AN EXAMINATION OF INNOVATIVE PEDAGOGICAL PRACTICES FOR
TURNING AROUND OR ENHANCING STUDENT PERSISTENCE RATES

A thesis presented

by

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to the

Graduate School of Education

In partial fulfillment of the requirements for the degree of

Doctor of Education

in the field of

Education

College of Professional Studies

Northeastern University

Boston, Massachusetts

March 2018
ABSTRACT

Self-determined motivation can be observed when one engages in a behavior that is conducted out of choice and personal values per Chan, Fung, Xing, and Hagger (2014). Low student self-determination is characterized by behaviors, such as very poor class attendance, a failure to attempt to turn in assigned homework or attend scheduled exams, poor exam performance, a lack of study time, and lackluster, laissez-faire attitudes and deportment (Oleck, 2007). Over the next two-to-three decades, better-educated individuals leaving the workforce will be replaced by those who have lower levels of education and skills (Oleck, 2007). Students will be entering the workforce lacking the motivation, required skills, and behaviors that are needed to succeed in society.

Self-determination theory (SDT) provides a broad framework for the study of human motivation and personality. Deci and Ryan (1985) developed this theory that distinguishes between intrinsic motivation and extrinsic motivation. Intrinsic motivation reflects an internally driven curiosity, interest, and passion. Extrinsic motivation refers to doing something because it leads to a separable outcome, such as receiving managerial praise or a monetary reward for delivering a good performance.

This study explored what innovative teaching practices can be employed by faculty members to increase the self-determination (SD) levels of underperforming undergraduate students. The intent of the project was to provide educators with innovative insights and teaching tools that can be used to turn around and improve the low SD levels of these under-achieving students.

Key words: Self-determination, intrinsic motivation, extrinsic motivation, turn around.
ACKNOWLEDGEMENTS

Life is a journey, not a destination. As we venture along the road toward our destination, we must carefully choose our steps, and this work was certainly no exception. In my passionate pursuit of discovering what teaching tools and processes faculty can employ leading to higher levels of undergraduate student self-determination, I have found many insights that have strengthened my embrace of this journey and myself. While this type of journey is taken alone, confidence builds from those who are around us knowingly and unknowingly, providing both inspiration and confirmation.

Simply stated, I have the utmost gratitude and respect for Dr. Mounira Morris as she guided me through this work with undying faith, support, kindness, and knowledge. Dr. Natalie Perry, second reader in this study, provided invaluable comments relating to the introduction of data analysis to the study, further enriching both its scope and findings.

To my family, extended family, and friends, your patience and understanding during this immense undertaking has earned my love and thanks to you all. My wife, Joanne, has been and always will be the inspiration for all that I do, and I will be eternally grateful for her love, support, and caring. Immense thanks to Dr. Janet Kuser for helping me to steady my ship through this process and beyond.
DEDICATION

This work is dedicated to my loving mother, Mrs. Margaret Hogan, who is with me in spirit. Hindered most of her life from the damaging effects of having scarlet fever as a young child, she did not have the opportunity to progress in her career but worked earnestly along with my grandmother to foster and promote my education. It is further dedicated to my father who showed unwavering love and support to our family until his untimely death from ALS at a young age. Neither of my parents attended college; however, they made sure that my two sisters and I had the opportunity for a fine education. I know that they would have been very proud of me. I also dedicate this work to my wife, Joanne Hogan, who, in addition to being a loving companion, was instrumental in my determination that college teaching is a vocation that I love. Joanne has been equally supportive in my doctoral pursuit. Finally, this work is dedicated to those students who experience college as an onerous, intimidating, and difficult place to academically achieve.
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Place More Work in the Hands of Students
Tailor Curriculum to Students
Emphasize Self-management and Self-efficacy Skills
Scaffolding to Facilitate Incremental Learning
Reward for Improved Performance
Conclusion

Recommendations for Practice
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REFERENCES
CHAPTER ONE: INTRODUCTION TO THE STUDY

Higher education professionals recognize that education provides individuals the opportunity and social capital needed to choose occupations that are congruent with personal values, interests, and life goals (Tate, Fouad, Marks, & Young, 2015). To this end, the vast US college landscape has experienced a steady enrollment of students for the past several decades facilitated in part by the Higher Education Act of 1965 (National Center for Educational Statistics, 2017). While most researchers agree that, over the past 40-to-50 years, earning a college degree has indeed enabled a majority of college students to achieve higher status in career path and earning power than their parents did, there remains a high number of undergraduate students who arrive at and graduate from college with low levels of self-determination (SD) (Banerji, 2007; DeCastella, Byrne, & Covington, 2013). A 2014 survey by Education Week found that only 40% of the teachers and administrators who participated believed that most of their students were highly engaged and motivated. Teachers and administrators from high-poverty schools reported much lower levels of motivation than those from more affluent schools (Collier, 2015).

Upon graduation, these students will enter the workforce lacking the motivation, required skills, and behaviors that are needed to succeed in society. The extent of this problem is identified by Mongillo and Wilder (2012) who advised that “nearly six million secondary students read below grade level. The majority of these students will enter college unprepared to succeed” (p. 42). The quest for literacy can be elusive for individuals with learning disabilities. For such individuals, the development of SD can mean the difference between self-reliance and dependence on others (Ward, 1999). Further, the Survey of Adult Skills (2013) reports that, in comparing the United States with the averages of participating countries, US performance is
weak in literacy and very poor in numeracy but only slightly below average in problem-solving in technology-rich environments. On a scale of 1 to 5 in literacy, only 12% of US adults score at the highest levels (Level 4/5), while in numeracy, only 8% of adults score at Level 4/5.

The purpose of this case study was to examine how college instructors can make use of innovative pedagogical practices that will result in the recognition of higher rates of SD being exhibited by the underperforming undergraduate students at a small, private Northeast US college. In this study, low student SD is characterized by behaviors, such as very poor class attendance, a failure to attempt to turn in assigned homework or attend scheduled exams, poor exam performance, a lack of study time, and lackluster, laissez-faire attitudes and deportment (Oleck, 2007). Data gathered from this research was intended to inform college faculty of innovative pedagogical teaching methods and tools that they can employ to enhance the SD of underperforming undergraduate students. This study utilized the qualitative case study method to explore the research problem.

To provide context and background to the study, this chapter begins with a brief overview of the existing research related to the low SD of undergraduate college students. The rationale and significance of the study is discussed next, drawing connections to potential beneficiaries of the work. The problem statement, purpose statement, and research question are presented to focus and ground the study. Finally, the theoretical framework that serves as a lens for the study is introduced and explained.

**Context and Background**

Scholarly research in the field of SD has generated a diverse range of perceptions and contexts about its causal factors and remedial solutions (Duncan & Johnston, 1999; Liva, 1994; McDougall & Donohoe, 2002; Prins & Shafft, 2009). Self-determination theory (SDT) views
motivation on a continuum (see Appendix A) from intrinsic (internally-driven) to extrinsic (externally-driven) per Martin, Galentino, and Townsend (2014). Further, Griffin (2006) identified that between these two extremes lie introjected, identified, and integrated regulation styles that balance varying degrees of intrinsic and extrinsic sources of motivation. She informs that students employing introjected regulation motivation styles internalize the rules that shape their academic behaviors but are driven by rewards or punishments rather than by a passion for the academic activity itself. In contrast, Griffin shared that identified regulation occurs when students actively choose to engage in academic behaviors rather than just complying due to external pressure, but their behaviors are based partially on external factors, such as a desire for continued academic success. The author then explained that integrated regulation refers to internalization in which a person will identify with the value of the activity and accept full responsibility for doing it. While an extrinsically-motivated student will complete tasks for a grade or approval, the intrinsically-motivated student will view grades and approval as feedback on their quest for learning or self-betterment (Becker, Dang, & Jordan, 2005). Ankeny and Lehmann (2011) suggested that SD is a lifelong liaison between the individual and society.

Self-determined motivation can also be observed when one engages in a behavior conducted out of choice and personal values per Chan et al. (2014). Alt (2015) argued that intrinsic motivation refers to internal factors, such as enthusiasm and pleasure experienced while engaging in a task. In contrast, he indicated that extrinsic motivation refers to external factors, such as obtaining good grades or passing exams. Studies on the quality of motivation suggest that, although basically distinguished as intrinsic and extrinsic, it can be further refined by making a distinction between autonomous and controlled motivation (Brunet, Gunnell, Gaudreau, & Sabiston, 2015; Li Wang, You, & Gao, 2015). A controlling environment can be
created by pressuring students from the outside, for instance, through the use of rewards, punishments, deadlines, or controlling language (Perin, 2013). To be successful in a learning situation, students need to have both the will and the skill for learning (Liu, Wang, Kee, & Koh, 2014).

In yet another context, some scholars found that, in addition to SD skills, students with learning disabilities/attention-deficit/hyperactivity disorder (ADHD) who are successful in college will also demonstrate the appropriate use of strategies and skills necessary for the successful completion of courses (Farmer, Allsop, & Ferron, 2015; A. Martin, 2014). Clinicians have observed that some ADHD students have adopted strategies to cope with their symptoms and that some of these students seem to be coping better than others (A. Martin, 2014; Turnock, Rosen, & Kaminski, 1998). Overtly expressed low expectations, gender-, and race-based stereotypes and lack of college information were also mentioned as academic challenges (Cavazos, Johnson, & Sparrow, 2010). Further, because students must often juggle assorted life activities, such as jobs and child care which have significance to their lives, eventually activities in one sphere may place more demand on resources, such as time or effort, leading to a conflictual situation in which students must devote their resources in more than one domain simultaneously (Ratelle, Vallerand, Senacal, & Provencher, 2005). Given the wide and disparate interpretations and perspectives that have evolved in the area of SDT research, this study seeks to investigate how college instructors can use innovative pedagogical practices and teaching methods to boost and increase low levels of student SD.

**Rationale and Significance**

Alluding to the impact of low SD, Oleck (2007) suggested that “chances are that many of today’s kids won’t have decent jobs or earn livable wages unless we improve reading and math
skills and close the achievement gap” (p. 18). Oleck warned that over the next two-to-three decades, better-educated individuals leaving the workforce will be replaced by those who have lower levels of education and skills. If realized, this dire forecast clearly will have a detrimental effect on productivity and proficiency outcomes in the affected occupations. Oleck stressed the urgency to increase the motivation of developing students; otherwise, there will be little chance that economic opportunities will improve among key segments of the population.

The rationale for this study was the researcher’s interest in expanding the examination and discovery of how college faculty can use creative pedagogical tools and techniques to improve the SD level of low-performing undergraduate college students. Such improvement tools are needed to ensure that these students will be positioned to achieve a successful lifetime outcome (Tamsen & Livingston, 1999). Researchers have found that an increase in academic self-efficacy will lead to an increase in performance-approach goal orientation (Kayis & Ceyhan, 2015). Self-regulated learning strategies are very important to student achievement (Liu et al., 2014; Tamsen & Livingston, 1999).

Researching the development of new pedagogical tools to increase SD is essential as, without such tools, it is probable that many graduating college students will continue to end their college experience lacking the motivation that is needed to be a successful contributor in both society and in their careers. The significance of this negative outcome for affected students is obvious: they will very likely encounter obstacles in becoming successful contributors to society. De Jonge and Kemp (2012) pointed out that in this digital age, many high school and college students are adept at forms of casual, immediate communication, such as texting, but are unable to compose a grammatically correct paragraph. This observation is significant as to achieve success in almost any position during this information age, an individual must be motivated to
learn how to read and write effectively. These same criteria can be applied to personal issues that can arise for all individuals on a periodic basis. For example, a well composed personal letter can be a powerful path to attaining resolution of a home/life-related problem or issue. Clearly, the lack of sufficient SD to develop fundamental reading and writing skills can have negative consequences in career development, individual growth, family formation, and personal/career successes (Liu et al., 2014). The adoption of remedial and innovative pedagogical tools that will enable instructors to improve student SD levels will generate demonstrable benefits to students with respect to their academic achievement, career opportunities and success, and family development and will result in their delivering positive contributions to society. The participating college faculty and their administrative/advising colleagues will benefit from feeling a heightened sense of reward and accomplishment in their role of helping to nurture and educate students to achieve a higher level of career and lifetime success.

**Research Problem and Research Question**

The problem of practice identified was the low level of SD that is displayed by a large portion of undergraduate students throughout their time at college and thereafter during their careers. Self-determination is a theory of human motivation and personality concerning a person’s inherent growth tendencies. It relates to the degree to which an individual’s behavior is self-motivated absent any external influences. Low SD has negative consequences for the affected individual, their families, their employers, and for society at large (Oleck, 2007). Underachieving students will lose self-confidence, experience a diminished self-identity, and struggle to achieve passing grades and upon graduation, find it difficult to gain employment opportunities from highly scrutinizing companies (Banerji, 2007).
Tong and Deacon (2013) advised that in the short term, adequate motivation is essential for success with the school curriculum and, in the long term, for full engagement in society. On the employment front, positions at every level include in their job description an inherent element of performance expectation when listing the position’s responsibilities (Oleck, 2007). A lack of motivation and skills can be displayed when an individual is completing a job application or during the interview process, thereby eliminating the opportunity for a candidate who lacked the ambition and determination to master the requisite communication, writing, technical, and leadership skills needed to effectively compete for the desired position (St. Louis Community College, 2013). The detrimental effects on an individual that an underemployment/unemployment period can cause are deep and far-reaching: a lack of self-esteem, minimal chance of promotability, incapacity to support oneself, an inability to participate in a meaningful relationship or have and support children (Oreopoulos & Petronijevic, 2013).

An individual not being able to properly read grocery and nutrition labels correctly can encounter nutrition issues that, in turn, lead to heart disease and other serious ailments during her lifetime (Chen, Shyu, Ko, Kung, & Shao, 2016). Because of their low literacy, such individuals have difficult life experiences, gain inappropriate or inadequate eating information, and hold a passive, fatalistic perspective about eating with heart disease (Chen et al., 2016). Kucukoglu (2012) conveyed that motivation is a lifelong behavior to be used both at school and throughout life, a cornerstone for a child's success in school and, indeed, throughout life.

A society needs to be populated by a motivated, educated, empowered population in order to survive, grow, and prosper (Miao & Wong, 2011). Education impacts what people do and how they act. Knowledge and education provide individuals with the opportunity to think freely, attain financial stability, and achieve a basic sense of dignity (Miao & Wong, 2011).
The purpose of this case study with faculty participants was to investigate the low SD phenomenon found among undergraduate college students, and it was guided by the following overarching research question: How do college faculty members make use of innovative pedagogical teaching practices that result in the recognition of higher rates of SD being exhibited by underperforming undergraduate students at a private, four-year college in Boston, Massachusetts?

**Definitions of Key Terminology**

In addition to self-determination, several other key terms are referenced in this study. This section provides definitions, drawing from other works when appropriate.

**ADHD** – stands for attention deficit hyperactivity disorder, a condition that affects how well someone can sit still, focus, and pay attention (Farmer et al., 2015).

**Amotivation** – a condition of non-self-determination (Griffin, 2006).

**Extrinsic motivation** – refers to behavior that is driven by external rewards, such as grades or praise (Deci & Ryan, 1985).

**Identified regulation** – a more autonomously driven form of extrinsic motivation that involves consciously valuing a goal so said action is accepted as personally important (Griffin, 2006).

**Integrated regulation** - refers to internalization in which the person identifies with the value of the activity and accepts full responsibility for doing it (Griffin, 2006).

**Intrinsic motivation** – refers to behavior that is driven by internal rewards (Deci & Ryan, 1985).

**Introjected regulation** – a form of extrinsic motivation in which an individual does something to maintain self-esteem or pride or to avoid guilt or anxiety (Griffin, 2006).

**LD** – Learning disability, a condition giving rise to difficulties in acquiring knowledge and skills to the level expected of those of the same age (Turnock et al., 1998).
Self-determination – an individual’s self-motivated behavior (Deci & Ryan, 1985).

Turn around – shift to the opposite direction to improve self-determination (Karty & Gooch, 2007).

The following section of this chapter includes a description and discussion of SDT that serves as the theoretical lens for this study.

Theoretical Framework

The theoretical framework informing this study was self-determination theory (SDT) that provides a broad framework for the study of human motivation and personality. In their seminal work, Deci and Ryan (1985) developed this theory that distinguishes between intrinsic motivation and extrinsic motivation. Intrinsic motivation reflects an internally driven curiosity, interest and passion. Extrinsic motivation refers to doing something because it leads to a separable outcome such as receiving managerial praise or a monetary reward for delivering a good performance. Over three decades of SDT research has revealed that the quality of one’s experience and performance will greatly differ if an individual is behaving for extrinsic versus intrinsic reasons (Ryan & Deci, 2000). SDT, using the dynamics of psychological need support, identifies both behavior-specific and broad implications for understanding practices that will improve an individual’s level of need satisfaction. This case study made use of this lens to discover innovative extrinsic pedagogical practices that faculty can employ to positively influence and improve the academic performance of undergraduate students with low intrinsic motivation. The research approach was to conduct 12 interviews with full-time faculty members at a private Northeast US college. A single-site case study with embedded units (Baxter & Jack, 2008) was utilized for this research, as it allowed the researcher to gain a better understanding of the described phenomenon from the perspective of multiple faculty members who were teaching
courses covering a variety of subjects. This embedded method allowed for comparisons within, between, and across academic departments, leading to a rich, case-illuminating analysis within the SDT lens.

**Historical and Contemporary Foundations of the Framework**

de Charms (1968) first hypothesized that intrinsic motivation and extrinsic motivation may interact. SDT can be traced to a set of early experiments conducted by Deci (1971) that showed that extrinsic rewards, such as monetary payments, could serve to undermine an individual’s intrinsic motivation for the rewarded activity. This finding served as the first evidence that desired outcomes, such as rewards, could have the unintended consequence of decreasing intrinsic motivation because they limit peoples’ sense of SD. This reduction of intrinsic motivation occurs because people are controlled by the rewards. As SDT has expanded, both theoretical developments and empirical findings have led SDT researchers to examine a plethora of processes and phenomena integral to personality growth, effective functioning, and wellness.

Lepper, Greene, and Nisbett (1973) expanded on Deci’s work by conducting a field experiment with children to test the "over-justification" hypothesis suggested by SDT—the proposition that a person's intrinsic interest in an activity may be decreased by inducing him to engage in that activity as an explicit means to some extrinsic goal. The results of their study supported the prediction that subjects in the expected award condition would show less subsequent intrinsic interest in the target activity than before. In 1983, Ryan, Mims, and Koestner concluded that rewards in general appear to have a controlling significance to some extent and, thus, in general run the risk of undermining intrinsic motivation. Their study indicated that task-contingent rewards, because they convey control but generally hold little
information value, will predictably undermine intrinsic motivation, whereas task-non-contingent rewards, because they are not tied to the target activity, carry less risk of negative effects. From a differing behavioral perspective, Dickinson (1989) argued that behavior is ultimately initiated by the external environment, positing that internal and external sources of control are not placed in opposition. Ultimately, he suggested that given current behavioral practices, the controversy surrounding the detrimental effects of extrinsic rewards is "much ado" (Dickinson, 1989, p. 3).

In more recent years, Wiersma (1992) examined the effects of extrinsic rewards on intrinsic motivation. He found that the proposition, based on cognitive evaluation theory, that contingently applied extrinsic rewards reduce intrinsic motivation is supported when task behavior is measured during a free-time period; however, his findings indicated that it is not supported when task performance is measured while the extrinsic reward is in effect. This finding suggests that the effect is closely tied to how intrinsic motivation is operationalized, indicating that the situations to which this proposition may be generalized are limited.

In contrast to earlier studies, Carton (1996) suggested that environmental factors, such as the frequency and delay of reward delivery, as well as stimulus control lead one to conclude that tangible rewards are not to be avoided; but attention must be paid to how they are administered. Deci, Koestner, and Ryan (1999) conducted a meta-analysis of 128 studies examining the effects of extrinsic rewards on intrinsic motivation. Their study’s findings indicate that engagement-contingent, completion-contingent, and performance-contingent rewards significantly undermine free-choice intrinsic motivation, as do all tangible and expected rewards. These authors reported that engagement-contingent and completion-contingent rewards also significantly undermine self-reported interest as will all tangible rewards and all expected rewards. They cited positive feedback as enhancing to both free-choice behavior and self-reported interest, adding that
tangible rewards tend to be more detrimental for children than for college students, and verbal rewards tended to be less enhancing for children than for college students.

Deci and Ryan (2000) argued that social contexts that are supportive for the needs of competency, autonomy, and relatedness will: 1) maintain or enhance intrinsic motivation, 2) facilitate the internalization and integration of extrinsic motivation, and 3) promote or strengthen ongoing aspirations or life goals that provide satisfaction of the basic needs. In a more contemporary context, the Farmer et al. (2015) study investigated the impact of the Personal Strengths Program (PSP) on seven college students with learning disabilities and/or attention deficit hyperactivity disorder (LD/ADHD) using a multiple baseline design. PSP is grounded in effective teaching practices for students with LD/ADHD, SDT, and positive psychology. It utilizes guided cognitive strategy instruction to assist students in identifying and using their strengths to achieve their goals related to their academic classes. The authors found that students with LD/ADHD experience increased challenges in school settings and decreased post-secondary outcomes when compared with their peers without such disabilities. Their research findings indicate that students who are able to transition into post-secondary settings successfully often have higher levels of SD than those who do not transition as successfully.

Self-determination Theory

By focusing on the fundamental psychological tendencies toward intrinsic motivation and integration, SDT occupies a unique position in psychology, as it addresses not only the central questions of why people do what they do but also the costs and benefits of various ways of socially regulating or promoting behavior. It is concerned with supporting natural tendencies to engage in healthy, effective, and rewarding behavior. SDT identifies three basic needs that must be satisfied to obtain functional growth: competence, relatedness, and autonomy (Deci & Ryan,
1985). While competence relates to the need to be effective in dealing with the environment, relatedness deals with the desire to interact with, be connected to, and experience caring for other people, and autonomy is concerned with the urge to be causal agents and act in harmony with one’s inner self.

**Components of the Theory**

Formally, SDT comprises six mini-theories, each of which was developed to explain a set of motivationally based phenomena that emerged from laboratory and field research (Self-determinationtheory.org, 2018). Each, therefore, addresses one facet of motivation or personality functioning.

Cognitive evaluation theory (CET) concerns intrinsic motivation, motivation that is based on the satisfactions of behaving “for its own sake” (Deci & Ryan, 2000). Prototypes of intrinsic motivation are children’s exploration and play, but intrinsic motivation is a lifelong creative wellspring (Deci & Ryan, 2000). CET specifically addresses the effects of social contexts on intrinsic motivation or how factors, such as rewards, interpersonal controls, and ego-involvements, impact intrinsic motivation and interest (Deci & Ryan, 2000).

Organismic integration theory (OIT) addresses the topic of extrinsic motivation in its various forms, with their properties, determinants, and consequences (Deci & Ryan, 1985). Broadly speaking, extrinsic motivation is behavior that is instrumental—that aims toward outcomes extrinsic to the behavior itself. Causality orientations theory (COT), the third mini-theory, describes individual differences in people’s tendencies to orient toward environments and regulate behavior in various ways (Ryan & Deci, 2000). COT describes and assesses three types of causality orientations: the autonomy orientation in which persons act out of interest in and valuing of what is occurring; the control orientation in which the focus is on rewards, gains, and
approval; and the impersonal or amotivated orientation characterized by anxiety concerning competence (Ryan & Deci, 2000).

Basic psychological needs theory (BPNT) elaborates the concept of evolved psychological needs and their relations to psychological health and wellbeing (Deci & Ryan, 1985; Maslow, 1943). BPNT argues that psychological wellbeing and optimal functioning is predicated on autonomy, competence, and relatedness (Deci & Ryan, 1985). Therefore, contexts that support versus thwart these needs should invariantly impact wellness. The theory argues that all three needs are essential and that if any is thwarted, there will be distinct functional costs (Ryan & Deci, 2000).

Goal contents theory (GCT) grows out of the distinctions between intrinsic and extrinsic goals and their impact on motivation and wellness (Deci & Ryan, 1985). Goals are seen as differentially affording basic need satisfactions and are, thus, differentially associated with wellbeing. Extrinsic goals, such as financial success, appearance, and popularity/fame, have been specifically contrasted with intrinsic goals, such as community, close relationships, and personal growth, with the former more likely associated with lower wellness and greater ill being (Ryan & Deci, 2000). Relatedness, which has to do with the development and maintenance of close personal relationships, such as best friends and romantic partners as well as belonging to groups, is one of the three basic psychological needs (Deci & Ryan, 2000; Maslow, 1943).

Relationships motivation theory (RMT), the sixth mini-theory, is concerned with these and other relationships and posits that some amount of such interactions is not only desirable for most people but is essential for their adjustment and wellbeing because the relationships provide satisfaction of the need for relatedness, competence, and relatedness needs of the other (Deci & Ryan, 2000; Self-determinationtheory.org, 2018).
Critics of Self-determination Theory

Calder and Staw (1974) argued that while present experimental evidence is inconclusive, it does provide a basis for further research, making note that any future research should focus more attention on the operationalization of intrinsic motivation as a dependent variable. They cited Deci (1971) and Lepper et al. (1973) as having used persistence on a task as their single measure of intrinsic motivation and suggested that there are other indicators that can and should be used in assessing intrinsic motivation. Calder and Staw suggested the most obvious indicator is reported task satisfaction, since one certainly should like a task if he is willing to perform it for no other apparent reward.

Reiss and Sushinsky (1975) presented findings that disconfirm the over-justification hypothesis since they demonstrated that extrinsic reinforcement can increase subsequent interest in a behavioral activity. They conducted two experiments related to the affect that reward can have on intrinsic motivation. The participants were 32 first grade girls between the ages of 6 and 7. Experiment 1 demonstrated that a decreased play effect can be produced for listening to a song when one trial of non-contingent, promised reward is provided. Experiment 2 demonstrated that when multiple-trial, contingent reinforcement procedures were provided, the decreased play effect did not occur, indicating that such reinforcement led to increased interest in playing the song.

The Eisenberger and Cameron study (1996) claimed the negative effects of extrinsic rewards on task interest derived from the Deci study (1971) are not necessarily valid, as they do not take into consideration that conditions manufactured in laboratory settings that produce these effects are not true reflections of situations in the real world, providing a counter argument to Deci’s negative effects theory.
Rationale for Using Self-determination Theory

Deci and Ryan’s (1985) theory of self-determination provided a sophisticated model for examining the phenomenon of low SD in undergraduate college students. By positing that people have three innate psychological needs (competence, relatedness, and autonomy), this model argues that if these needs are met, individuals will grow and function optimally. Competence refers to a search for control of an outcome, while relatedness addresses the desire to interact with and experience caring for others (Calder & Staw, 1974). Autonomy is the universal urge to be the causal agent in one’s own life (Calder & Staw, 1974). Scholars investigating low SD can assess the strength of these needs and possible methods to improve the desire for these needs when examining or working with undergraduate students. Further, the nuanced perspectives of the many scholarly contributors to this theory provided the researcher with a deep array of contexts and findings to consider when analyzing the causes of and possible remedies for under-performance by undergraduate college students.

College faculty need to develop a knowledgeable awareness of the varied dimensions of intrinsic and extrinsic motivation existing among their students and then devise innovative teaching practices, processes and strategies to help improve levels of student SD and learning. Flora (1990) submits that as instructors can more systematically improve learning by understanding implications for teaching, they can also systematically improve students’ motivation during specific tasks by understanding how motivation theories explain students’ motivation during those tasks.

Application to the Study

At the heart of SD is the relationship existing between an individual’s intrinsic and extrinsic motivation. As such, the Deci and Ryan (1985) SDT provides a robust framework for
formulating and investigating each component and element of this case study. It supplies an explicit statement of theoretical assumptions, connects the study to existing knowledge, provides a basis for use of the case study method, and will allow for making generalizing observations about the low SD phenomenon. Armed with this theoretical framework, the researcher was positioned to investigate the phenomenon under study in an informed, discerning, and analytical manner. Importantly, interview data collection gave voices to the participants in this qualitative case study, thereby supporting the reliability and validity of the case study findings.

**Conclusion**

A 2012 survey conducted by the Gallup Poll News Service reported that nearly one-half of respondents express doubt that college students are prepared for work or ready for work, bolstering the assertion by Mongillo and Wilder (2012) that far too many underperforming undergraduate students are enrolled on US college campuses. These students exhibit a phenomenon of low SD that leads to low academic achievement while attending college. While much SDT research has been conducted and sizable resulting literature exists since Deci’s seminal 1971 experiment, this phenomenon is appearing on college campuses unabated. Unchecked, this problem will pose hurdles for these students to achieve a successful lifetime outcome.

The objective of this qualitative research study was to examine the existing SDT literature to discover useful findings while conducting in-depth interviews with contemporary classroom instructors to obtain their perspectives on how to address this problem. This blended approach within the SDT framework resulted in the opportunity to discover meaningful and effective innovative pedagogical teaching practices that can be used to ameliorate this detrimental underachievement phenomenon. The following chapter provides a review of the
existing knowledge, methodological contributions, and substantive findings relating to the significance and consequences of low SD, its causal factors, and attempted remedial actions taken to improve it.
CHAPTER TWO: LITERATURE REVIEW

For years, far too many undergraduate college students have been observed to consistently exhibit very poor class attendance, possess a bad attitude, and/or lack will to turn in assigned homework or attend scheduled exams (DeCastella et al., 2013). Teacher experience has shown that a high proportion of this student population will perform poorly on exams that they do complete (Dobele, Gangemi, Kopanidis, & Thomas, 2013). These sub-par academic “achievements” are, for many students, accompanied by their lack luster, laissez-faire attitudes and behaviors (DeCastella et al., 2013).

Low levels of SD exist unabated among too many undergraduate students (Mongillo & Wilder, 2012), causing great concern among those in academics as well as for the parents of such students. Reflecting on the significance of this issue, much exploratory literature has emerged over the past several decades in which researchers have examined this phenomenon from perspectives, including the significance and consequences of low SD observations, its varied causal attributes, and prospective instructor remedial actions. The intent of this literature review was to investigate pedagogical tools that faculty can employ to ameliorate this significant problem.

This research study was conceived and structured to answer the following question: How can college faculty make use of innovative pedagogical practices that will result in the recognition of higher rates of SD being exhibited by underperforming undergraduate students? To optimally position researchers to investigate and discover answers to this question in an informed manner, they must develop a clear understanding of the significance and consequences of low SD, learn its history and causes, and review previous research efforts set forth with an objective to improve low levels of SD. Accordingly, this chapter begins with an introduction that
informs how the research objective has contributed to the formation of the literature review. This is followed by a review of the methods and tools that were used to search and mine through the prior scholarly investigative research studies relating to the topic of low SD. Discussion then focuses on highlighting three overlapping strands of researched literature that relate to common themes about low student SD: (1) significance of and consequences of low SD, (2) causes of low SD, and (3) researched tools aimed to improve low SD and their limitations.

This literature review serves to illuminate the need for further investigation of new and improved pedagogical tools that faculty can employ in an effort to alleviate this sub-par student motivation problem (Machi & McEvoy, 2012). When employed, such tools will serve to better position these students to deliver stronger, self-determined academic performances which, in turn, will lead to better pathways to their career and lifetime success. In the process of examining the various contexts of this performance problem, the literature review focused on undergraduate students but also incorporated studies involving elementary, secondary school, and students with disabilities when appropriate. Terms, such as intrinsic motivation, extrinsic motivation, underachievement, underperforming, and regulation, were employed in order to search for literature in various academic databases, including EBSCO, ERIC, JSTOR, Academic OneFile and Academic Search Complete.

This literature review applied focus on three separate, distinct, yet intertwined, strands of literature related to turning around underachieving undergraduate college students. First, literature that explores the significance of student low SD and its consequences was examined (Maslow, 1943; Oleck, 2007; Omar Jasmine, & Fauziah, 2013; Sanacour, 2008).

There are many factors affecting the gravity and consequences of low student SD. This underachievement shortcoming can be observed by instructors via classroom interaction with
affected students and also through the examination of their consistently poor average academic performances (Sanacour, 2008). On many days, faculty members who are frustrated with the lack of motivation shown by many students will participate in long, discouraged conversations with each other about these student shortcomings (Sanacour, 2008). It is clear that this lack of SD can be identified in all subject areas; however, as reading and writing skills will be applied to every academic dimension, shortcomings found in these skill areas are often a hot topic of discussion (Sanacour, 2008). Empirically, an unfortunate but often seen outcome of this issue is that many students are academically dismissed, drop out, or graduate without the basic motivation and skill set that is necessary to be successful in society and in the employment/business world (Omar et al., 2013).

The second strand considered literature that investigated and examined the causes of low SD in undergraduate students (de Charms, 1968; Deci, 1971; Deci & Ryan, 1985; Maslow, 1943; Ryan & Deci, 2000). Central to this strand is the notion that an individual’s behavior is regulated by some measure of intrinsic (internal) motivation while being affected to varying degrees by extrinsic (external) motivation, which was first hypothesized by de Charms in 1968. Deci and Ryan (1985) extended the work of de Charms by developing the formal definition of SD theory that more clearly distinguishes between intrinsic and extrinsic motivation. Their theory informs that intrinsic motivation reflects an internally-driven curiosity, interest, and passion, whereas extrinsic motivation refers to doing something because it leads to a separable outcome (Deci & Ryan, 1985).

The third and final strand of literature examined the previous scholarly research works that were conducted to test the effectiveness of SD improvement tools and reflected on their successes and failures (Brown, Castor, Byrnes-Loinette, Bowman, & McBride, 2016; Cleland,
Knight, Rees, Tracey, & Bond, 2008; Flunger, Trautwein, Nagengast, Lüdtke, & Niggli, 2017; Sierens, Vansteenkiste, Goossens, Soenens, & Dochy, 2009).

Numerous efforts have been undertaken to identify improvement tools that can be employed to strengthen low student SD. In recent years, researchers have responded to the traditional teacher-centered approach to education by arguing that the instructor’s role should be evolving from the expert who controls and imparts knowledge to that of a facilitator, thereby better fostering deep student learning (Brown et al., 2016). While gaining popularity, this student-centered learning model appears to have experienced more success when being applied to a highly motivated group of students than with less motivated students (Flunger et al. 2017). This result occurred because implicit in this model is the expectation that students will actively lead learning activities and participate in discussions (Flunger et al., 2017). In a related recent study that is also aligned with student initiative, Sierens et al. (2009) applied focus to a domain of self-regulation called self-regulated learning. This learning theory describes how an individual will take control of and evaluate her own learning and behavior (Sierens et al., 2009). The authors stated that teachers should provide help, instructions, and expectations in an autonomy-supportive way if they want to assist their students with the adoption of self-regulated learning behaviors. Their study found that structure was associated with more self-regulated learning only under conditions of moderate and high autonomy. Therefore, the authors advise that when teachers want their students to evaluate themselves, to plan their study activities, and to think about themselves as learners, the teachers are encouraged to provide help, instructions, and expectations in an autonomy-supportive way. In a stark contrast to these preceding studies, Cleland et al. (2008) highlighted in their work the failure by some educators to report the underperformance of students. These scholars pointed out that without accurate teacher
feedback, students who repeatedly underperform may continue with little guidance or improvement. This context may often be overlooked in a research study of this type that applies its focus to the identification of remedial teaching tools. Clearly, absent the possession of accurate and current knowledge of who the underperforming undergraduate students are, such tools would be employed by instructors inefficiently in a shotgun type manner rather than being applied directly to specific low SD students (Cleland et al., 2008). This review continues with a summary of the literature used as a basis for this research study.

**The Significance and Consequences of Student Low Self-determination**

Underlying this research investigation was the empirical realization that low SD is a behavioral characteristic that leads to poor and underachieving individual performance on universal fronts. Several studies have examined this problem using focus groups, surveys, interviews, and phenomenological methods (Alt, 2015; Bond, 2016; Brunet et al., 2015; de Charms, 1968; Dickinson, 1989; Flora, 1990; Kayis & Ceyhan, 2015; A. Martin, 2014; Perin, 2013). With respect to student academic achievement, a poor performance outcome will tend to pigeon hole a student into a lower performer category that will quite likely portend to a destiny of low achievement lifetime outcomes (Nag & Snowling, 2011). Solving this problem presents a challenging task as in a classroom, the student motivation levels seem to vary with their personalities; some have clear strong goals while others have weak, obscure ones (Shyan, 2016). Not surprisingly, Perin (2013) informed that, because of the lack of a sustained research agenda to date as well as methodological flaws in existing studies, there is still much to be learned about the skills of under-prepared students. His findings bolster the argument for further meaningful and sustained research. The significance and consequences of low levels of student SD were discussed next.
Significance of Student Low Self-Determination

A major and ongoing concern for the well being of undergraduate students exists as, importantly, many studies suggest that questionable behaviors and weak academic performance displayed early in a career (often as early as college) may not disappear with age, maturity, or even intervention (Arawi & Rosoff, 2012; Gray, 2013). Many academics have regularly observed this continued type of behavior being exhibited by students during their careers (Sanacour, 2008). These findings about an individual’s continued poor behavior are concerning since, at its foundation, a person’s behavior and individual choices should be grounded in one’s desire for self-esteem per Maslow (1943) who considered lower-level esteem needs as the need for the respect of others through status, recognition, and attention. His seminal Hierarchy of Needs further highlights the paradoxical nature of low SD, as in this hierarchy he made use of basic terms, such as safety, belonging, love, and self-actualization to describe the patterns of human motivational behavior. Logically, administrators, faculty members, scholars, and parents would prefer to see that all individual students hold a desire to pursue and achieve these basic needs (Komarraju Musulkin, & Bhattacharya, 2010). Any behavior that moves in a contrasting direction appears to be counterintuitive, self-damaging, and clearly detrimental to one’s future development and growth (Maslow, 1943).

Higher self-esteem has been directly connected to an individual’s social network, activities, and psychological health, whereas lower self-esteem has been linked to outcomes, such as depression, health problems, and antisocial behavior. Furthermore, self-esteem during adolescence can be affected by a variety of factors, including age, race, ethnicity, puberty, body weight, gender, and involvement in activities with some disagreement existing in the literature as to whether it is a stable or changing characteristic (Myers, Willse, & Villalba, 2011).
On a related front, studies show that low levels of SD can also be caused by a student’s fear of failure (DeCastella et al., 2013). All students, even the seemingly unmotivated, care about being seen as competent and able in the eyes of others (Kayis & Ceyhan, 2015). And yet, despite the undeniable benefits of trying hard, effort can place students at risk. While success without trying can indicate that one has talent, failure following effort is often viewed as compelling evidence that one lacks ability. As a result, in various contexts and situations in which students would be concerned with the implications of failure, they can seek to avoid such failure by succeeding, or they can manage these fears by altering the personal meaning of failure (e.g., by expecting the worst or by controlling the circumstances that bring it about (DeCastella et al., 2013). Clearly, implications that will arise from a person’s innate fear of failure can be far-reaching and will likely permeate a wide range of experiences and situations from one’s period of adolescence through adulthood, leading to a scenario of repeated underachieving outcomes.

**Consequences of Low Self-Determination**

Invariably, each study examined aligns with the concept of SD providing students with the skills and abilities needed to make choices, make decisions, problem solve, set and attain goals, self-advocate, and independently perform (Ankeny & Lehmann, 2011; Deci & Ryan, 2000; Cavazos et al., 2010; Elliot, 2016; Gray, 2013; Lepper et al., 1973; Liu et al., 2014; K. Martin et al., 2014; Project 10 Transition Education Network, 2017; Shyan, 2016; Ward, 1999). In contrast, the various studies proceed to look at and examine this issue by concentrating on differing consequences of low student SD (Auerbach, 2002; Myers et al., 2011; Nag & Snowling, 2011; Oleck, 2007; Peters & Boxtel, 1999; Sanacour, 2008; Shyan, 2016).

Skills and knowledge are essential to an individual’s development. When applying focus to the necessity of lasting skills and knowledge, Banerji (2007) stated that college graduates will
need much more cross-disciplinary knowledge and an advanced set of communication and analytical skills to apply that knowledge to real-world problems. Plainly, this assessment of recent and future college graduates paints a rather grim portrait for all parents and is a particular source of disappointment to parents of first-generation college students who are eager to see their offspring seize the opportunity to be “first achievers” in college (Wouters et al., 2014). Related research has shown that a steady supply of parental assistance and encouragement is one of the most important indicators of students’ educational desires (Auerbach, 2002; Wouters et al., 2014). Despite such herculean parental efforts, inevitably some parents will encounter the circumstance of taking out a college loan for four years only to see their child graduate with a very low GPA or even worse drop out of college altogether (Wouters et al., 2014).

In yet another context, the issue of student attrition is a widespread problem for all universities. For example, in Australia, attrition is serious in domestic and international student cohorts with 20% of domestic students and 10% of international students not proceeding to their second year (Dobele et al., 2013). Either of these outcomes would be deemed to be highly disheartening to any parent who desired an improved future quality of life for their offspring (Martinez, Sher, Krull, & Wood, 2009; Oleck, 2007). While these studies do provide valuable insight into the academic consequences of low skill development and knowledge accumulation for students as well as high attrition rates, unfortunately, they fall short in regards to pointing out the longer term, chronic, and life experience results and consequences that are linked to this problem.

With a view to the future, one survey-oriented study involved a research poll taken of employers that found that 63% say college graduates lack the essential skills to succeed in today’s global economy and are ill prepared for post-graduation life responsibilities (Banerji,
Gray (2013) informed that low SD can lead to both poor academic performance and student attrition that, in turn, can expose individuals to myriad life quality issues in their roles as students, family members, and employees. Further access to and success in higher education significantly impact occupational stability and mental wellness in the United States, with higher levels of education contributing to increased employability and wellness (Tate et al., 2015). In a related context, Peters and Boxtel (1999) informed that underachievement, which they defined as the discrepancy between ability and achievement, may present a problem when individuals are administered an intelligence test. Poor testing on the part of students can mean that they are often faced with rather dismal post graduate options and career choices that typically deliver lower compensation and benefits (Gray, 2013). These sub-par career enrichment levels can lead to a lower quality of life in habitat, safety, healthcare, and mental health. Relationships involving marriage, child-rearing, social friendships, and retirement planning will be compromised (Mongillo & Wilder, 2012).

The examination of prosocial acts representing a shift of focus to an alternative context is discussed in a study by Weinstein and Ryan (2010). These scholars reported that autonomous social behavior delivers a different perspective of the negative consequences attributable to low SD. They stated that SDT posits that the degree to which a prosocial act is volitional or autonomous is a predictor of its effect on well being. The authors further advised that as psychological need satisfaction mediates this relation, low levels of SD will arguably reduce the likelihood that an individual will derive benefit from such prosocial acts (Weinstein & Ryan, 2010). Examples of prosocial acts include voluntary actions, such as sharing, comforting, rescuing, and helping. The broader consequences of this behavioral problem in this context will
be a lower volume and frequency of offered and delivered prosocial acts that is clearly detrimental and disappointing relative to the good of society.

**Conclusion**

In review, this body of research attests to the damaging impact of low levels of SD for undergraduate college students. The potential negative lifetime effects and consequences experienced from a student’s time in academia to migration to the workforce and beyond are extremely discomforting for those affected and their constituents. Given the contrast that exists between the obvious onerous consequences and the natural instinct for human self-esteem, it seems paradoxical that some individuals would exhibit low desires for self-improvement and achievement. While it is unrealistic to hold an expectation that all individuals will possess an identical high degree of SD, it is nonetheless disheartening to academics, family members, and employers to experience interactions with underperforming, lower-level SD individuals who do not display a desire to learn, grow, and achieve. The next section discusses the identified causes of low student SD.

**Causes of Low Self-determination**

Humans represent imperfect beings who possess a broad and diverse range of behaviors, characteristics, feelings, emotions, and other tendencies. There are myriad reasons why individuals will manage their daily responsibilities and tasks as well as longer term planning and goal setting in divergent and contrasting ways (Maslow, 1943). These reasons are discussed below in the context of SDT via the examination of scholarly research studies and findings aimed at identifying the forces that lead to low SD. These studies were conducted in examination of this problem in a variety of ways including the use of focus groups, surveys, interviews, and phenomenological methods (Beidas, Khateb, & Breznitz, 2013; Carton, 1996; de Charms, 1968;
Deci & Ryan, 1985; Kenrick Griskevicius, Neuberg, & Schaller, 2010; Kucukoglu, 2012; Lepper et al., 1973; Li et al., 2015; Malmberg Parkarin, Vasalampi, & Jari-Erik, 2015; Maslow, 1943; McDougal & Donoghue, 2002; Prins & Schafft, 2009; Ryan & Deci, 2000; Washburn Joshi, & Cantrell, 2010).

At a fundamental level, SD refers to an individual’s inherent growth tendencies and psychological needs (Deci & Ryan, 1985). Maslow (1943) arguably laid the ground-work for SD research when he formulated his hierarchy of needs that included a list of basic and advancing needs including physiological, safety, love/belonging, esteem, and self-actualization needs that he indicated should be sought by all individuals. In reflection, Kenrick et al. (2010) informed that it appears to be a natural evolution that curious and concerned psychologists, social scientists, and academics have followed Maslow’s (1943) landmark publication with further investigative research studies in an attempt to analyze why individuals exhibit and possess differing amounts of SD that is the internal human engine that drives its host to achieve Maslow’s needs (Kenrick et al., 2010).

In the research area relating to varying degrees of intrinsic motivation, de Charms presented the theory of personal causation in 1968 in which he summarized in a statement that man is at the origin of his behavior, further informing that human behavior arises from the individual person, and people strive to remain in control of their own behavior. DeCharms even distinguished between the state of being free, referred to as Origin and the state of being under another’s control referred to as Pawn. When examining the research relating to the causes of lower SD, prior scholars have generally been focused on discovering why individual students appear at different locations on the Origin–Pawn scale, with particular curiosity as to what causes positionality in the Pawn category.
Extrinsic Rewards

Earlier studies were followed by more recent investigations in regard to their application of focus to the relationship between intrinsic and extrinsic motivation and the affect that introducing rewards would have on this interaction. The studies found that, to varying degrees, extrinsic rewards, such as receiving praise, recognition, or monetary payments, could serve to undermine an individual’s level of intrinsic motivation for the rewarded activity (Calder & Staw, 1974; Carton, 1996; Deci, 1971; Deci & Ryan, 1985; Deci et al., 1999; Dickinson, 1989; Flora, 1990; Kucukoglu, 2012; Lepper et al., 1973; Ryan & Deci, 2000; Ryan et al., 1983; Wiersma, 1992). More specifically, the findings by Deci et al. (1999) suggest that reward procedures requiring ill-defined or minimal performance will convey task triviality, thereby decreasing intrinsic motivation, while requirements of specific high task performance will have the opposite effect. Presenting a contrasting view, Carton (1996) informed that many social-cognitive researchers warn not to use tangible rewards in applied settings and to use praise instead. Carton further suggested that three factors: (1) temporal contiguity (an association formed by two stimuli experienced close together in time), (2) the number of reward administrations, and (3) stimuli associated with reward availability, provide explanations for the differing effects of tangible rewards and praise on intrinsic motivation.

Autonomous vs. Controlled

Staying consistent with the analytical theme of internal versus external behavior, both autonomous and controlled motivation have been investigated by Brunet et al. (2015) and Li et al. (2015). Both of these studies examined how the absolute amounts of autonomous motivation (AM) and controlled motivation (CM) were differentially associated with positive and negative outcomes in a way that generally matched the extent literature and theoretical hypotheses of
This analytical approach also revealed that the degree of agreement between AM and CM and the direction of differentiation between AM and CM added to the interpretation of the associations between motivation and several behavioral, self-regulation, and emotional outcomes in academic and health contexts. One can observe how this contemporary study builds off the seminal work by Deci, Ryan, and other scholars who were concerned with the impact of external motivation in reducing intrinsic motivation. Malmberg et al. (2015) investigated situation-specific (intrapersonal) experiences of autonomous and controlled motivation across learning situations during one week and how these were related to students' teacher-rated academic performance and task-focus. Their study used repeated situational reports collected in real-time during one week of school. This study provided important insights into the “ups-and-downs” of everyday learning experiences close in time to the events the students reported on, providing a unique window into students' learning experiences. At both the within- and between-levels, this study replicated previous findings concerning the positive association between autonomous and controlled motivations along the lines posed in the SDT. Going beyond previous studies, these scholars found substantive within student variability in motivation during a week, suggesting that students' autonomous motivation could be “switched on or off” depending on the level of controlled motivation in that situation. These 2015 findings indicate that generally the less innate control and motivation a person has, the lower will be her level of SD.

Michou, Matsagouras, and Lens (2014) investigated whether autonomous and controlled situational achievement motivation function as mediating processes through which dispositional achievement motives are manifested in affective and behavioral outcomes. Structural Equation Modeling with three student samples (Greek N = 440; Belgian N = 283; German N = 264) indicated that need for achievement related positively to positive affect and adaptive studying
strategies via autonomous motivation. In contrast, fear of failure related positively to negative affect and negatively to adaptive studying strategies via controlled motivation. Individual student dispositional achievement motives were directly related to affective outcomes verifying their affect-base as argued in motivation theories.

**Social Impairments**

Social impairments to developing SD have been researched culminating in the identification of a variety of social circumstances, conditions, or characteristics that are believed to be sources and causes of this low SD condition. An example of one such identified characteristic relates to those students who belong to a minority ethnic community, particularly one that has experienced a history of persecution and discrimination (Emler, 2009). This author indicates that such a student population tends to have less family support, more concerns about financial aid, and may be less prepared for college due to receiving poor academic training in high school and developing lower critical thinking skills prior to college. Relatedly, Prins and Schafft (2009) contributed from their research that in interviews with 30 family literacy practitioners in Pennsylvania, it was found that many attributed persistence mainly to individual qualities, such as motivation. These practitioners often described learners in terms reminiscent of the culture of poverty thesis, an explanation of poverty positing a unique value system supposedly held by poor people that prevents their economic mobility. In many cases, the practitioners identified limited local opportunity structures, such as the prevalence of low wage jobs and formidable structural deterrents to persistence, such as a lack of transportation and child care (Prins & Schafft, 2009). Clearly, these conditions can be seen to stand alone or combine in a fashion that will be detrimental to the development and employment of high levels of SD and associated skills. In a similar context, first-generation college students represent another
demographic that is often faced with less than adequate parental support, insufficient financial resources, lower self-esteem, and a negative framing by college administrators into a category of low achievement students (Gray, 2013). Often such students emerge from low-income households and as a result have or will feel the need to work long hours at part-time jobs to pay for overhead, such as food and clothing and study materials (Briscoe, 2005). Briscoe further pointed to an additional societal cause of lower levels of SD by providing her analysis of the marginalized group effect on levels of SD. Her argument presented that some members of marginalized groups, such as urban, low-income minority individuals who have been historically persecuted and oppressed, may not react positively to a teacher who is perceived to come from a privileged background. Such an instructor may not be able to effectively motivate this student group in contrast to the higher motivational outcome that an instructor from a peer group could likely achieve.

Disability, Mental and Cognitive Impairments

Disabilities, mental disorders, and cognitive impairments are another frequently identified cause of low SD. McCarthy, Treadway, and Blanchard (2015) pointed to a condition referred to as anhedonia, which is described as one’s inability to derive pleasure from activities that are usually found to be enjoyable as a possible cause of low motivation/SD. At the heart of higher levels of SD, an individual will eagerly desire and seek the pleasurable feelings of high self-esteem, a sense of accomplishment, and enjoyment derived from economic and social returns accruing from high level performances. Individuals who lack the ability to derive such pleasures are not positioned to perform in high motivation-oriented activities (McCarthy et al., 2015). A perhaps related behavioral condition exists wherein some students possess a fear of
failure from which they lack confidence in their abilities or are afraid of the ridicule they may receive owing to their failure (DeCastella et al., 2013; Kayis & Cethan, 2015).

On a different mental/disability investigative platform, the question of which cognitive impairments are primarily associated with dyslexia has been a source of continuous debate. Beidas, Khateb, and Breznitz (2013) conducted a study relating to the impact of dyslexia on young adult cognitive abilities. Their research involved 69 young adults who were with and without dyslexia. These participants were administered a battery of tests measuring their reading skills and a number of cognitive abilities. The dyslexics were found to exhibit a generally poor cognitive profile, including their attention, visual working memory, and naming. The authors found that reading disabilities, such as dyslexia, a specific learning disability that affects an individual’s ability to process written language, are estimated to affect 15%-20% of the general population. Additional characteristics that can be found in individuals with this condition are weak visual perception and speed of processing abilities (Duncan & Johnston, 1999). Liva and Fijalkow (1994) informed that dyslexia is caused by a variety of factors, including genes and heredity, brain anatomy, and brain activity.

Clearly, an individual student who is affected by one of these types of impairments would be hampered in any undertaken performance of self-determined activities in contrast to a student who is lacking such impairments. The studies conducted by Chan et al. (2014), Tong and Deacon (2013) and Turnock et al. (1998) assist in shedding more light on several additional disabilities having an effect on an individual’s level of SD. Chan et al. (2014) pointed to another type of disability that encumbers SD: myopia, a visual impairment caused by some form of uncorrected refractive error. The word structure and word order-oriented study by Tong and Deacon (2013) found that poor comprehenders will have intact word-reading skills but will struggle specifically
with understanding what they read. These authors investigated whether two metalinguistic skills, morphological and syntactic awareness, are specifically related to poor reading comprehension by including separate and combined measures of each. The two groups studied performed comparably on a morphological awareness task that involved both morphological and syntactic cues. However, poor comprehenders performed less well than average comprehenders on a derivational word analogy task in which there was no additional syntactic information, thus tapping only morphological awareness and less well on a syntactic awareness task, in which there were no morphological manipulations. These findings suggest that the relationships among reading comprehension, morphological awareness, and syntactic awareness depend on the tasks used to measure the latter two and that future research is needed to identify precisely in which ways these metalinguistic difficulties connect to challenges with reading comprehension. Each of these deficiencies is representative of the types of major obstacles that an affected student will need to work to overcome in order to perform in a motivated and achieving fashion while attending college.

Shifting focus to literature relating to another type of disability, Attention Deficit Hyperactivity Disorder (ADHD), the Turnock et al. (1998) study of 151 university undergraduate students led to a finding that indicated students who self-reported high symptoms of ADHD made use of significantly fewer academic coping behaviors than their low-symptom peers. Furthermore, the authors informed that people with symptoms of ADHD struggle, by definition, across a variety of settings and that the nature of ADHD symptoms makes academic environments particularly aversive to those with this disorder. Throughout their schooling, and independent of differences in IQ, ADHD individuals tend to have more academic problems. Yet another perspective related to the brain/mental disability causation of lower SD was delivered in
the McDougall and Donohoe (2002) study of which findings reported that there are differences in the long-term memory contribution to span performance as a result of differences in reading ability as well as increases in age. Differences in memory span between reading ability groups differed in accordance with the length and frequency of the words presented for recall. The effects of word length on memory span disappeared when differences in speech rate were taken into account. However, differences between groups remained for low frequency words and non-words.

**Inadequate Teacher Training**

A lack of teacher training was investigated by Washburn et al. (2010) who pointed to lack of teacher training and competence as a factor that can result in weaker academic performances by college students, especially those affected by a learning disability. Cited outcomes occurring as a result of poor teacher training include a weak and poorly managed classroom learning environment, poor homework and exam performance, slower development of critical thinking skills and a higher rate of attrition. The authors indicated that student complaints and low scoring teacher evaluations are often observed as an outcome of poor teacher performance. The main conclusion of the Harris and Sass (2012) study is that elementary and middle school teacher productivity increases with experience (learning by doing), but formal training acquired while teaching generally does not enhance the ability of teachers to boost student achievement. Like much of the prior literature, they found that early-career experience significantly enhances teacher productivity and that the effects of experience extend beyond the first few years in some subjects and grades. The study findings also reinforce evidence from prior literature that found that attainment of advanced degrees does not improve teacher productivity. Middle school math was the only subject/grade-level combination in which the authors found obtaining an advanced
degree promotes the ability of a teacher to boost student achievement. Harris and Sass (2012) also found that in-service professional development has little or no effect on the ability of teachers to improve student learning outcomes. Lethaby and Harries (2016) explored whether the current practice of training teachers to assess and accommodate learning styles is harmless or potentially poor educational practice. Their study findings suggest that, although learners do express preferences for how they learn, teacher training time would more profitably be spent on helping trainees to teach using ideas that do have some basis in research into learning, rather than on asking trainee teachers to attempt to identify and teach to varied learning styles.

**School/leisure Conflict**

Yet another identified casual area of low levels of student SD is school/leisure conflict. The issue of school/leisure conflict was examined by Ratelle et al. (2005) who reported that the dilemma caused by a student’s school/leisure conflict can be associated with underachieving academic outcomes, including poor concentration at school, academic hopelessness, and fewer intentions of pursuing in school that, in turn, were associated with higher levels of depression and low life satisfaction. In contrast, the Webber, Krylow, and Zhang (2013) study reported that students who spent more time preparing for class or otherwise engaging in academic tasks earned a higher GPA and reported higher satisfaction with their overall academic experience.

Staff, Schulenberg, and Bachman (2010) informed that students working more than 20 hours per week perform worse in school than youth who work less. These authors attributed this lower performance to work taking time away from activities that promote achievement and a spurious relationship existing between paid work and school performance, reflecting preexisting differences between students in academic ability, motivation, and school commitment. Any academic can relate to experiences of frustration with situations in which student athletes and
other students involved in extracurricular activities or employment will forgo academic study and diligence by electing prioritization of these ancillary activities. Based upon the above literature review, a generalized categorization of the causes of low SD follows in the next section.

**Identified Categories of Causes**

This literature review identified 18 categories of causal factors behind the occurrence of lower levels of SD. From an intrinsic perspective, individuals who, paradoxically, do not desire to pursue Maslow’s (1943) basic and advancing needs of physiological, safety, love/belonging, esteem, and self-actualization needs represent a category of deep concern to many academics due to the fundamental nature of these needs. In a second intrinsic category, de Charms (1968), via his theory of personal causation, expanded upon Maslow’s hierarchy, emphasizing that people vary intrinsically in striving to maintain control of their behavior. Emanating from the seminal Deci and Ryan (1985) book that more clearly outlined the specific categories of intrinsic and extrinsic motivation, several authors have expanded upon this work citing findings in which extrinsic rewards did result in reduced levels of intrinsic motivation. Brunet et al. (2015) and Li et al. (2015) also looked at this internal versus external relationship in finding that different mixtures of autonomous and controlled motivation will portend to alternative behavioral, self-regulation, and emotional outcomes.

Four social (extrinsic) categories of causes for low SD were established: (1) membership in a minority ethic community (Emler, 2009), (2) learners affected by the value system of the culture of poverty thesis that prevent economic mobility (Prins & Schafft, 2009), (3) first-generation college students lacking financial resources, adequate parental support, and self-esteem (Gray, 2013), and (4) low-income household status (Briscoe, 2005).
The intrinsic disability, mental and cognitive impairment category of causes includes anhedonia (the lack of the ability to derive pleasures), a fear of failure, dyslexia, myopia, individuals lacking syntactic and morphological awareness, ADHD, and differences in long-term memory contribution (Beidas et al. 2013; Chan et al., 2014; Duncan & Johnson, 1999; Kayis & Cethan, 2015; Liva & Fijalkow, 1994; McCarthy et al., 2015; McDougal & Donoghue, 2002; Nag & Snowling, 2011; Tong & Deacon, 2013; Turnock et al., 1998).

Another identified member of the extrinsic category of causal factors for low SD is an unqualified or privileged teacher who may be an untrained, incompetent, or out-of-touch teacher who is not able to motivate her students (Washburn et al., 2010). Lastly, a quasi-intrinsic/extrinsic causal factor of low SD arises from school/leisure conflict that is characterized by situations in which students prioritize their extra-curricular activities over their academic work and responsibilities (Ratelle et al., 2005).

Conclusion

The literature synthesized in this section provides discovery that there is a broad range of causes of lower SD spanning 18 identified categories. This outcome provides a clear indication of the complex and intricate mosaic of causes, including behavioral, biophysical, mental, institutional, programatic, economic, prejudicial, societal, and physically challenged causes of lower SD. Furthermore, there may be some students who are affected by a combination of these factors. While acknowledging the contributions of these scholars in their attempt to increase effective student learning with a diagnosis of the causes of sub-par student achievement, the prevailing sub-par performance levels linked to lower levels of SD in undergraduate college students dictates that newer, more effective, and novel teaching methods must be developed to address and improve these critical motivation behaviors. For scholars, academics, and scientists,
this diverse and complex list of causes presents both challenges and opportunities. While clearly there is no one-size-fits-all remedy to cure low SD in college students, there is ripe opportunity to work to identify pedagogical tools and methods that can be employed in a targeted manner to ameliorate the effects of these individual causal factors.

**Research Strategies to Improve Low Self-determination and Their Limitations**

Given the breadth of identified differentiated causes of low SD, it was not surprising to discover that there is also a wide and diverse scope of research efforts that have been undertaken to improve it (Kenrick et al., 2010). For researchers, this finding provides a signal that there will not be a single “silver bullet” solution that can be applied to remedy all cases of underperformance found in undergraduate college students. Following in this section is a review of the prior research studies and investigations that were set forth to investigate how to improve low SD, followed by a discussion of the limitations of these studies and their findings.

**Self-determination and Academic Performance**

The connection of SD with academic performance was highlighted in several research studies. Investigating with an objective of seeing motivation improvement, Tamsen and Livingston (1999) conducted a study to examine differences between high undergraduate student achievers and low undergraduate student achievers in the use of self-regulated learning strategies. SDT uses the term internalization to describe the process by which behaviors become more autonomously regulated (Deci & Ryan, 1985). Tamsen and Livingston advised that self-regulated strategy use involves the ability to monitor and regulate one's own learning and strategy use, one's propensity for using elaboration, organization, and critical thinking strategies to facilitate the learning process and one's propensity to manage effort expenditure and external resources, such as peers, teachers, and the environment, to facilitate the learning process. Self-
regulated strategy use is thought to be the keystone of academic achievement. The authors shared their finding that lower achieving students reported less use of these strategies, indicating that if teachers and academic counselors can just encourage them to use these strategies, these students can improve their academic achievement. Strategic effort and self-regulated learning are hard work, however, and the question to future researchers then becomes: how can students be encouraged to use these strategies? Some possible answers are: (1) to enhance self-efficacy, students can be provided with opportunities to be successful on academic tasks; (2) students need to be given constant reminders that they are in control of their academic fates; (3) teachers and counselors need to emphasize the relevance and value of academic tasks; and (4) teachers need to emphasize learning rather than grades or performance (Tamsen & Livingston, 1999). In a more recent investigation on self-regulation by Sierens et al. (2009), the authors suggested that structure was associated with more self-regulated learning under conditions of moderate and high autonomy support only. Therefore, when teachers want their students to evaluate themselves, to plan their study activities, and to think about themselves as learners, the teachers are encouraged to provide help, instructions, and expectations in an autonomy-supportive way. Within SDT, autonomy support implies facilitating and encouraging students to pursue their personal goals and supporting students' endorsement of classroom behaviors (Sierens et al., 2009).

Achievement goals were also investigated by Kayis and Ceyhan (2015). Their study informed that the theory of achievement goals was developed to explain how the achievement level of individuals can differ even with the same intelligence and ability level. According to this theory, the reason for different levels of success in individuals with the same ability and level of intelligence stems from the different forms of motivation and goals they set in order to be successful. The authors discuss how the goals of individuals attained toward success and their
unique forms of motivation for being successful are closely related to each other. In other words, the goals of individuals attained toward success can significantly affect their level of motivation while they deal with academic tasks. In this context, the theory of achievement goals is expressed as a cognitive, affective, and behavioral process that includes the purposes an individual wants to achieve during fulfillment of an academic task. Therefore, it is understood that achievement goals are forms that include the different dimensions of an individual’s personality and psychological characteristics (Kayis & Ceyhan, 2015).

Another informative study relating to academic achievement was delivered by Gray in 2013. This researcher conducted tests to determine whether a school attitude assessment survey instrument would be able to differentiate between gifted achievers and gifted underachievers. The test measured five factors: (1) the differences in academically able achievers’ and underachievers’ academic self-perceptions, (2) attitudes toward teachers, (3) attitudes toward school, (4) attitudes toward goal valuation, and (5) motivation/self-regulation. The study sample consisted of 176 gifted high school students in Grades 9 through 12 from 28 school districts across the nation. Gray informed this was a convenient sample of school district volunteers and it is not necessarily representative of high schools nationwide. The district contact people used the following definition to identify achieving and underachieving gifted students in their districts: Gifted achievers were in the top 10% of their class or had at least a 3.75 GPA. Gifted underachievers were in the bottom half of their high school class or had a GPA at or below 2.5. Both groups had an IQ score or achievement score at or above the 92nd percentile. According to these criteria, the final sample contained 56 gifted underachievers and 120 gifted achievers. Although these definitions are not universally accepted, they allowed Gray to examine two distinct groups of students: those who were, by conventional standards, succeeding in school,
and those who were not achieving at a level commensurate with their expected abilities. Many of the students in the sample had been identified for gifted programs in elementary school. The sample consisted of 101 males, 72 females, and 3 students who did not indicate their gender. Female achievers were roughly equal, and there were approximately three times as many male underachievers as there were female underachievers in this sample. Results showed that for each of the subscales that exhibited unequal variances, the gifted underachievers displayed greater variances than the gifted achievers. The mean differences between the achievers and underachievers’ attitudes toward teachers, attitudes toward school, goal valuation, and motivation/self-regulation were statistically significant. The differences between the gifted achievers and the gifted underachievers on these four subscales exhibited moderate to large effect sizes, with gifted achievers exhibiting higher means than gifted underachievers on each of these four subscales. Gray indicated that the test results show that this instrument could differentiate between gifted achievers and gifted underachievers; therefore, its use as a research instrument seems justifiable. It was her hope that this instrument will permit researchers to more fully understand the relationship between these identified factors and underachievement in gifted and non-gifted populations. She was optimistic that this instrument will provide educators and psychologists with a new tool to identify adolescents who may be at risk for underachievement. She advised that isolating factors that contribute to the academic underachievement of adolescents is the first step toward reversing adolescent underachievement. Any instrument that can help educators to combat these problems merits further exploration and development.

Tapping into Maslow’s (1943) hierarchy of needs, Liu et al. (2014) conducted a study that applied the cluster analytic approach to profile junior college students’ motivation and learning strategies and examined the cluster differences in their basic needs satisfaction,
behavioral regulation, intrinsic motivation, and academic grades. The sample of the study consisted of 238 junior college students from 12 intact classes. Two adaptive clusters and two maladaptive clusters were uncovered, with the adaptive clusters showing better academic grades. Results showed that the four clusters differed significantly in their needs satisfaction, behavioral regulations, enjoyment, effort, and value. The findings supported the importance of needs satisfaction in the development of self-regulated learning behavior. Operating from a related yet different sphere of motivation, the Yesilyurt, Ulas, and Akan (2016) study findings indicated that an increase in academic self-efficacy will cause an individual’s performance-avoidance goal orientation level to decrease. These authors found that performance-avoidance goal orientation is negatively related to self-efficacy, academic self-efficacy, and teacher self-efficacy. At the same time, their study identified that there is a positive correlation between academic self-efficacy and academic performance. In light of these research findings, these authors suggested that teachers, school managers, and psychological counselors can benefit from the results of these studies to improve the learning environments of students and to increase their motivation. They argued that in such environments it would be helpful to provide opportunities to students for cooperation and to organize activities that encourage learning in order to position students to adopt the most adaptive achievement goal orientation profile: mastery-approach goal orientations. They advised that school counselors can organize activities to increase students’ level of academic self-efficacy, high standards, order-concerning perfectionism, SD and internal locus of control. Yesilyurt et al. (2016) advocated that activities that might reduce levels of irrational belief, discrepancy, and dissatisfaction concerning perfectionism will cause an increase in a student’s motivation level.
How Instructional Practices Affect Self-determination

Liva and Fijalkow (1994) conducted two experiments to determine if teaching poor readers to use inner speech could improve their reading and writing. In the first experiment, there were eight third-grade children, four in the experimental group and four in the control group, matched from a pre-test of reading. In the experimental group, the children were trained to use inner speech in 27 tasks, from explicit self-speech of the adult and of the child to implicit self-speech by the child alone. The results showed significant differences between the two groups in the post-test of reading. In the second experiment, there were six students in second grade, three in the experimental group and three in the control one. In the experimental group, the children were trained to use inner speech in 18 tasks: 6 cognitive tasks that do not require short-term memory as in the first experiment, 6 reading tasks, and 6 writing tasks. In the experimental group, the children were trained to use self-speech to process the tasks whereas, in the control group, the adult's help was mostly visual. The results were that the experimental group succeeded significantly better in the post-tests of reading and writing indicating that incremental benefits accrued to those receiving the task training.

Brown et al. (2016) informed how traditional teaching is based upon a teacher-centered approach in which teachers are the gatekeepers of knowledge whose job is to convey their knowledge to students through a lecture. In recent years, researchers have responded to this approach with an argument that the instructor’s role should evolve to that of a facilitator. For its proponents, student-centered learning can result in a more dynamic and collaborative learning experience. Active students, as opposed to passive students, are more engaged and interested in their learning. Thus, a learner-centered education is an important step toward increasing student SD (Brown et al., 2016). More research on collaborative learning design was described in Bond
in which he discussed a course that was designed as a research collaboration among the students and instructors. The instructors first created a list of several broad topics related to the Internet. As a group, the students and instructors brainstormed approaches to each topic. Each student was then assigned two of the topics and was required to find three readings on each topic, using the results of the brainstorming session. The students summarized each reading in a blog post, and all students were required to read each other’s summaries. The students synthesized their three readings on each topic in concept maps, in which they broke down each of the articles and drew connections between them. The students who researched each of the weekly topics formed a panel of experts who led the class. Following the panel presentation weeks, groups of students collaborated on final projects of their choosing and design in which they explored some aspect of the Internet in depth. The role of the instructors in this arrangement was that of a facilitator who was to provide input and feedback on the presentation planning and class discussions. Laal (2013) informed that a series of basic elements should be met to qualify a learning process as collaborative learning, including positive interdependence (an obligation to rely on one another to achieve the common goal), considerable interaction (members help and encourage each other to learn), individual accountability (members are held accountable for doing their share of the work), social skills (members are encouraged to develop and practice trust-building, leadership, decision-making, and communication), and group self-evaluating (Laal, 2013).

Psychological and Behavioral Research and Experiments

The intrinsic and heterogeneous foundations of SD on their own make locating a single cure for its lacking an impossible task. As a compounding factor, there exist numerous exogenous influences that add further layers of complexity and obstacles to defining a singular
remedy for low student SD (Alt, 2015; Ankeny & Lehmann, 2011; Auerbach, 2002; Beidas et al., 2013; De Jonge & Kemp, 2012; Martinez et al. 2009; Prins & Schafft, 2009; Tate et al., 2015). Accordingly, this section of the literature review seeks to examine the variety of scholarly research studies that have explored alternative tools or methods that might possibly work to ameliorate this performance problem.

Shifting to discussion of research regarding impaired students, Ankeny and Lehmann (2011) conducted an examination involving four students with disabilities enrolled in a secondary transition program located at a community college who were interviewed to learn more about their transition experiences. One of the issues they touched on was SD. The journey toward SD for the four students was indeed formative and complex, with the study findings suggesting that faculty and administrators must honor and complement and sometimes assume the families’ role in modeling and promoting goal-directed behavior. The authors reported that academics must consider the needs of students who do not have those role models in their homes, explore methods to assist students in understanding their particular disability, and seek how to effectively explain it to others. Moreover, they counseled that professionals should promote programming that supports the formative process of SD, including providing opportunities for students to experience risk. Lastly, they suggested that school personnel should seek to incorporate an attentive, reflective, and celebratory dimension to their interactions with students. To that end, it is important to realize that all students with disabilities need similar opportunities to develop SD: to know themselves, value themselves, plan, act, and experience outcomes and learn (Ankeny & Lehmann, 2011). Four suggested areas of practice that are related to this model and that influence the process of becoming self-determined are: (a) promote self-knowledge, (b) complement the SD skills that are fostered at home, (c) increase opportunities to
take risks, and (d) provide opportunities for reflective practice (Ankeny & Lehmann, 2011). In another impaired student study, the Farmer et al. (2015) research study investigated the impact of The Personal Strengths Program (PSP) on seven college students with learning disabilities and/or attention deficit hyperactivity disorder (LD/ADHD) using a multiple baseline design. The authors informed that students with LD/ADHD experience increased challenges in school settings and decreased post-secondary outcomes when compared with their peers without disabilities. Their research findings indicated that students who are able to transition into post-secondary settings successfully often have higher levels of SD than those who do not transition as successfully. PSP is grounded in effective teaching practices for students with LD/ADHD, SDT, and positive psychology. It utilizes guided cognitive strategy instruction to assist students in identifying and using their strengths to achieve their goals related to their academic classes.

Social Research Experiments

Investigations conducted from a social context are typically demographic oriented. One such investigation is the 2006 research study conducted by Griffin that has provided greater insight into attribution theory and how it applies to Black students and their motivation patterns. She found that, although these students had high expectancies and made internal attributions at levels similar to their White peers at the beginning of college, the longer Black students were enrolled in higher education, the less likely they were to make internal attributions for their academic failures. These observed decreases are described as being connected to the academic difficulties many Black students face early in their college careers and suggested that these students were able to protect their self-esteem and stay motivated by making external attributions about the causes of these difficulties. Griffin found that Black students who made external attributions for their lower academic outcomes had higher levels of academic motivation than
those who made internal attributions for failure. Those students who made external attributions for failure but internal attributions for success were the most likely to exhibit high levels of academic motivation. Griffin added that, although these studies clarify the relationship between the internal-external attribution patterns, self-esteem, and academic motivation, there is still little knowledge of how Black students' beliefs about the permanence and controllability of their academic outcomes impact their motivation. That said, she advised that academics must challenge any racist and classist thinking that may suggest the so-called “at-risk” students do not have the same desire to succeed as other more affluent students and must be “policed.” Further, Gray (2013) reported that professionals must counter the belief that low-income, first-generation, students of color families do not value education. Regarding a different demographic group, the Cavazos et al. (2010) study involved interviews with 11 Latina/o college students with a research objective of providing insight into the kinds of coping responses they used to overcome academic challenges. The authors employed eight coping strategies, including positive reframing, acceptance, self-talk, maintaining focus on final goals, using low expectations as motivation, self-reflection, taking action, and seeking support. Based on their study’s findings, the authors recommended that college professors and high school teachers use assignments that will allow Latina/o students to reflect on their personal and academic experiences. Such assignments could include (a) writing about obstacles to higher education, (b) identifying personal factors that have facilitated their academic success, and (c) recognizing their idiosyncratic coping responses that allowed them to overcome challenges.

**Faculty Development Research**

Faculty members spend the most time with students on college campuses and thus have a significant effect on student learning and development. O’Sullivan and Irvy (2011) presented a
model for research that focuses on two areas of practice: the community of participants who are working in faculty development programs and the community of teaching practice in the classroom. This joint focus facilitating a synergy between faculty program development and faculty engaged in teaching presents the potential for incremental improvement in faculty teaching performance (Aronson, Chittenden, & O’Sullivan, 2009; O’Sullivan & Irvy, 2011).

Another study constructed from a faculty practice perspective presents Becker et al. (2005) discussing the Faculty Practice Plan (FPP) at a Maryland-based school that provided the infrastructure to identify, facilitate, and manage these practices. The FPP has several key features. First, FPP members are all full-time faculty members of the School of Nursing (SON). Second, all FPP members who are advanced practice nurses are internally credentialed by both the SON and the partnering agency and approved by the Maryland State Board of Nursing. Third, the SON managed all revenues and expenditures related to FPP activities. Membership in the FPP was limited to those faculty members whose practice agreements generated salary, benefit, and overhead for the FPP. Participating faculty included all nurse practitioners and several clinical nurse specialists. The advanced practice community health nurses who practiced in the nurse-managed centers with limited and/or non-sustainable funding were not members of the FPP. Faculty who developed private practices were exempt from the plan as were consultative services offered by individual faculty members. What does not vary is the value of these practices. Faculty practice:

- Provides educational opportunities for students
- Provides practice sites for faculty
- Enhances clinical competence of faculty
- Provides research opportunities for students and faculty
• Generates revenue
• Provides care and resources to underserved communities

These studies provide an important reminder that the faculty scholar must continually address these criteria in the outcomes of her faculty practice. Ultimately, she must remember that the primary mission of faculty members is providing student education. Unprepared faculty will provide a poor environment for student SD and learning outcomes. As an example, the practice scholar may address the scholarship of discovery by identifying new practice knowledge or engaging in the development, implementation, and expansion of programs of scholarship for faculty and students (Becker et al., 2005).

**Non-reporting of Underperformance**

Cleland et al. (2008) indicate in their medical student study that an overlooked contributor to ongoing low student SD is non-reporting of student underperformance. Without accurate feedback, students who repeatedly underperform may continue with little guidance or help. These students are likely to ultimately fail or become incompetent doctors. What are the barriers to reporting underperformance in medical students? The authors identified four common explanations behind reluctance to fail: lack of documentation, lack of knowledge about what to document, anticipation of an appeal, and lack of remediation options. Evaluating the performance of students is important, as it reflects their learning and provides guidelines and feedback on their achievement. Moreover, as lot of resources are being spent on student education; therefore, it is very important to investigate the factors affecting the students’ learning (Suryadarma, Suryahadi, Sumarto, & Rogers, 2006). Without responsible underperformance reporting, such students will be abandoned and left to proceed through life without the
opportunity to benefit from remedial processes to improve their low SD (Cleland et al., 2008; Elliott, 2016).

**Group Work Experiments**

Beccaria, Kek, Huijser, and Rose (2014) advised that in higher education, establishing group work assignments is a teaching method to develop and foster group work skills. They argued that not only is group work an important teaching method to develop effective group work skills, but it is also used to activate deep learning. This study aimed to examine the interrelationships between students, group work characteristics, and their approaches to learning. The authors reported that developing skills necessary for group work requires educators to consider interventions that introduce students to the concept of group work, provide strategies in overcoming issues commonly encountered, and help them reflect on their own role as group members. This may be facilitated by encouraging students to reflect on their own strengths and weaknesses and encouraging them to develop strategies to enhance time management and goal setting as individuals and as a group. The authors suggested that the use of learning contracts may be a useful educational strategy as a group tool for students prior to commencing the task to help them plan and organize the task as a group. These scholars advised that designing a group work skills development program, topics or modules that teach students to reflect on their own strengths and weaknesses as well as strategies to enhance time management and goal setting as individuals and as a group is essential. Furthermore, post-graduation, a large number of today's students will work in international groups as part of their future professions, suggesting the ability to work effectively in culturally heterogeneous groups should be an integral part of a student's competence (Popov, Brinkman, Biemans, Mulder, & Kuznetsov, 2012). From an e-learning perspective, the 2011 study conducted by Adel examined student rapport building
through group work. Study findings concluded that building rapport is clearly an important element of the learning process for online students who use a range of different discourse functions to achieve it.

**Information Technology Research**

Alt (2015) reflected in his study on the generation of students attending colleges today. Known as the “Millennials,” they possess characteristics that are typically attributed an information technology mindset. Millennials are described as having a focus on social interaction and connectedness with friends, family, and colleagues by using Short Message Service (SMS), mobile phones, chat-rooms, and email while they simultaneously play computer games. Alt suggested that, with relation to college students’ learning processes, his study could illustrate the role of motivational constructs in explaining social media engagement, when the latter is not harnessed for pedagogical purposes. He hoped this might encourage a future discussion related to Millennials’ investigation of new instructional approaches incorporating social media usages into current pedagogical applications. Alt suggested the future work should evaluate the context in which social media is being used for learning purposes and its possible impact on learning motivations.

Hammer and Swaffar (2012), in reviewing the use of electronic media-based education, provided an investigation of the impact of a German television program on changes in 4th semester German students’ reflections on cultural perceptions over the course of one semester. In this study, 69 students at the University of Texas at Austin watched 4 episodes of the popular German television program *Lindenstrasse*. After viewing, students were asked to reflect in written response papers on cultural features and patterns of behavior and on cultural differences and similarities. The study findings suggested that students’ perceptions of another culture can become more sophisticated when being exposed to authentic filmic material and
asked to reflect in writing about observed plot features and cultural manifestations. Hammer and Swaffar indicated the key to securing these results is to follow a strategy for assessing not just students’ recall of cultural content but also their strategic competencies in negotiating cultural difference. Changes in students’ cognitive styles were tracked in the study by use of a scale that rewards students’ strategic ability to manage details of cultural knowledge and sociolinguistic content, including the following categories: (a) rhetorical organization, (b) content, (c) comparative point of view, and (d) interpretive substance. The study provides a model for the assessment of cultural competency, which can be adapted to assess students’ engagement with the culture represented in various materials. The benefits of using electronic media instruction to enhance student learning requires further research as a possible tool to turn around and improve lower levels of student SD (Hammer & Swaffar, 2012).

**Community College Research**

In a community college research study, K. Martin et al. (2014) reflected on how these colleges represent a vital component of the US postsecondary education system, serving 45% of all US undergraduates in Fall 2012 (American Association of Community Colleges, 2014). This qualitative study included interviews of community college graduates, faculty, and staff members from a large, public community college in the Southeastern United States. The students in this study were found to have the following characteristics in common: clear goals, strong motivation and a drive to succeed, ability to manage external demands, and self-empowerment. The researchers found that the typical predictors of low college persistence, low cultural capital, academic underpreparedness, and access may be overcome by community college students with the entry characteristics of having the ability to manage external demands, clear goals, self-empowerment, and motivation. The study results indicated that the students in the study who
lacked cultural capital or academic preparedness were able to compensate with self-direction, motivation, and development of new support systems. In other words, it seems that having a well-defined college plan was the predictive factor in community college student success (K. Martin et al., 2014). A community college study by Fagioli, Rios-Aquilar and Deil-Amen (2015) discovered that certain forms of online engagement have a distinct relationship with particular academic outcomes, including GPA and student persistence. While citing their findings as a major step, these authors advised that their study points to the need for further research to verify such relationship dynamics.

**Conclusion**

The most significant limitation to this review of the previous literature relating to how low SD in undergraduate students can be improved was the constraint on generalizability in faculty remedial efforts and future research efforts. Several of the research studies examined were limited to study participants from a single demographic group, such as dyslexic, Black, students with disabilities, Latinos, unprepared faculty members or low-income students. Furthermore, while several other studies identified specific behavioral characteristics that researchers and teachers can focus on improving, a high proportion of low SD students will likely possess a combination of different behavioral and demographic characteristics. As a result, this literature review identified several areas in need of further exploration. These areas include researching a remedial improvement method(s) that can be applied successfully to a wide spectrum of underperforming students. Arguably, this more generalized method(s) may be the most significant goal, as it would provide benefits to the largest number of affected students. Also important is to identify enhanced demographic-specific improvement tools that can be employed in an effort to turn around and improve the performance of these low SD students.
The college experience for many undergraduate students is found to be challenging from a variety of perspectives. In addition to being away from home for the first time, facing the maturation process that exists in college life and dealing with financial, social, marginalized group and disability pressures, many undergraduate students are academically challenged due to low motivation. This section of the literature review examined the wide breath of prior research efforts undertaken to try to improve student SD in response to the broad range of its causal factors. While some encouraging findings were discovered in these studies, there remains on an annual basis a high proportion of college students who enter and leave college with unchanged low SD that informs that more research is required to identify better and improved remedial tools and processes.

**Summary**

This literature review has highlighted the significance of low student SD on students’ lifetime outcomes. The seeds of low SD are often planted very early in an individual’s lifetime. Experience shows that people are born with various degrees of SD. Where perspectives and focuses differ somewhat is on the causal factors of this problem and recommended remedial actions that could be taken to ameliorate it. This analysis serves as a reminder that one must tread carefully when assessing a problem, its root causes, and possible remedies at face value. While this problem may be fairly singular in context, its likely causes and remedies are certainly multifaceted in scope. College faculty members need to develop a knowledgeable awareness of the varied dimensions of intrinsic and extrinsic motivation existing among their students and then devise better innovative teaching practices, processes, and strategies to help improve levels of student SD and learning. As faculty members can more systematically improve the learning experience, they can systematically improve students’ motivation during specific tasks by
understanding how motivation theories explain students’ motivation during those tasks (Flora, 1990). Acting in synergy, each strand of literature has combined to highlight the necessity of gaining a greater understanding of the causes of low SD in undergraduate college students as well as to explore the development of robust and far reaching pedagogical improvement tools and processes that can be used to increase low levels of student SD. The following chapter provides a description of the study, the research question, and the method chosen to complete this study.
CHAPTER THREE: RESEARCH DESIGN

The aims of research in this particular doctoral program is to examine a complex problem of practice, generate knowledge from data gathered at the research site, and provide context and strategies for introducing systemic change to help resolve the problem of practice. The purpose of this study was to examine how faculty members can make use of innovative pedagogical teaching practices that will lead to higher rates of SD being exhibited by underperforming undergraduate students at a private, four-year college in Boston, Massachusetts.

Research Question

The overarching research question this study strived to answer was: How do college faculty members make use of innovative pedagogical teaching practices that result in the recognition of higher rates of SD being exhibited by underperforming undergraduate students at a private, four-year college in Boston, Massachusetts? This investigation was motivated by the need to increase the level of SD used by these students when participating in their academic endeavors in order to position them to attain academic success and to help ensure achievement in their future career paths and lifetime pursuits.

Qualitative Research Approach

A qualitative research approach was used to investigate this question. Qualitative research begins with inquiry using broad, general questions in pursuit of the how and why. Based upon the philosophy of phenomenology, which focuses on individuals’ experiences from their own perspective, qualitative researchers seek a comprehensive and complete understanding of the phenomenon that is under study (Roberts, 2010). Qualitative research positioned this researcher to conduct a naturalistic inquiry, using his experience and background in a manner that informs him about the lived experiences of the participants in their knowledge, opinions,
perceptions, and behaviors. In this study, qualitative research was used to examine and explore innovative teaching and instructional practices that faculty can employ to improve the low level of SD that is inherent in underperforming undergraduate college students. The researcher attempted to develop a holistic picture of instructional remedies that can be applied to this low SD phenomenon in an environment and context that cultivates in-depth, empowered, and open-ended faculty interviews with minimal tension between participants and the researcher (Roberts, 2010). The interviews included asking questions of faculty participants that permitted them to reflect upon their experiences with low SD undergraduate students and also enabled discussion of viable remedial instructional practices that will help to alleviate this performance problem.

A case study strategy within the constructivist-interpretivist paradigm was the approach used in this qualitative research study, as it permitted the researcher to explore this SD phenomenon contextually from a variety of data sources (Baxter & Jack, 2008). Constructivists believe that truth is relative and that it depends on one’s perspective, while interpretivism allows researchers to view the world through the perceptions and experiences of the participants. Specifically, this strategy enabled the researcher to explore the low SD issue through a variety of lenses that allowed for multiple facets of the phenomenon to be uncovered and understood (Baxter & Jack, 2008). This paradigm permitted a focus on individual perspectives, experiences, and behaviors leading to a refined and rich level of data collection. It enabled the researcher to develop an understanding of how faculty members think and feel about low SD in their students and how this problem can be overcome. Another advantage of this approach was the development of close collaboration between the participant and the researcher (Baxter & Jack, 2008). These authors advise that use of the case study method is appropriate if the research is intended to answer how and why questions, the researcher cannot manipulate the behavior of the
participants, contextual conditions are relevant, and the boundaries are not clear between the phenomenon and the context (Baxter & Jack, 2008). Having met these criteria supports the selection of this research method.

As this case study approach entailed that the researcher must take time to consider the unit of analysis in formulating the research questions (Baxter & Jack, 2008), it assisted the researcher in determining that he wanted to ask questions that help to analyze what pedagogical processes, techniques, methods, or tools can be utilized to ameliorate this low SD phenomenon. Data collection was comprised of 12 interviews with full-time faculty members at a private, four-year college in Boston, Massachusetts. This was a single-site case study containing embedded units (Baxter & Jack, 2008) designed to allow the researcher to gain a better understanding of the described phenomenon from the perspective of multiple faculty members who were teaching a variety of course types. This embedded method allowed for comparisons within the subunits, between the subunits, and across the subunits, leading to a rich, case-illuminating analysis within the SDT lens. Using the lens of SDT, the data analysis was conducted using protocols that included a transcription of the recorded interviews and coding, categorizing, and clustering of the data into themes to develop and refine an interpretation of the interviews.

**Participants**

Purposeful sampling of qualitative study participants involves selecting participants who can best inform the research questions and enhance understanding of the phenomenon being studied (Seidman, 2013). To gain an understanding of the essence and lived experiences of the participant in phenomenological interviewing, Seidman recommended use of a series of three interviews covering: (a) the life history of the participant, (b) the details of the participant’s experiences of interest, and (c) reflections of the meaning of experiences. For this study, an
examination of how faculty members can use pedagogical tools to enhance student SD, the interview participants were identified with the assistance of the Office of Academic Affairs using purposeful sampling. Forty-one full-time faculty members, ranging from 28 to 66 years old and representative of diverse ethnic and socioeconomic backgrounds are employed at the institution’s four schools: School of Management and Communications, School of Liberal Arts and Sciences, School of Social Sciences, and School of Human Services & Health Professions. The researcher sent a letter of intent to the 41 full-time faculty members. Twelve full-time faculty participants were selected on a first response basis, using a criterion that the participant pool be equally distributed across the four schools. The sampling technique employed represents a homogenous purposive sample (Palinkas et al., 2015) wherein all the participants share characteristics of being a full-time faculty member and educator of undergraduates. A sample size of 12 study participants was constructed as, given the aim of the study, sample specificity, use of an established theory, expected quality of dialogue and analysis strategy, this sample size was expected to deliver “information power” (Malterud, Siersma, & Guassora, 2016). These authors informed that information power indicates that the more information the sample holds, relevant for the actual study, the smaller the number of participants is needed. In reviewing the five criteria set forth by these authors, the researcher felt that all criteria applied to this study examining methods to improve low student SD, given its objective, faculty-specific sample participants, use of the established and respected SDT, anticipated high quality dialogue, and the selected strategy. As this study applied focus to a singular issue, a single case study with embedded units was appropriate, as it revealed the differing participant perspectives regarding approaches to be taken to increase low undergraduate student SD (Baxter & Jack, 2008). Further, as this was a case study, the researcher interviewed participants two times individually and
jointly in a focus group. Therefore, 12 faculty participants resulted in 25 interviews. This case study was bound by the definition of low SD and in context by the comprehensive experiences of the institution’s faculty members in teaching underperforming undergraduate students.

**Setting**

The research site was a small, urban college housed in six-story brownstone buildings located in the affluent area of Boston’s historic Back Bay. Founded in 1903, the college first opened its doors in the city of Somerville, Massachusetts, serving working-class immigrants. The institution’s founders launched the school because they felt that unskilled immigrants should have the opportunity to move on to higher-level career opportunities. To this day, the school is proud of its heritage of assisting the disadvantaged in achieving a college education that will lead to a successful career and lifetime outcome. The college’s mission is to improve lives by providing students with the knowledge and skills necessary for a lifetime of intellectual and professional pursuits. The participant population for this study was comprised of faculty members who regularly teach a four-course load semester in one of the college’s four schools. This approach provided for a variety of course types within multiple academic disciplines to be included in the study, creating a rich platform for data collection. This embedded case study method allowed for comparisons within, between, and across the academic departments, leading to a rich, case-illuminating analysis within the lens of SDT.

**Data Collection**

Two one-on-one, open-ended, semi-structured digitally recorded interviews were conducted with each faculty member participant. A positive aspect of this interview approach was its feature of providing participants with the opportunity to tell their own story in their own words that revealed a holistic variety of experiences, concerns, and perspectives concerning the
issue under study (Baxter & Jack, 2008). A possible deficiency was the inability of a participant to fully recall experiences and circumstances taking place in the distant past. Subsequently, a focus group meeting was held with all of the participants in order to assess, compare, contrast, and identify similarities and differences in responses to achieve data source triangulation that facilitated attainment of data validation through cross-verification from two or more sources. Documentary data was collected from the institution’s College Student Inventory, which asks entering students to self-report their level of confidence in academic subjects and their motivation. Additional data were collected relating to student failure and withdrawal rates in freshman classes at the institution.

**Procedures**

To conduct this research study, the researcher obtained written permission from the Vice President of Academic Affairs at the research site to conduct this study with faculty participants at the institution’s campus/facilities. This signed document was part of an application packet submitted for approval to the Northeastern University Institutional Review Board (IRB). Following this approval, the process of identifying and enlisting study participants commenced in cooperation with the Office of Academic Affairs. The letter of intent helped to ensure that study participants were made aware that their participation was voluntary. They were notified via email of their scheduled interview times to ensure timely arrival and were informed that they had the option to discontinue participation at any time. The letter also informed the participants that their names and identities would remain confidential during the study period, stipulated how, why, and where the data would be used and that information obtained during the study might be disseminated in a public document that they would have access to. Each study participant was asked to sign an informed consent document stating that they understood their rights within the
parameters of the study. The letter of intent was read aloud prior to commencement of the interview, and if the participants became uncomfortable in any way, they were permitted to end the interview and leave. Questions were clarified and repeated as necessary and, at their discretion, study participants could decline to answer any questions that made them feel uncomfortable.

Interviews were conducted in person at a private meeting location or alternatively conducted via telephone if necessary. Interviews were conducted as open-ended, semi-structured, digitally recorded interviews with each faculty member participant. During each interview, the researcher maintained a researcher note journal on which to write down any particular participant comments, themes, and facial or body movements that occurred during the interview. Per Seidman (2013), two individual interviews were conducted with each faculty member participant followed by a focus group interview with all participants. The first interview was conducted one-on-one for a period of 90 minutes and began with a review of the study purpose and problem statement and discussion of the informed consent document. It continued with a series of 10 interview questions with an overarching goal of finding answers to the primary research question. During this interview, the participants were able to share their life experiences relating to the research questions and their perspectives on possible answers to the primary research question. The second interview was used to check and review the transcripts compiled from the first interview to ensure accuracy of quotes and themes and lasted approximately 60 minutes. A third 60-minute interview meeting was held as a focus group, meeting with all of the participants to assess, compare, contrast, and identify similarities and differences in responses to achieve data source triangulation that facilitated validation of data through cross-verification from two or more sources. This step helped to minimize any inadequacies found in one interview when
multiple interviews confirmed the same data, provided greater insight into the research issue, and increased the credibility of the data obtained. The interviews were digitally recorded and transcribed. A back-up audio was available. For consistency, individual interviews were transcribed from the audio-recorded interviews using the services of Rev.com. After asking the participants how they identified (Male, Female, or Other), the focus group interview was transcribed from the audio recording with interviewees being named as by gender (Male, Female, or Other) using the services of Rev.com. De-identification was used to eliminate any name or address information. Audio recordings were re-listened to in order to capture nuances and clarifications with transcript editing taking place as needed. The researcher maintained a log of observed emotions, reluctance, sarcasm, and physical movements during the interviews that was noted on the interview transcripts. Each sequential interview served an illuminating role on the next interview, helping to form a bond between the interviewer and participant that helped to frame a connection between the participants’ lived experiences, current positioning, and future goals and objectives relating to the enhancement of SD. The transcription data were coded by the researcher and organized using a computer software program called MaxQDA.

**Data Analysis**

Data analysis consists of a seven-step process. The first step in a single case, phenomenological case study is to transcribe and summarize word-for-word each interview while listening to the digital recording and taking down notes in a separate journal. The second step is to read each interview, immersing in the detail and coding identified themes, events, names, places, or dates. Step three is to analyze the different interviews and find the excerpts marked with the same code and sort them into a unique, separate file. Step four is to sort and re-sort the material within each file, compare the excerpts between the subgroups, then summarize
the results. Step five is to weight the different versions, integrating the descriptions from each interviewee to generate a complete picture. Step six is to combine concepts and themes to generate a theory explaining the descriptions that have been presented. Step seven is to see how far the theory generalizes beyond the individual responses analyzed (Rubin & Rubin, 2012). Through the lens of SDT, this data analysis developed and refined an interpretation of the interviews using the MaxQDA software.

**Ethical Considerations**

Researchers are reminded that at the core of the expectations and obligations involved in a research relationship is assurance that the interviewees will not be harmed as a result of the research (Rubin & Rubin, 2012). An initial step is to be straightforward with the participants, operating in an honest manner without deceit or providing assurances that cannot be kept (Rubin & Rubin, 2012). Further, Seidman (2013) advised that responsible researchers need to be cognizant of pre-existing relationships that may be in place with study participants that could affect the level of disclosure, honesty, or assumptions occurring during an interview. Interviews must be held in neutral, equitable locations and should not impose a power imbalance between the researcher and participants (Creswell, 2013).

**Trustworthiness**

To ensure validity and trustworthiness of interviews, the transcripts were reviewed by the individual participants to confirm accuracy. The researcher maintained reflective journals and field notes to be aware of any observed physical movements made by the participants, interviewer assumptions and biases, or thoughts that may have had influence on the interview findings. Validity was also assured via the data collection triangulation strategy noted above. All participant information was stored and saved on a password-protected computer as well as saved
to a password-protected digital cloud. All researcher notes were saved, password-protected in a backup folder residing on the digital cloud.

The objective of this study was to conduct an exploration of the subjective and personal experiences of the faculty member participants relating to how instructors can pedagogically improve low undergraduate student SD. Important attributes of this study are its credibility, transferability, dependability, and confirmability.

At its core, credibility refers to being trusted and believed in. The researcher ensured that credibility was maintained through the use of three extensive interviews with each participant (Seidman, 2013). Extensive participant engagement was maintained via the introduction to the study and letter of intent, open-ended questioning (which fostered thoughtful and candid responses), individual member-checking debriefing sessions (used to review the accuracy of participant interview transcripts), and lastly, the culminating focus group meeting (used to compare and contrast participant responses and themes). These steps permitted participants to correct errors in incorrect interpretations, volunteer additional information and confirm particular data elements (Creswell, 2013) thereby ensuring data credibility. Furthermore, data triangulation enhanced credibility by helping to confirm data and validate its completeness (Palinkas et al., 2015).

Transferability refers to the degree to which results of a qualitative study can be transferred or applied to other contexts or settings. This objective of this research was to describe the phenomenon under study in sufficient detail, known as a thick description, to permit an assessment of transferability to other settings, times, and situations. This study made use of quotations, examples, and descriptions in order to “show” what was being described so that other researchers will be positioned to determine the transferability of this study’s findings to a similar
context or setting (Lincoln & Guba, 1985). If this study is employed in investigation at a similar academic institution with the same undergraduate low SD phenomenon, using the same theoretical framework, methodology, faculty participant group and interview protocol, that study’s findings should be similar.

Dependability refers to the degree that a study’s findings are consistent and could be repeated (Lincoln & Guba, 1985). The optimal tool to use to meet the dependability test is a disciplined internal audit trail that will allow any observer to trace the course of the study step-by-step via the decisions made and procedures followed (Anney, 2014). This author advised that maintaining a chronological, detailed, and transparent description of the research steps from the start of the research to the research findings helps to ensure dependability and can also assist the researcher in management of the research process.

Confirmability describes the degree of neutrality or the extent to which the findings of a study are shaped by the respondents and not researcher bias, motivation, or interest (Lincoln & Guba, 1985). Shenton (2004) advised that steps must be taken to help to ensure as far as possible that the study findings are the result of the experiences and ideas shared by the informants, rather than the characteristics and preferences of the researcher. Using a reflexive journal is one way to ensure confirmability, as it helps to make visible the researcher’s opinions, experiences, thoughts, and feelings as a transparent part of the research. Shenton also cites data triangulation as significant and as a chronological audit trail as crucial to obtaining findings’ confirmability. A researcher must possess a sound understanding of his positionality to avoid injecting personal biases into the research design, interviews, data analysis, or findings. The next section discusses steps and strategies used to mitigate the effect of researcher personal bias on studies.
Potential Research Bias

Carlton Parsons (2008) held the view of culture as being a set of socially inherited practices that are passed from one generation to the next and as dynamic repertoires that are acquired from prolonged participation in communities. Therefore, the importance of time is embedded. So clearly, personal bias is formed and engrained over one’s lifetime, which can make it exceedingly difficult to shed during a scholarly research project.

My personal beliefs and biases have continued to evolve over the course of my teaching career. Early on, I was a firm believer that a college education can serve as the “great equalizer.” That is, every individual, regardless of socioeconomic background, will have the opportunity to succeed if they work hard at obtaining a college education. This perspective was altered a bit while I was teaching a spring semester undergraduate course during which a co-instructor remarked to me how one very high performing student must have superior DNA. I was initially a bit turned off by this comment, as it was contrary to my perspective of education providing an equal opportunity for all. However, in examining this comment more deeply, I came to realize that the instructor had intended no malice but instead was reflecting on the reality that individuals are born with varying amounts of logic, learning, memory, critical thinking, and problem-solving skills.

While my adjunct teaching career has provided me with experiences at some of the “lofty” Boston area colleges, it has also exposed me to teaching at several of the so-called “second tier” colleges. The contrast between the academic performances of students at these different institutions has been somewhat striking to me. I was invited to join my current institution as a full-time faculty member in 2010 to teach undergraduate-level accounting and finance courses. This position has predisposed me to certain conclusions regarding this problem
of low SD. During my tenure, I have observed that a majority of my students have displayed very sub-par motivation levels and appear to lack the motivation needed to succeed in college. I have personally concluded that this performance outcome can be traced to a variety of factors, including low-income household status, challenging home situations, learning disabilities, less than optimal teaching received at the elementary and high school levels, low innate levels of SD and in some cases, differences in individuals’ DNA.

Briscoe (2005) informed that, as scholars attempt to research and categorize what those being observed have done or experienced, the researcher’s innate positionality will color these research conclusions with personal bias. Briscoe further advised that ideologies are largely constructed according to one’s experiences, which are influenced by one’s demographic positionality. Machi and McEvoy (2012) suggested that if one can rationally identify and confront such internal views, he will be better positioned to manage any such bias in his work. I understood that I must work earnestly to exclude my personal biases when conducting research in this case study relating to the low SD levels of undergraduate students to help to maintain the validity of the research findings. At every stage of the research process, my personal biases were mitigated to maintain the trustworthiness of this study and its findings.

Limitations

This study was conducted using SDT as a lens through which to examine the consequences and causes of low SD in undergraduate college students. SDT was also used as the theoretical framework that was employed in the study to examine possible remedial tools and practices that faculty members can employ to improve low levels of undergraduate student SD. This specific focus prevented the consideration of other factors, such as low student SD in grammar school or high school or how to increase the SD of high performing students. The SDT
framework limits this study’s transferability to settings in which researchers intend to examine this issue using differing theoretical frameworks.

**Conclusion**

This chapter presented the key elements of the study’s research plan starting with the research question that addressed the problem of practice: how to improve low undergraduate student SD. A qualitative research case study approach was used to achieve meaningful insight, discovery, and interpretation of how this phenomenon of low student SD can be improved upon with the use of innovative faculty pedagogical teaching methods. The next chapter describes what was learned from this research process by detailing the interpretations and themes that emerged from the data analysis and foreshadowing how they fit into the broader conversation about how to enhance low undergraduate student SD.
CHAPTER FOUR: FINDINGS AND ANALYSIS

The purpose of this case study was to qualitatively examine how college faculty can make use of innovative pedagogical practices that will result in the recognition of higher rates of SD being exhibited by underperforming undergraduate students. Specifically, the purpose of the study was to discover what novel teaching practices can be employed by faculty that will turn around and improve the SD of underachieving undergraduate students. The theoretical framework of SD situates this study. SDT is a macro theory of human motivation and personality that concerns an individual’s inherent growth tendencies (Deci & Ryan, 1985).

Research Site

This study was conducted at a private northeastern US urban college. The full-time student population averages 680 undergraduate students. Many of the faculty have spent a high proportion of their careers as teachers at the college. The researcher was interested in studying data related to undergraduate student underperformance and then investigating what innovative teaching practices faculty members employ to turn around this underperformance. The goal throughout the study was to give voices to and make sense of the varied perspectives of faculty members with experience in teaching underperforming undergraduate students. The faculty participant interview responses revealed a deep, sincere, and passionate interest on the part of the faculty members in the objective of improving low SD levels existing among the undergraduate students.

Student Survey Data

During the first three weeks of the freshman semester at the college, all first-time in-college students complete a self-assessment called the College Student Inventory (Ruffalo Noel Levitz, 2018). This survey asks students to self-report their level of competence in academic
subjects as well as their motivation and is used as a launching point in this study to begin an analysis of students whose survey results reflect low levels of SD. More specifically, these survey results have been reviewed to identify individual students who scored low in survey questions related to SD characteristics upon entering their freshman year. Of the 190 students who completed the 2016-2017 survey, 103 students were retained by the institution, returning for the 2017-2018 academic year. The remaining 87 students were not retained after the 2016-2017 year, representing a 54% retention rate for the institution. The composite average survey score achieved by the non-returning 87 students was 46%, suggesting a correlation can be inferred between the low student entrance survey score results and the likelihood of non-retention. To position this study to track the typical first year experience of the non-retained students, 10 of these students who had lower student survey scores were randomly selected for further analysis. Their survey data is reported with a display of their individual scores tabulated across the nine motivation-oriented survey categories in Appendix B. Review of this exhibit data reveals poor student scores in fundamental areas, such as study habits, intellectual interests, verbal, math and science confidence and, perhaps most concerning, desire to finish college. It can be reasonably concluded from these data that, if left alone, incoming students who perform poorly on the Student Inventory survey will have a higher attrition rate.

**Academic Performance of 2016 Freshman Class – Non-retained Students**

Following an objective to track this 10-student group’s subsequent individual academic achievements during their freshman year, the academic performance results for these students covering the 2016/2017 academic year were reviewed (see Appendix C). With one student exception in which a 3.0 cumulative GPA was maintained throughout the academic year, the performance of this group was dismal. These types of results are disappointing to
parents/guardians, faculty, and administrators at all colleges. Any of these academic stakeholders would question why the involved students do not put forth a stronger effort to avoid this type of disappointment. Arguably, an intervention is necessary to attempt a turn-around of the academic performance of students inhabiting this group.

**Meet the Faculty Participants**

There were 12 full-time faculty members who volunteered to participate in the study. This group included 3 male and 9 female faculty members ranging in age from 28 to 65 years old. The participants averaged 19 years of undergraduate teaching experience and were eager to participate in this study about a phenomenon causing them deep concern. To ensure protection of their identities, the participants were identified according to pseudonyms. Five participants were employed in the School of Management and Communication, 4 came from the School of Liberal Arts, 2 participants worked in the School of Health Services & Health Professions and the last participant was an instructor in the School of Social Sciences. This researcher conducted individual interviews with each participant during the Fall 2017 semester. All 12 participants were present at the focus group meeting that was held on January 25, 2018.

**Biographies**

Paula began teaching accounting, finance, and management courses at the research site in Fall 2000. She has held adjunct instructor positions at various colleges in the Boston area. She is a Certified Public Accountant licensed to practice accounting in the Commonwealth of Massachusetts, and she has had her own firm since 1988, having working in the field of accounting for over 35 years.

Steven began teaching as an associate professor of mathematics at the research site in 2012. Previously, he was a faculty member at Bryant University for five years. He has also
taught at the University of Louisiana in Monroe and at Truman State University in Missouri. Further, he has led three professional development workshops covering classroom instructional strategies for high school teachers.

Fred joined the research site in August 2015 with the positions of program director and assistant professor in the bachelor's program in management with a concentration in hospitality. His prior college teaching experience includes five years as a full-time professor at Bay State College and 13 years as an adjunct professor of business at Becker College.

Rachel arrived at the research location in 2015 as the program director for the bachelor’s degree in computer information systems. She has previously taught computer science courses at several New England colleges.

Karen began working at the research site as an adjunct in Fall 1997 and has been a full-time instructor since 2000. She directed the tutoring program for three years before focusing exclusively on teaching English. She now specializes in the teaching of writing and also enjoys teaching literature and blended courses.

James, who arrived at the research site in 2009, is an associate professor and acting currently as the program director for the human resource management concentration. He teaches courses in human resource management, operations management, and entrepreneurship. He is the advisor for the college chapter of the Society for Human Resource Management.

Maureen began teaching as an adjunct professor of fashion at the research location in Fall 2014. Prior to her arrival, she taught at Framingham State University, Bay State College, and Rhode Island School of Design’s Young Artists and Continuing Education programs. A diverse work history, including personal shopping, fashion styling, production pattern-making, and as a
retail associate, has allowed her to cultivate the creative and cultural skills needed to engage and inspire her students.

Kelly joined the research site’s faculty in 1989. Since then, she has served the college in a variety of capacities, including director of the medical assisting program, chair of allied health programs and human services, and as chair in the division of accelerated and professional studies in Boston. She currently serves as the program director for health sciences and as an associate professor. Her teaching areas include biology, human biology, anatomy and physiology, human reproductive biology, and nutrition.

Theresa has been teaching various medical assisting courses part-time at the research site since 2006. During the day, she acts as lead faculty and program administrator for the medical assisting program, and until 2009, she was a practice manager at Brigham and Women’s Hospital in Norwood and Foxboro, Massachusetts.

Tracy joined the research site as an associate professor of English in 2016. She primarily teaches English composition with a focus on ESL students and those students who require extra assistance with grammar and composition. She previously taught English courses at Boston University.

Patricia is an assistant professor for the health information programs. Prior to working at the research site, she developed an associate degree program from its conception and successfully earned CAHIIM accreditation for that program. She has served as an advisory board member and adjunct faculty member at various colleges and universities for more than 10 years. Her professional experience spans 25 years in the acute care setting, acute rehabilitation setting, and the health insurance industry.
Ellen arrived at the research site in 2009 and has taught a variety of courses in psychology and human services. She previously worked as a clinician at several hospitals and college counseling centers. Her clinical and research interests are in the areas of multiculturalism, acculturation, interpersonal and social interactions, and mind/body health psychology. Research interests also include social media, and anxiety and mood disorders.

This case study revealed six superordinate themes that emerged from analysis of the data related to research questions 7, 8, and 9 (Appendix D) and 13 corresponding nested themes: The first superordinate theme—raise level of students’ self-esteem—is grounded by two sub-themes: a) provide support omitted by prior educators and parents and b) provide role models for students to follow. The second superordinate theme—place more work in the hands of students—is supported by three sub-themes: a) emphasize teamwork, b) more hands-on projects, and c) flip the classroom. The third superordinate theme—tailor curriculum to students—is grounded by two sub-themes: a) survey student interests and b) understand student backgrounds. The fourth superordinate theme—emphasize self-management and self-efficacy skills—is supported by two sub-themes: a) time management and b) disciplined study habits. The fifth superordinate theme—scaffolding to facilitate incremental learning—is sustained by two sub-themes: a) meet students where they are and b) increase student self-assurance. The sixth superordinate theme—reward for improved performance—is undergirded by two sub-themes: a) verbal encouragement and b) non-monetary rewards.

Superordinate Theme One: Raise Level of Students’ Self-esteem

In his hierarchy of needs, Maslow (1943) developed a clear foundation underscoring the importance of self-esteem being present during every individual’s life. Purkey (1988) informed that some of life’s successes and failures are sometimes related to how individuals view
themselves and their relationships with others. The researcher sensed that each of the faculty participants felt that the feeling of low self-esteem on the part of undergraduate students was a significant and recurring reason for their low SD and poor academic performance during their tenure at college. All faculty participants agreed that raising students’ self-esteem should be a priority. From an early age, parents and educators have a tremendous influence on a student’s development of self-esteem as is discussed in sub-theme one.

Sub-theme One: Provide Support Omitted by Prior Educators and Parents

Interviews. Six out of 12 faculty members responded that in their conversations with many underperforming undergraduate students that these students did not receive positive support or reinforcement from their parents, high school, and grammar school teachers while attending school. Faculty reported that this omission of support was an apparent driver of low self-esteem and academic underperformance in their students. When responding to interview questions relating to student underperformance, Paula, a seasoned professor, stated:

I think a lot of students do have it... I think it's more of a low self-esteem. And because they have such low self-esteem, they're not able to succeed. It's been very prevalent. I think that I've had a lot of students that they try to give up, but if you keep at them ... if you can identify it, then you can help them. Some of them are hard to identify, but if you identify it, then you can help them. I have had a lot of experience with reaching people and trying to find out where can you help them. A lot of them it's ... I've found with a lot of ... I don't mean to be sexist, but a lot of the young males, they don't want to be here to appear stupid. And a lot of them don't want to put a lot of effort into it. So they want to be smart without effort. Once we show them if they can put in a little bit of effort, they can do okay, then they seem to begin to excel more.
I think that's quite prevalent in the student population that we have. I do see it particularly in the students that are first-year, the freshmen. I do see it in the common experience classes. I don't think they really know, some of them. I cannot generalize, but I do see that some of the students do not know why they're here. Some think they're here to play sports versus academics. Surprisingly enough, that's what I hear. I also see students who have very low self-esteem, who think that they're going to fail from day one. So, the determination to succeed kind of dwindles, and they're ready to kind of give up. (Kelly)

Steven, another long-time teacher at this school, supported Kelly’s perspective on student misperceptions:

I believe that it is a prevalent trend that I feel I see in more and more students, that they will have problems of ... They had a tough experience in high school, and they seem to think that's going to self-perpetuate, and they don't seem to have as much confidence of how much they can try and improve their situation. If they didn't learn it before, they act as if they're never going to learn it anymore, and that's one of the things I try to combat in class on a daily basis.

I think that our students often suffer the most from their inability to see that they could do well. I'm not saying in general college students but our students specifically, our students have never been told that they can do well, that they can succeed academically, that they have the ability to do well. So they come in, I think, not feeling so good about their academic achievements, and not assuming that they can do any better. We are looking at a real low self-esteem, sort of low determination as far as like success and the ability to
do well. I think that a lot of our students, that they get Cs and Ds initially, they're happy because they don't think they can do any better, and they also don't feel that they can participate in class, raise their hands, be active members, because they don't have the tools or the ability to do so. (Ellen)

Shifting discussion toward exhibitions of underperformance, Rachel, a computer information systems teacher who has been at this school for 5 years, offered:

> Usually my students who exhibit low self-esteem do not do well in my classes. They do not keep up with assignments or come to class regularly. We often give them work that needs to be completed with a team. They often do not contribute in class or they do very little. These students do not demonstrate teamwork, leadership, or motivation skills. Being able to demonstrate teamwork, leadership, or motivation skills is an academic achievement outcome.

> The faculty participants shared a perception that many students are lacking self-esteem due to the omission of positive support being received from their previous teachers and parents. This exclusion is deemed by the faculty members to contribute to the downstream effects of students lacking the awareness and confidence required to succeed in college. The participants recognized a need to supply essential support to bolster the self-esteem and academic performance of affected students.

> James, a long-time human resources instructor, shared a perspective on how a first-generation student often lacks the necessary support at home:

> The students that we have here probably are the same type of students that I've had in every college that I have worked for. I wouldn't say that all of them have low student self-determination, but due to the fact that they are first-generation college students in
their family, they don't know what to expect. For the students whose parents went to college, they know it all, they're fine, but it's the students of the first-generation that seem to lack the self-esteem and confidence needed to be successful at college. If the parents aren't interested in their school, their self-determination is really going to take a nose dive. My parents were not college educated. I had a very difficult time going through school, because they couldn't help.

**Observations.** The 6 faculty respondents appeared relaxed and at ease during their interviews. Observation of the individual faculty interviews confirmed that the faculty participants shared their open and sincere perspectives relating to many students arriving at the institution without the necessary support structures expected to be provided by parents and prior educators. The researcher perceived a sense of obligation felt on the part of the faculty members to try to intervene in a positive and supportive manner in their students’ lives by delivering key support mechanisms and tools that will permit these students to be successful in their academic work. After discussion of providing support for students omitted by prior educators and parents, the sub-theme that surfaced as a part of the data analysis was a need to provide role models for students to follow.

**Sub-theme Two: Provide Role Models for Students to Follow**

**Interviews.** Findings in the 2011 study by Shein and Chiou showed that the learning styles of students were associated with their role models. After a semester, the learning styles of students became congruent with those of their role models. When responding to interview questions relating to student underperformance, Fred, a seasoned hospitality professor at the college for 3 years who transitioned from a corporate career to teaching, stated:
I see a great deal of that, I think. It shows to me as apathy, general or disinterest in what it is that they're doing. I think it's probably that they have been at risk for some time. I also suspect that if we drilled down further, we would find that they're very often first-generation and lack any role model. I think when you don't perceive the benefit of what we're doing here, that it's very hard to motivate yourself. Again, I can't say enough about the power of example and that somewhere, whether it's a parent or somebody close enough so that the student needs to have had a long-term exposure to someone who has had a positive result and who has bettered their circumstance via education. If they don't have that, they're kind of lost.

Oh, I think it's their lacking a role model in their background ...they really don't understand a lot of what college is all about. They just think you can go to college, and I think a lot of them have not done well in high school, so they think ...they somehow think you don't need that pre-requisite knowledge of high school. I think they're the major problems, but then on the other hand, there are some that have had good families, and they just ... I don't know if they weren't challenged enough in high school or what, but they just don't feel that they can do it. It's an insecurity, I think. (Paula)

Reflecting further support of Fred, Karen, an English professor of 21 years at the college, noted the importance of role models:

I teach English, so I have a lot more liberty to look around for essays that are written by successful people, who look like our students, who have come from the same background as our students do. I try to use very diverse writers in the classroom, so that the students
can relate in that way, and they can also see someone from their own background being very successful, either as a writer, or in another area.

I find that the struggles are partially related to how they were never exposed to role models when growing up. As a result, the students have of a lack of awareness of how much they're going to need to apply themselves into their school work. So if they are working ... a lot of my students do work in a related field, maybe not exactly the exact place that they want to be in, but they might be in a healthcare profession or working for a hospital or healthcare facility. So they're working full time, they may have families ... A lot of my students are adults returning to school. They're not the traditional out of high school students. Thus, I feel like the motivation is there, but sometimes they're just not quite aware of all the aspects that will be needed of them and the time that's going to be needed of them and the effort that they will need to put in. (Theresa)

These 5 faculty participants reflected on the significant influences that role models have in shaping student expectations, perceptions, confidence, life choices, ambition, and behavior in school. In doing so, they discussed the importance for students to be exposed to role models in order to receive verbal and observant cues and advice regarding how they can better themselves via the avenues of hard work, dedication and education.

Ellen further articulated on the developmental benefits that are conveyed to students via role models:

I think that the reason our students are not more motivated, both intrinsically and extrinsically, is because, again, it was never embedded in them. There's no reason to be motivated academically because there are no role models, guardians, parents, care takers,
who said, "This is important. Look at what I've accomplished in my life. If you do these things, you're also going to accomplish these things." So those conversations never took place.

**Observations.** These 5 responding faculty members were relaxed during their individual interviews. The participants cited the lack of a role model for students to follow as being a precursor to developing lower self-esteem. For many younger, developing students who may not possess natural instincts to behave in a self-determined way, one can argue that the influence of a strong, caring, successful, and respected role model would be highly beneficial to their motivational development. Absent such an influence, an observer can readily understand how students who are lacking the presence of a role model are unfortunately at a disadvantage when compared with those students who may have had access to such role models in their formative years.

**Conclusions.** Analysis of these 11 faculty participant responses bears evidence that improving low self-esteem is one of the most frequently cited superordinate themes related to turning around underperforming students. The researcher agrees that an obvious impediment to an individual student operating proficiently in a challenging environment, such as an academic institution, is lower self-esteem. An adequate level of self-esteem is necessary to study and approach homework completion and exam-taking in a determined and motivated way. Lower self-esteem can be viewed as a “show-stopper” to the individual’s pursuit of higher learning activities and outcomes. Providing support mechanisms and role models to undergraduate students who are first-generation college students or who are migrating to college from challenging family situations appears to be a viable and necessary initiative for colleges to take to achieve fulfillment of their mission to deliver an educated student at graduation time.
Subsequent to analyzing the raising of self-esteem through the provision of support and role models to students, the next superordinate theme arising in the data analysis was to place more work in the hands of students.

**Superordinate Theme Two: Place More Work in the Hands of Students**

A second theme emerging from this case study is the pedagogical calling to place more work into the hands of undergraduate students. This theme emerged from 13 participant responses. Unin and Bearing (2016) informed that student-centered learning encourages students to take an active role in the learning process and advises that brainstorming contributes to an increase in student motivation, confidence, and participation. This second superordinate theme was widely embraced by the faculty participants as a teaching method that will implore underachieving students to pursue their academic work more earnestly, in a dedicated fashion.

**Sub-theme One: Emphasize Teamwork**

**Interviews.** Three responding faculty participants agreed that requiring students to work in teams delivers several benefits, including fostering creativity, blending strengths, a sharing of study techniques, and building student confidence. Steven, a 7-year math faculty member articulated:

> The single most thing in the remedial classes that I teach sometimes here is I make a concerted effort in my lesson design. I include more activities where I assign students the problems where they have to do it working together and with limited guidance from myself. And so a big part about that is that they'll sometimes ask me questions, "Are you sure this is what you do?" And I will try to encourage, "Yes, this is where you had a good idea." And I try to put it back on how much they identify of the process themselves and then maybe I'm correcting them, putting them back on course.
The faculty members advocated the use of teamwork in their pedagogical assignments and projects as a pathway to fostering a sharing of knowledge, building self-efficacy and camaraderie skills, encouraging risk-taking, and promoting a wider sense of ownership. They view team-oriented assignments as a teaching method that enables student self-assessment and a stepping-stone toward higher levels of SD.

What we do in my class is that we practice interviewing skills in teams. I have them interview each other so they're not being interviewed for the first time after they leave college. Since I only have them for literally four months, it's very difficult to change that type of self-determination. Yes, I wish I could take a snapshot of them before and after, but it's such a short period of time. When I do eventually get them into the internship program I can start to see how they are doing because of the results that I am getting back from their supervisor on their internship performances. (James)

I feel that in my computer science classes, I use a variety of modalities to help motivate students to achieve. One approach is teamwork oriented, hands-on projects, and games which provide my students with differing perspectives on learning. In addition, having my students work in teams will often place a stronger team member in a position to aid lesser performers in putting forth more effort on the task at hand. I feel my computer classes provide an interesting and hands-on environment in which to foster student teamwork skills and strong learning outcomes. (Rachel)

**Observations.** Observation during the individual faculty interviews confirmed that 3 faculty participants were comfortable in citing how they had experienced positive academic results in the classroom when employing team-oriented learning activities. Of particular note,
when faculty are operating in an academic setting that is inclusive of many low SD students, the respondents believed that the team pedagogy approach delivered numerous benefits that can assist the lower performing students to learn and adapt to higher standards than they would if limited to only individual problems and assignments. After emphasizing teamwork, the discussion moved to the data analysis relating to use of more hands-on projects.

Sub-theme Two: More Hands-On Projects

Interviews. Halyo and Quian (2011) reported a study finding indicating that students at Hampton University were highly motivated by and engaged in the open-ended hands-on design projects as they displayed good teamwork during the design phase of the projects and showed a competitive side. In their interviews, 4 faculty participants discussed the value of building hands-on projects into their curriculum and classroom exercises.

I think meeting one-on-one with them. Talking to people. When you give students a test, letting them fix their mistakes. One thing I do is I let students take a test. I just mark it right or wrong and then let them do the corrections. And then they will learn more by seeing their mistakes. If they do not understand it, I will hold a one-on-one session and that's where you really get to know them. I do a “see me.” If you want to get the points, then you see me. And then we discuss what the problem is. Is the problem you worked 50 hours last week and you never picked up a book? Or is it that you just don't understand the material? Two different, completely different things. Also, rather than handing out an exam study guide to my students, instead I instruct them to build their own study guides. In response to this change from my former practice of distributing a study guide, the students provide feedback that building their own guides helps them to retain more test-related information. (Paula)
Well, I'll give you an example. The Becker College that I spoke of, I've taught the same class, along with others, but for 15 years, so I have a nice look back, quite a bit to reflect on. What I found was that it is a marketing research course, and we have them do research projects, two of them, during the semester. When I get them to own it, when I get them to pick the project and I get them to own it and I have to bite my tongue and sit back and oftentimes let minor errors or bad construction of so forth go, that they then become much more committed to the project and its success. A simple indicator there is I watch the cell phones. If I'm owning what I'm giving them, the cell phones [have been set aside]. If [the students] are feeling that it's theirs, amazingly, they [are more motivated].

(Fred)

The faculty perceive that placing more work in the hands of students via the use of hands-on projects produces benefits on several fronts. Learning from mistakes is cited as a meaningful and traditional education staple. There was a feeling that conveying ownership transfer to students places them in a position that they must respond in contrast to when students just sit at the desk acting as passive learners. There was a perception that ownership status triggers a sense of pride in many students.

Well, in our program, one of the things that I've done here at the newest position is to really incorporate a lot of hands-on simulated type projects, rather than a student just reading and answering questions. I feel like we've changed the curriculum to be a lot more hands-on, using simulated electronic products, live lecture ... Especially since it's the online course, to me it's a little bit more of a challenge to make sure that you're connecting with the students. I think in order to really get them motivated and to kind of create an atmosphere, where they want to keep going and motivate them a little bit more
faculty need to do different types of activities with the students to make it interesting and make it motivating. (Patricia)

I can tell if students’ self-determination or self-esteem, or actually self-efficacy, toward academics is low right from the start. You just sort of know it. You just know it, and you feel it. The ways I have sort of dealt with this, and I continue to deal with this, is changing vocabulary around "I can't," around academia. So when I ask a question in class, and majority of the class says, "I don't know," or they're silent, which silence means “I don't know,” I sort of challenge them and I say, "All right, you do know, or at least you know parts of it, or you know something. You can always contribute something to any conversation, any discussion, because you have lived a life, you have experiences. And just like I have expertise, you have expertise in other areas." So I don't allow my students to say the words, "I don't know," or to accept silence as, “I don't know.” I challenge them to say something and to contribute in some ways. (Ellen)

Observations. These 4 individual faculty responses were frank, open, and comfortable. The researcher observed and felt a clear overall faculty perspective that holding students accountable for more work using hands-on projects is a pathway to improved and longer-lasting learning outcomes in contrast to those weaker outcomes achieved when having students sit in the classroom as passive learners. Logically, placing ownership in a thoughtful way in the hands of a student will promote a more earnest, reactionary student response as opposed to the indifferent responses that are too often obtained in more passive learning environments. Following the interviews relating to more hands-on projects, the sub-theme emerging from the analysis of data was flip the classroom.
Sub-theme Three: Flip the Classroom

Interviews. The traditional flipped classroom inverts the teacher’s instruction in the classroom out of formal class time and uses class time for students to actively engage in practice and knowledge construction with technology support (Yanjie & Manu, 2017). Steven articulated his implementation of a partial flipped classroom:

The thing I have mainly tried to do is find places where there's a way that I can ask my students, "Okay, what steps should I do next?" I am trying to ask, and I'll try to wait them out, and they have to say something because: one, it communicates that it's reasonable for them to know something, which again is this issue of they can't know it. They see me model the behavior where it's reasonable you know at least part of it, so tell me some part of it. Many of the handouts I use in class are trying to have a structure where there's a part set up, but there's a part they can do. Where we, again, are trying to get out of this mode where the students have to wait for me to tell them what to do. That there's some part they can say and write. Later on, that tends to lead to a higher completion rate from them because they've seen more. That, "Okay, I can write something and try something and that will be well received."

Yes, we conduct an in-class role play. I would say that instead of teaching from the board we put the students to work. Have them develop interview questions, follow-up questions and answers, and then they take turns interviewing each other on a rotating basis. This approach prepares them for what they will experience in the outside world after they graduate. My students provide feedback that this in-class practice helps provide a real world interview experience. (James)
For example, my students, my first-semester freshmen, just spent time completing mood boards in the classroom. I have a rubric and then a meeting with them individually to discuss it. Most students did a really good job. Others didn't, and I tell them, "This looks like you did it yesterday, but it was two months to do it." In terms of providing positive feedback, what I did for the first time this semester also involved my first-semester freshmen that did really well on the midterm. I actually gave them a study guide, and I said, "If you bring it to class and fill it out, I'll give you 10 points toward your test." The ones that were kind of struggling, I emailed them right away. Actually, I was on my phone with the students when I was grading, and I would tell them that they did a really good job. (Maureen)

These 6 participating faculty members posited a convincing argument for use of a flipped classroom environment when attempting to turn around lower performing students, suggesting that the associated shift of traditional outside work into the classroom would assist in stimulating student thought and involvement was a key premise of their argument.

Additional support of the flipped classroom technique was voiced by Theresa who shared her own evolution in thought to Steven’s viewpoint:

I have changed the way that I teach. I used to do a lot of lecturing and a lot of trying to get theory into the students. Now I do what I call competency-based hands-on training. So they do all of their reading and testing outside of class, and classroom hours are exclusively for practicing the clinical skills that they need. It's for them to ask questions. We don't spend a lot of time with me talking at them. It's a lot of them asking me questions and us doing and I think that has made a big difference in their self-determination and them understanding themselves. They understand what they can do
well and the things that they need to continue to practice. I think changing around and just being in this competency-based model, where they understand the theory, they put that theory into practice, and then they practice, practice, practice, till they feel very competent about it.

Tracy was firm in articulating her alignment with Steven’s perspective on the flipped classroom:

I've managed to increase student's self-determination by giving them a voice in the classroom. So, allowing them to talk even if sometimes it's out of turn. So that they can express their thoughts as they're associating with the materials that I'm presenting. Or if they are students who don't participate as readily. I give them time to write and reflect, and then share their writing and reflections with the class. And those things have worked well, and I've had proof of it because students have told me that it's valuable to them that I listen and that makes them want to come to class, and I've also seen student's writing improve exponentially over the course of the semester.

Fred, having used modified approaches to a flipped classroom, provided further support of Steven’s view:

Well, for instance, right now I am teaching a marketing research class on Thursdays, and we're doing open coding on a grid, and I will get down off of my lecture spot, and I have them come up and read off the results of their interviews. We then, as a class, determine the coding, and they sit there and type it in, line by line. And for the time of their row of questions, all eyes are on them, and they certainly own it because it is theirs and they will then be compared to the rest of the people in the class. No matter how they may try to
minimize that, I think there's a certain competitiveness and a certain desire to not be worse than their neighbors.

**Observations.** During the interviews, these 6 faculty respondents were at ease but also were excited to share their variations of a flipped classroom. By moving activities that traditionally have been considered homework into the classroom, the faculty appeared to feel this approach had an invigorating effect on students’ expectations, efforts and performances. It was interesting to observe how this technique can be customized differently by alternate instructors and can also be adjusted based upon the curriculum being covered in the classroom.

**Conclusions.** Superordinate theme two emerged with broad support from the participants who viewed teamwork, hands-on projects and the flipped classroom as effective ways to place more work in student hands. The scholar Lemmer (2013) reported that students today expect more from a classroom experience than a passive learning opportunity delivered as a one-way lecture. Instead, they prefer classroom learning experiences that help them learn for themselves. She advocates a flipped classroom that encompasses delivery of instructional materials via digital media as pre-class homework that repurposes the in-class time to be used for hands-on projects and team projects. Employed in tandem with the techniques suggested by this study’s faculty participants, a synergistic blend of these teaching methods will enable faculty to foster deeper learning outcomes that will assist in turning around underperforming undergraduate students. Following the analysis of putting more work in the hands of students using teamwork, more hands-on projects, and the flipped classroom, the third superordinate theme arising in the data analysis was to tailor curriculum to students.
Superordinate Theme Three: Tailor Curriculum to Students

The third major theme to emerge in this case study is the need for faculty to tailor their curriculum to their undergraduate students’ interests and backgrounds. When standing at the front of a classroom filled with inattentive, passive students, the faculty participants say they feel a sense of frustration and lost opportunity. In response, as one would expect, several of the faculty participants have developed unique methods of stimulating student interest when designing their curriculum and lesson plans. Six faculty participants provided responses.

Sub-theme One: Survey Student Interests

Interviews. Hagay, Baram-Tsabari, and Peleg (2013) reported findings that indicate there is increasing evidence of a gap between curricular requirements and what students actually want to know. In order to bridge this gap, 3 faculty participants shared how have taken steps to factor student interests into the classroom.

Well, you have to find something that they excel in. Something that they're a little better at or is of interest to them. This helps a lot if you have smaller classes. It's really difficult if you have larger classes, but very often you'll have people who they won't speak up because they think their answer is wrong. You look to find if they answered something correctly, and I've done this in past, really praise them. I take them aside, tell them how smart they are, how they could do well, and if they did that without studying that much, then they could probably do a lot if they had actually read the book and studied. It becomes, I think for a lot of them, it becomes a competition thing. They want to be smart and I've known this, too, sometimes it's a peer-related thing. If you have a small class and everybody is rising to the occasion, and this person has any competitive nature in them at all, she will step up and contribute. (Paula)
In support of Paula’s perspective regarding student interests, Maureen, a fashion instructor, offered:

I try also, when I know a student works at a retail store, to integrate some aspect of that retailer’s product line, style, or demographic target market into our class assignments and discussions. Let's say we talked about menswear a couple of weeks ago. If a student works in such a store - I had one student that works in a menswear department at Banana Republic - I will have her be involved in the conversation. Another technique I use is to have students disassemble a man’s or woman’s clothing piece to help them identify the patterns, sewing, quality, and design styles that are involved and to provide them with deeper knowledge about the styles used by their favorite designers.

Additional support to Paula’s view was provided by Theresa who addressed the life aspect of surveying student interests:

Well, when life gets in the way, students, of course, can't perform. So trying to get them to check their problems at the door and focus on themselves is difficult. I spend a fair amount of time talking to students about what their future will look like if they are able to come into the classroom and learn what they need to learn. I try to take a lot of time and share life experiences with them, my own as well as other people who have been around, and try to make it as real as possible for them. Everybody wants to see the light at the end of the tunnel, but when you're starting in your first year, and you've got two years ahead of you, that light is hard to see. Thus, I think sharing as much personal experience with students and trying to help them to navigate and have plan A, B, and C is important.

The faculty participants reflected on strategies they have employed to develop relationships with their students to position them to obtain a greater understanding of their
interests. The faculty perceived the need to gain this knowledge to help motivate the students by perhaps kindling an internal flame that is attached to one of the interests being connected to while class material is covered.

**Observations.** Copeland and Levesque-Bristol (2011) advised that because the teacher/student relationship is such an integral part of a student’s learning experience within an institution, certain factors connected to this relationship will impact students’ perceptions of the learning climate. The openness of these 3 faculty respondents demonstrated their willingness to share their thoughts about integrating student interests into their curriculum was impressive. In contrast to teachers who simply lecture in a dictatorial fashion, these faculty participants felt that a more open and inclusive teaching style would be more effective in stimulating the interest and motivation of their students, especially those students who were less inclined to participate. At the conclusion of survey, student interests, the next sub-theme emerging from the analysis of data, was to understand student backgrounds.

**Sub-theme Two: Understand Student Backgrounds**

**Interviews.** As the research site possesses a highly diverse student body with many students arriving to campus from lower socio-economic and otherwise challenging homes, 3 of the faculty felt that taking into account and gaining understanding of student backgrounds was essential to building meaningful learning outcomes.

There are things that I do in the classroom to engage students to become more interested. I teach English, so I have a lot more liberty to look around for essays that are written by successful people, who look like our students, who have come from the same background as our students. I try to use very diverse writers in the classroom, so they can relate in that way, and they can also see someone from their own background being real successful,
either as a writer, or in another area. I'm cognizant when I build my syllabus, to make sure I can get research and writing from different cultures to help ensure that the course content remains of interest to my students. In addition, I have chosen authors who didn't perform well in school when they were young, and then something happened that turned them around. They can relate to those ideas as well. It's not just the person's background, but where their experiences as well. Something they can relate to. (Karen)

Well, for that one I think part of it is really the student, as well because it could be different for different students. I find that, again, I have a group of students that come into my program. They tend not to be right out of high school. They tend to be that returning adult. I have students of all different age groups, so I feel that maybe my older students, I would say 55 and above, they may need a little bit different motivation. They might need more help with some of the technology pieces and skillsets there. So to make them successful and to want to continue, I may need to spend a little bit more time with them, kind of focusing in on making sure that they know how to use all the different software programs and that they know how to do all the things that they need to do in Blackboard and for the courses. Whereas perhaps a younger student, maybe in that 30 to 50 age range, they may have the technical skills, but again, their factors might be more because they've got more children and they're kind of multitasking and doing different things. (Patricia)

I've had a lot of practice over the years, and I know ... well, let's see, how do I know? Examples? Well, one of the Hispanic students, he used to come all the way up from
Brockton and hang around the cafeteria all day. After several conversations I had with him about his family background and situation all of a sudden he felt more welcome and he felt like he was a contributing member of the class. And I know how it was improved because his test scores, they went up significantly. (Paula)

The participants perceived that understanding the backgrounds of their students was a logical and necessary objective that would facilitate making a connection with the students and communicating empathically with them. One instructor advocated making use of writers and other artists from a similar background as being a practical method of connecting students to successful people that look like them, further encouraging students to become engaged in the classroom and pursue their academic responsibilities with more diligence and passion.

**Observations.** During the observation of these 3 faculty responses, it was apparent that empathic and trusting relationships are routinely established between the faculty members and their students. The faculty participants clearly felt that a thoughtful and caring teaching style, taking into account student cultural backgrounds, was necessary for rewarding learning outcomes. Given the diverse demographic mix of students at the research site this strategic step appears to be rationale and helpful toward obtaining academic achievement and student retention. Absent this empathic type of relationship, underperforming students will likely feel disconnected from the instructor and opportunities to stimulate their SD may be lost.

**Conclusions.** This researcher was informed by these 6 faculty responses that often only very slow teaching progress can be made in a classroom populated with students who are indifferent or apathetic, both manifestations of low student SD. Thus, it is reasonable to conclude that a teacher who permits inclusion of some elements of student interests and backgrounds in her curriculum and syllabus will be better positioned to achieving improved learning outcomes in
the classroom. Of course, these student interests and backgrounds will need to be blended into the curriculum in a manner that will foster deeper learning while also maintaining the stated course learning objectives. Coming after the analysis of tailoring curriculum to students and its sub-themes of survey student interests and understand student backgrounds, the fourth superordinate theme arising in the data analysis was to emphasize self-management and self-efficacy skills.

**Superordinate Theme Four: Emphasize Self-management and Self-efficacy Skills**

The fourth major theme to emerge in this case study is the position held by faculty members that students must become adroit at self-managing their learning and developing strong self-efficacy skills. Six participants expressed concerns that the students lacked knowledge of the self-direction needed to navigate college life and pursue academic goals.

**Sub-theme One: Time Management**

**Interviews.** As many students at the research site work at one or more jobs or engage heavily in extra-curricular activities while enrolled in school, 4 faculty participants provided responses addressing the importance of effective time management by students to the achievement of academic success.

The students that we have here probably are basically the same type of students that I've had in every college that I worked for. I wouldn't say that all of them have low student self-determination, but because they are the first generation of college students in their family, they don't know what to expect. One exhibition of this is a lack of time management skills, including maintenance of a college schedule. That I found out to be very difficult. The students who come here whose parents went to college, they know all
about time management and the need to improve it. They are fine, but it's the students of
the first generation. (James)

I feel that students are less likely to engage in the sort of work outside of class that
college coursework requires. And I believe this does go back to how they feel like it's
already determined so they're less likely to get that initiative to go ahead and spend the
time doing the work outside of class that is usually necessary for success. On exams, it is
much more likely to just say, give up and not try something, if they don't feel sure they
know how to complete it. I try to encourage them, "Give me something." And that
becomes an ongoing discussion on how just trying to do a little bit could sometimes then
trigger some memory versus thinking you have to just know it all start-to-finish from the
beginning. Also, some students will say they work outside of class and dedicate their time
to that. If that is role modeled by the people around the students to inform them it is not
worth it to give up your Thursday night to do something that's less rewarding, it is hard
for them to make that planning decision necessary for academic work. (Steven)

Paula paralleled the perspective of James regarding the lack of student time management
skills:

Oh, I think it's their background. Although, I think it's a background that theirs ...they
really don't understand a lot of them here what college is all about. They just think you
can go to college, and I think a lot of them have not done well in high school, so they
think ...they somehow think you don't need that pre-requisite knowledge of high school. I
think they're the major problems, but then on the other hand, there are some that have had
good families, and they just ... I don't know if they weren't challenged enough in high
school or what, but they just don't feel that they can do it. It's an insecurity, I think.

The participants discerned that many of their students are challenged in developing
effective time management abilities due to the necessity of some students to earn money to cover
their expenses, deal with family circumstances, or their desire to engage in extra-curricular
activities while in college. While the faculty recognize the conflicting demands that many
students face, they are unwavering in their expectation that students need to work diligently to
improve their time management skills.

We try to make students be more independent and less hand holding once they get to
college because we would hope that they have some life skills to help them. But what I
find is that that's not necessarily true, especially for students where this is their first
experience with college. They don't have a parent that they can talk to about it or a
sibling to talk about it. So, when they're the first ones to enter college, they need to find
their own sort of resources and discipline to put things together that they can then share
with other people. But they don't have that knowledge base from talking with someone
else that some of us do have. (Theresa)

Observations. The participants pointed out the need for students to possess a process for
planning and having control over the amount of time they spend on specific activities. Further,
the participants indicated students’ need to be able to concentrate on the tasks at hand as well as
to emphasize the relative importance of the current activities they have placed in front of them.
The faculty participants construed any lapse in this type of organization as leading to a
problematic pathway for the students to navigate that will lead to poor academic performance.
Following time management, the next sub-theme coming forth in the data analysis was disciplined study habits.

**Sub-theme Two: Disciplined Study Habits**

*Interviews.* Two faculty participants provided a response relating to disciplined study habits. Disciplined behavior enables students to make positive decisions and to spend less time debating whether they should engage in more detrimental behaviors.

A big part is they usually may require very substantial change in how they view what studying means, what it takes to study. That's where, even going back to before I started working here, at other places, I often felt like so many times, they think studying is what you do the night before the exam, whereas I'm always trying to preach how it's decisions you're making from day one of the course. A random Thursday night, about how you spend your time during that night. That it's part of if you're changing it in the breeding part, it takes a lot of effort to do that rewiring. That's where it's a challenge, the more they feel it's born in, that it's much more work to rewire that later. In addition, I feel like they are less likely to engage in sort of the work outside of class that college coursework requires. (Steven)

Our students are pretty diverse, and I don't think that they have received similar experiences or resources as their White, more affluent counterparts. In other words, I don't think the guidance counselors brought them in and talked to them about college, the need to study in order to do better academically. I think they kind of passed by high school without really being challenged by others or themselves, and so they've learned that this is the best they can do, and they quickly believe that they probably can't do any
better, and no one else believes they can do any better. Also, family-wise, I think that they... some of them have family support, some of them do not. But many of our students are first-generation college students, so no one in their families said, "You know what, you can do this, Joe. You can go to college and do really well because we did." So there isn't that support. There also isn't that support of like, "I'm going to help you do this." Because there isn't a lot of emphasis placed on higher education. (Ellen)

These participants perceived the reality that many incoming students are almost completely unaware of the need for disciplined study habits and also lack knowledge of what these habits consist of. While it is a daunting task to “rewire” these students to behave in a disciplined study pattern, the faculty respondents are determined to improve these skills in their students.

**Observations.** Throughout the observation of these 2 faculty, it was apparent that the participants were focused on the urgency for student achievement. The participants reflected on the necessity of students possessing a dedicated study regimen and reasons for shortcomings in that sphere. Faculty pointed out that a systematic study schedule will foster incremental growth in undergraduate student learning outcomes, self-confidence, and self-efficacy and will help to improve student retention rates through graduation date.

**Conclusions.** Wang (1979) indicated that self-management and self-efficacy skills are necessary for students to be positioned for success in college. Absent the adequate ability to manage one’s daily and weekly tasks and responsibilities, an individual will be very challenged to achieve positive daily outcomes. This researcher observed that, based upon this reality and the comments received in the faculty interviews, student self-management skills and self-efficacy skills are considered a paramount necessity for success while in college. In support of this
position, the study by Harder, Czyzewski, and Sherwood (2015) informs that, based on social
cognitive career theory, researchers have found a link between student efficacy, the level of
persistence in majors, higher grades, and success in college. These authors suggested that faculty
members need to continually counsel students on how to develop and refine both their self-
management and self-efficacy skills to raise their academic SD and performance outcomes.

Following the analysis of superordinate theme emphasizing self-management and self-efficacy
skills and its sub-themes of time management and disciplined study habits, the fifth
superordinate theme emerging from the data analysis was scaffolding to facilitate incremental
learning.

**Superordinate Theme Five: Scaffolding to Facilitate Incremental Learning**

The fifth major theme to emerge in this case study is the proposition that faculty
members must employ a scaffolding teaching technique to facilitate and achieve incremental
learning for their students. Five faculty participants held the opinion that incremental learning by
which students are assigned portions of the assignment to complete, rewarded with points and/or
praise by the instructor after completion, then move on to the next assignment segment is a
robust method of increasing undergraduate student performance.

**Sub-theme One: Meet Students Where They Are**

**Interviews.** Scaffolding teaching theory communicates that teachers should model or
demonstrate how to solve a problem then step back, offering support as needed (Wood, Bruner,
& Ross, 1976).

Honestly, a lot of... and this goes back to sort of my learning and behavior training, of
just... you know Piaget and Vygotsky, I don't know if you know those names, but they're
big in the psychology world, talked about scaffolding and sort of meeting students where
they're at, you know. So if I'm lecturing at a high level and students are lost, well what that communicates to them is, "See, I'm dumb, I don't know what's going on." But if I bring down my lecture and meet them where they're at, we call that scaffolding, then they're feeling like, "Wow, I actually know what she's saying, I am actually following the lecture. I actually know what's going on." And when you have that feeling of "I know what's going on," I think it builds self-efficacy, self-confidence, and self-determination, right? And so they get... they begin to sort of not doubt themselves, but they begin to really feel more assured in their answers. And so I try to do that a lot with like, "Yes, you do. Well, tell me what it is that you know, and let's build on it." So again, building confidence right in the classroom. (Ellen)

That's part of why I've tried to adapt and work against this issue. And then again, many of the kinds of handouts I use in class are trying to have a structure where there's a part set up, but there's a part they can do. Where again, trying to get out of this mode where they have to wait just for me to tell them what to do. That there's some part they can say. That there's some part they can write. Because again, that tends to lead, in terms of, to later a higher completion rate from them because they've seen more. That, "Okay, I can write something and try something and that will be well received." (Steven)

These 2 participants, a psychology teacher and a math teacher, operate in quite different disciplines, but they share the perception that meeting students where they are is of primary importance when instructing students who are low in SD. They believe that failing to do so will further develop the feelings of self-doubt and lack of confidence that accompany many of their students.
Observations. These 2 participants eagerly addressed a required but sometimes overlooked traditional protocol to follow in teaching students. They properly pointed out that teachers must be careful not to overlook the need to teach at the appropriate level for the students in front of them. Teaching at too high a level will diminish student confidence and deliver weak student learning outcomes, while the alternative approach of teaching below student capabilities will foster student boredom, disinterest, and subpar learning attainments. This teaching approach can be challenging for some faculty to navigate, particularly for those who believe in rigid academic standards and/or periodically migrate their teaching between schools with higher and lower performing students. Following meet the students where they are, the next sub-theme coming forth in the data analysis was to increase student self-assurance.

Sub-theme Two: Increase Student Self-assurance

Interviews. Having faith in one’s abilities is a fundamental aspect of human growth. Self-assurance positions individuals to take risks, tackle challenges, and deliver results. Three participant responses were received in relation to this sub-theme.

Well, very often, especially if I have a class where I'm not making or I don't feel I've got good contact or good traction with the students, I'll go through Marzano's nine high-yield strategies for learning: 1) identify similarities and differences, 2) summarizing and note-taking, 3) reinforcing effort and recognition, 4) homework and practice, 5) non-linguistic representations, 6) cooperative learning, 7) setting objectives/providing feedback, 8) generate and test hypothesis, and 9) questions, clues, and advance organizers. I don't tell the students this, but I'll institute the strategies and try one at a time. As I go through, I will make note of what seemed to work a little better and then I will tune my teachings of that class along those lines. If the note-taking and so forth seems to be what they want,
then so be it. If it's group work, then I can put everything or almost everything in that format. I feel these strategies, when working well, help to enhance the level of student self-assurance and self-confidence. (Fred)

We have changed a lot of the ways we are delivering the material to the students and how they're practicing and obtaining skills. We have a national exam that I track all of the passing rates for. So once the students graduate with our degree, and they go on and take the national exam, I'm able to monitor how the students are doing on this national exam. We have used teams since a lot of these changes have been placed into the curriculum, and our passing rate on the national exam has increased. I would like to think that part of that is due to the changes that we've made in the curriculum. There could be other things that impact that, but I do think that a good portion of it is the fact that students do feel more engaged, more motivated, more involved in the materials rather than just trying to memorize things and learn things and just study and read. I think those national exams are a way that I can measure what students are more successful in the overall program. (Patricia)

Well, I mean, I tell them to try to stick with it. Don't give up on it. Even if you have to go ... I always tell them they can learn from my mistakes or people I know. I have a friend that went eight years part-time. I know you can't do that financially, but life gets in the way. Go at your own pace. Don't overextend yourself with work and school and that kind of stuff. In addition, I can say back to when I met with the students individually about the mood boards and told them they did a good job and stuff and what they could work on. I
think some of the students that hadn't done so well on the quizzes did a really good job, so this was a good pick-me-up for them. (Maureen)

The 3 faculty respondents shared a viewpoint that building student self-assurance can happen in a variety of ways. This perspective is not surprising, as this form of confidence is so rudimentary to human behavior. The participants remind us that self-assurance does matter when it comes to the achievement of rich and lasting student learning outcomes.

**Observations.** These 3 faculty interviews displayed a natural gravitation toward the ambition of building and maintaining undergraduate student self-assurance – considered to be confidence in one’s own abilities or character. Commonly associated with low self-esteem, a gap in self-assurance can severely handicap an undergraduate’s pursuit and achievement of academic goals and milestones. The faculty participants clearly recognized this relationship and openly discussed rational teaching approaches to generating improvement in this area via the enhancement of student abilities and character.

**Conclusions.** The idea of enhancing student confidence and assurance was at the forefront of every faculty participants’ mind during their respective interviews. Naturally, the faculty appeared to embrace the synergistic relationship existing between tailoring scaffolding teaching methods to where the students are and thereby enhancing their absorption and retention of knowledge and skills. Each of the interview participants attested to the benefits of this pedagogical teaching approach as was evidenced by their personal and insightful responses. After discussion of scaffolding to facilitate incremental learning and its sub-themes of meet the students where they are and increase student self-assurance, the sixth superordinate theme that surfaced as a part of the data analysis was a need to reward for improved performance.
Superordinate Theme Six: Reward for Improved Performance

The sixth major theme to emerge in this case study relates to the benefits derived from rewarding undergraduate students for improvements in their academic performance. Rewards have long been studied in relation to their effects on student behavior (Deci, 1971; Deci & Ryan, 1985). Davis, Winsler, and Middleton (2006) advised that more attention needs to be given to the individual’s own perceptions and interpretations of rewards as how students perceive the reward likely determines how effective a motivator it is in the present and over time. Five participant responses were received in relation to this superordinate theme.

Sub-theme One: Verbal Encouragement

Interviews. Verbal encouragement for students can take several forms, including positive feedback, setting realistic expectations, a teacher letting her own excitement come through, and showing students their own successes. Three participant responses were received in relation to this sub-theme.

I have many examples but the one that really has had an impact on me is about a student who came here to the college this past year. She is a freshman in my common experience class. I met with her without knowing what her background was. She shared with me the fact that she was homeless and had nowhere to go. Her concern was focused on where she was going to spend the next night and not necessarily her academics. I found that I was receiving emails from her in the middle of the night literally indicating that she wanted to give it all up, that she wanted to drop her biology class, that she wanted to drop her math class, and that she wanted to drop her art class because she just couldn't deal with it all. She would come to my office crying, and I told her, “You need to hang in there. You need to do this.” I think that gave her encouragement. I informed her that I
noticed she was performing very well in her English class, and I said, “If anything else, you have to stick with it. I see that your writing is excellent. We can always sit down and discuss your situation, some other alternatives.” We did meet subsequently on many occasions, and fortunately, she did end up securing a place to stay in our college housing. (Kelly)

This is where I have strong feelings about how I feel my students’ perception, how they see it much more as a higher portion of this happens at birth. Where my own opinion and my own feeling is there might be some part at birth, but there's so much that can be sort of rewritten and rewired, if the individual chooses, though it's a struggle. It's a higher amount of effort required, to do it afterwards, in the breeding so to speak, timeline of their life. It is important for faculty members to verbally help students to discover and achieve their potential. (Steven)

I think that oral communication is becoming more and more difficult for a number of reasons. Self-esteem and self-efficacy and self-determination, I think that if you are feeling pretty awful about yourself, you're not going to want to raise your hand and talk in class. So if I am building that confidence, then I see definitely an increase in students’ abilities or willingness to take the risk of raising their hand. I see that immediately. I would argue that there's more social interaction happening now than there was 10, 15 years ago, by quantity, I mean. There's a lot more quantity of it. But quality-wise, it's interesting because if my students are participating online, they can go ahead and think about their response. They can go ahead and change it, edit it, really think about it.
Students can even post and then delete it afterwards. In real life, in the moment, you don't get to retract your message. You don't get to retract your answers. So you are taking risks. And so teaching them that it is okay, and that’s part of it, is really important is I see those changes. I also see improvement in their written work. You know, building confidence in writing. (Ellen)

These 3 faculty respondents expressed ardent support for providing verbal encouragement to students in order to raise their self-esteem, self-confidence, and academic performance. Numerous examples of verbal encouragement were provided to reinforce this support. The respondents helped to highlight the dominant role that verbal encouragement by faculty plays in motivating and rewarding student performance.

Observations. The interview with Kelly helped to display the benefits to a student from receiving verbal encouragement in a most fundamental fashion: in support of a young student who was unsure of where she would sleep at night while attending school. By nurturing and encouraging this student who was in a very challenging circumstance, this faculty member helped the student to stay in school and get positioned for the opportunity to have future academic success as her reward. Steven’s comment regarding how strong verbal encouragement is needed to overcome student misconceptions about college reinforces the necessity for faculty to stay on message to overcome long held misconceptions by students, and Ellen’s contributions relating to actively encouraging students in this information age were certainly applicable to today’s students who are faced with information continuously flowing from multiple directions. Following verbal encouragement, the next sub-theme coming forth in the data analysis was non-monetary rewards.
Sub-theme Two: Non-monetary Rewards

**Interviews.** Non-monetary rewards deliver recognition and attention from peers and adults at minimal cost. Faculty members can use these rewards in their classrooms to foster increases in student academic effort, self-esteem and self-confidence. Two participant responses were received in relation to this sub-theme.

Rewarding in what way? Rewarding, let's say the student takes the first test, gets an F. She then takes the second test, it came up to a D. On the third test, wow. We are up to a C. I think because the students earned these higher grades, they are in a sense self-rewarding. I gave them knowledge and advice, but I did not reward them. They earned it. In other words, they did see some improvement in their performance, and I think that's an incentive enough, an incentive enough for them to say, "You know what, I think I'm doing well here." (Kelly)

Patricia, echoing Kelly’s perspective, linked one of her earlier responses due to its relationship to non-monetary rewards:

We have a national exam for which I track all of the passing rates for our students. Passing the exam serves as a reward for students. So once the students graduate with our degree, and they go on and take the national exam, I am able to monitor how the students are doing on this national exam. We have students work in teams and since a lot of these changes have been placed into the curriculum our passing rate on the national exam has increased. I would like to think that part of that is due to the changes that we've made in the curriculum. Of course, there could be other things that impact that, but I do think that a good portion of it is the fact that students do feel more engaged, more motivated, more involved in the materials and rewarded for their hard work when they pass the exam. So I
think those national exams are a way that I can measure which students are being rewarding with success in the overall program.

The faculty participants perceived non-monetary rewards as being essential to the operation of a successful learning environment. Their reflections on students’ improving test scores and earning a passing grade on a national exam provided excellent examples of non-monetary rewards.

Observations. The 2 faculty responses revealed a commonly held belief that providing incentives to earn rewards to students will encourage them to deliver an increased effort. Reference is made to a pattern of improving grades that is a long-standing incentive model to make use of to encourage and motivate students. The personal reward that is felt when one passes a national certification exam was raised. Each of these rewards, like most rewards, contains an inherent message that continued hard work on the part of undergraduate students will lead to better grades, an improved sense of self-worth, and hopefully, a continued pattern of motivated behavior.

Conclusions. As the faculty participants referenced, during the academic year, there will be countless times when verbal and non-monetary awards will be required to maintain students’ momentum, performance, and in some instances, retention. As Davis et al. (2006) advised, such interim rewards should be handed out by faculty judiciously and tailored to the differing needs and perceptions of individual students in response to improvements earned in the student’s academic performance outcomes. The final data collection activity of the study, the Focus Group Meeting, is discussed in the next section.
**Focus Group Meeting**

A focus group meeting was held on January 25, 2018 with all 12 faculty participants in attendance (3 participants attended via conference call). This combined interview was fluid in nature. First, a review was conducted of the identified causes of low SD in undergraduate students as discovered during the participant interviews (Appendix E). The participants reviewed each of the eight causal factors and agreed that each of these factors belonged on the list, representing significant drivers of low student SD. No additions were made to this list. Discussion ensued about the frequent interrelationships existing between these causal factors. Examples provided in the discussion included how a first-generation college student frequently will arrive at college possessing low self-esteem; how a student’s low self-esteem can develop from exposure to a challenging home environment, a lack of a role model, or receipt of ineffective teaching during grammar school and high school (James, Steven, Ellen & Paula). Also discussed was how students employed in one or more part-time positions are frequently conflicted between earning an immediate paycheck reward versus earning a good grade in class (Steven). Paula then discussed how the use of standardized tests in Massachusetts has had a detrimental effect on the Massachusetts Public School System, damaging reading skills, and taking out the joy in learning.

Next discussion ensued about the merits and applicability of the six superordinate themes and 13 sub-themes that emerged during the faculty interviews (Appendix F). This discussion proceeded as a polite, passionate, emotional, and sometimes contentious dialogue about the perceived relative significance of the themes and subthemes in relation to student SD. Discussion was centered around six themes.
Place More Work in the Hands of Students—Flip the Classroom

The first sub-theme discussed was the use of the flipped classroom in which an English teacher, Karen, advised that it is a natural fit in an English class in which the reading happens outside the classroom and then all the activity about the reading happens inside the classroom. Then a biology teacher, Kelly, responded, “If I tried to implement it in a biology class, it would not work given the kind of students we have. They would not do the reading. I might be able to implement it with my senior physiology class.” Steven, a math teacher, responded, “Well, I think there are ways where you can do different versions of a flipped classroom. For instance, in my math classes, I will do a formula on the board, and then tell my students to do the next one.” Paula, an accounting instructor, indicated she would never do a flipped classroom in an introductory 100 level class but could employ it in an advanced level class.

Scaffolding to Facilitate Incremental Learning

The discussion then migrated into one relating to incremental learning in which Fred, a hospitality teacher, advised how you can initially provide students with an easy question, then they develop a capacity to handle a more difficult question, then repeat this cycle again and again. Karen shared that she has mirrored this teaching approach by assigning a short reading, covering it in class, then assigning a longer reading.

Tailor Curriculum to Students

The discussion then moved to one of tailoring curriculum to students in which Karen shared:

For me, I know it is a little different, but I try to make sure that I have readings chosen which cover writers from varied economic and racial backgrounds. I want to make sure
that students can see successful writers come from every genre so their points of view are
covered instead of having a curriculum that is all the same.

Kelly supported Karen’s comments indicating when she teaches her common experience
class, she will do a comparable thing using themes relating to different demographic groups.
Steven informed the group that he also uses this tailoring approach when teaching his common
experience class to entering freshman students. Brief discussion continued about the possibility
of integrating some of the superordinate themes, particularly, increasing student self-esteem, into
this first-year orientation class curriculum.

**Raise Level of Students’ Self-esteem**

Ellen (via telephone) then shifted the discussion informing the group that she flips her
classroom by helping her students complete their homework in the classroom, and she believes
this helps to grow their self-esteem. She stated:

They benefit on two levels I think. First, they get the work done so they are not rushing to
do it or copying someone else’s work. Instead, I walk around the classroom helping them
as they are doing it. Second, it helps them with their self-esteem, as a lot of kids are
walking around with a notion of “I don’t know how to do it.”

I am glad that you brought that up. It is a good point. Beginning with the first class of
each semester, I will make a point of telling my students, “I am glad you that you asked.”
A math class can be intimidating and cause a lack of confidence and lead students to
“clam up.” It sneaks into so many aspects of their performance if they do not have their
self-esteem. (Steven)
Place More Work in the Hands of Students—Emphasize Teamwork

The faculty discussion then moved to the successful use of teamwork to shift more work into the students’ hands on special projects and assignments with unanimous agreement by participants that this approach works well. Kelly articulated about the benefits of using team projects by noting how “it works very well in my biology lab. Students work together and help each other a lot.” Fred supported Kelly’s comments regarding teamwork saying, “Teamwork can work well when you have several students with a language challenge. They can then sit in their group and determine what is being asked rather than sit there silently.”

Emphasize Self-management and Self-efficacy Skills—Time Management

A new discussion then emerged regarding how to improve time management skills. Karen communicated that faculty need to be very clear in spelling out the time needed to prepare for an exam. Paula said she advises her students to use the time on the bus or train to complete study work. Ellen mentioned her use of “low stakes pop quizzes to stimulate improved self-management skills in my students. I feel this approach helps students in two ways: they improve their self-management skills and they experience an increase in self-esteem.” Kelly then reflected on the importance of time management saying:

A lot of our students work 40-hour work weeks. I will often speak to them about adjusting their work schedules or replacing a day course with an online course or only taking four courses each semester to better balance their schedules. If possible when building their course schedules I will arrange it so they only come to class two days a week.
At the end of this discussion period, unanimous agreement was made among all faculty participants to confirm and ratify the selection of this set of six superordinate themes and 13 subthemes as being central to improving low undergraduate student SD.

**Observations**

Observation of the focus group meeting corroborated much of what the faculty members stated during the individual participant interviews. Low student self-esteem was broadly discussed as a systematic problem affecting many aspects of student academic performance. The participants generated a thoughtful discussion about the six superordinate themes and the sub-themes developed during the interviews and shared their own nuanced versions of instructional procedures they had used in the classroom relating to these themes. The researcher was encouraged by the participants’ clear desire to continue to search for new approaches to ameliorate the problem of low undergraduate student SD.

**Conclusion**

The purpose of this study was to qualitatively examine how college faculty can make use of innovative pedagogical practices that will result in the recognition of higher rates of SD being exhibited by underperforming undergraduate students. The objective was to discover the experiences of full-time college faculty in addressing the phenomenon of low undergraduate student SD. The faculty participants shared a passion for discovering ways to improve low undergraduate student SD as is evidenced by the outcomes of the individual interviews and the focus group meeting. The results of this study report a finding of six superordinate themes and 13 sub-themes ratified by the 12 faculty participants as being central to improving low undergraduate student SD. The study sought to answer the following research question:
Primary Question

How do college faculty members make use of innovative pedagogical teaching practices that result in the recognition of higher rates of SD being exhibited by underperforming undergraduate students at a private, four-year college in Boston, Massachusetts?

Findings

Six major themes emerged from a holistic analysis of this study: 1) raise level of students’ self-esteem, 2) place more work in the hands of students, 3) tailor curriculum to students, 4) emphasize self-management and self-efficacy skills, 5) scaffold to facilitate incremental learning, and 6) reward for improved performance.

1. Undergirding the finding of raising students’ self-esteem are the need to provide support omitted by prior educators and parents and to provide role models to follow.

2. Results undergirding the placement of more work in the hands of students are: emphasize teamwork, more hands-on projects, and flip the classroom.

3. A sense of connection between tailoring curriculum to students is grounded by two sub-themes: survey student interests and understand student backgrounds.

4. Foundational findings supporting the emphasis of self-management and self-efficacy skills are time management and disciplined study habits.

5. Findings in support of scaffolding to facilitate incremental learning are: meet students where they are and increase student self-assurance.

6. Undergirding the finding of reward for improved performance are: verbal encouragement and non-monetary rewards.

The six superordinate themes or findings were substantiated by this researcher through the case study design while employing triangulation of the document review, individual faculty...
participant interview transcripts, and observations of the faculty focus group meeting to allow for a holistic analysis.

This case study finds support to suggest that low SD in undergraduate students can be improved by college faculty members when pedagogical classroom instruction is implemented within a framework inclusive of the identified superordinate themes and subthemes. The faculty interviews generated a consensus identification of these themes as being paramount toward the objective of turning around underperforming undergraduate students and raising their levels of SD.

**Validity and Trustworthiness**

The design of this case study provides readers with an accurate analysis of data via the selection of carefully selected research criteria. The study design includes 12 digitally recorded one-to-one faculty participant interviews and a digitally recorded focus group meeting inclusive of all faculty participants to foster the ability to triangulate the data (Miles, Huberman, & Saldana, 2014). The focus group meeting format was chosen to assist in validating and cross triangulating the data that emerged from the individual participant interviews and to foster a level of comfort allowing the faculty to speak more openly as opposed to in the one-to-one interview format (Creswell, 2013; Miles et al., 2014).

The integrity established in data collection and analysis included that interview transcriptions were ascertained verbatim utilizing a Northeastern University approved transcription service, Rev.com. Each participating faculty member checked their transcripts to ensure accuracy. Field notes were taken during the observations. Furthermore, credibility is achieved as this case study utilized an established methodology, use of thick description, and a
detailed description of this researcher’s positionality. Chapter five will include a discussion of the findings, implications for practice, limitations, and recommendations for future research.
CHAPTER FIVE: DISCUSSION AND IMPLICATIONS FOR PRACTICE

The purpose of this research study was to discover what innovative teaching practices and tools faculty members can employ to improve the low SD that is found in many undergraduate students. The researcher utilized the qualitative case study method within the framework of SDT to explore the experiences of 12 faculty participants with ameliorating this phenomenon while turning around underperforming students. SDT provides a broad framework for the study of human motivation and personality and students with low SD lack the natural tendency to be self-motivated absent any external influences.

Low motivation in college students is a frustrating and perplexing issue encountered by all college faculty members at some point in their careers. Deci and Ryan (1985) developed SDT that distinguishes between intrinsic motivation and extrinsic motivation. Intrinsic motivation reflects an internally driven curiosity, interest, and passion. Extrinsic motivation refers to doing something because it leads to a separable outcome, such as receiving managerial praise or a monetary reward for delivering a good performance (Deci & Ryan, 1985). The literature indicates that there is a broad and diverse range of causes of low SD among undergraduate students that evidently has made it a challenging phenomenon for academia to address and solve. SDT is at the heart of human motivation so it has provided a pristine lens through which the researcher could interview the faculty members to discover their personal experiences with this sub-par behavior issue that manifests itself on college campuses nationwide.

There were six themes and 13 sub-themes that emerged through an analysis of the data:

1. Raise level of students’ self-esteem (1.1 provide support omitted by prior educators and parents, 1.2 provide role models for students to follow),
(2) Place more work in the hands of students (2.1 emphasize teamwork, 2.2 more hands-on projects, and 2.3 flip the classroom),

(3) Tailor curriculum to students (3.1 survey student interests and 3.2 understand student backgrounds),

(4) Emphasize self-management and self-efficacy skills (4.1 time management and 4.2 disciplined study habits),

(5) Scaffolding to facilitate incremental learning (5.1 meet students where they are and 5.2 increase student self-assurance), and

(6) Reward for improved performance (6.1 verbal encouragement and 6.2 non-monetary rewards).

Qualitative case study interviews reach in deeply to explore the participant experiences; therefore, the researcher maintained a journal and wrote reflective notes during and after each interview to document how he made sense of the experiences that were shared by the faculty participants. The researcher felt that he engaged in a double-hermeneutic process by listening to the recordings several times, analyzing the transcripts and reflecting on the written journal notes. This process enabled him to interpret each participant’s meaning-making as the participants attempted to make sense of their own experiences.

This chapter begins with a discussion of the findings related to each superordinate theme and its position within the current literature and the theoretical framework. The researcher then discusses the implications of the findings in the practical setting with a focus on enhancing the academic performances of undergraduate students with low SD. Finally, this chapter concludes with recommendations for future research on the experiences of students with low SD.
Presentation of Key Findings

This study’s key findings, as determined from the collection and analysis of the data emerging from the individual faculty participant interviews and the focus group meeting with all 12 participants, are presented below:

Raise Level of Students’ Self-esteem

During the interview process, each of the participants agreed that low self-esteem was a significant issue with the undergraduate student population at the research site. The participants recommended providing support previously omitted by educators and parents and providing role models for students to follow to assist in ameliorating this issue. The literature broadly confirms that this causal relationship leads to underperforming students. Myers et al. (2011) posited that self-esteem during adolescence can be affected by a variety of factors, including age, race, ethnicity, puberty, body weight, gender, and involvement in activities. The study by Leary, Schreindorfer, and Haupt (1995) included findings that self-esteem instability has a significant association with academic performance such that individuals with less stable self-esteem reported lower levels of academic performance. Further, these scholars suggested that self-esteem instability negatively moderated the association that self-esteem level has with academic disengagement and academic devaluation. The researcher sensed that in concurrence with the literature, each of the faculty participants felt the feeling of low self-esteem on the part of undergraduate students was a significant and recurring reason for their low SD and poor academic performance during their tenure at college. The researcher concludes that, given the support provided by the SDT-related literature, intervention techniques need to be employed by faculty members to achieve enhancement and stabilization of undergraduate student self-esteem and subsequent academic performance. As suggested in the study’s participant interviews, such
intervention would include providing support to students that was omitted by prior educators and parents and providing students role models to follow. An approach to raising self-esteem in students is to have them accomplish more which can be made possible by placing more work in student hands, the next study finding.

**Place More Work in the Hands of Students**

Literature denotes the contemporary pedagogical trend calling for a shift toward student-centered learning approaches (Brown et al., 2016). The common thread in this movement is a perception that student-centered learning encourages students to take an active role in the learning process (Unin & Bearing, 2016) Other scholars posit that this teaching method will motivate underachieving students to pursue their academic work using more SD. Emphasizing teamwork, hands-on projects, and flipping the classroom were mentioned by the faculty participants as being strong methodologies allowing for placement of more responsibility for the academic work product in the hands of students. The study participants reported experimenting with variations of these three techniques in the classrooms with positive results. The assignments that professors give, the treatment of topics that they broach, and the digital tools that they ask students to employ can shift students' concerns away from a narrow focus on impersonal, technical mastery of content and toward seeing themselves as thinkers who fuse their lives with their learning (Knowlton & Hagopian, 2013). The synergistic positions of the literature and study participants leads the researcher to view the placing of more work in the hands of students as a logical and fundamental building block of SD growth in undergraduate students.

Numerous benefits accrue from having students take on more work responsibility in their assignments and team projects. This study cites a third finding of tailoring the curriculum to
students that will help encourage students to tackle and take ownership of the additional work placed in their hands.

**Tailor Curriculum to Students**

The ability to generate and maintain interest is academic topics is especially challenging when the audience is composed of students who are disengaged from and seemingly ambivalent to the material covered in the classroom. The faculty participants identified surveying student interests and understanding student backgrounds as techniques to use to overcome this issue. Nenadal and Mistry (2017) suggested using an approach called inquiry-based learning to foster students’ investigation of key topics and concepts through collaborative and scaffolded learning opportunities. Using this technique, before and during the class, teachers will informally assess students’ understanding of the topic, plan lessons according to these understandings and possible misconceptions, guide students’ thinking through questions and conversations, and often work with students toward a culminating action-oriented final project. In concert with this inquiry approach, several of the faculty participants reported that early on they would begin an inquiry relationship with their students to permit a surveying of their backgrounds and interests. Quite often in these interviews, faculty would have learned the students have come from a family or school system with unique challenges. The faculty members would attempt to work with the students to help them overcome these challenges while gathering more information about their interests. These interests are taken into consideration when formulating the curriculum. This inquiry approach is significant and far-reaching as the teacher/student relationship is so integral to the learning experience (Copeland & Levesque-Bristol, 2011). Tailoring course curricula to include information of interest to the attending students is well supported by the literature and faculty interviews and thus appears to be a logical approach to engaging students more deeply in
the learning process. Following is an examination of the fourth finding which, when adopted, will provide students with a process to follow as they make the effort to complete the additional student-tailored work that is being placed in their hands.

**Emphasize Self-management and Self-efficacy Skills**

Wang (1979) indicated that strong self-management and self-efficacy skills will assist in ensuring effective use of instruction and learning time. In their book, *The Secrets of College Success*, Jacobs and Hyman (2013) provided important pointers for students that act as building blocks to developing self-management and self-efficacy skills while in college, including do not procrastinate, set a study period time for each day, adjust your attention span, never blow off two days in a row, write more not less, do it yourself, and always read before class.

The participant interviews revealed that helping students to enhance their self-management and self-efficacy skills is a continuing mission for the faculty whose recommendations were to assist students with developing their time management and disciplined study skills in addressing this issue. In particular, one faculty member employs a tool called an E Portfolio, which requires students to journalize the material covered during each class. This step is followed by the instructor asking the students what they learned, what was a challenge and how will they overcome it? Students will see where they started and by the end of the semester, how many obstacles they have overcome. A second faculty participant shared that he assists his students in practicing their interviewing skills, feeling this concept and implementation of interview practice acts like a stepping-stone to developing self-management skills A third faculty member reported success in using low-stakes pop quizzes in the classroom, then asking the students if they had read the chapters to reinforce that reading the chapter will position them to perform well future pop quizzes. These techniques are bolstered by the Thompson (2013) study,
which noted that self-management is a widely used cognitive behavioral intervention to address disruptive and challenging behaviors in school settings, further positing that self-management is defined as a set of strategies that students are trained in to assess, monitor, and evaluate their own behavioral performance. The overarching fifth finding addresses how faculty need to holistically manage the classroom environment in a manner that will help to foster and enable achievement and realization of the other findings identified in the study.

**Scaffolding to Facilitate Incremental Learning**

Askell-Williams, Lawson, and Skrzypiec (2011) reported on efforts to reduce the gap existing between teachers’ knowledge about how people learn and students’ knowledge about how they learn. They designed a classroom to investigate the impact of a tool designed to scaffold students’ development of cognitive and metacognitive strategies for learning. The prompts in the protocol were: (1) focus student attention on the key information to be learned, (2) provoke students to make connections between new information and their existing mental knowledge, (3) prompt the students to organize their knowledge, and (4) prompt students to check their understanding of the lesson content. The study finding was that the learning protocol was easy to use, efficient, and had the potential to provoke just-in-time awareness of fruitful cognitive and metacognitive strategies. Faculty participant recommendations were to meet students where they are and to increase student self-assurance.

Relatedly, one participating faculty member advised that she will bring down her lecture and meet the students where they are, resulting in a feeling for the students that they are following and understanding the lecture that increases their knowledge. She suggested that it fosters self-confidence and helps to builds self-efficacy and SD right in the classroom. A second participant indicated that when her program is graduating its students to work in the healthcare
setting, they need to know that the students know what they are doing, adding that she really thinks the scaffolding, competency-based orientation being used has brought a whole different type of teaching and learning to the healthcare field. This researcher is a firm believer in the scaffolding teaching approach and points out it should be routinely emphasized, as often teachers can fall out of touch with its nuances and benefits. The sixth and final finding: 1) acts as a quasi-reward-elixir applied intermittently throughout the learning process, 2) behaves as a motivational tool available during the academic year, and 3) is present in differing contexts within the other five study findings.

**Reward for Improved Performance**

The goal of intervention is to decrease undesirable student behavior and increase desirable behavior per Robichaux and Gresham (2014). Several faculty participants pointed out that a reward can be used to turn around a student’s behavior, suggesting that verbal support provided to students as they achieve progressively will lead to continued improvement in their performance. Faculty participants recommended non-monetary rewards. Davis et al. (2006) posited that how students perceive the reward will likely determine how effective a motivator it is in the present and over time. An alternative reward system referred to as the Mystery Motivator is describe by Robichaux and Gresham (2014) as a class-wide behavior intervention that may be modified to address specific behavior, select students or groups, and run for specific timeframes. Its implementation involves the teacher setting a behavior goal each week and monitoring class behavior. Each day that the class meets a goal the teacher colors in a square on the Mystery Motivator chart. Some squares contain the letter M written in invisible ink. Coloring a square will reveal any M’s previously written in invisible ink. If an M is revealed, the teacher
rewards the class with a mystery prize. Stated advantages of this intervention are efficiency and equity, as all students in the class receive the same reward.

The findings from this study show that the participating faculty members drew upon their collective, significant, and deep experience in teaching undergraduate students with low SD to thoughtfully identify six key factors that are profoundly significant to address when attempting to pedagogically turn around the performance of under achieving students who possess low SD.

Conclusion

The study sought to answer the following research question: How do college faculty members make use of innovative pedagogical teaching practices that result in the recognition of higher rates of SD being exhibited by underperforming undergraduate students at a private, four-year college in Boston, Massachusetts?

Findings indicate that this case study led to the discovery of six superordinate themes and 13 related sub-themes that are supported by the literature as being a reasonable and logical focal point for faculty members when attempting to improve student low SD levels.

Low undergraduate student SD is a significant issue at colleges and universities across the US (Mongillo & Wilder, 2012). For such individuals, the development of SD can mean the difference between self-reliance and dependence on others (Ward, 1999). It is important to those in academia that this problem be remedied as is evidenced by the sampling of faculty opinions gathered in this study. Absent an intervention, undergraduate students who are functioning at a low SD level will face a challenging time with their academic and professional careers (Mongillo & Wilder, 2012).

From the researcher’s perspective and positionality, a conclusion can be made that the extent and implications of this low student SD phenomenon and the sound evidence emerging
from the study serve to position the six superordinate themes as instrumental tools that can be employed by faculty at the college level to improve low undergraduate student SD.

**Recommendations for Practice**

The following recommendations for increasing undergraduate student low SD are important, as they demonstrate the need for faculty members to employ pedagogical teaching practices that will turn around underperforming students, increase their levels of SD and help position them to achieve successful lifetime outcomes.

The findings from the study indicate the following:

1. Faculty must provide continued robust and thoughtful support to students and act as role models as well as point out strong role models to follow with an objective of increasing student self-esteem. In addition to classroom instruction, faculty should implement this theme using regular student advising meetings, classroom guest speakers, and field trips to enrich the learning experience.

2. Faculty members must emphasize teamwork, hands-on projects, and flipping the classroom to place more work into the hands of students. Implementations can be sequential or simultaneous depending on the class make up.

3. Teaching faculty need to take the required steps to become knowledgeable of student interests and backgrounds via relationship nurturing and development. This knowledge should be factored into the curriculum to provide a rich and student aligned learning experience.

4. Student development of self-management and self-efficacy skills must be emphasized by faculty using the tools of effective time management and disciplined study skill development.
5. Scaffolding must be consistently employed by faculty members to ensure they “meet the students where they are” when administering curriculum. This will, in turn, help to foster student self-assurance.

6. Faculty must distribute both verbal encouragement and non-monetary rewards in a judicious and equitable fashion to their students during the academic year to appropriately deliver rewards for improved performances and encourage future improvements in student performance.

A significant observation that became evident during the individual participant interviews and in the focus group meeting was that these six superordinate themes should likely not be employed by faculty members in isolation. Rather, due to their interwoven, complementary, and synergistic relationships and related implications for student behavior, motivation, and learning, various combinations of all six of these superordinate themes and their related sub-themes should be utilized and adopted by faculty as they deem appropriate and tailored as is necessary to address the low SD status and backgrounds of their undergraduate student cohorts. This case study may benefit educators from all levels but particularly at the college level in fostering higher levels of student SD and student academic achievement.

**Limitations**

Limitations of this case study begin with the number of faculty members who participated at a small college located in the Northeast. While 12 faculty members volunteered to participate in the study, 41 faculty members work at the research site, so the findings may not be representative of all faculty. Further, data were collected using semi-structured one-on-one interviews with the faculty participants and in a focus group meeting in which faculty
participated to varying degrees. Gender may be a limitation, as 75% of the participants were female faculty members.

As the research site is a small college, the findings may not be applicable to a larger academic institution, and its urban Northeast setting may render the findings to be less suitable for suburban campuses or those located in other parts of the US. Additional limitations are posed by the myriad causes of low undergraduate student SD, including social impairments and disability and mental and cognitive impairments. Depending on the nature and severity of these circumstances, engagement by faculty of the study’s superordinate theme findings may have varied degrees of success in reducing low student SD.

A limitation of this case study lies in its investigation of extrinsic, faculty-administered teaching tools and practices to be used to ameliorate the issue of low intrinsic SD in undergraduate students. Such extrinsic pedagogical techniques will produce varied results due to the uniqueness of individual students. Adding to this point, Bear, Slaughter, Mantz, and Farley-Ripple (2017) study findings suggested that compared to students who are primarily motivated extrinsically, those who are primarily motivated intrinsically are better adjusted socially, emotionally, and academically.

**Recommendations for Future Research**

There are several suggestions for future research and further consideration that are recommended as a result of this study. Future research by faculty members with an emphasis on different superordinate theme pairings or other such combinations could be engaged in to gather data on resulting improvement measures in self-determination levels of targeted student cohorts. Such future research could lead to more refined empirical recommendations of which superordinate theme areas on which faculty should focus for optimal results.
Another suggestion may be to study the effect of employing student interventions in the domains of the six superordinate themes using an individual sequential pattern in which one theme is focused on and then a second theme is focused and so on during an academic year.

From a student demographic standpoint, future research could be conducted with the superordinate themes focused on students affected by differing impairments, such as social impairments and disability and mental and cognitive impairments to determine which theme(s) might provide the best remedial benefits. Further, while this study has applied its focus to finding remedies for low self-determination at the collegiate level, perhaps future researchers could extend this study’s findings to conduct research on improving low self-determination in high school or grammar school students.
**APPENDIX A**

**A MODEL OF THE SELF-DETERMINATION CONTINUUM**

<table>
<thead>
<tr>
<th>Regulatory style:</th>
<th>Non self-determined</th>
<th>Extrinsic Motivation</th>
<th>Intrinsic Motivation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Source of motivation:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Motivation regulators:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Amotivation</td>
<td>External Regulation</td>
<td>Introjected Regulation</td>
<td>Identified Regulation</td>
</tr>
<tr>
<td></td>
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<td>Somewhat internal</td>
<td>Internal</td>
</tr>
<tr>
<td>Regulated</td>
<td>External Regulation</td>
<td>Introjected Regulation</td>
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</tr>
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<td>Somewhat internal</td>
<td>Internal</td>
</tr>
<tr>
<td>Internal</td>
<td>Internal</td>
<td>Internal</td>
<td></td>
</tr>
<tr>
<td>Incompetence</td>
<td>Compliance</td>
<td>Ego-involvement</td>
<td>Congruence</td>
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<tr>
<td></td>
<td>External rewards or</td>
<td>Approval from others</td>
<td>Synthesis with self</td>
</tr>
<tr>
<td>Lack of control</td>
<td>punishments</td>
<td></td>
<td>Interest</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Enjoyment</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Inherent satisfaction</td>
</tr>
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**The Self-Determination Continuum**

(Deci & Ryan, 1985)
**APPENDIX B**

**COLLEGE STUDENT INVENTORY RESULTS**

(Sample of 10 Lower Scoring Students Who Were Not Retained From Fall 2016 To Fall 2017)

<table>
<thead>
<tr>
<th>Student</th>
<th>Study Habits %</th>
<th>Intellectual Interests %</th>
<th>Verbal Confidence %</th>
<th>Math and Science Confidence %</th>
<th>Desire to Finish College %</th>
<th>Attitude Toward Educators %</th>
<th>Sociability %</th>
<th>Receptivity to Academic Assistance %</th>
<th>Receptivity to Personal Counseling %</th>
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</table>
APPENDIX C

ACADEMIC RECORD OF STUDENT SAMPLE
(2016–2017 Academic Year)*

<table>
<thead>
<tr>
<th>Student</th>
<th>Fall 2016 Credits Taken</th>
<th>Fall 2016 Credits Earned</th>
<th>Fall 2016 Cumulative GPA</th>
<th>Spring 2017 Credits Taken</th>
<th>Spring 2017 Credits Earned</th>
<th>Spring 2017 Cumulative GPA</th>
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<td>0.48</td>
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*Blank fields reflect the student had departed the college after the Fall 2016 semester.
# APPENDIX D

## SUPERORDINATE THEMES EMERGING FROM MAXQDA CODING

<table>
<thead>
<tr>
<th>Theme</th>
<th>Frequency</th>
<th>Percentage</th>
<th>Percentage (valid)</th>
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</thead>
<tbody>
<tr>
<td>Raise Level of Students’ Self-Esteem</td>
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<td>91.67</td>
<td>91.67</td>
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<tr>
<td>Place More Work in the Hands of Students</td>
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<td>58.33</td>
<td>58.33</td>
</tr>
<tr>
<td>Tailor Curriculum to Students</td>
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<td>25.00</td>
<td>25.00</td>
</tr>
<tr>
<td>Scaffolding to Facilitate Incremental Learning</td>
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<td>8.33</td>
<td>8.33</td>
</tr>
<tr>
<td>Reward for Improved Performance</td>
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<td>8.33</td>
<td>8.33</td>
</tr>
<tr>
<td>DOCUMENTS with code(s)</td>
<td>12</td>
<td>100.00</td>
<td>100.00</td>
</tr>
<tr>
<td>DOCUMENTS without code(s)</td>
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<td>0.00</td>
<td>-</td>
</tr>
<tr>
<td>ANALYZED DOCUMENTS</td>
<td>12</td>
<td>100.00</td>
<td>-</td>
</tr>
</tbody>
</table>
APPENDIX E

FACULTY IDENTIFIED CAUSES OF LOW SELF-DETERMINATION

1) Lower income, ethnic or minority status
2) Lack of self-esteem
3) Disability, mental and cognitive impairments
4) First-generation college student
5) A lack of role models
6) Ineffective teaching/lack of support in grades 1–12
7) School-work-leisure conflict
8) Challenging home environment
### APPENDIX F

#### SUPERORDINATE THEMES AND SUB-THEMES

<table>
<thead>
<tr>
<th>Superordinate Theme</th>
<th>Sub-Themes</th>
</tr>
</thead>
</table>
| 1) Raise level of student’s self-esteem | 1.1 provide support omitted by prior educators and parents  
1.2 provide role models for students to follow |
| 2) Place more work in the hands of students | 2.1 emphasize teamwork  
2.2 more hands-on projects  
2.3 flip the classroom |
| 3) Tailor curriculum to students | 3.1 survey student interests  
3.2 understand student backgrounds |
| 4) Emphasize self-management and self-efficacy skills | 4.1 time management  
4.2 disciplined study habits |
| 5) Scaffolding to facilitate incremental learning | 5.1 meet students where they are  
5.2 increase student self-assurance |
| 6) Reward for improved performance | 6.1 verbal encouragement  
6.2 non-monetary rewards |
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