included in the study's data set. The results of the field test were used to revise the instruments. The interview field test highlighted the need for a few questions about the student's experience with growth mindset before and after tutoring as well as their view of intelligence. See Appendix H for the changes that were made to the initial questions. After AQR and IRB approval, informed consent forms will be sent to composition students who used tutoring during the course who volunteer to participate.

Research Data Source #2. The second research data source will include focus groups with students who have taken or are taking a composition course at a two-year college (see Appendix G). Kegler et al. (2019) identified the median number of focus groups conducted was approximately 5-7, ranging in size from 2 to 13 participants. Focus groups can be held in person with the Zoom platform available as an alternative. Zoom and a digital recording device will be used to record the interviews.

The focus group questions (See Appendix G) center on the experiences of peer support, facing challenge, feeling unprepared, and motivation. These topics are connected to the research questions of the study because they ask participants to reflect on the role of peer tutoring support while engaging in challenging academic work in a composition course. The questions on effort and strategies seek to uncover what participants say supports their progress as they engage in help-seeking behavior during academic challenge. As with the interview questions, the focus group questions were field tested

with three participants. The growth and fixed mindset statements were added, giving the group the opportunity to discuss why they agreed or disagreed with statements and how they related to the questions about their experience with a peer tutor trained with growth mindset.

Additional Data

Additional Data Source #1. In addition to semi-structured interviews and focus groups using open-ended questions, additional basic demographic data will also be collected at the end of interviews and focus group following the receipt of informed consent. Demographic data is collected and used to help the researcher understand and describe the sample for the study (Archibald et al., 2019). The researcher will ask several basic demographic questions. These will be gathered to gain basic information about the participants and provide clarity about who the students are in this study. (See Appendix F and G for protocols). The demographic questions will allow for a clear description of the participants involved in the study.

Trustworthiness

This section describes the four key elements that together serve to produce confidence in the research procedures and results of a qualitative study: credibility, transferability, dependability, and confirmability. Nowell et al. (2017) refer to these criteria as introduced by Lincoln and Guba in 1985 to demonstrate trustworthiness in qualitative studies in order to meet the expectations of acceptability and usefulness in research. The biases or weaknesses to the study come from the nature of the self-reported data from participants and the biases of the researcher. The trustworthiness of research is

supported by the credibility, dependability, transferability, and confirmability of the qualitative study.

Credibility

Credibility describes the internal validity of the study (Nowell et al., 2017). Other criteria also contribute to the credibility of a study, including triangulation in data collection as well as an external check on the research process (Nowell et al., 2017). Member checking is another strategy to maintain the credibility of a study. The use of Zoom served as a highly suitable platform for collecting qualitative interview data when compared to other commonly used VoIP technologies (Archibald et al., 2019). Recordings and accurate transcription also contribute to the credibility of the study. By maintaining the transparency of the data collection plan a researcher can help to ensure the credibility of the study.

Dependability

Dependability refers to the reliability of the research procedures of the study. Stahl and King (2020) found that the involvement of peers in the process is an important part of this criteria. One factor is to include another researcher in the reading and reviewing of notes and reactions during the research process. Integrating an audit process that allows another researcher to follow the ways decisions were made can also support the dependability of the study (Sandelowski, 2010). Nowell et al. (2017) recommended keeping records of the raw data, field notes, transcripts, and a reflexive journal in order to ensure the dependability of a study.

Transferability

Transferability refers to the degree to which findings are applicable to other situations. The researcher is responsible for providing thick descriptions, with much detail so that those who seek to transfer the findings to their own site can judge transferability (Lincoln & Guba, 1985). Stahl and King (2020) explained that qualitative inquiry seeks to expand understanding not only by developing new knowledge but by also transferring findings from one context to another. The applicability of the study to multiple areas as well as to future research will gage its transferability

Confirmability

Confirmability refers to the ability of other researchers to confirm the study's findings. Stahl and King (2020) examine confirmability by identifying how close to objective reality as qualitative research can get while also counting on precision and accuracy in the research practice. The involvement of other researchers can also be used as a strategy to build confirmability by sharing the theoretical, methodological, and analytical choices through coding, in order to share how and why decisions were made during the research study (Nowell et al., 2017).

Data Collection and Management

The researcher will conduct data collection using the site of a 2-year college campus. Using two different data sources, the researcher will conduct one-on-one interviews and two focus groups. Site permission has been granted from executive team, division deans, Teaching and Learning Center Supervisor, and Writing Center Coordinator (see Appendix B). The proposed study will be submitted to IRB at GCU. Faculty who are teaching composition courses may be asked to assist with recruitment if

needed. Electronic forms will be used for invitations to participate in interviews and focus groups. Zoom may be used for interviews if a face-to-face format is not possible.

An expert panel of PhDs and EdDs were used to review qualitative instruments such as interviews and focus groups. The results of the field test were used to revise the instruments as necessary. The questions were field tested with three interviews and a focus group; this allowed for interview practice, assessment and revision of questions, and feedback of the interview process. This data will not be used in the final study (See Appendix H). After AQR and IRB approval, consent forms will be sent to composition students who used tutoring during the course.

The following steps will be used to collect data:

Step 1: Use student email addresses from Writing Center database and faculty contacts and class enrollment lists from college administrators.

Step 2: Informed consent, screening questions, and criteria to be completed by participants.

Step 3: Interview and focus group invitations sent to participants who have completed informed consent.

Step 4: Time and place coordinated for interviews and focus group.

Step 5: Questions will be asked about effort, learning strategies, challenge, peer tutors, and mindset. Responses will be collected, and hand coded to identify themes.

Step 6: Interviews and focus groups conducted and recorded. The Zoom platform may be used if needed.

Data management strategies will be used to protect all participants. Data will be collected and stored on a laptop with password protection and stored for at least three

years. Data will be backed up using a password protected flash drive. Data is protected by a code and password so that long-term confidentiality will be maintained by removal of personal data. A de-identified copy of all of the data and the data analysis will be stored in the LDP in the folder that will be placed there so that the AQR reviewers can review the data and data analysis. Data will be destroyed when flash drive is wiped clean three years after the publication of the study.

Data Analysis Procedures

Completion rates in composition courses are low at a two-year public institution of higher education in Southern California, and it is not known how students, who do not have the option to take developmental courses, describe the role of peer-modeled growth mindset tutoring in supporting their completion of a composition course. The purpose of this qualitative descriptive study is to explore how students at a two-year public institution of higher education in Southern California, who do not have the option to take developmental courses, describe the role of peer-modeled growth mindset tutoring in supporting their completion of a composition course. The interview and focus group questions are designed to provide data needed to answer the following research questions:

- **RQ0:** How do community college students in Southern California describe their experience with peer-modeled growth mindset tutoring in supporting completion of a composition course?
- **RQ1:** How do community college students in Southern California describe the role of effort learned through peer-modeled growth mindset tutoring in supporting completion of a composition course?

- **RQ2:** How do community college students in Southern California describe the role of new strategies learned through peer-modeled growth mindset tutoring in supporting completion of a composition course?
- **RQ3:** How do community college community college students in Southern California describe the role of encouragement to through peer-modeled growth mindset tutoring in supporting completion of a composition course?

The data analysis approach for the study will be inductive thematic analysis. Braun and Clarke (2006) recommended that in the analysis of themes, there should be a disconnection between the questions and the themes that are found in the data. Data will come from interviews and focus groups using open-ended questions. Responses from interviews will be combined and analyzed using thematic analysis and focus group responses will be combined and analyzed using thematic analysis (Braun & Clarke, 2013). Guest et al. (2006) found that qualitative studies using purposeful sampling should attempt to hold 12 interviews in order to achieve data saturation. The process for the analysis of the raw data will be as follows:

Step 1: Read data: Open-ended questions will be transcribed and coded using thematic analysis. Themes will be identified in the data of student experience and description of working with a growth-minded tutor in order to analyze and report with consideration to the phenomenon (Braun & Clarke, 2006).

Step 2: Generate codes from open-ended data by reading it carefully multiple times, taking notes in a three-column format that can help to identify preliminary codes guided by the research questions and the elements of the framework. Qualitative research has much smaller participant numbers than quantitative studies due to the time-consuming

process of reading and taking notes on the raw data during this step (Braun & Clarke, 2006).

Step 3: After coding, creating the preliminary themes that are relevant to the phenomena under study (Braun & Clarke, 2020). The process includes monitoring and following patterns that develop as data is reviewed.

Step 4: Review themes with the intent to refine and edit the initial themes. This may lead to confirm that enough data has been collected for each theme (Braun & Clarke, 2006).

Step 5: Ongoing analysis to define and name themes in order to connect to the study's central focus. Themes will be defined by the researcher and reviewed for the development of sub-themes (Braun & Clarke, 2016).

Step 6: Produce report that discusses findings that will be included in Chapter 4. The report should convince the reader of the validity of the themes and be free of bias (Braun & Clarke, 2006). Outside software like MAXQDA can be used along with hand coding to produce a strong theme analysis that answers the research questions about students' experiences with peer-modeled growth mindset tutoring while taking composition courses.

Ethical Considerations

The Belmont principles were created by the National Commission for the Protection of Human Subjects of Biomedical and Behavioral Research (1979). The three ethical practices that were relevant to this study and must be followed were respect for persons, beneficence, and justice (National Commission for the Protection of Human Subjects of Biomedical and Behavioral Research, 1979). The respect for persons principle required the researcher to treat individuals as autonomous human beings. To

assure beneficence, the researcher minimized the risks of harm and maximized potential benefits of the research. The justice principle required the researcher to treat all participants fairly and design the research so that equability was shared. The respect for persons allowed participants to have full autonomy, allowing them to make their own decisions while participating in the research. The researcher will obtain documented informed consent from all participants to ensure that participants understood the process of the research and did not negatively influence the participants. The researcher was responsible for explaining the purpose of the research to the participants, expressing all means of confidentiality, securing informed consent prior to data access, and explaining any ethical and legal concepts.

During the data collection process, the researcher will follow the guidelines for the Grand Canyon University checklist to ensure ethical constraints were followed. All approvals, recruitment email, consent forms, and data collection materials mentioned in the Data Collection section are referenced and viewable in the appendices. The researcher will gain IRB approval from Grand Canyon University and from the IRB of the 2-year college prior to conducting the research. The researcher and IRB will review any harm as well as benefits of the research. There is no known risk for participants. The research findings will add value to the literature and the higher education sector. Upon proposal approval, the researcher will get permission from the two-year college and IRB to complete the interviews and focus group with students.

After recruitment, acceptance, and agreement from the participants, the researcher will inform the participants that there is no known potential risks or harm factors related to the study. The researcher will advise the participants that their information will remain

anonymous. The researcher will handle information and participant identities in order to maintain confidentiality. The researcher will inform the participants that they may discontinue participation in the research study at any time. If a participant withdraws, the participant's information will be destroyed.

The important principles of the Belmont Report will be upheld in this study. The researcher will provide informed consent. Participants' benefits and risks be evaluated, and participants will be treated with fairness and equity (Anabo et al., 2019). No use of force or harm will be used on vulnerable subjects (Anabo et al., 2019). There may be potential risks for harm to participants as these questions may stimulate feelings of fear or anger. The invitation to participate in this study will establish if a participant has taken a composition course and used the tutoring center, and the interview will allow the researcher to assuage any concerns of the participants. Participation and participant data will be confidential. No research will be completed until IRB permission is granted. As an employee of the campus and my affiliation with the Writing Center could create a conflict of interest, but an ethical desire to contribute to the body of knowledge on student experience with tutoring and the application of growth mindset will guard against ethical issues. The researcher will also use the assistance of the campus Intuitional Research office to ensure an ethical study.

Assumptions and Delimitations

Assumptions

In research, assumptions and delimitations are always present. Stahl and King (2020) explained that researcher bias and assumptions are always present in research as are the researchers' values and passion, which must be monitored by the researcher.

Nowell et al. (2017) stated that assumptions of predefined codes may prevent the researcher from seeing other codes, including the veracity and trustworthiness of participants' responses. Vasileiou et al. (2018) found that small sample sizes were seen inadequate and as a limitation.

Delimitations

The study was delimited to students in college level composition courses who have worked with tutors on college writing assignments. The study will focus on learners who are willing to volunteer for an interview or focus group after fall 2018 when AB 705 was while they are enrolled at a 2-year college in Southern California. The qualitative descriptive design study allows for the participants to use the language they are comfortable with. The data collection methods are delimited to interviews and focus groups, excluding classroom observation. With this focus, the study's conclusions may be transferable to other institutions with similar criteria.

Summary

In this section the learner summarized the key points Chapter 3. The purpose of this qualitative descriptive study is to explore how students at a two-year public institution of higher education in Southern California, who do not have the option to take developmental courses, describe the role of peer-modeled growth mindset tutoring in supporting their completion of a composition course. This chapter discussed the use of interviews and focus groups to the study so that the researcher can work to understand perceptions and motivation during tutoring to complete first year composition course. The methodology and design were discussed as well as the population, sample size, and recruiting plan. The two sources of data were presented, and the trustworthiness of the

data was discussed. Data collection, management, and data analysis procedures were presented along with ethical considerations, assumptions, and delimitations of the proposed study.

Chapter 4 will present a summary of the study and a presentation of the results. The qualitative descriptive study will focus on examining the role of non-cognitive skills in the support of academic behavior in students taking a composition course. The chapter will describe how the raw data was prepared for analysis, the data analysis procedures. Chapter 4 will also present the results of the study.

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Appendix A.

Ten Strategic Points

This is a required appendix. The Ten Strategic Points should be moved from the Preliminary Page at beginning of the Dissertation Template to this Appendix A in the final dissertation manuscript before moving into Level 7 Form and Formatting.

Appendix B.

Site Authorization

March 2023-March 2024
Office of Academic Research
Grand Canyon University
College of Doctoral Studies
3300 W. Camelback Road
Phoenix, AZ 85017
Phone: 602-639-7804

Dear IRB Members,

After reviewing the proposed study, “How Students Describe Peer-Modeled Growth Mindset Tutoring at a Community College”, presented by Elizabeth Gillis-Smith. I have granted authorization for Elizabeth Gillis-Smith to conduct research at the Moorpark College Writing Center.

I understand the purpose of this qualitative descriptive study is to explore how students at a two-year public institution of higher education in Southern California, who do not have the option to take developmental courses, describe the role of peer-modeled growth mindset tutoring in supporting their completion of a composition course.

I have indicated to Elizabeth Gillis-Smith that Moorpark College will allow the following research activities: Work with Writing Center faculty and staff to collect student emails to invite students who have used tutoring for interviews and focus groups. Work with dean, department chair, and faculty from the English Department to request that they invite students to participate in interviews and focus groups. Other research activities will include 1:1 interviews with students on campus or via zoom as well as the use of small group study rooms or Zoom for one or two focus group meetings.

The participants that will be in this study must meet the following criteria:
• 18 years old or older
• full-time or part-time student
• enrolled in a composition course any time since fall 2018
• available for an interview or focus group

To ensure that the Moorpark College students are protected, Elizabeth Gillis-Smith, has agreed to provide to me a copy of Grand Canyon University IRB-approved informed consent document, and recruitment information, before she *recruits* participants at Moorpark College. I understand that the name of Moorpark College will not be used in any publications or presentations and that Elizabeth Gillis-Smith will protect data to the best of her ability. Elizabeth Gillis-Smith has agreed to provide a copy of the study results, in aggregate, to Moorpark College.

If the IRB has any concerns about the permission being granted by this letter, please contact me by contacting Andrew LaFave at alafave@vcccd.edu.

Andrew LaFave, Research Analyst

Andrew LaFave

Printed Name

Andrew LaFave 3/20/23

Signature Date

Appendix C.

IRB Approval Letter

- **This is a required appendix**. The IRB approval letter is required for Level 5 Review and published in the final dissertation manuscript.

- When you receive IRB approval for your study, you will receive a determination (or approval) letter to move forward with data collection.

- Download (from iRIS) then copy/paste a copy of the determination (approval) letter you received from the IRB in this appendix prior to submitting for Level 5 peer review. *This letter must be the actual copy issued from IRB, not something the learner types up themselves.*

Appendix D.

Informed Consent

I will be using the No More Than Minimal Risk Template

Introduction

The title of this research study is "How Students Describe Peer-Modeled Growth Mindset Tutoring at a Community College."

I am Beth Gillis-Smith, a doctoral student under the supervision of Dr. John Harrison in the College of Doctoral Studies at Grand Canyon University.

The purpose of this study is to describe how first-year students perceive academic and motivational support in order to improve student success using peer-modeled growth mindset tutoring. Adult learners attending community colleges must enroll in college-level courses right away because law has stopped most pre-transfer courses. If they lack the help they require, students may find it difficult to complete.

Key Information

This document defines the terms and conditions for consenting to participate in this research study.

How do I know if I can be in this study?

- You can participate in this study if you:
  - are 18 years old or older
  - are a full-time or part-time student at Moorpark College
  - are enrolled in a composition course any time since fall 2018
  - have worked with a tutor at the Writing Center

- You cannot participate in this study if you:
  - are not a student at Moorpark College
  - have not enrolled in a composition course since fall 2018
  - are younger than 18 years
  -
  - ***Research Activities: What am I being asked to do?***

If you agree to be in this study, you will be asked to:

- ***What?***
  Join in an individual, one-on-one interview (approximately 45 minutes) or in a focus group (approximately 60 minutes) with 3-5 other people. All will be also be asked to answer five questions about ethnicity, gender, year/semester in school, student status.

- ***When?***

We will meet on any agreed upon day and time. The interview or focus group will meet on campus or using Zoom.

- ***How?***
  We will meet at an office on campus or via Zoom, and the interview or focus group will be recorded using Zoom or a recording device. Written copies of the recording will be created and downloaded using Zoom.

- ***Audio Recording:***
  I will use an audio recorder or the audio recording feature of Zoom to record the interview. If you do not want to be recorded, you cannot participate. To protect identity, all names will be replaced with numbers. Audio recordings will be password-protected and saved to a computer.
  Privacy policy for Zoom.

- ***Video Recording***
  I will use Zoom to record your actions. Because this recording will show who you are, these extra steps will be taken: to protect identity, all names will be turned to numbers. Video recordings will be password-protected and saved to a computer. You can still join the study if your camera is off while we record the audio via Zoom.
  Privacy policy for Zoom.

Who will have access to my data/information?

I will have access to all of your data. In addition, my dissertation chair, committee members, and all College of Doctoral Studies Reviewers may view the data as part of the dissertation review process.

Am I required to participate in this study?
Joining this study is voluntary. After reading this, you can decide whether to join this study or not. Also, if you choose to join and then change your mind, you can leave the study any time, even if you have not finished, without any problem to which you are otherwise entitled. If you decide to stop, you may do so by telling me that you would like to stop. If so, I will not use the data that I collected from you before you chose to stop.

Any possible risks or discomforts?
There are no foreseeable risks or discomforts associated with this study.

Any direct benefits for me?
No

Any paid compensation or incentives for my time?
You will receive a $10 Starbucks gift card. After the interview or focus group, I will ask for an email address to send an electronic gift card.

Presentation of Information Collected

The research data will be presented in several ways. It will be published in a dissertation. The data may also be used for future research studies, conference presentations, or journal publications.

Privacy and Data Security

Will other researchers ever be able to link my data/responses back to me?
No.

Will my initial data include information that can identify me (names, addresses, or other identifying material, such as audio, specific demographics, etc.)
No one will have data that can that can identify you.

Will researchers assign my data/responses a research ID code to use instead of my name?
Yes.

If yes, how will researchers create a list to link names with their research ID codes?
An ID research code list will be created.

If yes, how will researchers secure the link of names and research ID codes? How long will the link be kept? Who has access? What is the approximate destruction date?
The ID code list will be saved on a computer until the study in completed. The list will then be removed from the computer, put on a storage device, and destroyed on approximately 08-01-2027. I am the only person who will have access.

How and where will my data be protected (electronic and hardcopy)?
The Zoom recordings will be saved on a stick drive that is kept in a locked safe. Paper transcripts will be kept in a locked safe. Other electronic data will saved on my password-protected computer.

How long will the data be kept in the protected space?
The data will be kept for three years following the conclusion of the study.

Who will have access to the protected data?

> I will have access to all of your data. In addition, my dissertation chair, committee members, and all College of Doctoral Studies Reviewers may view your information and your answers as part of the dissertation review process.

What is the privacy policy for survey platforms (Survey Monkey, Qualtrics, mTurks, Google, etc) , any recording software (Zoom, Microsoft Teams, etc.), interview software, survey software, or transcription software companies?
https://explore.zoom.us/en/privacy/

Where and how will the signed informed consent forms be secured?
The signed informed consent forms will be secured on saved on a computer until the study is completed. They will then be removed from the computer, put on a storage device, and destroyed after three years on approximately 08-01-2027. I am the only person who will have access.

For California Residents ONLY
For the state of California, participants have additional rights through the State: The right to know about the personal information a business collects about them and how it is used and shared; The right to delete personal information collected from them (with some exceptions); The right to opt-out of the sale of their personal information; and The right to non-discrimination for exercising their CCPA rights. For more information, click on the link below:
California Consumer Privacy Act: https://www.oag.ca.gov/privacy/ccpa

Future Research

Once identifiers, such as names, are removed from the data collected for this study, the de-identified data could be used for future studies or shared with others for future studies without additional informed consent from you or a legally authorized representative.

Study Contacts

Any questions you have concerning the research study or your participation in the study, before or after your informed consent, will be answered by Elizabeth Gillis-Smith, egillissmi@my.gcu.edu; 805-558-0562.

If you have questions about your rights as a subject/participant in this research, or if you feel you have been placed at risk, you can contact the Chair of the Human Subjects Institutional Review Board through the College of Doctoral Studies at IRB@gcu.edu; (602) 639-7804.

Voluntary Consent

Participant Rights

- You have been given an opportunity to read and discuss the informed consent and ask questions about this study;
- You have been given enough time to consider whether or not you want to participate;
- You have read and understand the terms and conditions and agree to take part in this research study;
- You understand your participation is voluntary and that you may stop participation at any time without penalty.

Your signature means that you understand your rights listed above and agree to participate in this study.

_____

Signature of Participant or Legally Authorized Representative **Date**

- The IRB approved (stamped) informed consent document is required for Level 5 Review and published in the final dissertation manuscript.

Appendix E.

Expert Panel Review

Expert Panel was up of three experts: Reviewer A is a PhD in English who has worked as faculty coordinator of a writing center for 9 years and has been a faculty member at a community college for over 25 years. Review B is a PhD in English who is department chair and also involved in the implementation of AB 705 at the college. She has been a faculty member at a community college for over 30 years. Reviewer C holds an EdD in Educational Leadership and Change, with over 15 years' experience as a community college counselor and EOPS/CARE/CalWORKS coordinator.

All experts will be asked to respond to the following survey after reviewing the questions:

Please answer "Yes" or "No" to each question. Please leave any feedback at the bottom and sign your name with credentials and date the form.

1. Are the questions clear and concise?

2. Are they written in a way that most first-year college students will understand them?

3. Do they appear to be unbiased?

4. Do they have the potential to address the purpose of the study?

5. Do they appear to pose any threat or harm?

6. Any other comments?

Responses:

Expert #1:

Please answer "Yes" or "No" to each question. Please leave any feedback at the bottom and sign your name with credentials and date the form.

1. Are the questions clear and concise?
   Yes, but 3 & 4 are similar; you could change it to: In what way…

Change questions: How do you experience growth/progress?, How much time and effort?

2. Are they written in a way that most first-year college students will understand them? Yes
3. Do they appear to be unbiased? Yes
4. Do they have the potential to address the purpose of the study?
   Add mindset questions earlier in interview
5. Do they appear to pose any threat or harm? No
6. Any other comments?

Will you add demographic questions to see how disproportionately impacted students respond?
Add the phrase: To what extent
Add a question: Did working with a tutor change your perspective on ….
I would suggest working in some statements about mindset: Do you think people can improve their writing? Do you think you are born with certain abilities and there's not much you can do to improve? How do you think mindset affects your writing?

Expert #2:

Please answer "Yes" or "No" to each question of the five questions below. Feel free to leave any additional feedback at the bottom. Then, sign your name with credentials and date the form.

1. Are the questions clear and concise? Yes
2. Are they written in a way that most first-year college students will understand them? Yes
3. Do they appear to be unbiased? Yes (mostly)
4. Do they have the potential to address the purpose of the study? Yes
5. Do they appear to pose any threat or harm? No
6. Any other comments? See below in blue

Interview Questions:

1. To what extent do you think people can improve their writing ability? (Do you mean, do what extent do you think this, or to what extent can people

improve?)

2. What do you think is more important when it comes to writing success: effort or talent?

    a. Why do you think [effort or talent] is more important?

3. How do you think people become good writers? What does it take to become a better writer?
4. How can students become better writers?
5. How did you experience growth in your writing this semester? (Is this a leading question?--should you assume they *have* experienced growth?)

6. How confident were you in your writing ability before taking college composition?
7. How satisfied are you with your writing assignments when you turn them in for a grade?
8. How much effort do you put into your writing assignments? (Will you give them a way to measure this effort? time on task? working with a tutor?)

9. What steps do you take to complete a writing assignment?
10. How do you think your mindset affects your writing ability and your writing process? (If they already know what "mindset" means, they'll already have formed an opinion, right?)

11. Describe your experience with a writing tutor.
12. Did the tutor motivate you to put more effort into the writing process?
13. Did the tutor change the way you thought about your ability?

Focus Group Questions (I like these questions!)

1. What role does the peer tutor play in motivating you to complete a writing assignment? (peer support)
2. What makes you stop or slows you down as you write? (facing challenge)
3. What happens when you feel like you don't understand what to do during the completion of a writing assignment? (facing challenge)
4. How does the tutoring session help you start or continue when you feel stuck during the writing process? (feeling unprepared)
5. What did your tutor do to help you feel like it was the worth the effort to keep writing and finish the assignment? (motivation) (assuming they did anything at all)

Expert #3:

1. Are the questions clear and concise? yes, although #3 and 4 are sort of the same question and might be combined, unless I'm missing something about the questions.

2. Are they written in a way that most first-year college students will understand them? Yes

3. Do they appear to be unbiased? yes

4. Do they have the potential to address the purpose of the study? yes

5. Do they appear to pose any threat or harm? No

6. Any other comments?

Appendix F.

Interview Protocol

Participant pre-interview questions to confirm that they are over 18, in a composition class, and have met with a tutor. Other questions provide helpful information about their status at the community college.

1. Are you 18 years old or older?
2. Are you a full-time or part-time student?
3. What year in school are you?
4. Were you in enrolled in a composition course any time since fall 2018?
5. What is your major/area of study?
6. What tutoring did you use?
    a) Composition Course coach?
    b) Drop-in writing tutoring?
    c) Appointment based writing tutoring?

The researcher will start the interview or the Zoom session.

1. Script: Thank you for your time; I know you are busy with school, work, and family. I appreciate your time. Before I begin the interview, I would like to review the informed consent I emailed you. The purpose of this qualitative descriptive study is to explore the perception of academic and motivational support among first year students through the lens of peer-modeled growth mindset tutoring in order to strengthen student success. Eligibility to participate in the study is based on whether or not you are currently enrolled or have been enrolled in the school's first-year composition course. Once I have your emailed signed informed consent, we can continue. As a reminder, you do not have to answer any question you do not want to

answer, and you are welcome to withdraw from the study at any time; participation is totally voluntary. This interview will be recorded so I can refer to it later; it will also allow me to focus and engage with you rather than just taking notes. Today's interview will focus on your experience with tutoring while you were taking your first-year composition class. There are 14 questions. I may ask additional follow up questions, or I may skip some if you answer it in response to another question. Anything you share during this interview is confidential. Your identity will not be on anything other than the signature on your informed consent. Your instructor will not have access to anything you say, nor will they know you participated in this study. In fact, no one at the school will have access to any of this or know you participated. The interview and its transcript will be saved on my private computer and will be password protected. Any hardcopy notes will be kept in a locked desk drawer in a private office. Do you have any questions or concerns before we begin? I can repeat questions; I can also give you time to think about the questions.

Interview Questions:

Note: The framework element referred to is indicated in parentheses following the question.

1. Tell me if you agree or disagree with these statements and why: (growth and fixed mindset)

- Good writers are born, not made.
- Hard work, desire, dedication, and enough time are all I need to become a good writer.
- You have a certain amount of writing ability, and you can't really do much to change it.

- I believe I was born with the ability to write well.
- My essays will always have the same quality, no matter how much I try to change them.
- No matter how hard I try, I will never be a great writer.
- No matter who you are, you can significantly change your writing ability.

2. Was tutoring required? (motivation to go to tutoring)
3. Was tutoring recommended by fellow students? (motivation to go to tutoring)
4. Did you see a tutor due to a challenging assignment? (response to challenge)
5. When in the semester did you see a tutor for the first time? (motivation to go to tutoring)
6. Describe the assignment(s) you worked on with the tutor. (challenge)
7. What was hard? (fixed or growth perspective)
8. What was easy? (fixed or growth perspective)
9. Describe the experience working with that assignment with the tutor. (challenge)
10. How much effort do you put into your writing assignments? (effort)
11. Did this change after working with a tutor? (effort)
12. How do you think your mindset affects your writing ability and your writing process? (fixed or growth mindset)
13. Did the tutor motivate you to put more effort into the writing process? (effort)
14. Did they change the way you thought about your ability? (fixed or growth mindset)
15. Is there a time during the semester when you thought about dropping the class? (response to challenge)
16. What assignments were more challenging than others? (challenge)

17. Did you see a tutor before or after this time? (reason for using tutor)
18. What else did you learn from the tutor? (open-ended question)
19. Did you try any new habits or techniques after working with the tutor? (influence of tutor)
20. What do you think is more important when it comes to writing success: effort or talent? (fixed or growth mindset)
21. Why do you think [effort or talent] is more important? (fixed or growth mindset)
22. How did you experience growth in your writing? (fixed or growth mindset)
23. How confident were you in your writing ability before taking college composition? (fixed or growth mindset)
24. Did this change after working with a tutor? (fixed or growth mindset)

Appendix G.

Focus Group Protocol

Script: Thank you for your time; I know you are busy with school, work, and family. I appreciate your time. Before I begin the focus group, I would like to review the informed consent I emailed you. The purpose of this qualitative descriptive study is to explore the perception of academic and motivational support among first year students through the lens of peer-modeled growth mindset tutoring in order to strengthen student success. Eligibility to participate in the study is based on whether or not you are currently enrolled or have been enrolled in the school's first-year composition course. Once I have your emailed signed informed consent, we can continue. As a reminder, you do not have to answer any question you do not want to answer, and you are welcome to withdraw from the study at any time; participation is totally voluntary. This interview will be recorded so I can refer to it later; it will also allow me to focus and engage with you rather than just taking notes. Today's focus group will focus on your experiences with tutoring while you were taking your first-year composition class. There are 6 questions. I may ask additional follow up questions, or I may skip some if you answer it in response to another question. Anything you share during this interview is confidential. Your identity will not be on anything other than the signature on your informed consent. Your instructor will not have access to anything you say, nor will they know you participated in this study. In fact, no one at the school, except for others in the focus group, will have access to any of this or know you participated. The focus group and its transcript will be saved on my private computer and will be password protected. Any hardcopy notes will be kept in a locked

desk drawer in a private office. Do you have any questions or concerns before we begin? I can repeat questions; I can also give you time to think about the questions.

Focus Group Questions:

Note: The framework element referred to is indicated in parentheses following the question)

1. Tell me if you agree or disagree with these statements and why: (growth and fixed mindset)

- Good writers are born, not made.
- Hard work, desire, dedication, and enough time are all I need to become a good writer.
- You have a certain amount of writing ability, and you can't really do much to change it.
- I believe I was born with the ability to write well.
- My essays will always have the same quality, no matter how much I try to change them.
- No matter how hard I try, I will never be a great writer.
- No matter who you are, you can significantly change your writing ability.

2. What time of the semester did you work with a tutor?
3. What difference did this experience make to your belief in your ability? (fixed or growth mindset)
4. What role did the peer tutor play in motivating you to complete a writing assignment? (peer support)
5. Does the peer tutor's attitude about challenging work motivate you? (peer influence)
6. What makes you stop or slows you down as your write? (facing challenge)

7. What happens to you when you get stopped in your writing? (facing challenge)
8. What happens when you feel like you don't understand what to do during the completion of a writing assignment? (facing challenge)
9. How does the tutoring session help you start or continue when you feel stuck during the writing process? (feeling unprepared)
10. How did the tutor help you feel like it was the worth the effort to keep writing and finish the assignment? (motivation)
11. What helped you keep writing when you faced a challenging assignment? (motivation)
12. What did you learn about what motivates you while you are writing? (motivation)
13. What did you learn about time management? (non-cognitive skills)
14. Did your perspective about effort change? (effort)

Appendix H.

Changes to Interview Questions

The field test of the interview questions with the two students gave me some important insight into the quality and design of the questions for the study. In the first field test, the 20 questions took over 54 minutes of interview material. Question 1-6 were geared toward getting the student to describe their experience in the composition course: content, what is difficult, what the writing process was like. The questions that more specifically addressed growth mindset and the writing experience provided helpful information around attitudes toward writing.

The challenge is creating questions that focus on the RQs:

- **RQ0: How do community college students in Southern California describe their experience with peer-modeled growth mindset tutoring in supporting completion of a composition course?**
- **RQ1: How do community college students in Southern California describe the role of effort learned through peer-modeled growth mindset tutoring in supporting completion of a composition course?**
- **RQ2: How do community college students in Southern California describe the role of new strategies learned through peer-modeled growth mindset tutoring in supporting completion of a composition course?**
- **RQ3: How do community college community college students in Southern California describe the role of encouragement to persist when tutored with peer-modeled growth mindset tutoring in supporting completion of a composition course?**

The field test helped me see that I need to add more questions about why the student attended tutoring, such as:

1. Was tutoring required?
2. Was tutoring recommended by fellow students?
3. Did you see a tutor due to a challenging assignment?
4. When in the semester did you see a tutor for the first time?
5. Describe the assignment you worked on.
6. Describe the experience with the tutor.
7. Was there a time during the semester when you thought about dropping the class?
8. Did you see a tutor before or after this time?
9. What else did you learn from the tutor?
10. Did you try any new habits or techniques after working with the tutor?

I think these questions still work if I add something about the connection to a tutoring experience:

7. *After working with a tutor*, To what extent do you think people can improve their writing ability?
8. *Did the tutor change* What you think is more important when it comes to writing success: effort or talent?
9. Why do you think [effort or talent] is more important?
10. *Can working with a tutor help* ~~people~~ *students* become good writers? *What ideas did the tutor give you about* What it takes to become a better writer?
11. ~~How do you think students can become better writers?~~

12. How did *working with a tutor help* you experience growth in your writing?
13. How confident were you in your writing ability before taking college composition?
14. *How did working with a tutor change or support this confidence?*
15. ~~How satisfied are you with your writing assignments when you turn them in for a grade~~?
16. How much effort did you put into your writing assignments *before working with a tutor*?
17. ~~What steps do you take to complete a writing assignment?~~
18. How do you think your mindset affect~~ed~~ your writing ability and your writing process?
19. ~~Describe your experience with a writing tutor.~~
20. How did the *tutor* motivate you to put more effort into the writing process?
21. *How did* the tutor change the way you thought about your ability?

I think it would also be a good idea to add a question like this one:

What factors were most important to helping you maintain progress towards completing English 1A:

_____ Feedback from the course instructor

_____ Feedback from friends or family

_____ Feedback from Maya, the embedded tutor

_____ Feedback from tutors in the University Writing Center

_____ Spending more time drafting and/or revising

_____ Writing instruction in other courses

_____ Other:

For the second field test I received permission to use questions from a dissertation study that interviewed students who had worked with a growth mindset tutor (Schubert, 2017). These questions more specifically related to student interaction with a tutor in order to cultivate descriptions from participants. I think I should add more direct questions about the effects of tutoring to these questions as well, but these questions did create more data around working with a growth mindset tutor.

1. Tell me if you agree or disagree with these statements:

Good writers are born, not made.

Hard work, desire, dedication, and enough time are all I need to become a good writer.

You have a certain amount of writing ability, and you can't really do much to change it.

I believe I was born with the ability to write well.

My essays will always have the same quality, no matter how much I try to change them.

No matter how hard I try, I will never be a great writer.

No matter who you are, you can significantly change your writing ability.

2. Tell me about your experiences writing this semester. What did you write?
3. What was your writing process like?
4. What was hard?
5. What was easy?

6. Have you always felt like a strong writer?
7. Have you had a time when you experienced growth in your writing?
8. To what extent do you think people can improve their writing ability?
9. What do you think is more important when it comes to writing success: effort or talent?
10. Why do you think [effort or talent] is more important?
11. How do you think people become good writers? What does it take to become a better writer?
12. *How does a tutor help you become a better writer?*
13. Can everyone become better writers? Can everyone achieve the same level of competency?
14. Do you think there's a limit to how skilled someone can become at writing?
15. What determines that limit?
16. *Did you experience a change in* How confident *you feel about* your writing ability *before and after working with a tutor?*
17. How satisfied are you with your writing assignments when you turn them in for a grade?
18. How much effort do you put into your writing assignments?
19. What steps do you take to complete a writing assignment?
20. How do you think your mindset affects your writing ability and your writing process?

Appendix I.

Codebook

This is a required appendix. There are many ways to construct a Codebook in qualitative research, and learners can draw from those approaches by citing the relevant research authorities. The most minimal approach, however, should still produce a table of **all codes** generated from the analysis regardless of their cycle, along with "definitions" for each code. A "definition" entails the interpretive meaning that made a particular code necessary in the mind of the learner and might offer clues on the situational context tied to that meaning. Because the focus is on the codes exclusively, it does not entail the listing of higher categories or themes, or the tracing of codes to those themes (which is really what should be discussed and illustrated in Ch. 4-Data Analysis Procedures and Ch. 4-Results).

Appendix J.

Transcripts

Appendix K.

Feasibility and Benefits Checklist

Note: This appendix is for reference only; delete this appendix in the final dissertation manuscript

Gatekeepers: Who are the possible gatekeepers? (i.e., If you are in a school district, have you checked with the principal and the superintendent's office or their designee to see what the process is for research? Or, if you are at a company, talked with the management, etc.? If you are planning on collecting data from a college, what is the process? It is preferred that you obtain Institutional Review Board (IRB) approval from that institution prior to applying for GCU's IRB approval).	Dean Oleg Bespalov, obespalov@vcccd.edu Dean of Institutional Effectiveness Submit GCU IRB forms for signature to Dean Bespalov who recommends study to Executive Committee
Gatekeeper Contact: Who do you need to keep in contact with as you form your research project to ensure that the benefits outweigh the risk and you can conduct your research? How will you initiate and maintain contact with them?	Dean Oleg Bespalov
Outside IRB: If you are planning on recruiting participants or getting data from a college (or other institutions with an IRB), have you talked to their IRB determine the process and what participants/data they will allow you access? Please note, IRB approval typically takes some time.	Yes, I have informal approval.
Study Benefits: What is the benefit of your research? Who do you need to keep in contact with as you form your research project to ensure that the benefits outweigh the risks? *Remember that research should have a benefit; what benefit does your research have to others beside yourself?*	The study benefits college students as well as learning support services. I attended the 2021 Summer Institute for Writing Center Professionals given by the International Writing Center Association. I participated in a series of mentoring sessions with leaders in the field of tutoring and learning assistance; the feedback from this group was positive. They encouraged me to continue to work on this research.
Research Activity: Is your research part of *normal every day activities*? This is significant because this must be outlined in your site authorization. A preliminary site authorization letter could simply be an email from a school/college/organization that indicates they understand what you want to do and how that benefits the school/college/organization. In some cases this will determine the classification of the	The research is not part of normal everyday activities, and I have been granted a sabbatical release to continue to work on the dissertation project by the institution where I currently hold a faculty coordinator position.

study (this is especially important for educational research studies). ***Please see below for information regarding preliminary site authorization	
Recruitment: Please describe your proposed recruitment strategy. How do you plan to involve your participants in the process? What would your flyer/email say?	The recruitment strategy involves using the contact information of students who have visited the Teaching and Learning Center at a community college in southern California.
Data Collection: What are you asking of participants? Are you asking them personal information (like demographic information such as age, income, relationship status)? Is that personal information necessary? How much time are you asking of participants (for example, if you are asking them to be interviewed, be in a focus group, fill out a questionnaire, fill out a journal/survey, collect artifacts, etc.)? How much time will they have to spend to be in your study? Does each part of your data collection help answer your research question? Participants must be told how long it will take to them to participate in each activity. Are you concerned that the activities will take too long and participants might not finish/drop out? Can you collect your data in a reasonable amount of time considering the stakeholders and possible challenges of gaining access to participants?	I am asking participants to reflect on their experience working with peer-modeled growth mindset tutoring on college-level English courses. Not much personal information is needed, except their year in school, first-generation college student (FGCS), and attempts at taking current course. I will be asking for approximately 45-60 minutes if they participate in a semi-structured interview or focus group. These are reasonable time expectations for the participants and data collection.
Child Assent: Studies with children often fall under the regulations for a full board review (full board reviews take significantly longer in IRB). Each child must fill out a child assent AFTER there is parental consent. (It can be very difficult to get parental consent, especially if this is something sent home to parents).	No children will be involved with this study.
Informed Consent: Participants must be told how long it will take to participants to participate in each activity. Are you concerned that the activities will take too long and participants might not finish/drop out?	I am not concerned about the participants taking too long so participants will drop out.
Site Authorization: Do you have a site authorization letter? How difficult will this be to get from the school/ school district/college/organization? Use the GCU template to ensure the correct information is included.	I have verbal confirmation of the site authorization from the dean of Institutional Effectiveness.
Can you collect your data in a reasonable amount of time considering the stakeholders and possible challenges of gaining access to participants?	yes
Organizational Benefits: Have you talked to your principal/supervisor/district/college/boss/	I have talked to my college department chair, Teaching and Learning Center staff, deans, and

organization about your research? If so, have you asked them what you can do to help the district/organization/school?	colleagues. The study is part of an approved sabbatical for fall 2022.
What is the overall benefit of your research to participants?	Participants will contribute to the understanding of learning, motivation, and empowerment connected to peer-modeled growth mindset tutoring.
What are the risks of your research? Please note that there are usually some risks (like revealing participant identity) in all research.	No risks
Now that you have contemplated the above questions, how long do you imagine it will take you prior to access your participants/data? AND, how much are you asking of your participants?	I have access to email addresses to invite participants to the study.
Based on the information that you have learned, is your study feasible? Why or why not? If not, how can you modify your ideas to make your study manageable?	I think the study is feasible because the leaders in my organization and the campus community are supportive of it.

✓ **Formal Site Authorization Requirements:**

- Written on organizational letterhead
- Dated within the last 12 months
- Signed by an authorized representative of the site
- Clearly indicate activities for which researcher has obtained authorization - This is very important. The authorization should clearly indicate EXACTLY what authorization is being granted. For example: recruiting by email during work hours, interviewing primary teachers during their planning hours, distributing an electronic survey to staff members, granting access to email, etc.
- This information must align with recruitment, informed consent, and the IRB application

✓ **Instrument Authorization:**

- Should be from an author or administrator of the organization
- A written letter, e-mail, or a screenshot of the email correspondence is sufficient
- Instrument authorization should contain the following items:
  - The specific name of the instrument to be used
  - For what purpose the instrument will be used

- If possible, statement that the person granting authorization *owns the copyright* (sometimes that is not the author of the instrument, it could be the journal in which the instrument was first published)

- Authorization is granted to use the instrument

- Authorization is granted to modify the instrument from the author and the CDS associate dean (if applicable, typically this is not advised, as altering surveys can negate the validity)

- Evidence you are qualified to administer, score, and interpret the data obtained from the instrument.

✓ Please see the DC network (https://dc.gcu.edu/irb) for help with the difference between anonymity and confidentiality, informed consent, site authorization, data use agreements and many other helpful videos and job-aids.

✓ Something to consider: If you are doing a quantitative study you can consider using a reputable research company, such as Qualtric, SurveyMonkey, Mturk, Prolific, to recruit study participants and collect data on your behalf; this is a VERY quick way to collect your data. Each company has their own requirements and capabilities. Please research to see how they can help you; it will depend on the eligibility criteria you have for your study and if they have access to that participant pool. Please note there are associated costs when using a research company for participant recruitment/data collection.

Appendix L.

Strategies to Establish Trustworthiness

Note: This appendix is for reference only; delete this appendix in the final dissertation manuscript

Strategies to Establish Trustworthiness				
Strategies	Validity		Reliability	
	Credibility	Transferability	Dependability	Confirmability
Audit trail			GT	
Coding is clear and well defined				
Constant comparison			GT	
Establishing referential adequacy				
Evidence				
Fundamental knowledge of naturalistic inquiry				
Inter-coder reliability				
Long term engagement				
Member checking				
Methodological coherence				
Methodological procedures evident, replicable				
Narrative truth	N			
Negative cases and rival explanations	PH, N			
Peer debriefing				
Researcher reflexivity	PH			
Sampling sufficiency				
Theoretical sampling		GT		
Thick description				
Thinking theoretically				
Trained researcher				
Triangulation				

Note: Shaded areas are appropriate for all designs. When specifically identified (GT=grounded theory, PH=phenomenology, N=Narrative), the strategy is particularly important for that design.

Used with Permission:
Chess, P.S. (2017). Chapter 3, Validity and reliability in qualitative research. In Grand Canyon University (Ed). (2017). *GCU doctoral research: Advanced qualitative research methods.* http://lc.gcumedia.com/res855/gcu-doctoral-research-advanced-qualitative-research-methods/v1.1/

Appendix M.

Developing Qualitative Interview Questions Systematically

Note: This appendix is for reference only; delete this appendix in the final dissertation manuscript

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College of Doctoral Studies
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Used with Permission

Qualitative Interviewing

- What is a qualitative interview?
  - A conversation with a purpose – data gathering
  - Open-ended format using probes
  - Ideally with the least interviewer interjection as possible
  - Interviewer is an extension of the instrument
  - Requires many technical skills to elicit quality data
  - Face-to-face vs telephone vs survey interviews
  - Individual, in-depth vs. group interviews (small focus groups vs. large town hall meetings)

Dramaturgy and Interviewing

- Symbolic interactionism
  - People perceive and interact in reality through the use of symbols
  - The meaning of these symbols comes about as a result of a process of social interaction
  - Interviewing as social performance
  - Drama – a mode of symbolic action in which actors perform symbolically for an audience.
  - Involves social actors and audience
- Active interviewing – meaning-making
- Interviewer's role – actor, director, choreographer
- Interviewee's role – leading actor in life drama

Types of Qualitative Interviews

- Major difference is degree of rigidity with regards to presentational structure
  - Standardized (structured)
  - *Semi-standardized (semi-structured)*
  - Unstandardized (unstructured)

Standardized Interviews

- Similar in format to survey, but open-ended
- Use when you have a pretty good idea about the things you want to uncover
- Assumes the meaning of each Q is the same for every subject (positivist / objectivist framework)
- Operate from perspective that one's thoughts are intricately related to one's actions

Examples:

- Tell me what you eat for breakfast? (laundry list)? _____
- How many times a week do you eat fruits? _____
- What kinds of physical activities do you engage in? _____
- Major limitations: short responses; lack of probing; manifest (literal) meaning, lack of context

Semi-Standardized Interviews

- Use when you have a general idea of what you want to elicit but do not want to restrict how it is presented
- Predetermined questions, special topics
- More flexibility in wording of questions and probing
- Assumes that not all subjects will necessarily find equal meaning in like-worded questions (phenomenological / relativistic framework)
- Reflects awareness that individuals understand the world in varying ways

See template and example

Unstandardized Interviews

- Use when you don't know in advance what questions to ask (e.g. participant observation)
- Completely unstructured, no set order to Qs.
- Total flexibility in wording of questions and probing
- Same epistemological assumptions as semi-standardized (phenomenological / relativistic)

- Reflects awareness that individuals understand the world in varying ways
- Questions and probes appropriate to each given situation & to the purpose of the study

Instrument Development (Brainstorming)

- Determine the nature of the investigation and research objectives (how structured?)
- Develop an outline listing broad categories relevant to the study that are based on the literature or theory.
- Develop set of questions relevant to each of the categories in the outline
  - Exercise: develop semi-structured schedule
  - Topic: learning to cope with asthma

Template for Instrument Development

- Main Study Question

  Topic I:

  Q.1:

  Q.2:

  Q.3:

  Topic II:

  Q.4:

  Q.5:

  Q.6:

  Topic III:

  Q.7:

  Q.8:

  Q.9:

  What else that we've not discussed can you tell me…?

Example of Questions Within a Template

- RQ: How do adults w/ asthma living in communities w/ high asthma prevalence can learn to cope w/ the illness?

  Theme I: **Perceptions of asthma**.

  Q.1: What do you think asthma is?

  Q.2: What do you think gives people asthma?

  Q.3: What things worry you more about asthma?

  Theme II: **Coping with asthma**.

Q.4: How can people take care of their asthma?

Q.5: How does your doctor help you with your asthma?

Q.6: What lifestyle changes can help people with asthma?

Theme III: **Learning about asthma**.

Q.7: How do you get information about asthma?

Q.8: How do you learn to take care of your asthma?

Q.9: How else could people get information about asthma?

Q.10. What could be done to improve asthma education in your community?

Q.11. What else that we've not discussed thus far can you tell me about…?

Schedule Development (Sequencing)

- Question order (sequencing)
    1. Start with easy, nonthreatening questions
    2. Next, more important questions (not sensitive)
    3. Then, more sensitive questions
    4. Validating questions (pertaining to important or sensitive questions)
    5. Next important topic or conceptual area of Qs.
    6. Repeat steps 3 and 4, and so on
- Content – level of language, wording
- Styles of Qs – essential, extra, throw-away (general Qs to develop rapport), probing
- Number of Qs based also on interview length and depth (e.g., 8-12 Qs for 60 min interview)
- **Problems in question formulation**
    1. Affectively worded questions
        - Try to neutralize the sense of the questions
            - "How come?" vs. "why did you do that wrong"?
    2. Double-barrel questions
        - "How many times have you smoked marijuana, or have you only tried cocaine"?
    3. Complex questions
        - Keep questions brief and concise
    4. Too many questions (long interviews)
        - Keep interview between 60-90 mins.
        - Telephone interviews 20-30 mins.

Pretesting

- Expert review
- Mock interview
- Assess for:
  - Inclusion of all the necessary questions
  - Do questions elicit the types of response anticipated?
  - Is the language of the research instrument meaningful to the respondents?
  - Are there other problems with the questions? (e.g., multiple issues addressed in single Q.)
  - Does it motivate and engage respondents?

Interview Training

- Learning to build rapport
- Learn the questions, practice
- Develop listening skills
- Probing skills without leading
- Silence, echoing, follow leads

  Probes: repeat question, what, when, where, how, give me an example, tell me a story that illustrates that point, please elaborate on that.
- Issues of power
- Self-reflection
- Professionalism

Focus Groups

- Moderator's guide similar to individual interview schedule, but must consider group dynamic
- Collective brainstorming, synergistic group effect
- Greater interviewing skill level required in order to moderate effectively
- Guide should be shorter (6-8 Qs) in order to engage as many participants as much as possible.
- Qs should NOT be same as individual interview Qs in studies using multiple sources of data collection
- FG Qs should explore a specific aspect of research problem or of findings from individual interviews.

References

Padgett, Deborah K. (2008). *Qualitative methods in social work research*. Sage Publications.

Zayas L.E., McLean D. Asthma patient education opportunities in predominantly minority urban communities. *Health Education Research*, 2007;*22*(6):757-769.

Appendix N.

Sample Frames, Interview Duration, Transcript Expectations

Note: This appendix is for reference only; delete this appendix in the final dissertation manuscript

Qualitative Research Design	Reasonable Sample Frame	Minimum Projected Sample Size	Minimum Achieved Sample Size
Case Study	60+ individuals	20 individuals	10 individuals
Qualitative Descriptive	60+ individuals	20 individuals	10 individuals
Phenomenology	35+ individuals	12 individuals	8 individuals
Narrative Study	35+ individuals	12 individuals	8 individuals
Grounded Theory	60+ individuals	20 individuals (*iterative sampling)	10 individuals

Qualitative Research Design	Minimum Interview Length Per Person	Corresponding * Minimum Transcript Length Per Person	Corresponding * Minimum Transcript Range Per Person
Case Study	45+ minutes	8+ pages single-space typed	8-12 pages single-space typed
Qualitative Descriptive	45+ minutes	8+ pages single-space typed	8-12 pages single-space typed
Phenomenology	60+ minutes	15+ pages single-space typed	15-20 pages single-space typed per person
Narrative Study	60+ minutes	15+ pages single-space typed	15-20 pages single-space typed
Grounded Theory	45+ minutes	8+ pages single-space typed	8-12 pages single-space typed

* "Corresponding" projections above are based on the minimum interview length shown for each core design. Learners can pursue longer interviews, which would increase the corresponding range of transcript pages.

Appendix O.

Minimum Progression Milestones

Note: This appendix is for reference only; delete this appendix in the final dissertation manuscript

Dissertation Course	Course Length (weeks)	Minimum Progression Requirement	Week of Pass/Fail Assignment Due
955	8	Prospectus "Acceptance" by chair and methodologist	6
960	8	Draft Chapter 2 or 3 "Acceptance" by chair and Submission to content expert or methodologist	6
965	8	Draft Chapter 3 or 2 "Acceptance" by chair and Submission to methodologist or content expert	6
966E	12	Draft Chapter 1 "Acceptance" by chair and submission to methodologist and content expert	10
967E	12	Full Finalized Proposal Submitted to Committee Members *learner may progress forward if this is not achieved, but will be required to meet the minimum requirement in the next course	11 (not pass/fail*)
968E	12	Successful submission and admittance to Level 2 Peer Review	10
969E	12	Level 2 Peer Review Approval (D-35)	10
970E	12	IRB Approval (D-50)	10
971E	12	Draft Chapter 4 "Acceptance" by chair and submission to methodologist	10
972E	12	Full dissertation "Acceptance" by chair and submission to methodologist and content expert	10
973E	12	Successful submission and admittance to Level 5 Peer Review	10
974E	12	D-65 and successful submission and admittance to F&F	11

Learners should work on their dissertation a **minimum of 20 hours per week**. Less time spent may hinder successful completion of minimum progression requirements.

Appendix P

Additional Appendices

Note: This appendix is for reference only; delete this appendix in the final dissertation manuscript if no additional appendices are needed

Additional appendices may include descriptive data, statistical results, raw data (as appropriate), or other critical information pertinent to the dissertation. For the proposal, consider including all recruitment scripts (flyers, email text) and other documents planned for use in the study. Consult with the chair on additional appendices appropriate for the dissertation.

Example:

Copy of the Invitation to Participate (Study Advertisement)

Learners should provide a template of the recruitment materials that will advertise the study to candidates from the target population. For example, this might entail a preview of the email outreach or other forms of communication, such as a traditional letter, a posted flier, a web-forum post, or a full web-page advertisement. Recruitment materials are important in qualitative research because they advertise the inclusion criteria for the study and help enforce the sampling strategy.

Important Note: for learners who plan to use a web-forum or webpage to advertise their study, please be aware that you cannot publish a live post or webpage pertaining to your study until GCU-IRB has completed its review and assigned IRB approval. You can only preview its design in this Appendix as part of the proposal.