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A Social Influences Framework Related to College Student Learning Failures

Keith R. Proctor

A dissertation submitted to the faculty of Brigham Young University in partial fulfillment of the requirements for the degree of

Doctor of Philosophy

Stephen Yanchar, Chair Richard West Peter J. Rich Heather Leary David Williams

Department of Instructional Psychology and Technology

Brigham Young University

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# ABSTRACT

### A Social Influences Framework Related to College Student Learning Failures

Keith R. Proctor Department of Instructional Psychology and Technology, BYU Doctor of Philosophy

This dissertation explored ways that college students reflectively described the social influences related to their learning failures. This exploration was conducted using semistructured interviews and Stake's multiple case analysis method. The findings from the interviews were used to develop a framework that describes the key social influence attributes of the learning failure experiences. The key attributes of the framework include: (a) roles, (b) context, and (c) phases. Each key attribute is discussed in detail. The framework serves as the means for exploring several related strands of research related to learning failure in a cohesive way, potentially enriching our understanding of these experiences. This improved understanding may lead to improve intervention designs and advisement strategies that could improve learning outcomes for students.

Keywords: learning failure, college students, academic failure, social interaction

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#### **CHAPTER 1: Introduction**

Learning may be defined as an intentional activity wherein a learner intentionally pursues a learning goal (Bereiter & Scardamalia, 1989). Defining learning in this way concedes that a learner may also fail to accomplish their learning goal, resulting in a learning failure. Thus, learning failure is herein defined as any experience that prevents the accomplishment of the learning goal. A student may fail to earn a desired grade in a course or on an assignment. The same student might also fail to learn a concept as well as they would like. Both of these cases constitute learning failures. Assisting students to resolve these learning failures and accomplish their learning goals could be seen as one of the fundamental purposes within education. This dissertation focuses specifically on undergraduate college student populations because of the concerning national trends related to completion rates (Carlozo, 2012; Otani, 2015; U.S. Department of Education & National Center for Education Statistics, 2015). There has been significant research conducted regarding learning failures in college settings, focusing on isolated theoretical frameworks, constructs, and variables, but lacking an overall synthesis of ideas (Bailey, Helm, & Gladstone, 1975; Bayton & Whyte, 1950; Buck & Scammon, 1966; Chen, Chen, Lin, Kee, & Shui, 2009; Chen, Wu, Kee, Lin, & Shui, 2009; Cox, 2009; De Soto, Coleman, & Putnam, 1960; Matson, 1991; Peetsma, 2000; Schlenker, 1975; Seli, Dembo, & Crocker, 2009; Smith, Ryan, & Diggins, 1972; Struthers, Menec, Schonwetter, & Perry, 1996; Taylor, 2008; Wei & Ku, 2007).

The defining characteristics of college student learning failure experiences were identified in a prior study (Proctor, 2014). The study involved an in-depth, qualitative exploration of learning failure experiences of two college students. A cross-case analysis of four

1

case narratives from the two college students led to the identification of the following learning failure aspects:

- recognition of the learning failure
- evaluation of the learning failure
- attribution for the learning failure
- self-discovery through learning failure
- past experience and future expectations influencing learning failure
- social influences related to learning failure.

This last aspect, social influence, was prominent in the analyzed cases, but also in cases generated by the study that were not analyzed. Additionally, the focus of this previous study was not explicitly the influence of social influences within learning failure experiences, which resulted in insights that were significant, but limited in their understanding of this aspect. The ways that students interact with peers, parents, and professors and how those interactions influence the learning failure experiences of college students required additional exploration.

Unlike previous studies in the academic literature which have focused on isolated variables related to learning failure outcomes, this study focused on college student experiences with learning failure using a qualitative case study approach. As such, this dissertation explored with greater depth and greater synthesis the ways in which a student's social interactions with particular persons and groups influenced multiple facets of their learning failure experiences. The results of this dissertation included the generation of a Social Influences (SI) framework that describe the social aspects of college student learning failure experiences. The key attributes of this framework are: (a) roles, (b) context, and (c) phases. This SI framework may serve as a guide for researching the social aspects of college student learning failures in a more integrated

way than presently exists in the academic literature. In addition, the SI framework may generate intervention designs and advisement strategies that help college students recognize how their perceptions of social interactions affect their learning failures. Students who develop the capacity to manage their social perceptions and experiences related to their learning failures may also accelerate the rate at which they resolve them, leading to improved learning outcomes.

#### Significance of Research

Chaiklin (1993) defined social as "direct interactions between individuals" (p. 399). This broad definition does not specify context, meaning, or purpose for the interactions—only that there is a direct interaction between individuals. For the purposes of this dissertation, the term social signified the interactions between a student and others as they related to their learning failure experiences. A search of the literature on social influences related to college student learning failures returned a limited set of studies—narrow in scope, methods, and findings. A thorough, qualitative understanding of the nuances and complexities of the social interactions inherent to learning failures was completely absent. While many studies were reviewed that explored social interactions bearing on college student experiences generally (Micari & Pazos, 2014; Stringer, Crown, Lucas, & Supramaniam 1978; Wentzel & Wigfield, 1998; Zimmerman, 1989), none of the studies explored the role these social influences played in the students' learning failure experiences beyond loose connections to instructional outcomes. Additionally, the existing research was predominantly quantitative in its treatment of social influences, with qualitative explorations being remarkably absent (Tinto, 1975). The lack of qualitative exploration left a fragmented, limited understanding of learning failure experiences—typically focusing on a few isolated factors such as socioeconomic status, social class, first-generation status, race, gender, ethnicity, and at-risk indicators (Bui, 2002; Chagas & Fernandes, 2011; Farra, Zinser, & Bailey, 1978; Jury, Smeding,

Court, & Darnon, 2015; Merritt & Buboltz, 2015; Stringer et al., 1978). An absence of case studies and deeper qualitative explorations of the social aspects of college student learning failures was also surprising given current concerns about college completion rates (Carlozo, 2012; Otani, 2015; U.S. Department of Education & National Center for Education Statistics, 2015).

From both a theoretical and a practical perspective, research on college student learning failure is incomplete, given the absence of a thorough, qualitative description and understanding of how social influences relate to the these experiences. The absence of student perspectives on their learning failures and social interactions also made it difficult to ascertain the reliability of theoretical findings. Such omissions in the academic literature have led to limited designs of learning interventions that aim to support struggling students (Coleman & Freedman, 1996; Karabenick & Knapp, 1991; Newton, 1990). A rich qualitative exploration of social interactions related to learning failure experiences may provide much needed insight into academic support systems as well as social complexities that contribute to college student learning failures. Enhancing our understanding of the role social interactions play in college student learning failures may lead to more robust designs for social support interventions (Coleman & Freedman, 1996). Additionally, a better understanding of college student learning failure experiences may generate improved research programs to address the steadily increasing need for academic interventions among college students.

# **Research Questions**

Building on prior research (Proctor, 2014), this dissertation was designed to reveal more about college student learning failures through a focused exploration of college student descriptions of their social interactions relevant to their failures. This dissertation defined learning failure as *the failure of a college student to achieve their learning goal*. This particular definition was useful for exploring explicit, as well as tacit, learning goals of the students revealed through their post-failure reflections. The definition of social interactions in this dissertation was based on the work of Chaiklin and Lave (1993), who described them as "a wide variety of relations" that do not necessarily require "a homogeneity of community, culture, participants, their motives, and the meaning of events" (p. 15). This academic definition had two main features relevant to college student learning failure. The first feature was that social interactions inherent in learning failure experiences were not always uniform. Similar types of interactions influenced learning failure experiences in different ways depending on the roles of those involved, the contextual aspects of the interactions, and the phase of learning failure the participant was experiencing at the time. The second feature was that the meaning of a learning failure experience was situated according to related social interactions. Following from these definitions, this dissertation focused on the perceived meaning of a student's social interactions across different courses with a variety of individuals or groups from the student's point of view. In order to explore these experiences, the following research questions framed the analysis of the college student experiences:

- How do college students reflectively describe the social interactions germane to their learning failure experiences?
- What is revealed about college student learning failure from their reflective descriptions of social interactions inherent in their failures?

The first question generated new understanding of how college students perceived their learning failures. The second question generated an expanded understanding of college student learning failures in general, informing and building on previous research (Proctor, 2014).

#### **CHAPTER 2: Literature Review**

While many studies reviewed for this dissertation addressed growing failure rates and academic dismissals on college campuses (Bui, 2002; Chagas & Fernandes, 2011; Coleman & Freedman, 1996; Farra, Zinser, & Bailey, 1978; Jury et al., 2015; Merritt & Buboltz, 2015; Neumeister, 2004; Newton, 1990; Shu & Lam, 2011; Terenzini & Wright, 1987; Thompson & Parker, 2007; Tinto, 1975; Tinto, 1987; Wilder, 1993), there was little focus on the learning failure experience itself. These studies focused instead on isolated quantitative factors, consistently calling for deeper explorations of the rich complexities inherent in college student learning failure experiences (Tinto, 1975). Proctor (2014) qualitatively explored learning failure experiences from the perspective of two college students yielding the following insights related to social interactions:

- Strong, safe social relationships and interactions with teacher assistants (TAs) and peers may enable help-seeking behaviors.
- Feelings of social anxiety and inadequacy may impede help-seeking behaviors.
- A strong effort-orientation may prevent students from getting the help they need to resolve their learning failures.
- Social relationships and interactions may have an influence on the modification of a student's personal attribution orientations.
- Students may modify their effort orientation because of a supportive social environment.
- Students may also justify their learning failures and their decision whether or not to resolve them based on relative learning failures of others around them

- A student's social relationships and interactions may influence their learning failures and the decision whether or not to resolve them.
- The types of social relationships that students have with peers, TAs, and instructors may influence how they experience their learning failures.
- Course-level communities of practice and the nature of a student's participation within these communities may significantly influence their learning failures and the resolution of those failures.

Because these insights were part of a general exploration of college student learning failure perspectives and not a specific focus on social interactions, this dissertation generated greater insights and connections that those in the previous study.

In an effort to position this dissertation within the existing academic literature, this review summarized research on social interactions of college students and their role in learning failure experiences. An initial search of both the ERIC and PsycINFO databases using the thesaurus terms "Academic Failure" AND "College Students" AND "Social Influences" returned less than five results. Therefore, the same academic databases were searched using the more permissive thesaurus terms "Academic Failure" AND "College Students". These terms returned results that aligned better with the constructs addressed in this dissertation. The expanded searches yielded 66 articles of which only 14 pertained to this dissertation. Articles for this review were included if their abstract focused on learning failure experiences, rather than on learner traits. The limited relevance of the returned articles prompted a supplemental Google Scholar search using the phrase "social influences college student academic failure" which yielded seven additional, relevant articles, making 21 articles in total. Three articles and three books were added to the review from references in the articles returned by the literature searches.

An additional three books were reviewed at the recommendation of Jean Lave (personal communication, July 15, 2015), who was consulted relative to this dissertation:

Dear Keith Proctor,

You might read in juxtaposition with each other Ray McDermott's Achieving School Failure, Michel Foucault's book Discipline and Punish and my Introduction to Chaiklin and Lave (Understanding Practice). They all offer critical discussions of failure. I like your idea of looking at the failure of students as made in their relations with each other. But note that the communities of practice most central to the students may well shape how they participate in courses, while it must be pretty rare that a course generates a community of practice. Think of students coming into a classroom from some other context of practice, and leaving the class to move on to another context of participation. It's useful to ask what class participation means to students in their broader everyday lives. Well -- that's a few thoughts, anyhow. Very best concerning your research. Five strands of research from this literature review were relevant to the exploration of the social

interactions inherent in college student learning failure experiences:

- social support
- parental involvement
- social comparisons, motivation, and perfectionism
- social competence, integration, and adjustment
- social class and modeling

The objective of this review was to synthesize and describe the contributions these bodies of research made to our understanding of social interactions inherent to college student learning failures.

#### **Social Support**

When a college student fails to achieve a learning goal, they often require social support to identify, evaluate, and resolve the failure (Proctor, 2014). The concept of social support in college settings varies from one context to another. It consists of those supportive interactions between students and their instructors, peers, and other university support professionals (Karabenick & Knapp, 1991). Understanding the way that this social support helps students to work through their learning failures may be critical to the design of effective interventions. Tinto (1975), in his review of literature on college dropout trends noted that institutions who had larger variety in their populations, which increased the likelihood of social support, had lower incidents of voluntary withdrawal. Since at least part of the decision to voluntarily withdraw from college is due to unresolved learning failures, students likely need help from others to resolve their failures (Tinto, 1987). While this may not always be the case, Tinto's review concluded that the rate of students working through their learning failures may increase when social and intellectual support increases. However, it is unclear from the review what types of interaction and support best support college students in resolving their learning failures nor best practices for understanding the complexities of these interactions.

One possibility is that group assignments and interactions may lead to shared resolution of learning failures. Newton (1990), explored the affordances of small group interventions via 10-week pilot seminars with an average of 10 participants per group to support students on academic probation. These seminars were directed by graduate students who mentored the struggling students and monitored their progress. In regards to the success of these seminars, Newton observed how "some seminar groups have independently decided to maintain their meeting times on a volunteer basis beyond the 10 session commitment, because they thought that the support atmosphere was crucial in maintaining their success" (p. 186). Newton's observations demonstrated the academic benefit that students, themselves, may find in strengthened social support networks. This may also suggest that as students develop stronger support ties to peers and support professionals they may be more motivated to resolve their learning failures on an ongoing basis and not merely one time. They may also develop better cognitive strategies from their peers to help them resolve their learning failures. Interactions with university support staff may also prove beneficial.

On this point, Wilder (1993) noted in her exploration of the transformative experiences of over two hundred college sophomores, that:

Faculty-staff interactions, specifically individual contacts with advisors, emerged as a significant variable for this select population of students. There is ample research to support the role of advisement in promoting student retention, higher levels of satisfaction, and overall personal development... Advising contacts should provide the student with more than just an opportunity for information acquisition. In contacting their advisors, more students are seeking friendship as well as expert advice. The advising relationship should provide for career exploration, meaningful interaction, and personal fulfillment. (p. 24)

Wilder's study used multiple scale instruments to test her hypotheses about reasons for diminishing grade point averages of certain sophomore students. Her findings suggested that the quality of the student's relationships and interactions with university support personnel, from the student perspective, may be personally meaningful. This close association of students with their academic advisors may also be one of the key social influences related to student resolution of their learning failure experiences. In college student learning failure experiences, social support structures are complex, multi-dimensional, and consist of various configurations of peers, instructors, parents, and other university support professionals (Tinto, 1975). Due to the complexities of these social support structures, it can be difficult for students to know who to rely on and where to go for help with their learning failures (Tinto, 1987). How a student engages with the social support offered them is also complicated. An understanding of students' perceptions of social support may offer insight about how to structure this support in a way that increases struggling student engagement. This can be especially true of the social support parents provide. A more in-depth review of parental involvement warrants a place here because of its prevalence in the literature and because of its demonstrated impact on student behaviors, motivations, and success (Neumeister, 2004).

#### **Parental Involvement**

While students may have more frequent social interaction with peers, instructors, and university support staff, a key source of social interaction also comes from their parents. Parental responses to their student's learning failures can have a decisive influence on how the student perceives their failure and whether or not they choose to resolve the failure (Wentzel & Wigfield, 1998). Merritt and Buboltz (2015) in their study on socioeconomic factors relating to success in college explained that "parents who supported students in going to class, helped with homework, and encouraged matriculation in college bolstered academic success in their children" (p. 129). The study assessed several socioeconomic and perception attributes for 298 undergraduate students using established psychological scales. The beneficial parental support identified by the study took the form of "parental accessibility, open discussions about life and academic progress, warmth, and advice" (p. 133). According to Merritt and Buboltz, these findings held true irrespective of socioeconomic status (SES) factors. Thus, supportive parental interactions may have a positive influence on students and their decisions to resolve their learning failures.

While these supportive parental interactions were found to help students academically succeed, their influence across various contexts, course schedules, academic experiences, and time was unclear. For example, no mention was made of how unsupportive interactions might influence the academic experience. Another unexplored possibility was that the influence of conflict in parent-student interactions on learning failure experiences. While Merritt and Buboltz suggested the parent-student relationship could influence the learning goals and motivation of college students, the complexities of these interactions—especially across a variety of learning failure experiences—was not explored. The detrimental influence of negative parent interactions might actually impede a student's resolution of their learning failures. Thus, there might be possible limitations to the beneficial nature of the parent-student support interactions presented by Merritt and Buboltz. In particular, there may be limitations to how much success a parent can actually promote in their student. In a review of literature related to students' academic and social motivations, Wentzel and Wigfield (1998) theorized that "social goals to please one's parents might result in pursuit of goals to do well academically. This particular goal hierarchy would most likely facilitate academic accomplishments, especially if students have the requisite skills to excel intellectually" (p. 162). These parent-student interactions may bolster academic motivation, such as is needed to persist through the resolution of learning failures, but they may be inadequate if the student lacks the skills necessary to resolve the failure. Such parent-pleasing goals might also require parents who are capable not only of motivating their student, but also of developing the student's ability to resolve the learning failure. Not every parent has the expertise necessary to help his or her student resolve every learning failure that occurs. Thus, parentstudent interactions can be considered as a complex system of motivations, guidance, feedback, and advice—as well as potential frustration for both student and parent. These complexities arising from parent-student interactions also come at a time of much change and identity formation for the student (Jury et al., 2015). The parent's role in helping their student navigate these changes also needs to be considered.

Some college students struggling with learning failure experiences may suffer from unproductive attributions for the failures that can affect their identity and self-efficacy as well as their general integration with their peers. Jury et al. (2015) in their exploration of firstgeneration college student successes administered a questionnaire regarding learning goals to 216 college students, which was then correlated with academic performance. They found that among respondents, "entering a new group, such as group of college students, requires many psychological changes for the individual (e.g., appropriation of new norms, modification of the self-concept)" (p. 27). Navigating these changes might be aided by parents who may have already gone through similar experiences in their own lives. Neumeister (2004) suggested that students "are in need of assistance from parents and educators so they may learn how to better manage the attributions and emotions connected to experiencing successes and failures" (p. 333). The study referenced here was conducted through the administration of a psychological scale to assess perfection tendencies in 216 college students, which responses were subsequently correlated with exceptionally high scores on ACT and SAT tests. As suggested by Neumeister, guidance and mentoring from parents required that parents be cognizant of the source of the learning failures experienced by their students, as well as appropriate coping strategies including making productive attributions for learning failures. In addition to these roles that

parents had in successful learning failure interventions, the influences of peers and professors also needs to be considered.

#### Social Comparisons, Motivation, and Perfectionism

Social interactions with teachers and peers also contributed to learning failure experiences (Wentzel & Wigfield, 1998). Some students, when they experienced a learning failure, made unproductive attributions for the failure because of their perceptions of peer competence as compared to their own. This inhibited them from pursuing tools, strategies, and support to resolve their learning failures. The way college students compare themselves to their peers was explored by Micari and Pazos (2014) who noted that:

The social-comparison literature describes two kinds of social comparison, upward (comparing oneself to perceived superior others) and downward (comparing oneself to perceived inferior others) ... social-comparison concern involves strictly the attention an individual devotes to assessing their ability or performance relative to others... In peer-learning situations, concern over one's performance relative to others has been shown to have negative learning effects. (p. 251)

Their study consisted of 144 college students in 33 small group interventions designed to reduce social comparison concerns. The participants were given two questionnaires to assess their progress relative to their social comparison concerns. In the study, the authors suggested that the tendency of students to compare their performance to that of their peers may contribute to learning failures. Whether a student feels they are the least capable member of a group or the most capable, both perspectives and the interactions that result from these perspectives may negatively affect their learning, specifically related to learning failures. Being able to accurately evaluate one's learning failures is key to being able to resolve them (Proctor, 2014).

A college student's concern about peer performance likely stems from social motivation, explored by Wentzel and Wigfield (1998) who noted that:

Academic performance can be explained, in part, by the sets of goals that students pursue. Moreover, social and academic goals appear to be related to each other in an integrated fashion. The challenge remains, however, to identify precise ways in which motivation to achieve social goals can influence academic motivation and accomplishments. Two possibilities will be considered: social and academic goals are linked hierarchically, and social and academic goals are part of a network of complementary goals. (p. 162)

As previously noted, their review of the literature on students' academic and social motivations revealed these two perspectives—hierarchical and complementary social and academic goals, providing perspective on the nature of a student's learning failures. A student's social motivation for pursuing a particular learning goal may shift if learning failure occurs, leading to a shift in the learning goal itself if they are complementary. Alternatively, the social motivation to achieve a particular learning goal may override a learning failure and provide the persistence needed to resolve the learning failure. Thus, social motivation (i.e., desire to compare performance, impress, outperform, and so forth) could be a contributing influence to learning failure experiences or it might become a source of persistence leading to the resolution of learning failure.

Looking more closely at a student's stated purpose (i.e., learning goal) for taking specific courses may generate deeper understanding of this interrelation of social and academic goals and outcomes. In regards to the research on social and academic goals, Wentzel and Wigfield (1998) also stated that "the most immediate challenge is to refine further theoretical constructs in both

the social and academic motivation areas so that we can reach common understanding of terms and draw clear comparisons of results across studies" (p. 169). This same lack of clarity and precision in our understanding of social and academic motivation also limits our ability to intervene with students struggling with their learning failures (Tinto, 1987). Additional research on college student learning failures needs to clarify how social interactions influence learning failure experiences, which may also refine our understanding of students' social goals and interactions.

Beyond the peer comparisons reviewed by Wentzel and Wigfield, it may also be helpful to understand these same peer comparison behaviors from a student perspective. The way in which college students perceive their peers may influence their social goals, academic goals, and their determination to resolve their learning failures. At the extreme, some college students may develop an ultra-competitive comparison paradigm identifiable as perfectionism. Neumeister (2004) in her study involving socially-prescribed perfectionism in gifted college students made a distinction between "different patterns of interpreting successes and failures for socially prescribed and self-oriented perfectionists. The pattern of minimizing successes and maximizing failures may have a negative influence on the subsequent achievement motivation of socially prescribed perfectionists" (p. 333). A perfectionist student who perceives a highly competitive social environment, according to Neumeister, tends to minimize success and exaggerate learning failures. This exaggeration of learning failure may impede a student from accurately evaluating their failure and, consequently from resolving it. Neumeister also noted that:

Socially prescribed perfectionism was related to a learned-helplessness pattern of attributions in which they attributed both positive and negative outcomes to external

factors, demonstrating a perceived lack of control and a tendency to blame others for the outcome of events (p. 312).

A perceived lack of control for the causes of a learning failure could make it impossible for a student to resolve their learning failure because they would not be motivated to seek the resources and support needed (Tinto, 1975).

Alternatively, if the social comparisons led the student to engage in productive attributions for their learning failures, the comparison could become a source of motivation to resolve learning failures. To this point, Neumeister (2004) stated that:

Students could benefit from learning how to make appropriate attributions for failure, such as those made by the self-oriented perfectionists in the present study. These would include attributing failures to internal causes when justified, but recognizing the role of external causes, as well (p. 331).

These interventions mentioned here represent good practices that could aid in the resolution of learning failures and might be further developed by understanding how these comparisons and attributions are perceived by struggling college students. College students who make social comparisons between themselves and others regarding their learning failures often do so as a personal measure of their social competence, integration, and adjustment (Schunk, 1991). Depending on how a student makes these comparisons may determine how successful they are in the resolution of their learning failures.

#### Social Competence, Integration, and Adjustment

A student's persistence and motivation to resolve their learning failures might be related to self-perceptions of social competence, integration in the university cultures, and adjustment to key cultural practices. Tinto (1975) believed that "it is individual perceptions of social integration that are most directly associated with persistence. Specifically, college dropouts perceive themselves as having less social interaction than do college persisters" (p. 107). Thus, as students increase their interactions with others in the university culture, they may experience an increase in their access to the resources and support they need to resolve their failures. This perception of social integration might also strengthen their motivation to resolve their learning failures. Wentzel and Wigfield (1998) suggested that "interpersonal relationships with teachers might promote academic success and school adjustment because they contribute to the development of social motivational processes and to their expression in classroom contexts" (p. 167). It may be that some college students struggle with their learning failures because of social disconnection from professors, who possess the resources the students need to resolve their failures. Greater integration into the classroom culture may help college students take advantage of strengthened professor-student relationships to seek help when they need it. Peer interactions may also more productive for socially integrated college students struggling with learning failure. Terenzini and Wright (1987) administered multiple questionnaires to 1,105 college students over a four-year period regarding their academic and personal experiences. In the findings of their study they called for

A more careful attention to the role of other students in the learning process, particularly during the junior and senior years. These results point toward a possible need for more seminars and for more group projects in the later years of college. (p. 177)

A college student's social integration and adjustment likely evolve during their time at the university which means that their learning failure resolution strategies and resources may also evolve. Peer interactions, such as the group projects mentioned by Terenzini and Wright, might

increase a student's access to additional perspectives and academic tools needed to resolve their learning failures.

The way students influence one another is complex and these complexities can prevent a learning failure intervention from achieving its desired outcomes (Micari & Pazos, 2014). Tinto (1975), commenting on the sources of these complexities, stated that:

Seen as the interaction between the individual with given sets of characteristics (backgrounds, values, commitments, and so forth) and other persons of varying characteristics within the college, social integration, like academic integration, involves notions of both levels of integration and of degrees of congruency between the individual and his social environment (p. 107).

The social integration required of university students, coupled with academic factors, and a large variety of peer interactions could significantly complicate a student's learning failure experiences in the sense that the social resources to resolve the failure may become difficult to identify and take advantage of within the social contexts. There may be social stigmas associated with help-seeking that need to be overcome or there may be socially-oriented attributions that restrict a student from identifying the most useful social resources to help them. With social integration playing such an important role in student success, especially in the resolution of learning failures, it might be important to understand the ways in which students are integrated and interact with each other.

In regards to these social interactions, Wentzel and Wigfield (1998) stated that "with respect to academic outcomes, students' perceptions of academic self-efficacy and competence appear to be based in part, on what they learn by watching and interacting with teachers and peers" (p. 165). Thus, a college student struggling with learning failure, if fully integrated into

the cultures of the classroom, may be better prepared to identify learning failure resolution strategies and resources from others because of improved social competence. The student's selfconcept of their ability to succeed academically and to resolve their learning failures may be fundamentally derived from their social integration and adjustment to the classroom cultures (Thompson & Parker, 2007). Furthermore, Coleman and Freedman (1996) in a study involving 149 college students placed on academic probation who participated in a structured group intervention found that "an individual's ability to create a positive social climate in which others respond to his or her desires and expectations is a measure of the individual's social competence" (p. 632). Thus, social competence could relate to a student's ability to megotiate help and support from others with their learning failure experiences. The student's ability to manage their social interactions in a beneficial way may be central to their academic success and the resolution of their learning failures. Commenting on the importance of social competence, Tinto (1975) stated that:

Whether interaction with particular clusters of students and faculty leads to persistence seems to depend both upon the network of relationships tying those groups into the fabric of the institution and upon their relationship to the academic and social concerns of the individual (p. 119).

The integration of the college student into the classroom cultures, as well as the larger university culture, and social structures of multiple key communities may determine access to support for learning failures. The student might need to reconcile their needs with the availability and accessibility of university resources, which could be difficult depending on the nature of the student's learning failures, attributions for those failures, and the social relationships associated with the failure. Tinto also pointed out that further research is needed to clarify the role of these

social interactions in learning failure experiences in order to improve the persistence rates of colleges and to better integrate students. Understanding the dynamics of a college student's social class and the social modeling interactions that reinforce social class dynamics may provide additional insight regarding learning failure experiences.

#### **Social Class and Modeling**

A student's social class, or cultural group, provides a set of roles, identities, behaviors, and approaches to learning that affect their university experiences, especially their learning failures (Merritt & Buboltz, 2015). Within a social class, there are social models whose behavior and ideas reinforce the culture of the group. In a university setting, these social classes and models may come from many different contexts and converge in the university setting with complex implications for students. The way a student learns, how they study, when they study, the various social interactions they engage in, along with a variety of other experiences can be traced back to the student's social class and the modeling that they are exposed to (Schunk, 1991). Jury et al. (2015) found that "recent interest in the effects of social class at university indicates that first-generation students experience a cultural mismatch in university system, which in turn explains why they perform more poorly compared with continuing-generation students" (p. 26). The first-generation student comes from a social class that may lack modeling that would align the student's learning with that of multi-generation college students, implying an increase in learning failure experiences. When a struggling student lacks social models who effectively resolve their learning failures, the likelihood of them resolving their own learning failures could be diminished. Addressing this issue, Schunk (1991) noticed that

Students acquire much information about their capabilities from knowledge of how others perform. Classroom models—teacher and peer—are important sources of

vicarious efficacy information. Observing others succeed can convey to observers that they too are capable and can motivate them to attempt the task. Conversely, observed failures may lower students' sense of efficacy and dissuade them from working on the task. Such vicarious effects may be negated by subsequent personal experiences. A vicarious increase in efficacy may be short lived if an observer subsequently attempts the task and performs poorly. (p. 216)

Schunk's review of literature related to self-efficacy and academic motivation concluded that teachers and peers are a key source of social modeling, implying that the classroom has a culture of its own. This classroom community may be capable of modifying a student's self-perceptions, including motivations for resolving their learning failures, if appropriate conditions are met. A student who interacts with peers who successfully resolve their learning failures could possibly develop the motivation and strategies needed to resolve their own failures. This modeling, as Schunk points out, might also work in the reverse, demotivating and discouraging a struggling student from resolving their learning failures. Thus, social modeling might reinforce or impede aspects of social class related to students resolving their learning failures. Struggling students also model behaviors related to learning failure for their peers that may have a reciprocal influence—increasing the complexity of these types of social interactions.

Understanding the complexities of modeling interactions related to social class inhibitors to learning failure resolution could be important to helping struggling students. Jury et al. (2015) made the claim that "inequalities that are fundamentally social (social-class inequalities) can be internalized by first-generation and continuing-generation students in the form of differential achievement goal adoption, at least in some contexts like psychological studies" (p. 34). Some of the complexity in social class and modeling interactions may relate to the types of learning

goals—and consequently the learning failures—that college students adopt. Students from different social classes might develop different learning goals—resulting in different learning failure experiences that cannot be resolved in the same way, with the same resources, and perhaps not even within the same timeframe. Because a student's goal adoption is unique to their social class and the modeling they have been exposed to, the particular and complex ways in which a student's social class influences their learning experiences—specifically failures must be examined in a social, cultural, historical context (Chaiklin & Lave, 1993). This contextual perspective is also required of the students themselves, who may lack the selfawareness of their learning failure contexts to be able to resolve them (Proctor, 2014). To understand these social interactions better and to improve the efficacy of intervention designs, these student perspectives and the other strands of social research covered in this literature review may be holistically explored in the context of college student learning failure experiences.

# **Need for Further Research**

Current research on college student learning failure experiences is characterized by a general lack of qualitative student perspectives or a general synthesis of isolated theoretical concepts (Proctor, 2014). This literature review explored Social Support; Parental Involvement; Social Comparisons, Motivation, and Perfectionism; Social Competence, Integration, and Adjustment; and Social Class and Modeling as research strands related to college student learning failure experiences. No framework existed for discussing these social concepts holistically in context of college student learning failure experiences. The perspectives of college students regarding their social interactions related to their learning failures were also missing from the literature. A holistic synthesis of these social concepts as they relate to learning failure may better inform academic interventions for struggling students. It may also

provide students with knowledge and tools to recognize and productively address the ways in which their social interactions influence their learning failures. Therefore, this dissertation explored the following questions:

- How do college students reflectively describe the social interactions germane to their learning failure experiences?
- What is revealed about college student learning failure from their reflective descriptions of social interactions inherent in their failures?

This explicit focus on students' lived experiences and their perceptions of the social interactions of their learning failures may clarify and provide evidence for the most beneficial interactions leading to students resolving their failures. It may also generate insights about how students perceive the social aspects of their learning failure experiences, as well as their attributions for the failures. The methods section that follows outlines the techniques used to conduct this dissertation study in a defensible way, ensuring the credibility and trustworthiness of the findings as well as the faithful representations of the students' perspectives.

### **CHAPTER 3: Methods**

The purpose of this dissertation was to generate a holistic description of how a college student perceives the influence of social interactions on their learning failure experiences. This holistic description resulted in the Social Influences (SI) framework related to college student learning failures. This framework is described in more detail in the discussion section of this dissertation. The questions of this dissertation were addressed by analyses focused specifically on social themes related to college student failures. The methods used in this dissertation consisted of participant interviews developed into case narratives, which were analyzed according to the multiple-case study approach described by Stake (2006). Due to the narrative nature of the interview process and the wide range of possible codes and themes, the case study approach was the most suitable for this dissertation. Data analyzed in this dissertation consisted of five previously unanalyzed cases of learning failure from a previous study (Proctor, 2014) and three cases generated by this dissertation. The following sections first address the participant selection process. Second, they address the data collection and interview processes. Third, they address the data management and transcription process. Fourth, they describe how the case narratives were developed. Fifth, they outline the process for generating and bounding cases as well as the analysis process for this dissertation. Finally, they address the rigor and trustworthiness strategies used to establish the credibility of this dissertation.

### **Participant Sampling and Selection**

For this dissertation, undergraduate student participants from Brigham Young University were sought who could be interviewed multiple times regarding their perspectives of the social aspects of their learning failure experiences. The IRB-approved email invitation sent to students is included in Appendix A. Five initial participants were selected based on their ability to articulate their learning failure experiences with sufficient detail for the intended exploratory analysis. These articulations included sufficient details about the learning failure experiences for a substantial analysis of various themes and patterns beyond what was present in the literature reviewed for the study. From this group of participants, one was selected to provide extended, detailed descriptions of their learning failure experiences. The criteria for selecting these final participants was as follows:

- The student intended to succeed at learning but failed
- The student was able to critically reflect on and articulate his/her learning experiences
- The student was available for multiple interviews that were necessary to compile the cases for the study.

This criteria and participant selection represented a criterion sampling approach (Patton, 2003). The same email invitation and participant selection criteria were used to identify the two final participants from the previous study (Proctor, 2014).

### **Data Collection and Interviews**

The data for this dissertation were collected via semi-structured interviews that were designed to produce rich narratives of the students' perspectives and experiences. The interview protocol is included in Appendix B. Each participant gave written consent to participate in these interviews as outlined in the invitation email included in Appendix A. One interview of approximately 30 minutes was conducted with each of the initial participants to determine their ability to articulate details about their experiences. From these screening interviews, a final participant, Trent, was selected to participate in additional interviews. Data from the screening interviews were only analyzed for Trent because of the richness and connection of his initial interview to his subsequent interviews. Three additional interviews lasting from 30 to 60

minutes were then conducted with Trent to generate data for his case studies. Interview recordings were maintained on a password-protected computer accessible only to the researcher and his committee members to maintain confidentiality of student identity. Supplemental data regarding the researcher's own developing concepts of learning failure and participant insights were generated via a reflective journaling process conducted in a password-protected online blog. While the disassociation of researcher and participant perspectives was impossible due to the necessity of interaction and interviewing, the researcher influence was documented, fully disclosed, and critically reviewed by both the researcher and his committee (Lincoln, Lynham, & Guba, 2011). Cases included from the previous study (Proctor, 2014) were generated for two participants, Amy and Jason, using the same interview protocols and reflective journaling processes used in this dissertation.

### **Data Management and Transcription**

Using audio files collected from the interview process, all data underwent a manual transcription process. Where possible, transcripts were reviewed by participants for fidelity in representation of their experiences and perspectives. Feedback on transcripts collected from participants was then incorporated into the transcripts and punctuation was updated to improve readability. The transcription protocol has been included herein as Appendix C. These transcripts then became the basis for creating the cases. This manual transcription and member checking process made it possible to become more familiar with the content in the interviews, as well as with the participants themselves, which enhanced the credibility of the case analyses and claims. The same data management process and transcription protocol was used to record and transcribe interview data used in this dissertation from the previous study (Proctor, 2014).

# **Case Narrative Development**

Cases were developed by reviewing the interview transcripts multiple times and coding them into what Stake (2006) calls *patches*, or related segments of dialogue organized by a common element. Interviews were first coded by the course in which the learning failure experiences occurred, which appeared to be the most logical way to organize and bound each case. As part of this process, only participant comments from the interviews were included to produce a rich, descriptive narrative of participant experiences. This coding process represented a criterion sampling approach (Patton, 2003) leading to the restructuring of various participant quotes into cases that read as coherent learning failure narratives stated exclusively in the participants' own words. In total, 18 cases were included in this dissertation (see Table 1).

# Table 1

Participant	Case Title		
Amy	American Heritage		
5	Anatomy		
	Chemistry		
	Methods in Health Promotion		
	Physics		
	Research and Evaluation Methods		
	Statistics		
	Backstory		
	Learning Failure		
Jason	American Sign Language		
	Chemistry		
	PD Bio		
	Backstory		
	Learning Failure		
Trent	Accounting		
	Math		
	Psychology		
	Backstory		

Four cases were generated as part of this dissertation from interviews with Trent, while fourteen were generated in the previous study (Proctor, 2014) from interviews with Amy and Jason. Cases from the previous study were reviewed, coded, and assembled into case narratives in same manner as was done in this dissertation. These cases are contained in Appendix D herein.

# **Data Analysis Methods**

Stake's (2006) multiple case study methods call for a focus of the data analysis upon a quintain or specific aspect of interest in the cases. In the previous study (Proctor, 2014) general aspects of college student learning failure experiences were the quintain and the bounding principle for each case was the course in which the experiences took place. In this dissertation,

the quintain was defined by the social interactions and influences inherent in the college student learning failure experiences. The bounding principle consisted of all social interactions related to learning failures within a given course. Social interactions were identified that related to the participant's learning failure experiences, occurring either during or prior to the course. Using these criteria, three of Amy's cases, two of Jason's cases, and three of Trent's cases were selected for deeper analysis because they each contained manifestations of social interactions that contributed differently to an understanding of learning failure (Table 2).

### Table 2

Participant	Case Title
Amy	Anatomy Methods in Health Promotion Backstory
Jason	American Sign Language Backstory
Trent	Accounting Math Psychology

Final Dissertation Cases

Amy's Anatomy case represented contrasting social interactions within different sections of the same course. Her Methods in Health Promotion case emphasized the role of academic support staff. Her Backstory case explored the role that her parent, sibling, and spouse interactions played in her learning failures. Jason's American Sign Language (ASL) case explored the role of peer interactions in his learning failures and his Backstory case explored how interactions with parents and his social perceptions of others influences his learning failures. Trent's Accounting course explored repetitive social interactions with small groups, while his Math and Psychology cases explored social perceptions of professors, TAs, and social isolation experiences. This sampling strategy represented a stratified approach (Patton, 2003). Multiple readings of each case together with progressive coding and subjectivity checks were used to identify the themes and patterns of social interactions within each case. Stake's (2006) multicase analysis worksheets were used to guide and document the analysis process. Modified versions of these worksheets reflecting a non-program evaluation context are included in Appendix E. Using Stake's worksheet 3, the first reading of each case focused on summarizing the experience and to build familiarity with the narrative. Stake's worksheet 3 was also used for second readings, which focused on identifying initial codes and themes. Stake's worksheets 3 and 4 were used during subsequent reviews to refine initial themes, identify negative cases, and solidify the emergent thematic framework.

### **Rigor and Trustworthiness Strategies**

To ensure the rigor and trustworthiness of the findings of this dissertation, specific techniques were utilized as suggested by Lincoln and Guba (1986). These techniques addressed four aspects of the dissertation: credibility of the findings, transferability of the findings to additional contexts, dependability and confirmability of the findings and perspectives expressed in the cases, and the positionality or bias of the researcher.

**Credibility.** The credibility of the findings in this dissertation were strengthened by the use of three techniques: (a) progressive subjectivity checks via the practice of reflexive journal entries, (b) triangulation by peer debriefing and member checks and (c) negative case analysis (Lincoln & Guba, 1986). The researcher kept a reflective journal to record conclusions, insights, and themes as they developed. This reflective journal served as part of the audit trail for the dissertation as well as for the progressive subjectivity checks and negative case analysis (Denzin,

1970; Patton, 2003). The progressive subjectivity checks took place as notes from Stake's worksheets were compared to ongoing journaling entries and conflicting points were resolved in subsequent journaling entries. Negative case analysis was also conducted as part of this comparative process with challenges to the developing themes of the dissertation being resolved via subsequent journaling entries and the use of Stake's worksheets. The negative case analysis took place throughout the dissertation until the researcher determined that additional competing evidence was negligible or non-existent. Peer debriefing was also conducted throughout the study by having the committee chair and other committee members review dissertation findings. Member checks were successfully attempted with participants from the previous study (Proctor, 2014) but were not successful during the present dissertation study. Thematic triangulation (Patton, 2001) within and across cases was used to identify and refine the findings of this dissertation as part of the data analysis, using Stake's (2006) multi-case process and worksheets.

**Transferability.** The transferability of the findings generated by this dissertation relied primarily on the thick, case narratives written in the participants' own words. This strategy enabled other researchers to make (Lincoln & Guba, 1986) "judgments about the degree of fit or similarity" to other contexts (p. 19).

**Dependability and confirmability.** To establish the dependability and confirmability of the findings of this dissertation, an audit trail was maintained that can be reviewed and critiqued by other researchers. Included in this audit trail are participant invitations (Appendix A), a sample interview protocol (Appendix B), the transcription protocol (Appendix C), all eight case narratives (Appendix D), Stake's cross-case analysis worksheets (Appendix E), and reflexive journal entries (Appendix F).

**Positionality.** I am a PhD student studying Instructional Psychology and Technology at Brigham Young University. I have taught university courses in technology integration for preservice teachers, statistics, and strategic planning. My research interests include generative approaches to instructional design along with informal and self-evaluation. I am interested in student motivation and understand learning failure to be just one of several demotivators that impede students from accomplishing their learning goals. I am currently studying college student learning failures but believe that learning failure is also present as early as children are capable of self-directed learning and goal setting. I conducted both a pilot study and a Master's thesis research study (Proctor, 2014) on learning failure experiences resulting from an undergraduate honors course that I co-designed with other BYU faculty. The pilot study revealed themes that contradicted findings in the literature about student fear of failure and typical attributions for failure. My master's thesis also revealed 71 additional themes related to college student learning failure than were present in the literature prior to the study. From the thesis, it was determined that the social aspects of college student learning failure experiences would be the next most profitable line of research, potentially producing themes to inform existing learning failure interventions at universities. Following this dissertation study I intend to conduct further research on the transferability of both learning failure frameworks-the general framework developed in the thesis study and the SI framework developed in this dissertation—to K-12 contexts.

#### **CHAPTER 4: Findings**

The purpose of this dissertation was to reveal more about college student learning failures by exploring student perceptions of their social interactions relevant to the failures. Through this exploration, a comprehensive framework was developed that describes the key attributes and interrelated social aspects of college student learning failure experiences. To conduct this exploration, the following research questions framed the analysis of the case narratives developed in this study:

- How do college students reflectively describe the social interactions germane to their learning failure experiences?
- What is revealed about college student learning failure from their reflective descriptions of social interactions inherent in their failures?

The analyses and findings generated by this dissertation represented a large body of evidence. For purposes of brevity, this section is broken into three parts. The first part contains one case narrative presented together with its thematic analysis and its related cross-case analysis. This part provides the reader with context for the description, analysis, and interpretation that went into the study while maintaining a focus on the aforementioned research questions and purposes. Each case narrative uses the participant's own words to describe their learning failure experiences in specific courses. Full texts of all eight case narratives are included in Appendix D. All case analyses with notes and findings are also included in Appendix E, which were documented using Stake's multiple case analysis worksheets.

The second part of this section presents summaries of the findings that resulted from the analyses of each narrative case of the three participants: Amy, Jason, and Trent. This part provides the reader with an understanding of how each analysis contributed to the development of the Social

Influences (SI) framework generated by this dissertation. The first three case analyses explored Amy's experiences in her Anatomy course, her Methods in Health Promotion course, and her Backstory—a compilation of non-course-specific social interactions related to her learning failures. The next two case analyses explored Jason's experiences in his American Sign Language (ASL) course and his Backstory experiences. The next three case analyses explored Trent's experiences in his Accounting course, his psychology course, and his Math course. Cross-case analyses of each participant's case set and a full cross-case analysis are also included. The themes generated from all of these analyses are summarized in Table 3.

# Table 3

# Summary of Individual and Cross-case Themes

Amy – Anatomy Themes	Amy – Methods in Health Promotion Themes	Amy – Backstory themes	Amy – Cross-Case Themes
<ul> <li>Professor Challenges</li> <li>Expectations</li> <li>Classroom Location</li> <li>Friend Support</li> <li>Group Work</li> <li>TA support</li> <li>Comparisons</li> </ul>	<ul> <li>Peer Influence</li> <li>Sibling Influence</li> <li>Professor Benefits</li> <li>Academic Support</li> </ul>	<ul> <li>Comparisons</li> <li>Academic Counseling</li> <li>Group Work</li> <li>Anxiety</li> <li>Confidence</li> <li>Parental Influence</li> <li>Sibling Influence</li> <li>TA Support</li> <li>Spouse Influence</li> </ul>	<ul> <li>Professor Mentoring</li> <li>Expectations</li> <li>Classroom Location</li> <li>Friend Support</li> <li>Group Work</li> <li>TA Support</li> <li>Comparisons</li> <li>Learning Support Staff</li> <li>Anxiety and Confidence</li> <li>Parental Influence</li> <li>Sibling Influence</li> <li>Spouse Influence</li> <li>Perceptual Deficits</li> </ul>
Jason – ASL Themes	Jason – Backstory Themes	Jason – Cross-Case Themes	
<ul> <li>Embarrassment</li> <li>Peer Influence</li> <li>Professor Challenges</li> <li>Past Experience</li> <li>Learning Goal Modification</li> </ul>	<ul> <li>Parental Influence</li> <li>Professor Benefits</li> <li>Advice</li> <li>Friend Influence</li> <li>Peer Influence</li> </ul>	<ul> <li>Parental Influence</li> <li>Professor Benefits</li> <li>Professor Challenges</li> <li>Advice</li> <li>Peer Influence</li> <li>Embarrassment</li> <li>Past Experience</li> <li>Social Goal Modification</li> </ul>	

Trent – Accounting Themes Trent – Psychology Trent – Math Themes

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	Themes		
<ul> <li>Professor Benefits</li> <li>Professor Challenges</li> <li>Group Work</li> <li>Friend Influence</li> <li>Parental Influence</li> <li>Comparison</li> <li>Anxiety</li> <li>Competition</li> <li>TA Challenges</li> </ul>	<ul> <li>Professor Challenges</li> <li>Friends Influence</li> <li>Group Work</li> <li>Professor Benefits</li> <li>Comparison</li> <li>TA Challenges</li> <li>Peer Influence</li> <li>Lack of Resources</li> <li>Seating</li> </ul>	<ul> <li>Professor Challenges</li> <li>Comparison</li> <li>Group Work</li> <li>Independence</li> <li>Environment</li> <li>Friend Influence</li> <li>Seating</li> </ul>	<ul> <li>Friend Influence</li> <li>Professor Challenges</li> <li>Professor Benefits</li> <li>Group Work</li> <li>Comparison</li> <li>TA Challenges</li> <li>Seating</li> <li>Parental Influence</li> <li>Rejection of Social Perspectives</li> </ul>

#### All Participant Cross-Case Themes

- Professor Connections
- TA Interactions
- Peer Influence
- Parental Influence
- Sibling Influence
- Spouse Influence
- Supportive Others
- Comparison
- Group Work
- Classroom Seating
- Course Expectations
- Anxiety
- Rejection of Contrary Perspectives

The third part of this section presents the Social Influences (SI) framework generated from the analyses of this dissertation. This part helps the reader understand the development of the framework as well as explore each of its key attributes in detail. The three key attributes of the SI framework are: (a) Roles, (b) Context, and (c) Phases. Each attribute is discussed together with examples from the case narratives that helped define the attributes.

### **Example Case Narrative**

This first section consists of Amy's Anatomy course narrative shared in her own words. In the course, Amy had interesting and contrasting social interactions related to her learning failures in both the lecture and lab sections of the course. As the course was part of her declared major at the time, Amy wanted to learn the material thoroughly so that she could progress through more difficult courses that lay ahead. Unfortunately, she struggled to learn the course concepts from the lecture as well as she learned the concepts in the lab section. This failure to learn the concepts as well as she wanted comes through in her narrative as she makes social comparisons of her performance to that of her peers.

Amy's Anatomy course. Anatomy was one of the first classes that I took when I got home from my mission. So I was gung ho about being a planner, a perfect planner, doing my goals. It was for exercise science and I loved it. The course is split up into two parts-the lab, the cadaver lab, and then lecture. The lecture half of the class is in a lecture room and you're being lectured. But I really loved the class because of the cadaver lab part. The cadaver lab was so interesting because I actually saw, touched, poked, and prodded, and so forth But I could actually see what we were talking about and saw it in real life. On the tests, the final exam even and the midterm, I went in and I was just excited to take those tests. But then for the lecture part—it was miserable. It was horrible. I think I came out with a C+. I don't remember exactly. I probably got a horrible grade in the lecture and the cadaver lab part, I think I got an A just because it was really fun. So then you just average those out. I went into the lecture and I had a teacher that everyone said was hard and that the other teacher was more fun and easier. And people say it's kind of hard too. But, just studying from a book was boring to me I think. And I think when I go to class and I'm not up front and up close listening then I don't understand and it just goes over my head, I get sleepy. I don't think I knew anyone in lecture because I didn't really understand it very well and honestly I think I skipped quite a few times because the teacher would just go over power point slides that were online anyway. And that was bad thinking on my part because what I realize now is even if all the power point slides are online, when else are you going to have time to go over those slides unless you're in class? You can't think, 'oh, I'll just go back and do it later'. You're not going to go back and look at those power point slides later even if they are always available to you. That was just something that I realized now. The only thing you technically had to do was attend class but {...} So, I wouldn't go to class very often, but I would go to the cadaver labs because those were graded according to attendance and you had to take quizzes every week. So, that was intense, but I loved it. We were always with the same group, a smaller group of people in a smaller class, whereas lecture was like a ton of the lab groups all in one. I really connected with the people in my lab. And the TAs, they were really helpful. I had the same TAs every time. We had memorizing tests and then big tests like the midterm and the final were just big ones that people worried about. But I remember feeling all pumped before I went in because I was just excited because it was something that was really interesting to me. And before going into the tests, it was always with my lab and we said, 'ok! We can do this!' So it was fun, like a support group. So, it was kind of this tight-knit little cohort group thing. And that's what I've noticed is that the best classes I've been in are the small classes where we've all gotten to know each other and the teacher is right there with us. Or it's the TAs. And what I realized is that whenever I'm in one of those classes that's in a huge room or even if those ones have labs but it's more than say, 15 people, I think I didn't sit up front and center because I felt too outnumbered, being the only one who didn't understand.

### **Example Case Analysis**

This example of case analysis results was developed using Stake's (2006) worksheet 3 to analyze Amy's Anatomy case. These case analyses helped generate the underlying themes of the study that served as a foundation for the later cross-case analysis and defining of the Social Influence (SI) framework generated by this dissertation.

**Amy's Anatomy course.** Amy's Anatomy course was PDBio 220 that covered organs and organ systems, tissue structures, and appreciating the human body (retrieved July 5, 2016 from https://catalog.byu.edu/life-sciences/physiology-and-developmental-biology/humananatomy-lab). She took the course as part of an exercise science major program, which she ultimately abandoned. The Anatomy course had a lecture component and a lab component. Amy succeeded in the lab, but failed to learn the concepts in the lecture that she set out to learn. She pointed out the major contribution her peers and the TAs made to her enjoyment and grasping the concepts in the lab and how the lack of personal connection in the lecture contributed to her learning failures. The following major themes stood out in this case: Professor Challenges, Expectations, Classroom Location, Friend Support, Group Work, teacher assistant (TA) support, and Comparisons. Amy's interactions with her professors, TAs and peers in the course helped refine the passive and active role attributes of the SI framework. Her expectations for the course and her group work experiences helped to refine the physical, relational, emotional, and temporal context attributes of the SI framework. Amy's social comparisons helped refine the evaluation and attribution phase attributes of the SI framework.

**Professor challenges.** Amy took the course from a professor who had a reputation for being difficult. These perspectives from her peers created anxiety about the course and her ability to do well in it. Amy stated, "I went into the lecture and I had a teacher that everyone said was hard and that the other teacher was more fun and easier." These social perspectives created expectations regarding her teacher and her ability to learn effectively from him. These socially developed expectations for her experience in the course—particularly with the professor—prejudiced Amy early on towards getting the help she would need to overcome her learning failures. This led, in turn, to more difficulties identifying, evaluating, and resolving her

learning failures. This theme illustrates the way social influences may bias students against certain resources that they need to access when dealing with learning failures. This is particularly problematic when the resource is the professor of the course because students rely so much on communication from the professor to learn course concepts and to work through their learning failures. Amy's interactions with the professor in this course were largely passive and corresponded to a facilitating role of the professor. Her interactions with her peers were more active and represented their advising roles.

**Expectations.** Any developed an expectation that the course would be difficult from her conversations with others because as she stated, "And people say it's kind of hard too." This way of thinking provided socially acceptable attributions for any failure she may have experienced in the course—much like, 'I did poorly in the course because the professor and the material were difficult'. These superficial attributions impeded Amy from looking for deeper causes for her learning failures and impeded her ability to resolve them. Since others had struggled in the course, she was comfortable attributing her failure to this stable, externally located source. Her learning failure experiences involved more complexity and contributing sources than Amy was willing to resolve. Some of this may have been due to her perceived investment to overcome the failure, which was more than she was willing to make. Thus, it was socially acceptable and took less effort to abandon the failure (Turner et al., 2002). This insight suggested that the social acceptance of particular types of failures might contribute to a college student's decision to resolve or abandon them. Additionally, if other students had similar learning failure experiences in a given course, these become precedent experiences for future student that affect their motivation to resolve or abandon the failures. Amy's comment about others failing previously in the course was an example of the temporal nature of her social context. Her confidence in these

reports and their influence on her expectations for the course demonstrated a relational aspect of her social context. The negative influence of her peers' past learning failures on Amy's confidence to resolve her own learning failures represented an emotional aspect of her context. That these social influences were so different between her lab and lecture social interactions demonstrated a physical aspect of her learning failure context.

**Classroom location.** Amy sat in a place in the classroom that impeded her ability to pay attention and to stay interested in the lectures. As she pointed out, "I think when I go to class and I'm not up front and up close listening then I don't understand and it just goes over my head, I get sleepy." This was an unexpected insight because it suggested that where a student sits in relation to the professor may affect their engagement in the course. It is possible that Amy may not have been naturally engaged in the course concept, but where she sat in the course further diminished her engagement, leading to more learning failure. This finding also demonstrated that access to the professor and other students in the social vicinity of the student's place in a classroom affects their ability and motivation to resolve their learning failures. Amy's comment about sitting in a disadvantaged seat in the classroom exemplified a physical dimension of her social context. That her seating had a direct bearing on her lack of interaction with the professor and other students demonstrated a relational aspect of Amy's learning failure context.

Friend support. Because she didn't know anyone in the lecture section of the course, Amy struggled to find others who could help her understand the concepts and resolve her learning failures. She explained, "I don't think I knew anyone in lecture because I didn't really understand it very well and honestly I think I skipped quite a few times because the teacher would just go over power point slides that were online anyway." Low expectations for the lectures, poor attendance, and trouble getting to know other students in the large course sections affected Amy's ability to understand the course concepts, leading to her learning failures. Conversely, her experiences connecting to and working with other students on a regular basis in the lab section of the course strengthened her ability to work through her learning failures and understand course content. These supportive groups were especially effective when the professor and/or the TAs could work closely with them. Amy explained that, "before going into the tests, it was always with my lab and we said, 'ok! We can do this!' So it was fun, like a support group. So, it was kind of this tight-knit little cohort group thing. And that's what I've noticed is that the best classes I've been in are the small classes where we've all gotten to know each other and the teacher is right there with us. Or it's the TAs." Thus, when provided with support from friends in the lab section of the course, Amy was more motivated to pay attention and to work with others to resolve her learning failures. These insights suggested that support from friends was a significant influence on whether students experienced learning failure as well as whether they were able to resolve their learning failures. Another interesting insight from this theme is that Amy was able to develop a support group of peers in one section of the course and not the other. This suggested that the social context and friendliness of the students in a given section of a course could affect the ability of a struggling student to identify and use peer resources. As Amy pointed out, the ability to connect with peers can affect whether a student resolves or abandons their learning failures. Amy's interactions with other classmates in the lecture section of the course were largely passive and represented modeling roles. By contrast, her interactions her friends in the lab section of the course were active and represented a reciprocating mentor role.

**Group work.** Being in a small group in the lab section helped Amy to enjoy the learning experience and understand the course content better. Speaking of her experiences with the lab

section of the course she explained, "We were always with the same group, a smaller group of people in a smaller class, whereas lecture was like a ton of the lab groups all in one. I really connected with the people in my lab." Both the number of students present in the course and the social connections within her small group influenced her learning failures. The large numbers of students in the lecture section of the course made it difficult for Amy to establish helpful relationships with other student around her. This could have been due, in part, to the inconsistent seating arrangements during the course, making it difficult for Amy to sit next to the same students from one class to the next. The consistency and size of the small group of students Amy worked with in the lab section made it easier for Amy to get help with her learning failures as they arose. This theme emphasized that working in small, structured groups may help struggling students to identify and to get help from their peers with their learning failures. The small group size is important because it keeps the number of competing needs within the group low, providing opportunities for the struggling students to address the needs related to their learning failures. Amy's work with the small group related to both physical and relational aspects of her context. Her resulting enthusiasm in resolving her learning failures in the lab section demonstrated an emotional aspect of her learning failure context.

**TA support.** Amy was helped by the TAs and appreciated their consistency throughout the course. As she pointed out, "The TAs, they were really helpful. I had the same TAs every time." Having consistent access to the same TAs allowed Amy to build relationships with them. These relationships were key to her success in the lab section as they enabled her to get help with her learning failures in an intimate setting from a dedicated resource. Unlike the lecture section where she was embarrassed to ask questions to resolve her learning failures, Amy was actively identifying and resolving her learning failures in the lab section. The helpfulness of the TAs also

suggests that they were approachable, meaning that Amy was able to form helpful social connections to them. This theme emphasized that access to support resources may be due, in part, to the approachableness and consistency of the support staff. As struggling students identify their learning failures, they need this consistent access to support staff to resolve their learning failures—otherwise the likelihood of failure abandonment increases. Amy's interactions with TAs in the course were active and represented their mentoring role.

Comparisons. Amy felt confident about her preparation for the tests even when she perceived that others were not as prepared or enthusiastic. Regarding the lab section of the course she recalled, "We had memorizing tests and then big tests like the midterm and the final, just big ones that people worried about. But I remember feeling all pumped before I went in because I was just excited because it was something that was really interesting to me." Amy recognized that her confidence exceeded the confidence of her peers. This comparison and recognition may have increased her engagement with course because it related to her ability to resolve her learning failures and succeed in the class (Ames & Archer, 1988). However, being in larger classrooms triggered a social comparison impulse that led to negative attributions and anxiety related to her ability to succeed and resolve her learning failures. Speaking of the lecture section of the course, Amy stated that, "Whenever I'm in one of those classes that's in a huge room or even if those ones have labs but it's more than say, 15 people, I think I hesitated up front and center because I felt too outnumbered, being the only one who didn't understand." Amy's statement reflected ways that her social comparisons may have influenced her self-efficacy and attributions for her learning failures. Her point about feeling 'outnumbered' and being 'the only one who didn't understand' suggested that Amy based the evaluations of her learning failures and her ability to resolve them, in large measure, on her comparisons to and perceptions of the

experiences of her peers. When most students in the class were not asking questions or appeared to understand the course concepts, her confidence in being able to resolve her learning failures decreased. These social comparisons may also have been due to a perceived lack of access to the available support resources in larger classes. The comparisons and conclusions she arrived at in the lecture section led her to abandon her learning failures rather than resolve them. This theme revealed how struggling students' perceptions of peer performance and capabilities may inform and constrain their evaluation of their capacity to resolve their learning failures, resulting in higher incidences of abandonment. When Amy compared her preparation and performance to those of her peers, her conclusions shaped her evaluation of her learning failures in the course as well as her attributions for the failures. Both her learning failure evaluations and her attributions that resulted from these comparisons represented distinct and recurring moments during her experience in the course.

# **Example Cross-Case Analysis**

This example of cross-case analysis results was developed using Stake's (2006) worksheet 4. It represents three of Amy's cases that were cross-analyzed consisting of her Methods in Health Promotion case, her Anatomy case, and her background case. These crosscase analyses were fundamental in conducting negative case analysis as well as defining and clarifying the various aspects of the Social Influence (SI) framework generated by this dissertation.

**Differences in social influences across Amy's cases.** Each of Amy's cases provided unique aspects of the social influences that contributed to her learning failures. Amy's learning failures in her Anatomy course highlighted differences in social interaction between the lecture section and the lab section of the same course. Amy succeeded in the lab section, but failed to learn the concepts in the lecture section. The key difference between sections was the strength of social connections with peers, TAs, and the professor. These comparisons helped to refine the passive and active role attributes and the relational context attribute of the SI framework. Amy's learning failures in her Methods in Health Promotion course emphasized her tendencies to compare herself to other students and the role her advisors played in both helping to identify her learning failures and compensating for them. These same themes were present in Amy's Backstory as well, which insight helped to refine the identification, evaluation, and attribution phase attributes of the SI framework. Amy's Backstory provided details of past social interactions, especially with friends, siblings, and parents, which gave context for her learning failures in her college courses. The influence of these past social interactions were seen in the other cases as well, which helped to refine the intellectual and temporal context attributes of the SI framework.

**Cross-case social influence themes.** The themes from Amy's learning failure experiences in her Anatomy, Methods in Health Promotion, and Backstory cases were compared and contrasted to document their similarities and unique complexities. Through this analysis, additional themes were identified and included. This section reports on the following cross-case themes: Professor Mentoring, Expectations, Classroom Location, Friend Support, Group Work, TA Support, Comparisons, Learning Support Staff, Anxiety and Confidence, Parental Influence, Sibling Influence, Spouse Influence, and Perceptual

*Professor mentoring.* Amy's perspectives about the lecture professor in her Anatomy course created expectations for learning failure in the course. In that particular course, her enthusiasm for the lab section was strong in spite of the poor experiences with the professor in the lecture section. Difficulties with the professor created learning failures for her while strong

social connections with classmates and the TAs helped her resolve the failures. In the Methods in Health Promotion course her learning failures stemmed more from a general disengagement with the course than with the professor. In fact, the professor in that course was able to work with Amy to resolve her learning failures. In her Backstory, Amy makes no mention of specific challenges with her professors related to her learning failures. In general, however, when Amy struggled to understand and connect with her professors, she experienced more learning failures. These insights suggest that strong social relationships with professors may enhance a struggling student's ability to comprehend course concepts, reducing the number of learning failures experienced in the course. It also suggests that professors may be able to influence a struggling student's engagement with course concepts through personal mentoring that may increase the student's ability to resolve their learning failures. The contrast also emphasized the different roles professors may perform related to a struggling student's learning failures, such as facilitating, mentoring, and advising.

*Expectations.* In her Anatomy course, Amy was expecting learning failures because her peers had told her about the difficulty of the course. Amy's negative expectations played out in the lecture section of the course, but not in the lab section of the course. The strong social support in the lab section was sufficient to overcome her initial expectations of learning failures. In her Methods in Health Promotion course, Amy also expected learning failure to occur, but mainly due to her disengagement with the course content. In that course, her learning failures occurred through her own self-founded expectations and not by the influence of others. In her Backstory, Amy mentions many sources of social expectations for courses, including friends from high school, college peers, parents, siblings, and professors. These socially-generated expectations both contributed to and led to the resolution of Amy's learning failures.

suggests that several different types of social interactions may contribute to the complexity of a struggling student's expectations for success or failure in a given course. These expectations may also influence a struggling student's attributions for their learning failures and the student's decision to resolve or abandon them. This comparison of social influences across time on a struggling student's course expectations also demontrates the temporal aspect of the learning failure context.

*Classroom location.* In her Anatomy course, Amy specifically mentioned sitting in an undesirable location in the classroom. Her location reduced her engagement in the course and made her unwilling to ask questions in class to resolve her learning failures. Although Amy did not mention details about her classroom location in the Methods in Health Promotion course, she was able to engage with the professor in a way that led to the resolution of her learning failures. This suggests that the difficulties with the professor in the Anatomy course were complicated by her disadvantaged classroom location, whereas Amy's location played a lesser role in the Methods in Health Promotion course. In her Backstory, Amy does not mention the role of her classroom location in her learning failures. These insights suggested that classroom location might only contribute to a student's learning failures if the student has a weak social relationship with the professor that prevents them from seeking help with their learning failures. As seen across Amy's cases, the role the professor performs, such as that of facilitator or mentor to the struggling student influences how the student experiences their learning failure.

*Friend support.* In her Anatomy course, Amy expressed a lack of connection with and support from friends in the lecture section of the course. However, in the lab section of the course she was able to connect with a small group of friends who provided one another with mutual support to resolve learning failures. This friend support, when combined with support

from TAs and the professor, was especially effective in helping her resolve her learning failures. By contrast, Amy struggled in her Methods in Health Promotion course to connect with others to get help with assignments, which made it difficult for her to resolve her learning failures on her own. In her Backstory, Amy further stated that the influence of her friends in high school led to the development of her learning and career goals. This influence, which was strong initially, was not sufficient for her to persist through her learning failures. Amy eventually abandoned her learning failures associated with the initial medical field orientation of her learning and career goals, shifting to something related, but inherently different. Thus, the support of friends in Amy's experiences was key to both the formation of her learning goals and the resolution of her learning failures. These points suggest that struggling students may set their learning goals based on modeling and recommendations from peers. It may be also that the support that struggling students receive from their friends in a given course influence the student's motivation to resolve their learning failures. This points also to the different roles that peers and friends perform relative to the learning failures of the struggling student, such as modeling and advising.

*Group work.* In her Anatomy course, Amy had success engaging the course content and resolving her learning failures by working in a small group. In particular, her small group provided support to her while working in the lab section of the course. She makes no mention of similar group interaction in her Methods in Health Promotion course. However, in her Backstory, Amy made the observation that working with other people in various courses helped her to understand course concepts and to work through her learning failures. Group work even strengthened her engagement in the course. These small groups seem to facilitate opportunities for Amy to ask questions of her peers to get answers and identify resources to help her resolve her learning failures. The students in these groups also encouraged her, thus strengthening her

motivation to resolve her learning failures. This suggests that courses with structured group work may provide the support struggling students need to resolve their learning failures. Assigned group work as an intellectual aspect of the learning failure context was an important detail of Amy's learning failures.

*TA support.* Amy's experience with the TAs in the Anatomy course was very helpful in that they helped her work through her learning failures in the course. They were also consistently available to her as a resource. In her Backstory, Amy explained that she perceived a greater intrinsic motivation to resolve her learning failures and to learn the course concepts when she worked with the TAs. In the Methods in Health Promotion course, Amy did not mention working with TAs. This lack of connection with the TAs may have contributed to the abandonment of her learning failures in that course. These insights suggest that TAs may be most effective in helping struggling students resolve their learning failures when they are consistently available during the entire course to work with individual students. This consistent availability of the TAs corresponds to a more active, mentoring role in which they help struggling students during identification and evaluation phases of their learning failures.

*Comparisons.* Amy had completely opposite social experiences in the lecture and lab sections of her Anatomy course. In the lecture section her social comparisons led her to feel unprepared and anxious whereas in the lab section they led her to feel energized and intelligent. In the lecture section she felt that there were so many people and that they were all better prepared than she was. In the lab section, she perceived that she had a small, dedicated support group to help her resolve her learning failures. In her Backstory, Amy further realized that there are no perfect students and that the appearance of their perfection is a façade. When she honestly assessed her own conceptual ability independent of comparisons, she admitted feeling above

average in her abilities to learn and apply course concepts. Even so, her past mistakes led her to doubt her future potential and abilities. This doubt led her to develop a competition ethic when making comparisons to her classmates, focusing on their successes relative to her failures. These comparisons affected her self-confidence and motivation to resolve her learning failures. She would see others mastering difficult concepts, which would motivate her to attempt to resolve her own learning failures. However, she would abandon these attempts because she was not experiencing the degree of success that she perceived others in her courses were experiencing. Thus, when Amy perceived she was succeeding more than her peers in resolving her learning failures, she continued to attempt to resolve them. When her comparison demonstrated a relative lack of success, she would abandon them. These insights suggest that struggling students may be able to make more productive social comparisons of academic ability and success in small groups rather than in large classes. This may also suggest that struggling students make more helpful social comparisons that influence their evaluations of their learning failures when interacting in small, intimate groups rather than in large, impersonal class sessions. These insights also suggest that social comparisons may be temporally situated and may significantly influence the struggling student's attribution phase of their learning failures.

*Learning support staff.* When Amy was struggling in her Methods in Health Promotion course, she took the opportunity to meet with her internship supervisor who was able to help her find a way to fulfill the course requirements in a modified way. Because of this intervention, Amy was able to resolve her learning failures in the course she had previously thought were unresolvable. In her Backstory, Amy explained that she was required to meet with academic support personnel who helped her to identify and work through her learning failures and to talk through her difficult experiences. Amy cites these conversations as key to helping her evaluate

her learning failures and to make progress in resolving them. These conversations with the support staff also helped her clarify and modify her learning goals, which allowed her to strategically abandon those learning failures that did not align with the new goals. Although Amy did not explicitly make the connection, due to these new learning goals, some of the learning failures she abandoned were from her Anatomy course. This suggests that support staff may best help struggling students to resolve their learning failures by dialoguing with the student to help them evaluate the failures. It may also be that struggling students will identify more learning failures or shift their learning failure attributions in the course of the dialogue. These insights also emphasized the active mentoring and advising roles of the support staff in helping Amy with identification and evaluation phases of her learning failures.

Anxiety and confidence. In her Backstory, Amy explained that she had felt anxious about how others perceived her learning abilities since grade school. She was embarrassed by the poor grades on her college transcript and she felt anxious when she could not resolve her learning failures on her own. However, when she did resolve her learning failures, she developed confidence in her ability to resolve her failures in the future. This confidence extended itself to helping others in the course to resolve their learning failures. In her Anatomy course, Amy worked with and supported her small group in the lab section of the course providing encouragement and working with them to resolve the learning failures of the group. In the Methods in Health Promotion course, Amy struggled to resolve her learning failures on her own and experienced anxiety about fulfilling the course requirements, as well as about what others thought about her abilities. These experiences suggest that struggling students may develop greater confidence in their ability to resolve their learning failures as they successfully resolve other learning failures. It also suggests that the strategic resolution or abandonment of learning failures may be influenced by a struggling student's personal confidence in their ability to resolve their failures—either on their own or with help from others. These insights demonstrate also that as a struggling student moves through the identification, evaluation, attribution, and progression phases of learning failure there is also an influence on the relational and temporal aspects of their learning failure context.

Parental influence. Amy's father and mother primarily influenced her learning goals. From her Backstory, Amy explained that her father was her professor in her first course in college and that he helped shape her learning goals to pursue a teaching emphasis. This influence from her father confirmed Amy's pursuit of new learning goals and allowed her to feel socially supported in abandoning her former learning failures. By contrast, Amy's mother served as a role model of contradistinction. In the beginning of her college career, Amy saw her mother's life experiences as the least that she, herself, could attain. Amy wanted to do more than her mother had done in terms of intellectual attainment. In her Backstory, Amy identified the deficits of her mother's intellectual involvement in her own life and wanted to provide more to her children than her mother had provided for her. This desire pushed her to resolve her learning failures on her own as much as possible. Amy wanted to do more with her life than she had seen her mother do. This desire pushed Amy to set ambitious learning goals and to work hard. These insights suggest that parents may perform in complex modeling and mentoring roles to their struggling students in ways that affect their student's decisions to resolve or abandon their learning failures. Supportive mentoring from parents may help struggling students develop the motivation they need to resolve their learning failures. However, parental modeling that contradicts a struggling student's learning goals may lead them to abandon those learning goals promoted by the modeling.

*Sibling influence.* In describing her learning failures associated with her Methods in Health Promotion course, Amy explained that they were due in part to experiences with her siblings. She felt that she was unable to make a convincing argument when debating with her siblings prior to college. These deficit experiences led her to feel incapable of resolving her learning failures related to debate-oriented skills in the course. It's possible that there were also similar experiences with her siblings that created expectations for Amy related to her learning failures in the Anatomy course. However, in her Backstory Amy further explained that rather than compete with her siblings, she sought to distinguish herself from them by establishing unique learning and career goals that would make her different. This necessarily led Amy to learning failures her siblings could not help her resolve, meaning they were no longer a resource to her. In another sense, Amy looked specifically to her sisters and their academic experiences as a model for her own experiences. Because she saw that they had been able to start a family and continue in school, she felt she would be able to do the same. They were able to resolve their learning failures in their courses despite the new roles and responsibilities associated with family life and bearing children—so she should be able to do so as well. This suggests that siblings of struggling students may perform in modeling roles that influence the student's progression through their learning failures. Sibling roles may also influence the initial learning goals that students set, which goals may later be challenged in identification phases of learning failure.

*Spouse influence.* Once Amy got married, she explained in her Backstory that she developed a stronger motivation to resolve her learning failures and to finish college sooner. Considerations related to having children and attending graduate school became factors that influenced her learning goals. These considerations influenced which learning failures she

resolved and which she could abandon and still complete college. Although not specifically mentioned in her Anatomy or Methods in Health Promotion cases, these considerations certainly influenced Amy's strategic decisions in the progression phases of her learning failures. These insights also suggest that spouses of struggling students may act in facilitating or advising roles related to mutually negotiated family goals set within the marriage.

*Perceptual deficits.* Amy consistently perceived deficits in her ability to resolve her learning failures. In the Anatomy course, her deficits were substantiated by her observations of the successes of others. In the Methods in Health Promotion course, her deficits were substantiated by her inability to resolve her learning failures on her own. In her Backstory, it was interactions with her peers, parents, and other teachers that led her to perceive deficits in her learning goals and her abilities to resolve her learning failures. These perceived deficits were contextualized within specific, limited experiences and then generalized by Amy to the rest of her experiences. The generalization of these deficits to all of her learning experiences may have led Amy to erroneously underestimate her abilities and her capacity to overcome her learning failures. This suggests that some students may overgeneralize the effects of their learning failures in one learning domain to another, which may reduce their motivation to resolve their learning failures in these other domains. It also suggests that as a struggling student experiences attribution phases of their learning failures, the temporal and relational aspects of the learning failure context may have a significant influence.

### **Case Analysis Summaries**

The following summaries consist of the thematic analyses for each individual case along as well as the related cross-case analyses. Included in the summary are brief statements about how the particular analysis contributed to the development and refinement of particular Social Influences (SI) framework attributes.

**Amy's cases.** The cases reviewed from Amy's experiences include her Anatomy case, her Methods in Health Promotion case, and her Backstory case.

*Amy's anatomy course*. Amy's Anatomy course was PD Bio 220 that covered organs and organ systems, tissue structures, and appreciating the human body (retrieved July 5, 2016 from https://catalog.byu.edu/life-sciences/physiology-and-developmental-biology/human-Anatomy-lab). She took the course as part of an exercise science major program, which she ultimately abandoned. The Anatomy course had a lecture component and a lab component. Amy succeeded in the lab, but failed to learn the concepts in the lecture that she set out to learn. She pointed out the major contribution her peers and the TAs made to her enjoyment and grasping the concepts in the lab and how the lack of personal connection in the lecture contributed to her learning failures. The following major themes stood out in this case: Professor Challenges, Expectations, Classroom Location, Friend Support, Group Work, TA support, and Comparisons. Amy's interactions with her professors, TAs and peers in the course helped refine the passive and active role attributes of the SI framework. Her expectations for the course and her group work experiences helped to refine the physical, relational, emotional, and temporal context attributes of the SI framework. Amy's social comparisons helped refine the evaluation and attribution phase attributes of the SI framework.

*Amy's methods in health promotion course.* Amy's Methods in Health Promotion course was HLTH 432, which covered methods and strategies, intervention categories, selection of strategies, promoting awareness using media, mobilizing and engaging communities, advocating for policy or environmental change, communications, and strategy comparisons

(retrieved July 5, 2016 from https://catalog.byu.edu/life-sciences/health-science/methods-healthpromotion). She took the course as part of the health science major. Amy wanted to learn the concepts in the course as a preparation for her future career but earned poor grades. She felt like she was way behind the other students. Amy did not like trying to persuade people and had reservations about advocacy and lobbying. Her internship coordinator called her out on the lack of understanding, which contributed to her feelings of embarrassment. The following major themes stood out in this case: Peer Influence, Sibling Influence, Professor Benefits, and Academic Support. Amy's interactions during the course with the professor and the academic support staff helped to refine both the passive and active role attributes and the identification and progression phase attributes of the SI framework. Her interactions with her siblings in the past also helped to refine the temporal, relational, and emotional context attributes of the SI framework.

*Amy's backstory.* Amy's Backstory case consisted of social interactions that influenced her learning failures across multiple courses. Amy realized that while other students looked perfect, they all had their flaws. She felt like other students earned better grades because they worked harder. Amy described how her friends affected her self-image in different classes and how these comparisons made her feel inferior and contributed to her learning failures. She shared her experiences with the academic support counselor and how her first college class was from her dad, which created performance expectations and helped shaped her learning goals— together with some of her learning failures. She described the influence her mother and sisters' examples had on her educational goals. Getting married at the end of her undergraduate program also led to learning goal changes for Amy. She shared the influence that her high school friends had on her college choices and how her college friends encouraged her to succeed in her classes.

The following major themes stood out in this case: Comparisons, Academic Counseling, Group Work, Anxiety, Confidence, Parental Influence, Sibling Influence, TA Support, and Spouse Influence. Amy's interactions with her parents, siblings, spouse, academic counselors, and TAs helped refine the active and passive role attributes of the SI framework. Her group work experiences, along with her anxiety and confidence challenges helped to refine the relational, emotional, and temporal attributes of the SI framework. Amy's social comparisons helped to refine the attribution and the progression phase attributes of the SI framework.

**Jason's cases.** The cases reviewed from Jason's experiences include his ASL case and his Backstory case.

*Jason's ASL course*. Jason's American Sign Language course was ASL 101 which covered exchange of information, describing, storytelling, deaf culture, and deaf history (retrieved July 5, 2016 from https://catalog.byu.edu/humanities/center-language-studies/first-year-american-sign-language-part-1). Jason wanted to learn ASL to talk to his friend from Micronesia, but was unable to learn sufficient ASL grammar to do so. He shared his disappointments with the class with a group of other students. He mentioned not feeling any social motivation to learn more ASL, leading to the abandonment of his learning failures in the course. The following major themes stood out in this case: Embarrassment, Peer Influence, Professor Challenges, Past Experience, and Learning Goal Modification. Jason's interactions with his professor and his peers helped to refine the passive role attribute and the relational and temporal context attributes of the SI framework. His description of his embarrassment attributes of the SI framework.

Jason's backstory. Jason's Backstory case consisted of social interactions that influenced his learning failures in multiple courses. Jason's mom tutored him when he was younger because he had learning difficulties. He continued to go to his mother for advice about school. He also mentioned the impact of high quality college instructors on his cognitive development. Jason's job at Aspen Grove led to a conversation with a successful business person, which shifted his thinking about his learning goals and failures. Jason discussed his volunteer experiences with BYU/SA and their impact on his learning goals. He talked about conversations with close friends and his mother regarding the abandonment of some of his learning failures. He talked about comments made by his communications professor that confirmed his learning goals. The following major themes stood out in this case: Parental Influence, Professor Benefits, Advice, Friend Influence, and Peer Influence. Jason's interactions with his mother, his professors, his friends, and those he perceived as successful helped to refine the passive and active role attributes along with the relational and temporal context attributes. His descriptions of advice from various sources helped to refine the identification, attribution, and progression phase attributes.

**Trent's cases.** The cases reviewed from Trent's experiences include his Accounting case, his Psychology case, and his Math case.

*Trent's accounting course.* Trent's Accounting course was ACC 200, which covered basic terminology, balance sheets and income statements, internal accounting tools, writing memos, and using computer-aided tools and resources (retrieved July 5, 2016 from https://catalog.byu.edu/management/school-of-accountancy/principles-of-accounting). Trent really enjoyed the structure of the professor and he was able to work with a small group of four to five friends and roommates who all seemed to perform better than him on the tests.

Unfortunately, they all used testing methods that he was uncomfortable using. They also improved their midterm test scores while Trent remained with a C average. Trent wanted to do well in the course in order to improve his chances of getting into the business program he would apply for. Trent's small group did not sit in the front of the classroom, to which he attributed his poor performance and the mindset of his group. A bad experience with a TA turned Trent off from getting help with his learning failures from the TAs afterwards. The following major themes stood out in this case: Professor Benefits, Professor Challenges, Group Work, Friend Influence, Parental Influence, Comparison, Anxiety, Competition, and TA Challenges. Trent's interactions with the professor, TAs, his peers, and his parents helped to refine the passive and active role attributes and the identification and attribution phase attributes of the SI framework. His group work experiences, and expressions of social anxiety, competition, and comparison helped to refine the physical, intellectual, and relational context attributes of the SI framework.

*Trent's psychology course*. Trent's psychology course was PSYCH 111, which covered theoretical perspectives, applying psychological principles, and research methods (retrieved July 5, 2016 from https://catalog.byu.edu/family-home-and-social-sciences/psychology/introduction-psychological-science). Trent was expecting to learn more from the course, but he felt like the professor just read the textbook to them in the class. Trent also didn't know anyone in the course. Trent struggled to understand the professor's testing style, which led to learning failure for Trent. The TA was helpful in giving feedback on essays, but not in answering questions in the course. Trent expressed feeling alone in the course, that there weren't others in the course to help him or to strengthen his initial passion for psychology. Attendance was not mandatory, so only those struggling with the course showed up. Thus, Trent felt like he was expected to complete the course on his own without asking for help. The one time he did email a TA for

help he was unsuccessful in getting the help he needed with his learning failures. The following major themes stood out in this case: Professor Challenges, Friends Influence, Group Work, Professor Benefits, Comparison, TA Challenges, Peer Influence, Lack of Resources, and Seating. Trent's interactions with his professor, the TA, his friends, and other classmates helped refine the passive role attribute and the intellectual, relational, and temporal context attributes of the SI framework. His social comparisons and the description of seating dynamics helped to refine the identification and progression phase attributes of the SI framework.

*Trent's math course*. Trent's Math course was Math 118, which covered the basic elements and applications of finite mathematics (retrieved July 5, 2016 from https://catalog.byu.edu/physical-and-mathematical-sciences/mathematics/finite-mathematics). Trent struggled with math and its application before ever coming to BYU. He never had a math teacher that helped him understand the purposes and uses for math. He also struggled with the course's computer program and its answer inputs. Trent struggled with the teacher's style and there were no TAs as far as he was aware. He had a friend who dropped the course, which meant that he did not have strong social relationships with anyone in the course. His perception was that the only students that came to class were the ones, like himself, who were struggling to resolve their learning failures. Trent had a roommate that took the class in the past who helped him with the homework once. Trent also sat next to a student, Ryan, who helped him with his learning failures occasionally. The following major themes stood out in this case: Professor Challenges, Comparison, Group Work, Independence, Environment, Friend Influence, and Seating. Trent's interactions with his professor and friends helped to refine the passive role attribute and the attribution phase attribute of the SI framework. His descriptions of his social

comparisons and the course attendance policies helped to refine the physical, intellectual, and relational context attributes along with the identification phase attribute of the SI framework.

**Cross-case analyses.** Cross-cases analyses are included here for Amy's three cases, Jason's two cases, Trent's three cases, and all eight cases for all three participants.

Amy's cross-case analysis. Each of Amy's cases provided unique aspects of the social influences that contributed to her learning failures. Amy's learning failures in her Anatomy course highlighted differences in social interaction between the lecture section and the lab section of the same course. Amy succeeded in the lab section, but failed to learn the concepts in the lecture section. The key difference between sections was the strength of social connections with peers, TAs, and the professor. These comparisons helped to refine the passive and active role attributes and the relational context attribute of the SI framework. Amy's learning failures in her Methods in Health Promotion course emphasized her tendencies to compare herself to other students and the role her advisors played in both helping to identify her learning failures and compensating for them. These same themes were present in Amy's Backstory as well, which insight helped to refine the identification, evaluation, and attribution phase attributes of the SI framework. Amy's Backstory provided details of past social interactions, especially with friends, siblings, and parents, which gave context for her learning failures in her college courses. The influence of these past social interactions were seen in the other cases as well, which helped to refine the intellectual and temporal context attributes of the SI framework. The themes from Amy's learning failure experiences in her Anatomy, Methods in Health Promotion, and Backstory cases were compared and contrasted to document their similarities and unique complexities. Through this analysis, additional themes were identified and included. The following cross-case themes stood out: Professor Mentoring, Expectations, Classroom Location, Friend Support, Group Work, TA Support, Comparisons, Learning Support Staff, Anxiety and Confidence, Parental Influence, Sibling Influence, Spouse Influence, and Perceptual Deficits.

Jason's cross-case analysis. Jason's cases provided two different perspectives about social influences related to his learning failures. First, his learning failures in the ASL course were abandoned based on conversations with classmates. These interactions made it socially acceptable to give up on his initial learning goals. This pattern was also identified in Jason's descriptions of his learning failures in the Backstory case. This insight helped to refine the passive and active role attributes and the temporal context attribute of the SI framework. Second, Jason's social interactions in his Backstory emphasized how completely he relied on input from others to form his learning goals. He described the influence of his mother, his peers, and even perceptibly successful individuals and how their advice shaped his decisions to form learning goals and to strategically abandon certain learning failures. This same social influence was evident in the ASL case. This insight helped to refine the intellectual and relational context attribute along with the identification, evaluation, and attribution phase attributes of the SI framework. The themes from Jason's learning failure experiences in his ASL and Backstory cases were compared and contrasted to document their similarities and unique complexities. Through this analysis, additional themes were identified and included. The following cross-case themes stood out: Parental Influence, Professor Benefits, Professor Challenges, Advice, Peer Influence, Embarrassment, Past Experience, and Social Goal Modification.

*Trent's cross-case analysis*. Trent's cases each emphasized the multi-faceted influence of peer interactions, but the nature of these interactions were slightly different in each case. In his Accounting course, Trent worked well with a small group of students who helped him identify and resolve some of his learning failures. In his Math course, Trent was able to work

with another classmate and a roommate who were able only occasionally to help him work through his learning failures. In his Psychology course, Trent was unable to work with any of his peers and was left to work through his learning failures on his own. This declining level of peer engagement from one course to the next appeared to influence a consistent pattern of learning failure attributions. This insight helped to refine the passive and active role attributes, the physical and temporal context attributes, and the identification, evaluation, and attribution phase attributes of the SI framework. The differences in peer interactions were also underscored by a consistent lack of engagement with TAs and a lack of personal connection with his professors in every course. This identified pattern helped to refine the intellectual and relational context attributes and the evaluation phase attribute of the SI framework.

The themes from Trent's learning failure experiences in his Accounting, Psychology, and Math cases were compared and contrasted to document their similarities and unique complexities. Through this analysis, additional themes were identified and included. The following cross-case themes stood out: Friend Influence, Professor Challenges, Professor Benefits, Group Work, Comparison, TA Challenges, Seating, Parental Influence, and Rejection of Social Perspectives.

*All-participant cross-case analysis*. The full cross-case analysis of all eight cases identified four differences regarding the social influences related to learning failure. First, each participant had different degrees of personal interaction with peers when resolving their learning failures. Amy's social anxiety made it difficult to connect with peers, but when she did, she was able to more successfully work through her learning failures. Jason never discussed working with peers to resolve his learning failures. Trent worked with a small group of peers to resolve his learning failures in one course, but he did not engage the students in his courses. Second,

each participant had different experiences with TAs in their courses. Amy was able to work through many of her learning failures because of her interactions with the TAs. Jason never mentioned working with TAs to resolve his learning failures. Trent only expressed frustration related to getting help with his learning failures from TAs.

Third, there were differences in how social influences led to learning goal and learning failure abandonment. Amy formed learning goals based on peer influence as well as reaction against the learning goals of her siblings. Jason formed learning goals based on personal experiences and recommendations from others but he also justified abandoning learning failures through these same interactions. Trent formed learning goals primarily by attention to the modeling and encouragement of his parents and rejected the learning goals of peers and others he saw as having different skills and aptitudes than he possessed. Fourth, the participants drew different conclusions from their social comparisons to their peers. Amy concluded that her learning failures were unique and that she was one of a few students who struggled in her college courses. Jason's perspective was that other students were firmer in their learning goals and that he was less confident because of his learning failures. Trent's social comparisons led him to conclude that other students were different from him in their learning goals and aptitudes and that his learning failures were due to these differences.

The themes from each participant's learning failure experiences in all eight analyzed cases were compared and contrasted to document their similarities and unique complexities. Through this analysis, additional themes were identified and included. The following cross-case themes stood out: Professor Connections, TA Interactions, Peer Influence, Parental Influence, Sibling Influence, Spouse Influence, Supportive Others, Comparison, Group Work, Classroom Seating, Course Expectations, Anxiety, and Rejection of Contrary Perspectives. An analysis of these cases, their common and contrasting themes, and their collective patterns of social influence in the learning failure experiences shared all helped further refine the attributes of the SI framework.

### **Social Influences Framework**

Although constructs related to communities of practice were not identified explicitly during data analyses, the form of the communities of practice framework—specifically the naming of constructs and the description of their relations to one another—served as a guide for the development of the emergent framework within this dissertation. Communities of practice was selected as the guiding framework because of its social orientations grounded in experience—in the same way that the emergent framework of this dissertation was socially oriented and grounded in college students' learning failure experiences. Communities of practice has been used for a variety of different purposes, including as a framework for exploring the social context of educational practice (Lea, 2005). Key aspects of this framework include:

- (Lave & Wenger, 1991) "Centripetal participation in the learning curriculum of the ambient community" (p. 100).
- (Lea, 2005) A heuristic for exploring practices within a community.
- (Lea, 2005) A critical tool for examining learning "in an organic context" (p. 188).

These aspects and their relationships to the experiences of learners in a social context served as the basis for developing the framework of the social influences related to college student learning failures.

Similarities between communities of practice and college student learning failure were briefly explored with experts at the outset of this dissertation. Etienne Wenger (personal communication, August 4, 2015) was consulted regarding the ideas expressed in the dissertation prospectus and stated, "I have not explored the role of failure in LPP explicitly, but being legitimately peripheral means that your failures are viewed as opportunities to develop your competence rather than as reasons to exclude you". This statement emphasized both how learning failure experiences may represent developmental opportunities and that these developmental opportunities necessarily take place within a social context. Thus, a framework of social influences related to learning failure would need to account for a college student's relationships to others. It would also need to describe how the nature of those relationships influenced the student's learning failure experience. Building on this concept of learning failure as a developmental experience, the data analysis in this dissertation focused on describing how a struggling student's social interactions and relationships with others influenced the learning failures in a particular course. This insight from Wenger led, in part, to the development of the emergent attributes in the social influences framework.

Additionally, Jean Lave (1993), commenting on the nature of situated practice inherent in communities of practice, stated:

The heterogeneous, multifocal character of situated activity implies that conflict is a ubiquitous aspect of human existence. This follows if we assume that people in the same situation, people who are helping to constitute 'a situation' together, know different things and speak with different interests and experience from different social locations.

(p. 13)

From this statement, another aspect of the communities of practice framework was revealed conflict. Lave's description of a social context with a 'heterogeneous, multifocal character' involving people pursuing different goals suggested that the social conflict arising from these conditions may influence college student learning failures. This insight led to a comparative analysis of participants' perspectives against those of peers, parents, TAs, and professors. The findings from these analyses also helped to identify and to clarify the attributes and relationships making up the framework of this dissertation.

Lea (2005) in her review of educational studies making use of communities of practice as an interpretive lens stated:

There is little recognition of the complex nature of communities of practice in higher education contexts, with too much emphasis upon the student as novice being acculturated into the established academic community... We need to understand much more about the lived experiences of today's students and the importance of different communities of practice in the learning process, which challenge the simple notion of the novice student on the periphery of the central academic community. Reinventing communities of practice as a heuristic is an important part of exploring and understanding learning contexts and their contrasting and often conflicting practices within the broad arena of today's higher education. (p. 194)

Lea identifies three important aspects of a communities of practice interpretive framework or heuristic. The first is the acknowledgment that social interactions, goals, and lived experience in higher education contexts are inherently complex and that the past emphasis on acculturation may have eclipsed other important aspects of these interactions. The data analysis in this dissertation focused on several different types of interactions inherent in college student learning failures such as comparison, competition, rejection, support, access to resources, and so forth. The analyses of these themes guided the development of the framework of social influences generated by this dissertation in a way that allowed for an initial exploration of some of the complexity of these interactions. Second, Lea identified the need to explore the lived experiences and perspectives of students themselves, especially at the intersection of complex and potentially conflicted contexts—as opposed to peripheral, novice student experiences explored in isolation to other contexts. Following this recommendation, this dissertation used semi-structured interviews with college students to construct case narratives of their learning failure experiences (see appendix D) that would allow for a richer description and exploration of their experiences. The analysis of these narratives served as the foundation of the framework of social influences generated by this dissertation.

Lea's third insight was that a heuristic or descriptive framework that described social interactions in higher education needed to enable the description and exploration of complex relationships, contexts, and experiences encountered by college students. Following this recommendation, the framework of social influences developed in this dissertation focused on: (a) social interactions and influences (b) with others inside and outside a university setting (c) that related to learning failure experiences (d) as perceived by the student. The framework of social influences developed by this dissertation, like communities of practice, may serve as (a) a heuristic that (b) explores the complexities of lived experience in (c) a situated context (d) revealing conflict and difficulty.

Learning failure experiences are not isolated, individual college student experiences they are physically, socially, and historically situated (Proctor, 2014). This situatedness implies a complexity that can make understanding learning failure experiences difficult, which explains in part why students may struggle to resolve their failures. Creating a framework of key attributes that describes the influence of social interactions on learning failure experiences may help reduce some of the complexity in these experiences and serve as a heuristic model to help struggling students resolve their failures. Such a framework needs to account for the major aspects of a learning failure experience, while reducing the complexities of the experience to identifiable constructs and relationships. By organizing themes and findings from this dissertation into categorical units and analyzing relationships between the themes, a social influences framework was developed (see Table 4).

## Table 4

Case	Case Theme	SI Framework Attributes	
Amy—Anatomy	Professor Challenges	Roles—Passive	
	Expectations	Roles—Active	
	Classroom Location	Context—Temporal	
	Friend Support	Context—Physical	
	Group Work	Context—Relational	
	TA support	Context—Emotional	
	Comparisons	Phases—Evaluation	
		Phases—Attribution	
Amy—Methods in Health Promotion	Peer Influence	Role—Passive	
They includes in Health Frenhousin	Sibling Influence	Roles—Active	
	Professor Benefits	Context—Emotional	
	Academic Support	Context—Relational	
		Context—Temporal	
		Phases-Identification	
		Phases—Progression	
	Comparisons	Roles—Passive	
Amy—Backstory	Academic Counseling	Roles—Active	
	Group Work	Context - Relational	
	Anxiety	Context—Emotional	
	Confidence	Context—Temporal	
	Parental Influence	Phases—Attribution	
	Sibling Influence	Phases—Progression	
	TA Support		
	Spouse Influence		
Jason—ASL	Embarrassment	Roles—Passive	
	Peer Influence	Context—Relational	
	Professor Challenges	Context—Emotional	
	Past Experience	Context—Temporal	
	Learning Goal Modification	Phases—Identification	
		Phases—Progression	

# Thematic Relationships to SI Framework Attributes

Jason—Backstory	Parental Influence	Roles—Passive	
	Professor Benefits	Roles—Active	
	Advice	Context—Relational	
	Friend Influence	Context—Temporal	
	Peer Influence	Phases—Identification	
		Phases—Attribution	
		Phases—Progression	
Treat Accounting	Professor Benefits	Roles—Passive	
Trent—Accounting	Professor Challenges	Roles—Active	
	Group Work	Context—Physical	
	Friend Influence	Context—Intellectual	
	Parental Influence	Context—Relational	
	Comparison	Phases—Identification	
	Anxiety	Phases—Attribution	
	Competition		
	TA Challenges		
	Drofogog Cheller	Dalas Dessive	
Trent—Psychology	Professor Challenges	Roles—Passive	
	Friends Influence	Context—Physical	
	Group Work	Context—Intellectual	
	Professor Benefits	Context—Relational	
	Comparison	Context—Temporal	
	TA Challenges	Phases—Identification	
	Peer Influence	Phases - Progression	
	Lack of Resources		
	Seating		
Trent—Math	Professor Challenges	Roles—Passive	
	Comparison	Context—Physical	
	Group Work	Context—Intellectual	
	Independence	Context—Relational	
	Environment	Phases-Identification	
	Friend Influence	Phases—Attribution	
	Seating		
Amy Cross Case	Professor Mentoring	Roles—Passive	
Amy—Cross-Case	Expectations	Roles—Active	
	Classroom Location	Context—Intellectual	
	Friend Support	Context—Relational	
	Group Work	Context—Temporal	
	TA Support	Phases—Identification	
	Comparisons	Phases—Evaluation	
	Learning Support Staff	Phases—Attribution	
	Anxiety and Confidence		
	Parental Influence		
	Sibling Influence		
	Spouse Influence		
	Perceptual Deficits		
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Jason—Cross-Case	Parental Influence	Roles—Passive	
	Professor Benefits	Roles—Active	
	Professor Challenges	Context—Intellectual	
	Advice	Context—Relational	
	Peer Influence	Context—Temporal	
	Embarrassment	Phases—Evaluation	
	Past Experience	Phases—Progression	
	Social Goal Modification		
Trent—Cross-Case	Friend Influence	Roles—Passive	
	Professor Challenges	Roles—Active	
	Professor Benefits	Context - Physical	
	Group Work	Context—Intellectual	
	Comparison	Context—Relational	
	TA Challenges	Context—Temporal	
	Seating	Phases—Identification	
	Parental Influence	Phases—Evaluation	
	Rejection of Social Perspectives	Phases—Attribution	
All Participant Cross-Case	Professor Connections	Roles—Passive	
An I al delpant cross case	TA Interactions	Roles—Active	
	Peer Influence	Context - Physical	
	Parental Influence	Context—Intellectual	
	Sibling Influence	Context—Relational	
	Spouse Influence	Context—Emotional	
	Supportive Others	Context—Temporal	
	Comparison	Phases—Identification	
	Group Work	Phases—Evaluation	
	Classroom Seating	Phases—Attribution	
	Course Expectations	Phases—Progression	
	Anxiety		
	Rejection of Contrary Perspectives		

The framework of social influences that emerged from this dissertation consists of three key attributes: Roles, Context, and Phases (see Table 5). The Role attribute refers to the ways individuals interact with the student in relation to the learning failure. Roles are characterized as either passive or active with an additional dimension of prescriptive or developmental influence related to the learning failure. The Context attribute refers to aspects of the classroom, its setup, or the temporality of the struggling student's experiences that relate to the learning failure experience. Context consists of physical, intellectual, relational, emotional, and temporal dimensions related to the student's learning failure. The Phases attribute reflects how students move through their learning failure experiences. The four Phases include: (a) identification, (b)

evaluation, (c) attribution, and (d) progression. Each of these key attributes is discussed in

greater detail in the sections below.

Table 5

## Social Influences Framework

Key Attributes	Description	
Roles	- Passive Influence	
	<ul> <li>Modeling (prescriptive - PP): Behaviors or attitudes demonstrated by a trusted/venerated individual that influence the learning failure</li> </ul>	
	• Facilitating (developmental - PD): Concepts, values, or procedures demonstrated by a person in authority that influence the learning failure	
	- Active Influence	
	<ul> <li>Advising (prescriptive - AP): Directives or procedures shared by a person in authority that influence the learning failure</li> </ul>	
	<ul> <li>Mentoring (developmental - AD): Advice or coaching by a trusted/venerated individual that influences the learning failure</li> </ul>	
Context	- Physical: Social proximity and physical characteristics of the classroom space that relate to the learning failure	
	- Intellectual: Socio-academic characteristics of the that relate to the learning failure	
	- Relational: Interactions with other class members that relate to the learning failure	
	- Emotional: The range of emotional reactions to social interactions that relate to the learning failure	
	- Temporal: Socially situated past experience, current experience, and future expectations that relate to the learning failure	
Phases	- Identification: Student recognizes a learning failure has occurred	
	- Evaluation: Student seeks to make sense of the learning failure	
	- Attribution: Student explains why the learning failure occurred	
	- Progression: Student acts to resolve or abandon the learning failure	

Roles. The way a struggling student interacts with individuals in relation to their

learning failures defines the role of these individuals. Roles are descriptive of the type of social influence an individual has on a struggling student's learning failures. There are two types of roles in this framework: passive and active. Passive roles are defined by a lack of direct interaction between the struggling student and the other individual. Active roles consist of a direct interaction either in person or electronically. Additionally, each role can also be defined as either prescriptive or developmental. Prescriptive interactions involve specific instructions to

the struggling student regarding their learning failure. Developmental roles involve dialogue and discussion between the struggling student and others regarding the learning failure in which the student decides how to proceed.

Passive, prescriptive (PP) roles are characterized as modeling roles because their indirect influence conveys to the struggling student ways that they should think, act, or feel. Examples of modeling in this dissertation included parental modeling of successful learning goals and behaviors, sibling modeling of possible academic trajectories, and peer modeling of successful study habits. Passive, developmental (PD) roles are characterized as facilitating roles because their indirect influence helps a struggling student to developmentally determine their own ways of thinking, acting, and feeling. Examples of facilitating in this dissertation included professor and TA discussions addressing exam performance, assignment details, and successful study strategies that influenced how the struggling student proceeded with their learning failure. Active, prescriptive (AP) roles are characterized as advising roles because the interaction is direct and typically results in specific actions the struggling student is advised to take in relation to the learning failure. Examples of advising in this dissertation included advisement from internship coordinators about internship opportunities and academic planning with advisement staff. Active, developmental (AD) roles are characterized as mentoring or coaching roles because the interaction is direct and consists of dialogue with the student about their experiences, goals, and learning failures. Examples of mentoring in this dissertation include conversations with individuals the struggling student perceived as successful, learning goal discussions with parents, and peer conversations about learning failures in a particular course. Each of these role types influences a struggling student in different ways related to their learning failures.

In the cases analyzed for this dissertation, it was typically parents, siblings, and spouses who acted in a modeling role. As in the case of Amy's interactions with her siblings, she saw the academic trajectories of her sisters as a possible course of action relative to her learning failures. The modeling role gives students ideas about how to move through their learning failures by evaluating the experiences of those around them. The fact that family members provided most of the modeling mentioned in the analyzed cases was not surprising given that the strength of these relationships typically exceeds that of more superficial relationships with peers, professors, and TAs. However, peers did act in modeling roles as in Trent's observation of the study habits of his peers in the Accounting class. It was interesting that although his peers modeled successful behaviors, Trent did not choose to adopt their strategies when working through his own learning failures, perhaps because his relationship with these peers was more superficial. Thus, individuals in a modeling role may provide struggling students with learning goals and learning failure resolution strategies without actually influencing the student's decision to adopt the goals and strategies for themselves. This role may be helpful to struggling students who are unable to identify resources and strategies to work through their particular learning failure.

The facilitating role in the analyzed cases was typically taken on by professors and TAs, who by virtue of their position were responsible for the successful learning of their students. Such was the case in Trent's Accounting class in which his professor was explicit in her class communications about exam content, study strategies, and assignment details. These discussions helped Trent develop the expectations and strategies that led to the identification and evaluation of his learning failures in that particular course. These communications from the professor and TAs were shared with the entire group of students in the course as recommendations for success in the course, not as prescriptive directives. Thus, Trent developed his own approach to

resolving his learning failures based on these discussions of study strategies facilitated by the professor and TAs. From this it can be shown that the facilitating role helps a struggling student to consider possible strategies for resolving their learning failure, while encouraging them to explore additional strategies that build from those that are discussed. This role may be especially important for a struggling student who has several resources available to help them resolve their learning failure but who lacks the guidance needed to develop an adapted strategy for their particular failure.

The advising role in the analyzed cases usually involved the struggling student working individually with peers and support staff. This was seen in Amy's interactions with her Methods in Health Promotion internship supervisor. The exchange between them resulted in a prescriptive set of actions Amy needed to take in order to resolve her learning failures in the course. This interaction helped Amy to recognize and evaluate her learning failures in a way that led quickly to a resolution of the failure. In this case, Amy was unaware of resources or internship options that aligned with her learning goals and needed the help of the internship coordinator to resolve her learning failure. An interesting dynamic of this role is that the struggling student typically seeks help from the advising individual, which was not the case with the modeling and facilitating roles. This role may be especially helpful for a struggling student who has identified their learning failure, but who may be struggling to evaluate the failure and find resources to help them resolve it. The advising role can help these struggling students by making them aware of resources available and prescriptively assigning the student a set of actions that will help them resolve their failure.

The mentoring role was less frequently identified in the analyzed cases than the other roles mentioned and usually involved individual interactions between the struggling student and

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a professor, TA, or peer. Jason's interaction with the successful businessman at Aspen Grove was an example of the mentoring role. This interaction was initiated by Jason because he perceived the businessman as successful relative to his personal definition. Although a stranger to him, this perception of success led Jason to dramatically increase his level of trust in the businessman's feedback, to the point of making a shift in his learning goals and abandoning his learning failures. Although the businessman did not prescribe a course of action, the conversation helped Jason to develop his own strategic abandonment of his learning failures. This exchange emphasizes how the mentoring role can only be taken on by someone whom the struggling student perceives as successful in some dimension relative to their learning failures and goals. This role may be helpful to a struggling student who may have identified and evaluated their learning failure, is aware of helpful resources, but who may lack the motivation to resolve their learning failure.

Although roles can be characterized in the different ways mentioned above, it is important to note that none of the individuals who socially influenced the struggling students acted in one role consistently in the cases that were analyzed. Peers were especially versatile, acting in multiple roles with varying degrees of social influence depending on the struggling student's particular learning failure and the context of the failure. This is an important point because the Roles attribute within this framework is not prescriptive—it is descriptive. Being descriptive, role shifts are expected to occur over time as contexts change and as struggling students move back and forth across the four phases of learning failure.

**Context.** The social context in a classroom can facilitate or impede a struggling student's resolution of their learning failures. Context is descriptive of the various dimensions that influence a struggling student's interactions with others relative to their learning failures.

Within this framework, context is described by the following five dimensions: (a) physical, (b) intellectual, (b) relational, (c) emotional, and (d) temporal. The physical dimension consists of the social proximity and physical characteristics of the classroom space that relate to the learning failure. Examples of the physical dimension include transactional distance between the struggling student and a professor, where a student sits in relation to more knowledgeable peers, and whether a student consistently stays in the same physical location within the classroom. The intellectual dimension consists of the socio-academic characteristics of the course that relate to the learning failure. Examples of the intellectual dimension include group assignments, collaborative test preparation, and in-class assignment reviews with peers. The relational dimension consists of a struggling student's interactions with other class members that relate to the learning failure. Examples of the relational dimension include asking questions of professors and TAs, discussing learning failures with peers, and attending class with close friends. The emotional dimension consists of the range of emotional reactions to social interactions that relate to the learning failure. Examples of the emotional dimension include embarrassment arising from public identification of learning failures and shame arising from social comparisons to other students. The temporal dimension consists of socially situated past experiences, current experiences, and future expectations that relate to the learning failure. Examples of the temporal dimension include past interactions with others that led to the formation of future learning goals, interactions with others that affect future career expectations, and past experiences with learning failure that create expectations for future learning failures. These five dimensions define the social context in which a struggling student experiences their learning failures. Context also influences how the student experiences their learning failures.

The physical dimension of context influenced the learning failures explored in this dissertation in two ways. First, where the student sat within the classroom space influenced their access to both the professor and other students who could help them resolve their learning failures. This was evident in both Amy's experience with her Anatomy course and in Trent's experience with his Math course. In both cases, Amy and Trent sat in locations that disadvantaged them in terms of access to the professor and more knowledgeable peers. The transactional distance between them and their respective professors created a socially awkward context for asking questions during class. Where they sat also determined which peers could assist them with their immediate learning failures. Trent further explained that there were social pressures related to changing seating arrangements that further complicated access to peers and the professor. The result was that both Trent and Amy struggled to resolve their learning failures on their own in their respective courses.

The second way the physical dimension influenced the learning failures was due to the configuration of the classroom space itself. In larger classrooms where seating near the front was at a premium, Amy and Trent both mentioned sitting near the back or to one side of the classroom. This was apparent in Amy's Anatomy case and in all three of Trent's cases. Amy's Anatomy case further supported this claim in that her lecture experience was completely different from the lab experience. The key difference between the different sections was the room size and layouts, which facilitated totally different types of interactions with peers, TAs, and the professor. Thus, the way available seating in the classroom is laid out creates a context that influences a struggling student's opportunities for seeking help with their learning failures from peers, TAs, and professors. Understanding the influence of the physical dimensions of context may lead to the improvement of classroom arrangements that can foster struggling

student help seeking behaviors related to their learning failures. Configurations that maximize closeness to the professor and TAs or that facilitate greater access to a wider range of peers could be beneficial to struggling students.

The intellectual dimension of context influenced the learning failures explored in this dissertation mainly through work with peers in class. Social connectedness within the classroom was bolstered by class assignments that required struggling students to work with others in groups. As these groups worked together throughout the semester, they facilitated much of the help seeking behavior the students needed to resolve their learning failures. This was most apparent in Amy's lab section in the Anatomy case and Trent's experience in the Accounting case. Both cases involved group work that facilitated Amy and Trent asking questions and resolving their learning failures within a small group of students. These group assignments created opportunities for Amy and Trent to both consume and provide a variety of strategies and support within the group, which facilitated their successful resolution of their learning failures. Understanding more about the intellectual dimension of context its influence on learning failure may lead to improved curricular, pedagogical, and syllabus improvements that support struggling students to work through their learning failures (Eddy & Hogan, 2014).

The relational dimension of context influenced the learning failures explored in this dissertation in two ways. First, relationships with students inside and outside the classroom influenced how the student worked through their learning failures. This was most apparent in Trent's cases, which each involved different types of relationships with peers, professors, and TAs. In the Accounting case, Trent had access to a small group of talented and willing peers who helped him with his learning failures. He also shared significant social experiences with them outside of the classroom. In the Math case however, Trent relied on roommates rather than

on class peers and the professor for help with his learning failures. There was a lack of social connection to these peers and the professor, both inside and outside the classroom, that prevented Trent from going to them for help with his learning failures.

Second, the relationship with peers, professors, and TAs influenced how the struggling student perceived their willingness and capability to help resolve their learning failures. This was apparent in Jason's ASL case and in Trent's psychology case. Both students had weak relationships with their professors, which led them both to criticize the professor's ability or willingness to help them with their learning failures. Trent's experience with the TA in the Accounting case also illustrated how poor interactions that strain a relationship may discourage a struggling student from seeking help with their learning failures from them in the future. Understanding more about the relational dimension of context may lead to better learning failure interventions that focus on interactions inside and outside of the classroom. Improved understanding of this relational dimension of context may also lead to learning failure interventions that focus on strengthening strained relationships between the struggling student and others.

The emotional dimension of context influenced the learning failures explored in this dissertation in two ways. The first type of influence came from emotions related to the public identification of learning failure. This influence was most clear in Amy's Methods in Health Promotion case and in Jason's ASL case. Amy and Jason both experienced public identification of their learning failures. Amy's experience came about through a conversation with her internship coordinator while Jason's experience was the result of a failed public display of his ASL skills. In both cases, the public identification of the learning failure elicited feelings of

shame and embarrassment from each participant. These emotions complicated each participant's ability to evaluate their learning failures, which led them both to abandon the failures.

The second type of influence related to learning failures identified by way of social comparisons. This influence was most apparent in Amy's Backstory case. In that case, Amy made several references to classmates, both those she knew personally and classmates in general, that she perceived as experiencing less learning failure than she experienced. These social comparisons, related to her immediate learning failures, caused her to feel emotions of shame and embarrassment as mentioned earlier. These emotions made it difficult for Amy to evaluate her learning failures—leading to their eventual abandonment. Thus, understanding this emotional dimension of context may lead to better course designs that facilitate individual identification of learning failures, rather than public ones. Additionally, this improved understanding may lead to learning failure interventions that focus on rehabilitating feelings of shame and embarrassment to allow for improved evaluation of the failures.

The temporal dimension of context influenced the learning failures explored in this dissertation in three ways. The first type of influence consisted of past social interactions that influenced learning goals related to learning failures. These social interactions typically involved people with whom the participant had a close, personal relationship. This influence was most apparent in Jason's ASL case and Trent's psychology case. In Jason's ASL case, his past interactions with his friend, Kenny, led him to pursue the study of ASL—leading him to set learning goals that he eventually failed to accomplish. Trent's experiences with friends who took a psychology course in high school led him to pursue study of psychology in college, leading him to set learning goals that he also failed to accomplish. Thus, it was both the personal

nature of these past relationships and their influence on later learning goals that affected the learning failures.

The second type of temporal influence involved past interactions that influenced attributions for learning failures. Negative experiences with others relating to a participant's personal abilities led them to attribute future learning failures to the ability deficit. This influence was apparent in both Amy's Backstory case and in Trent's Math case. Amy's past interactions with her siblings led her to believe that she lacked sufficient debate skills, which belief resurfaced as she attributed later learning failures to this same debate skill deficit. Trent also mentioned that his earlier experiences with math teachers led him to believe that his math abilities were poor. In his Math course, Trent attributes his learning failures, in part, to this same math skills deficit—using the attribution to also account for the success of others in the course. Thus, there may be past social interactions that affect the way struggling students make attributions for their learning failures.

The third type of temporal influence involved future career and learning expectations that influenced participant learning failures. When participants interacted with people they had a close relationship with or perceived as successful, learning goals were modified and learning failures were abandoned. This was illustrated in Jason's Backstory case as well as Amy's Methods in Health Promotion case. Jason's conversation with the successful businessman led him to alter his career and learning goals and to ultimately abandon his learning failures. Amy's past interactions with advocacy and people who did lobbying led her to change her future career goals and to abandon her related learning failures. Each of these aspects of the temporal dimension of context demonstrate ways that past experience and future expectations can influence learning failures. Understanding temporal influences on learning failure may lead to better intervention designs that rectify the negative consequences of past social interactions. Additionally, further research regarding the temporal dimension of context may lead to improved intervention designs that help students become aware of the influence their future expectations have on their learning failures and how to manage expectations productively.

**Phases.** Within the framework generated by this dissertation, four phases mark the significant events within a learning failure experience: (a) identification, (b) evaluation, (c) attribution, and (d) progression. The identification phase marks the beginning of the student's learning failure experience. It is characterized by the student's realization that they failed to accomplish a learning goal they set. The way the student becomes aware of their learning failure influences how they begin to evaluate their failure. The evaluation phase consists of a student's efforts to understand what their learning goal was, what went wrong, and what to do next. The way the student evaluates their learning failure influences their causal attributions for the failure. The attribution phase consists of the student explaining why their learning failure occurred, which influences their decisions about making further progress toward their learning goal (Diener & Dweck, 1978; Diener & Dweck, 1980; Weiner, 1972; Weiner, 1985). The progression phase consists of the student's decision to either resolve or abandon their learning goal together with plans to execute their decision. The student's experience resolving or abandoning their learning failure influences the development of their ability and motivation to identify future learning failures. In this way, a student's experience with learning failure becomes cyclical, inherently reinforcing patterns of resolution and abandonment of failure (Abramson, Seligman, & Teasdale, 1978; Rohrkemper & Corno, 1988).

In the identification phase, the student detects the learning failure because of some physical, intellectual, social, emotional, or temporally-based expectation failure. Schank (1997)

stated, "For learning to take place, there has to be expectation failure... They would have to think about and explain this failure. These outcomes lead to two guiding principles of failure: (a) real thinking never starts until the learner fails and (b) it is easy to recognize their expectation failures because people insist on explaining them. Thinking and explaining catalyze learning" (p. 30). Each case in this dissertation illustrated the participant's realization that a learning failure had occurred.

In Amy's Anatomy case, her social comparisons led her to realize that she had failed to learn the course concepts as well as she had intended. In her Methods in Health Promotion case, Amy's conversation with the internship supervisor led her to realize that she had failed to learn the course concepts sufficient to fulfill the standard internship requirements. In her Backstory, Amy's interactions with parents, siblings, peers, and others led her to recognize failed progress towards multiple learning goals. In Jason's ASL case, his public demonstration of ASL skills led him to realize that he had failed to learn ASL grammar as completely as he had intended. In his Backstory case, Jason's interactions with his mother, his peers, and other helped him realize that he was failing to make progress towards his learning goals associated with the medical field. In Trent's Accounting case, his social comparisons to his peer group helped him identify his failure to master course concepts as well as they had. In his psychology course, Trent's comparison of his experiences to those of his high school friends led him to realize he failed to learn the course concepts in a way that motivated further study. In the Math case, Trent identified his failure to learn the concepts as well as the other students as he compared their performance to that of his own. In each of these cases, social interaction was a key influence in whether the student identified their learning failure. Thus, in this dissertation social interaction was shown to be a significant catalyst for the identification of learning failures. Understanding more about how

students identify their learning failures may lead to better instructional designs that emphasize social interaction and comparison.

In the evaluation phase, the student reviews dimensions of the Context attribute to understand the learning failure—physical, intellectual, relational, emotional, temporal. The details of the student's evaluation provide supporting evidence for their explanations of the learning failure. In each of the cases reviewed in this dissertation, the participants involved other people in the evaluation of their learning failures. In Amy's Anatomy case, she worked with a small group in the lab section to help her understand her learning failures from the lecture section. In her Methods in Health Promotion case, the internship supervisor dialogued with Amy to help her identify the concepts she was struggling to learn. In her Backstory, Amy involved her father, her mother, an academic advisor, a major fair staff member, her siblings, and various high school friends to help her understand her learning goals and learning failures better. Jason discussed his learning failures from the ASL case with a group of peers to compare and contrast his understanding of the failures. In his Backstory, Jason involved his mother, several close friends, and his professors to evaluate his learning failures. In Trent's Accounting case he conferred frequently with members of his small group about their perspectives in order to evaluate his learning failures in the course. Trent's psychology case explored his conversations with friends, roommates, and classmates that helped him to evaluate his learning failures in that particular course. He also worked with roommates to evaluate his learning failures in the Math case. These examples demonstrate several ways that participants in this dissertation relied on social perspectives and comparisons to evaluate their learning failures. Improving our understanding of how students engage in these social evaluations of their learning failures may

lead to intervention designs that make use social compare and contrast techniques to help students more accurately evaluate their failures.

An outgrowth of the student's evaluation of their learning failures is the assignment of a causal attribution for the failure. In the attribution phase, the student generates explanations from the evaluate phase about what caused the learning failure. As with the evaluation phase, the student's attribution relates to an aspect of the Context attribute. In Amy's Anatomy case, she made causal attributions for her learning failures reflecting a lack of intellectual aptitude that were based on social comparisons and perceptions of other students. In her Methods in Health Promotion case, Amy again based her attributions for her learning failures relating to intellectual deficits on the comparisons she made between herself and other students. In Amy's Backstory, she shared how her interactions with her siblings led her to make learning failure attributions about her perceived lack of academic ability and personal talent. Jason's interactions with the professor in his ASL case led him to attribute his learning failures in the course to poor instruction. His Backstory case explored the social basis of his attributions for his learning failures in various science and math courses. Trent explained how he struggled to make attributions based on comparisons he made of himself to his small group in the Accounting case—suggesting to himself that his learning failures must be due to lack of ability. In his psychology case, Trent's poor interactions with the professor and TA led him to attribute his learning failures to their poor ability to provide instruction. In the Math case, Trent's interactions with his professor led to him attributing his learning failures to the professor's lack of pedagogical ability. These examples illustrated ways that social interaction influenced the attributions participants made for their learning failures in each case. Attributions for failure have been shown to predict student decisions about making progress with their learning failures

(Dweck, 1975; Dweck & Leggett, 1988; Elliott & Dweck, 1988; Weiner, 1988; Weiner, 2010). Thus, an improved understanding of the social dynamics associated with the attribution phase may contribute to better attribution retraining that capitalizes on critical types of social interactions between students and others in the academic environment.

In the progression phase, the student decides whether to resolve or abandon their learning failure based on their identification, evaluation, and attribution for the failure. The student's understanding of their learning failure Context allows them to assess whether they will have the motivation and the resources available to resolve their failure. In each of the cases reviewed in this dissertation, the participants abandoned their learning failures. Amy abandoned her learning failures in the Anatomy case because her social interactions led her to perceive intellectual deficits in herself and the inability of others to help her resolve the failures. In her Methods in Health Promotion course, Amy abandoned her learning failures due to prior social experiences that contributed to her perceived intellectual deficits together with weak relationships with peers and classmates to support her. In her Backstory, Amy's past social interactions, socially-based feelings of shame, and her perceived lack of intellectual ability led her to abandon learning failures throughout her university experience. Jason abandoned his learning failures in the ASL case because of a weak relationship with the professor and socially-based emotional reactions to his failures. In his Backstory, Jason also explains that his abandonment of his learning failures were the result of strong relationship support from peers and his mother together with perceived intellectual deficits in math and science. Trent abandoned his Accounting case learning failures because of social comparisons to his peers that led to his perception of intellectual deficit. In the psychology course, Trent abandoned his learning failures because of poor relations with the professor and TAs as well as seating limitations in the course preventing his getting help from

other knowledgeable students. Trent's abandonment of learning failure in the Math course arose from lack of physical proximity to helpful others, a weak relationship with the professor, and a perceived intellectual deficit in mathematics. These examples illustrate ways that social interactions influencing the learning failure context and its perception by the participant influenced how the participant experienced the progression phase. This is a critical intervention point where many students may decide to abandon their learning failures if they perceive that within their learning failure context the resources needed to resolve the failure. Understanding the social influence on these decision points in the progression phase may lead to better advisement-based interventions that seek to rehabilitate students using narrative therapies and group-based discussions (Coleman & Freedman, 1996; Micari & Pazos, 2014; Newton, 1990). **Summary** 

This purpose of this dissertation was to qualitatively explore college student reflections of their learning failures with a specific emphasis on the social influences related to these failures. The goal of this exploration was to generate a descriptive framework of these social influences that could unify and enhance independent strands of research relating to college student learning failure experiences. This dissertation revealed a significant number of themes and complexity inherent in these learning failures experiences. Eight cases were produced in the words of three participants who were interviewed multiple times. The analyses of these eight cases explored 98 themes within individual cases and in the cross-case comparisons (Table 4). The results of this dissertation relate to several strands of research included in the literature review included above. The results also represented additional insights related to learning failure that were not present in the literature. Direct transfer of the themes to other contexts may not be feasible. However, a general synthesis of the themes into the Social Influences (SI) framework was accomplished.

Implications of the SI framework and its potential contributions to both research and practice are reviewed in the discussion section that follows.

### **CHAPTER 5: Discussion**

The purpose of this dissertation was to reveal more about college student learning failures by exploring student perceptions of their social interactions relevant to the failures. Through this exploration, it was anticipated that common themes and patterns would emerge that could be used to construct a descriptive framework of these social interactions and how they influence a college student's learning failure experiences. The following research questions were used to focus this exploratory study:

- How do college students reflectively perceive the social interactions germane to their learning failure experiences?
- What is revealed about college student learning failure from reflective descriptions of the students' social interactions inherent in their failures?

The exploration of these questions has generated themes that both support and build on those discussed in the literature review included above. These themes have provided the foundation for the social influence (SI) framework relating to college student learning failure. This discussion first describes the relevance of the SI framework to particular studies that were reviewed for this dissertation. Second, it addresses implications for future research and practice. Finally, it analyzes and reports on the limitations of this dissertation.

## **Relevance of SI Framework to Existing Studies**

To demonstrate how the SI framework might be used to enhance learning failure research and intervention design, this section will explore its application to four recent studies reviewed for this dissertation. The first study was conducted by Merritt and Buboltz (2015). Their study involved 298 undergraduate students who completed self-report measures to examine "the relationship between socio-economic status, academic self-efficacy, and perceived success in college" (p. 127). Their results "indicated that SES was significantly related to self-efficacy, and parental influence was a significant predictor of academic self-efficacy" (p. 127). Also that "parental involvement mediated the relationship between familial SES and self-efficacy" (p. 127). Assuming that a student's learning failures significantly influence their academic selfefficacy, the SI framework could be used to explore additional facets of this research. The mediating effects of the parents that were detected in the research could be explored and understood in greater detail by looking at differences between active and passive roles of the parents. A related research question might explore differences between modeling, facilitating, advising, and mentoring roles of parents along a variety of SES indicators. This more nuanced understanding might yield greater insight about how parents mediate their students' academic self-efficacy. Additionally, the student's own perception of their academic success might be mediated by contextual factors not explored in the study. The context and phase attributes of the SI framework might serve as the basis for exploring multiple social interactions related to their learning failures that affect a student's academic self-efficacy. How do students from different SES circumstances move through the phases of learning failure? The findings from this type of research question could yield deeper insight about the correlations of SES factors to self-reported feelings of academic self-efficacy.

The second study was conducted by Micari and Pazos (2014). Their study involved 141 students who participated in small learning groups to explore ways to reduce anxiety arising from social comparison concern. They concluded that "instructors may want to infuse small-group work with discussion of the malleable nature of intelligence and of the reasons for academic success and failure" (p. 249). The expectation of the researchers was that these types of small group interventions may help students to become more adept at evaluating their learning

failures and making productive attributions that facilitate the resolution of the failures. Using the SI framework, it may be productive to extend the research of Micari and Pazos by exploring the effects different roles have on the reduction of social comparison concern anxiety. Researchers may ask which peer roles most productively reduce the anxiety—modeling, facilitating, advising, or mentoring. Additional exploration of context attributes related to the interventions might also be productive. These interventions may be designed with consideration for the interaction space of the small group (physical), the deliberate tasks assigned to participants (intellectual), the short and long-term interactions of participants (relational), self-reflection and discussion of intervention impacts (emotional), and past experience or future expectations affecting the participants' levels of anxiety (temporal). Each of these deliberate design decisions could then be assessed to determine the best intervention designs given participant characteristics and needs. Beyond participant beliefs about intelligence and academic success, it may also be helpful to assess participants' self-reported ability and comfort working through the phases of learning failure—identification, evaluation, attribution, and progression. Such an assessment may deepen participants' self-awareness of their beliefs about their own intelligence and facilitate better small group discussion about academic success and social comparison concerns.

The third study was conducted by Eddy and Hogan (2014). Their study utilized a structural intervention in a general biology course that met three times a week and included 393 college student participants. The study was designed to explore the effects of variable course structures on student achievement broken down by student demographic factors such as race, gender, etc. Eddy and Hogan concluded that "increased course structure improves student achievement at least partially through increasing student use of distributed learning and creating a more interdependent classroom community" (p. 453). The analysis of demographic

subpopulations within the course was a significant component of the study. Although outside the intended scope of the study, utilization of the SI framework could have expanded the analysis significantly to include subpopulations distinguished by social roles in the course, contextual interaction patterns, and attitudes within learning failure phases. Assuming that learning failure influences a student's responses to course structural elements (context attributes), each of the components of the SI framework may provide a more nuanced understanding of student achievement differences leading to improved analysis of the course structural interventions. Additionally, the intervention utilized in the study by Eddy and Hogan could have been developed using the SI framework as a guide. Using the context attribute of the SI framework, different levels of course structure could be designed by varying the degree of detail within each context attribute. One example of this variable course structure might include the degree to which students are required to formally interact in group assignments (intellectual context). Another example might consist of varied requirements for reflection on past experiences with course content (temporal context). A deeper exploration of the differences in these contextual design decisions may accomplish what Eddy and Hogan call for, "further studies [that] explore how to best implement activities in class or the impact of adding graded review assignments on achievement" (p. 466).

The fourth study was conducted by Chagas and Fernandes (2011). Their study consisted of demographic and persistence analyses for 188 college students that explored persistence trends and academic outcomes. They concluded that:

The lack of flexibility of most HE institutions' organisation procedures (absence of parttime programmes, unfavourable class dimensions, inflexible evaluation methods, etc.), as well as perceived low quality of teaching, makes it difficult for students to reconcile study and working schedules, leaving these students with no other option than to interrupt their studies. (p. 456)

Expanding the scope of this study, the SI framework provides a broader set of dimensions with which to analyze the data reviewed. Demographic, employment, and interruption data for students was statistically analyzed to generate conclusions about persistence. Assuming that learning failure represents a significant component of a student's decision to persist with their university studies, additional data about these experiences could expand understanding of persistence models. As an example, analyses of persistence data correlated with self-reports of student experiences with each learning failure phase may reveal better predictors of academic outcomes. Analyzing the context attributes of these students' learning failure experiences may also reveal course design elements such as seating arrangements (physical), assignments (intellectual), and social interactions (relational) that contributed to their decisions about persisting with their studies. These analyses may also contribute to the call for additional research made by Chagas and Fernandes that "HE institutions' administrative and pedagogic organisation and models have to be reassessed and redesigned in order to allow for studying and occupational performance to be reconciled" (p. 457). Using the SI framework and subsequent course design research as guides, pedagogic models may be developed that consider role, context, and phase attributes that facilitate greater student persistence.

### **Implication for Future Research**

Educational research helps to shape academic policy and enhance the precision of interventions designed to help students work through their learning failures. Following from the examples cited above, the SI framework has five potential implications for future research. The first is further development of the general learning failure framework attributes developed in the

prior study (Proctor, 2014). The SI framework is more nuanced than the social dynamics attribute of the general framework. For example, the SI framework describes relationships between past social experiences and present learning failure experiences that were not explored in the prior study. The SI framework also describes the influence of a college student's social interactions on their attributions for their learning failures. These new insights lead to additional research questions:

- Which roles and social interactions most productively help college students to evaluate their learning failures?
- What influence do different relationship (i.e., parent-child, peer-peer, professorstudent, etc.) and role combinations have on college students' learning failure outcomes?
- What additional context attributes influence shifts in college students' social experiences with each of the learning failure phase attributes?

Answers to these and other relevant research questions may further evolve and expand both attributes and understanding of both the general framework and the SI framework.

Second, as mentioned above, the relationship of social interactions to a college student's attributions for their learning failures was not present in the literature reviewed for this dissertation. A brief review of attribution theory literature reveals extensive exploration of early childhood applications (Lin-Siegler, Dweck, & Cohen, 2016; Rohrkemper & Corno, 1988) and connections with literature on self-efficacy (Cruz Perez, 1973; Ellett & Chadwick, 2007). Findings from this dissertation about college student learning failures suggest that research findings involving early childhood populations may also apply to young adult populations. Using the SI framework, research on attribution patterns related to social comparison concern,

learning goal modification, and socially modeling of parents in college student populations may extend the application of research already available for these younger populations. The SI framework could guide the development of research questions to apply early childhood frameworks to college populations.

A third avenue for additional research is a deeper exploration of the influence of past social experiences on the four learning failure phase attributes. Although this dissertation identified relationships between these SI framework attributes, a more focused study may generate additional insights. How a college student's past experiences influence their learning failure identification, evaluation, attribution, and progression is still unclear. Research questions that explore past learning failures and social interactions, both explicitly and tacitly related to current learning failures, may identify new framework attributes and relationships between the past and the present.

A fourth area of additional research identified by this dissertation relates to unproductive social relationships. Each participant in this dissertation identified contexts in which relationships with others contributed to a learning failure. However, it was not clear how these unproductive relationships might evolve into a productive relationship—one that led to participants resolving their learning failure. Improved understanding of these role shifts may generate insights into social-based intervention designs that help college student resolve their learning failures. This research could be conducted using socio-academic interventions designed to use the SI framework role attributes as a basis for reflection on unproductive relationships at various times during a course.

A fifth strand of research that connects well to the findings of this dissertation is the selfevaluation, self-regulated learning, and metacognition literature. While studies in these fields typically explore an individual student's own self-evaluation processes (Pintrich, 2004; Zimmerman, 1989), there are also studies seeking to understand socially influenced selfevaluations of college student performance (Pintrich & Garcia, 1994). Additional exploration of this literature may help refine and expand understanding of how struggling students evaluate their learning failures. Research about struggling student evaluations of their learning failures may also inform other fields and disciplines as well (Scriven, 2008).

### **Implication for Practitioners**

Practitioners include instructional designers, academic support staff, university administrators, professors, course TAs, and potentially other college students. Following from the SI framework, there are four design and diagnostic considerations for practitioners working with struggling college students. The first is the proposition of role-based learning failure interventions. In college settings, helping professionals use active advising and mentoring roles when working with students to resolve their learning failures. This dissertation also identified the passive roles of modeling and facilitating that could support work with struggling students. Coordination of these role-based interventions may involve people that the student regularly interacts with—such as parents, roommates, learning group members, and course TAs. Using the SI framework to develop these roles with a student's social contacts could improve the rates of learning failure resolution.

A second implication for practitioners is redesigned instructional spaces. As indicated by the SI framework, instructional space may create or impede access to learning failure resolution resources like the professor, TAs, or other knowledgeable peers. It may also influence the degree of social interaction within the course, affecting the social connectedness to others that can help struggling students develop support networks. These spaces could be designed, in classrooms or in online environments, to maximize social connections between students, TAs, and the professor. Such configurations may include furniture that is reconfigurable in a classroom, or a digital interface that includes participant contact info and a scrolling chat feed. It may also be helpful in online courses to design a digital common space where students, professors, and TAs can ask and answer one another questions, which may also provide additional analytics about troublesome topics and learning failure trends.

A third implication relates to attendance policies that discourage high achievers from attending or participating in lecture sessions. Rewarding high achievers with flexible attendance may simultaneously disadvantage struggling students in the class who could be served by getting help from their more knowledgeable peers. It may be helpful to assess participant proficiency by topic and pair struggling students with more adept students who can help them resolve their learning failures. These interactions might foster stronger social support networks for struggling students. The interactions may also strengthen the more knowledgeable students' ability to articulate concepts in simple and concise ways—thus improving their understanding of the concepts.

A fourth practitioner implication relates to the advisement strategies used by academic support staff. These support staff can use the SI framework to diagnose various social aspects of learning failure experiences. Exploration of the social roles, contexts, and learning failure phases with a struggling student may reveal aspects of their experience of which the student was only tacitly aware. This new awareness may lead to more productive ways of resolving the learning failure. Additionally, practitioners who are familiar with the SI framework can train struggling students to use it as a tool to understand and work through their future learning failures. By becoming more aware of the social influences related to their learning failures, students may be able to improve their identification, evaluation, attribution, and progression skills.

### **Study Limitations**

Limitations in the following areas were present in this study: literature review, participant sampling, data analysis, case sampling, schedule, and framework synthesis. Each of these limitations represent opportunities for improving future research and practice based on this dissertation.

Literature review. The literature review for this dissertation utilized broad search terms that approximated, but did not fully describe, social influences specific to learning failure experiences. This strategy was adopted because the various social theories related to education are not tied to experiential frameworks that describe learning failure. Thus, the returned results were only loosely descriptive of experiences and influences relevant to this dissertation. This limitation was inevitable due to the unique nature of learning failure as defined in this dissertation and the previous work on the subject (Proctor, 2014). In the future, researchers may build on the framework of social influences developed in this dissertation as a way to ground learning failure more firmly in existing social learning theory.

**Participant sampling.** Initial screening interviews with the undergraduate college student participants from Brigham Young University revealed their lack of experience with learning failure, difficulty identifying learning failures that had occurred, ability to articulate experiences, and general sense of learning apathy. It was difficult to find students who were genuinely pursuing learning goals and experiencing genuine learning failure. It was even more difficult to take those who had experienced learning failure through a reflective dialogue to reveal their experiences with sufficient depth for the data analysis phase of the dissertation. A

more targeted participant invitation with more detail about the screening process may have yielded a better pool of participants.

**Data analysis.** The goal of this dissertation was to generate a framework describing the key attributes of social interactions related to college student learning failure experiences. Due to the fact that no such framework existed that could guide the data analysis, much time was spent developing and testing different thematic clustering and configuration. Additionally, the inclusion of more than two participants introduced a near-infinite amount of possible comparison between participants' experiences with learning failure. A significant amount of time was devoted to extensive analysis and sampling of individual cases before moving to cross-case analyses. This process of sampling and analysis could have continued, but saturation of core themes was reached to satisfy the fundamental purposes of this dissertation. Use of the framework of social influences developed by this dissertation may guide and simplify related data analyses in future research.

**Case sampling.** This dissertation considered seventeen separate cases from three participants, of which eight cases were selected for final inclusion. There were no precedent sampling methods for the research conducted in this dissertation, which led to more extensive analysis and consideration of individual cases. Researchers who examine the audit trail and findings of this dissertation will likely find a variety of suitable alternatives to the sampling criteria used herein. These alternative criteria may provide additional insight and enhancement to the framework of social influences developed in this dissertation.

**Framework synthesis.** Synthesis of the findings generated by this dissertation into a coherent framework took an extensive amount of time. Reflection on other social frameworks, such as Lave and Wenger's Communities of Practice framework, aided the process but failed to

shorten the amount of time taken. Future syntheses should rely on a method other than Stake's multiple case study approach (2006), which may not be well suited for the development of experiential frameworks. A grounded theory approach as proposed by Strauss and Corbin (1997) or by Charmaz (2014) might be more suitable.

**Schedule.** Original timeline estimates for this dissertation, including the development of narrative cases, the multiple analyses, and the writing of the final report were scheduled to be completed by June 24, 2016. Delays were due mainly to multiple IRB amendments to satisfy stakeholder concerns, a lengthy participant screening process, and an extensive framework synthesis process. In the future, IRB amendments could be avoided by communicating more frequently with stakeholders and resolving concerns prior to IRB application. Additionally, participant screening can be streamlined by improving communication that goes out in the participant invitation as mentioned above.

### **Intended Audience**

The intended audience for this manuscript consisted of academic researchers. While implications for practice were included in the discussion of findings, it was anticipated that a separate manuscript would be written to focus on the needs of a practitioner audience. Two venues for publication of this manuscript were intended: The American Educational Research Journal and Research in Higher Education. Both journals publish articles similar in nature to the questions on learning failure explored in this study. Each journal has a different readership and emphasis; The American Educational Research Journal has a broader research focus, while Research in Higher Education focuses specifically on the higher education context. This manuscript would align well with the aims and scope of either journal. This manuscript with its emphasis on the social influences related to college student learning failure experiences, together with the academic tone also make it suitable for publication to either of these two journals.

### Conclusion

This dissertation was designed to explore social interactions related to college student learning failure experiences with greater depth. It examined ways that college students describe these interactions as well as the students' perceptions of their influence in their learning failure experiences. The result of this dissertation was the social influences (SI) framework consisting of three key attributes: Roles, Context, and Phases. Any part of the framework in isolation may seem intuitive or even ubiquitous, but the synthesis and structure of the whole framework made it novel—an arrangement of the key attributes into a descriptive tool that can guide future learning failure research and practice. The framework describes nuances of each key attribute and their relationships to one another—providing ways to clarify understanding of the social complexities regularly associated with these experiences. This reduced complexity may promote greater precision in describing learning failure experiences. Improved description of these experiences may thus contribute to the development of better learning failure interventions. As researchers and practitioners continue to explore and understand social interactions related to college student learning failures, the SI framework may guide the generation of research questions and intervention designs.

### References

- Abramson, L. Y., Seligman, M. E., & Teasdale, J. D. (1978). Learned helplessness in humans: Critique and reformulation. *Journal of Abnormal Psychology*, *87*(1), 49-74.
- Ames, C., & Archer, J. (1988). Achievement goals in the classroom: Students' learning strategies and motivation processes. *Journal of Educational Psychology*, *80*(3), 260.
- Bailey, R. C., Helm, B., & Gladstone, R. (1975). The effects of success and failure in a real-life setting: Performance, attribution, affect, and expectancy. *Journal of Psychology: Interdisciplinary and Applied*, 89(1), 137-147.
- Bayton, J. A., & Whyte, E. (1950). Personality dynamics during success-failure sequences. *The Journal of Abnormal and Social Psychology*, *45*(4), 583-591.
- Bereiter, C., & Scardamalia, M. (1989). Intentional learning as a goal of instruction. In L. B.
  Resnick (Ed.), *Knowing, learning, and instruction: Essays in honor of Robert Glaser* (pp. 361-392). Hillsdale, NJ: Lawrence Erlbaum Associates.
- Buck, L. A., & Scammon, M. W. (1966). Perception of incidental success and failure stimuli by high and low n achievement groups. *Perceptual and Motor Skills*, *22*(2), 582-582.
- Bui, K. T. (2002). First-generation college students at a four-year university: Background characteristics, reasons for pursuing higher education, and first-year experiences. *College Student Journal*, 36(1), 3-11.
- Carlozo, L. (2012, March 27). Why college students stop short of a degree. Retrieved October 7, 2015, from http://www.reuters.com/article/2012/03/27/us-attn-andrea-educationdropouts-idUSBRE82Q0Y120120327.
- Chagas, M., & Fernandes, G. L. (2011). Interruptions and failure in higher education: Evidence from ISEG-UTL. *European Educational Research Journal*, *10*(3), 445-460.

- Chaiklin, S. (1993). Understanding the social scientific practice of understanding practice. In J. Lave & S. Chaiklin (Eds.) Understanding practice: Perspectives on activity and context (pp. 377-401). New York, NY: Cambridge University Press.
- Charmaz, K. (2014). Constructing grounded theory. Thousand Oaks, CA: Sage Publications.
- Chen, L., Chen, M., Lin, M., Kee, Y., & Shui, S. (2009). Fear of failure and self-handicapping in college physical education. *Psychological Reports*, 105(3, Pt. 1), 707-713.
- Chen, L., Wu, C., Kee, Y., Lin, M., & Shui, S. (2009). Fear of failure, 2x2 achievement goal and self-handicapping: An examination of the hierarchical model of achievement motivation in physical education. *Contemporary Educational Psychology*, 34(4), 298-305.
- Clifford, M. M. (1984). Thoughts on a theory of constructive failure. *Educational Psychologist*, *19*(2), 108-120.
- Coleman, H. K., & Freedman, A. M. (1996). Effects of a structured group intervention on the achievement of academically at-risk undergraduates. *Journal of College Student Development*, 37(6), 631-636.
- Cox, R. D. (2009). "It was just that I was afraid:" Promoting success by addressing students' fear of failure. *Community College Review*, *37*(1), 52-80.
- Denzin, N. K. (1970). Sociological methods: A sourcebook. Chicago, IL: Aldine Publishing Co.
- De Soto, C. B., Coleman, E. B., & Putnam, P. L. (1960). Predictions of sequences of successes and failures. *Journal of Experimental Psychology*, *59*(1), 41-46.
- Diener, C. I., & Dweck, C. S. (1978). An analysis of learned helplessness: Continuous changes in performance, strategy, and achievement cognitions following failure. *Journal of Personality and Social Psychology*, 36(5), 451-462.

- Diener, C. I., & Dweck, C. S. (1980). An analysis of learned helplessness: II. The processing of success. *Journal of Personality and Social Psychology*, 39(5), 940-952.
- Dweck, C. S. (1975). The role of expectations and attributions in the alleviation of learned helplessness. *Journal of Personality and Social Psychology*, *31*(4), 674-685.
- Dweck, C. S., & Leggett, E. L. (1988). A social-cognitive approach to motivation and personality. *Psychological Review*, *95*(2), 256-273.
- Eddy, S. L., & Hogan, K. A. (2014). Getting under the hood: How and for whom does increasing course structure work?. *CBE Life Sciences Education*, *13*(3), 453-468.
- Elliott, E. S., & Dweck, C. S. (1988). Goals: An approach to motivation and achievement. *Journal of Personality and Social Psychology*, *54*(1), 5-12.
- Farra, J. D., Zinser, O., & Bailey, R. C. (1978). Effects of I—E of donor and race and locus of cause of failure of recipient on helping behavior. *The Journal of Social Psychology*, 106(1), 73-81.
- Jury, M., Smeding, A., Court, M., & Darnon, C. (2015). When first-generation students succeed at university: On the link between social class, academic performance, and performanceavoidance goals. *Contemporary Educational Psychology*, 41, 25-36.
- Karabenick, S. A., & Knapp, J. R. (1991). Relationship of academic help seeking to the use of learning strategies and other instrumental achievement behavior in college students. *Journal of Educational Psychology*, 83(2), 221-30.
- Lave, J. (1993). Introduction. In J. Lave & S. Chaiklin (Eds.), Understanding practice: Perspectives on activity and context (pp. 3-32). New York, NY: Cambridge University Press.

- Lave, J., & Chaiklin, S. (1993). Understanding Practice: Perspectives on activity and context. New York, NY: Cambridge University Press.
- Lave, J., & Wenger, E. (1991). *Situated learning: Legitimate peripheral participation*. New York, NY: Cambridge University Press.
- Lea, M. (2005). 'Communities of practice' in higher education: Useful heuristic or educational model? In D. Barton & K. Tusting (Eds.), *Beyond communities of practice: Language, power, and social context* (pp. 180-197). New York, NY: Cambridge University Press.
- Lin-Siegler, X., Dweck, C. S., & Cohen, G. L. (2016). Instructional interventions that motivate classroom learning. *Journal of Educational Psychology*, 108(3), 295.
- Lincoln, Y. S., & Guba, E. G. (1986). But is it rigorous? Trustworthiness and authenticity in naturalistic evaluation. In D. Williams (Ed.), *Naturalistic evaluation: New directions for program evaluation #30* (pp. 73-84). San Francisco, CA: Jossey-Bass.
- Lincoln Y. S., Lynham, S. A., & Guba, E. G. (2011). Paradigmatic controversies, contradictions, and emerging confluences, revisited. In Y. S. Lincoln & N. K. Denzin (Eds.), *Sage handbook of qualitative research* (4th ed.) (pp. 163-188). Los Angeles, CA: Sage Publications.
- Matson, J. V. (1991). Failure 101: Rewarding failure in the classroom to stimulate creative behavior. *Journal of Creative Behavior*, *25*(1), 82-85, 81.
- Merritt, D. L., & Buboltz, W. (2015). Academic success in college: Socioeconomic status and parental influence as predictors of outcome. *Open Journal of Social Sciences*, *3*(5), 127.
- Micari, M., & Pazos, P. (2014). Worrying about what others think: A social-comparison concern intervention in small learning groups. *Active Learning in Higher Education*, 15(3), 249-262.

- Moore, M. G. (1997). Theory of transactional distance. In D. Keegan (Ed.) *Theoretical principles of distance education* (1st ed.) (pp. 22-38). New York, NY: Routledge.
- Neumeister, K. S. (2004). Interpreting successes and failures: The influence of perfectionism on perspective. *Journal for the Education of the Gifted*, *27*(4), 311-335.
- Newton, F. B. (1990). Academic support seminars: A program to assist students experiencing academic difficulty. *Journal of College Student Development*, *31*(2), 183-86.
- Otani, A. (2015, February 24). The college dropout problem may not be as bad as the government says. Retrieved October 7, 2015, from http://www.bloomberg.com/news/articles/2015-02-24/the-college-dropout-problem-maynot-be-as-bad-as-the-government-says.
- Patton, M. Q. (1990). *Qualitative evaluation and research methods*. Beverly Hills, CA: Sage Publications.
- Patton, M. Q. (2001). *Qualitative research and evaluation methods*. Thousand Oaks, CA: Sage Publications.
- Patton, M. Q. (2002). *Qualitative research and evaluation methods* (3rd ed.). Thousand Oaks,CA: Sage Publications.
- Peetsma, T. D. (2000). Future time perspective as a predictor of school investment. *Scandinavian Journal of Educational Research*, *44*(2), 177-192.
- Pintrich, P. R. (2004). A conceptual framework for assessing motivation and self-regulated learning in college students. *Educational Psychology Review*, *16*(4), 385-407.

Pintrich, P. R. & Garcia, T. (1994). Self-regulated learning in college students: Knowledge, strategies, and motivation. In P. R. Pintrich, D. R. Brown & C. E. Weinstein (Eds.), *Student motivation, cognition, and learning: Essays in honor of Wilbert J. McKeachie*, (pp. 113-133). New York, NY: Routledge.

- Proctor, K. (2014). *The complex nature of learning failure: A student perspective* (master's thesis). Brigham Young University, Provo, UT.
- Rohrkemper, M., & Corno, L. (1988). Success and failure on classroom tasks: Adaptive learning and classroom teaching. *The Elementary School Journal*, *88*(3), 297-312.
- Schank, R. (1997). *Virtual learning: A revolutionary approach to building a highly skilled workforce*. New York, NY: McGraw-Hill.
- Schlenker, B. R. (1975). Group members' attributions of responsibility for prior group performance. *Representative Research in Social Psychology*, *6*(2), 96-108.
- Schunk, D. H. (1991). Self-efficacy and academic motivation. *Educational Psychologist*, 26(3-4), 207-231.
- Scriven, M. (2008). The concept of a transdiscipline: And of evaluation as a transdiscipline. *Journal of Multidisciplinary Evaluation*, *5*(10), 65-66.
- Seli, H., Dembo, M. H., & Crocker, S. (2009). Self in self-worth protection: The relationship of possible selves and self-protective strategies. *College Student Journal*, 43(3), 832-842.
- Shu, T., & Lam, S. (2011). Are success and failure experiences equally motivational? An investigation of regulatory focus and feedback. *Learning and Individual Differences*, 21(6), 724-727.
- Smith, C. P., Ryan, E. R., & Diggins, D. R. (1972). Moral decision making: Cheating on examinations. *Journal of Personality*, 40(4), 640-660.

Stake, R. E. (2006). Multiple case study analysis. New York, NY: The Guilford Press.

- Stake, R. E. (2010). *Qualitative research: Studying how things work*. New York, NY: The Guilford Press.
- Strauss, A., & Corbin, J. M. (1997). Grounded theory in practice. Thousand Oaks, CA: Sage Publications.
- Stringer, P., Crown, S., Lucas, C. J., & Supramaniam, S. (1978). Sex differences, personality and study difficulty in university students. *Journal of Biosocial Science*, 10(3), 221-229.
- Struthers, C., Menec, V. H., Schonwetter, D. J., & Perry, R. P. (1996). The effects of perceived attributions, action control, and creativity on college students' motivation and performance: A field study. *Learning and Individual Differences*, 8(2), 121-139.
- Taylor, Y. (2008). Good students, bad pupils: Constructions of "aspiration", "disadvantage" and social class in undergraduate-led widening participation work. *Educational Review*, 60(2), 155-168.
- Terenzini, P. T., & Wright, T. M. (1987). Influences on students' academic growth during four years of college. *Research in Higher Education*, *26*(2), 161-179.
- Thompson, T., & Parker, C. (2007). Diagnosing the poor performance of self-worth protective students: A product of future outcome uncertainty, evaluative threat, or both? *Educational Psychology*, 27(1), 111-134.
- Tinto, V. (1975). Dropout from higher education: A theoretical synthesis of recent research. *Review of Educational Research*, *45*(1), 89-125.
- Tinto, V. (1987). *Leaving college: Rethinking the causes and cures of student attrition*. Chicago,IL: University of Chicago Press.

- Turner, J. E., Husman, J., & Schallert, D. L. (2002). The importance of students' goals in their emotional experience of academic failure: Investigating the precursors and consequences of shame. *Educational Psychologist*, 37(2), 79-89.
- U.S. Department of Education, National Center for Education Statistics. (2015). *The condition of education 2015* (NCES 2015-144). Retrieved October 7, 2015, from https://nces.ed.gov/pubs2015/2015144.pdf.
- Wei, M., & Ku, T. (2007). Testing a conceptual model of working through self-defeating patterns. *Journal of Counseling Psychology*, 54(3), 295-305.
- Weiner, B. (1972). Attribution theory, achievement motivation, and the educational process. *Review of Educational Research*, *42*(2), 203-215.
- Weiner, B. (1985). An attributional theory of achievement motivation and emotion. *Psychological Review*, *92*(4), 548-573.
- Weiner, B. (1988). Attribution and attributional therapy: Some theoretical observations and suggestions. *British Journal of Clinical Psychology*, *27*, 93-104.
- Weiner, B. (2010). The development of an attribution-based theory of motivation: A history of ideas. *Educational Psychologist*, *45*(1), 28-36.
- Wenger, E. (1998). *Communities of practice: Learning, meaning, and identity*. New York, NY: Cambridge University Press.
- Wentzel, K. R., & Wigfield, A. (1998). Academic and social motivational influences on students' academic performance. *Educational Psychology Review*, *10*(2), 155-175.
- Whiteman, S. D., McHale, S. M., & Crouter, A. C. (2007). Competing processes of sibling influence: Observational learning and sibling deidentification. *Social Development*, *16*(4), 642—661.

- Wilder, J. S. (1993). The sophomore slump: A complex developmental period that contributes to attrition. *College Student Affairs Journal*, *12*(2), 18-27.
- Zimmerman, B. J. (1989). A social cognitive view of self-regulated academic learning. *Journal of Educational Psychology*, *81*(3), 329.

## **APPENDIX A: Participant Invitation**

## Dear (Student),

A research study exploring difficult college learning experiences is being conducted by **Keith Proctor, a PhD student** at Brigham Young University, under the direction of **Stephen Yanchar, PhD.**, faculty mentor in the BYU college of Instructional Psychology and Technology. This study is designed to explore how college students experience difficult learning experiences, including ones that result in poor grades for assignments or the class as a whole. You are invited to participate in this study because of your experience with difficult learning experiences at Brigham Young University.

Participation in this research study will include the following:

- you may be asked to submit work samples to illustrate your learning experiences
- you will be interviewed multiple times for approximately thirty to sixty (30 60) minutes each time about your learning experiences at BYU.
- the interviews will be audio recorded to ensure accuracy in reporting your statements. Quotes from the interviews will be used in research reports based on this study. All quotes will be anonymous.
- the interviews will take place on BYU campus at a time convenient for you.
- the researcher will contact you multiple times throughout the study for approximately thirty (30) minutes each time to check the accuracy of developing themes and insights from the interviews (member checks).
- total number of interviews is planned to be three or such.

You may feel some embarrassment when answering questions about your learning experiences or when being audio recorded. If you feel embarrassed about answering a particular question, you may choose to decline or excuse yourself from the study without any consequence. There will be no direct benefits to you. It is hoped, however, that through your participation researchers may learn about difficult college learning experiences and may be able to assist struggling students to improve their future learning experiences. Although you will not receive any material compensation for participation in this study, past participants have stated that their participation helped them to understand themselves and their learning experiences in new ways that led to growth and success in learning.

Participation in this research study is completely voluntary. You will have the right to withdraw at any time or refuse to participate entirely without jeopardy to your class status, grade, or standing with the university.

If you would like to participate in this study, please contact Keith Proctor directly at Keith.Proctor@byu.edu. Thank you.

## **APPENDIX B: Sample Interview Protocol**

"Thank you for meeting with me. I have asked for the University Advisement Center to connect me with students who are willing to discuss their learning experiences here at BYU. My goal is to document and better understand students' learning experiences, especially the unsuccessful ones. I am most interested in the social aspects of these experiences. Each interview can last anywhere from thirty minutes to an hour and it may be necessary to meet multiple times. I am not paying anyone to talk to me about their experiences, but most people who have worked with me have said that they have enjoyed the experience and that it has helped them to better understand their learning experiences. Based on all of this, are you still willing to discuss your learning experiences with me?"

If yes—Have participant complete IRB consent form. Emphasize the possibility of multiple interviews. Start audio recording.

If no—Work with Freshman Mentoring to identify additional individuals. I may also ask if the participant knows of anyone else that may be interested in talking with me.

Sample questions:

- Can you please tell me about your BYU learning experience overall?
- What particular classes have been the most difficult? How and why?
- When/How did you realize that you were having difficulty in the course?
- What did you think the problem was? Why?
- What did you do after you realized there was a problem? Why?
- Did you work with others to resolve the learning problem? How?
- Did your understanding of the problem change over time? How?
- Did this learning difficulty affect the rest of your BYU experience? How
- Did this learning difficulty affect your personal learning goals? How?
- Since this experience, have you done anything to resolve the difficulty? What did you do?
- What words or phrases would you use to describe your experience with this concept? Why?

Debrief on the interview, share thoughts about key information and themes from the interview, and ask if the participant has any questions, suggestions, or concerns.

## **APPENDIX C: Transcription Protocol**

# Formatting

- At the top of the first page include:
  - Name of Interviewee(s) and session number
  - Name of Interviewer(s)
  - Date of Interview
  - Name of Transcriber
  - Date of Transcription
  - Duration of Interview
- Include page numbers on each page, centered, bottom.
- All transcripts double-spaced with one-inch margins.
- Include time-into-interview at least once on each page of transcription.
- Speakers will be identified by first name all in capital letters at beginning of each statement:
  - BENJAMIN: I haven't thought a lot about it since then. I guess so.
  - PI: What are your thoughts on it now?
- Indicate the end of a tape/beginning of a new tape in all capital letters.

## Content

- Include comments such as {laughs} or {points to...} or pauses {...} in curly braces.
- Use bold uppercase to show emphatic in speech.
- Bracket any necessary explanations {interruptions, recorder turned off, and so forth} in curly braces.
- Cross-talk—times when multiple people are talking—will be designated by the additional dialogue being enclosed in parenthesis:
  - BENJAMIN: It was kind of funny how (like you were trying so hard but it wasn't working) yeah and I didn't know what to do.
- Words that are difficult to identify in the text will be designated in brackets with a question mark at the end:
  - BENJAMIN: The professor jumped into the lecture on [gasmotestinitis?] that no one understood anyways

#### **APPENDIX D: Narrative Cases**

### **Amy—Anatomy Course Learning Failures**

Anatomy was one of the first classes that I took when I got home from my mission. So I was gung ho about being a planner, a perfect planner, doing my goals. It was for exercise science and I loved it. The course is split up into two parts—the lab, the cadaver lab, and then lecture. The lecture half of the class is in a lecture room and you're being lectured. But I really loved the class because of the cadaver lab part. The cadaver lab was so interesting because I actually saw, touched, poked, and prodded, and so forth But I could actually see what we were talking about and saw it in real life. On the tests, the final exam even and the midterm, I went in and I was just excited to take those tests. But then for the lecture part-it was miserable. It was horrible. I think I came out with a C+. I don't remember exactly. I probably got a horrible grade in the lecture and the cadaver lab part, I think I got an A just because it was really fun. So then you just average those out. I went into the lecture and I had a teacher that everyone said was hard and that the other teacher was more fun and easier. And people say it's kind of hard too. But, just studying from a book was boring to me I think. And I think when I go to class and I'm not up front and up close listening then I don't understand and it just goes over my head, I get sleepy. I don't think I knew anyone in lecture because I didn't really understand it very well and honestly I think I skipped quite a few times because the teacher would just go over power point slides that were online anyway. And that was bad thinking on my part because what I realize now is even if all the power point slides are online, when else are you going to have time to go over those slides unless you're in class? You can't think, 'oh, I'll just go back and do it later'. You're not going to go back and look at those power point slides later even if they are always available to you. That was just something that I realized now. The only thing you technically

had to do was attend class but {...} So, I wouldn't go to class very often, but I would go to the cadaver labs because those were graded according to attendance and you had to take guizzes every week. So, that was intense, but I loved it. We were always with the same group, a smaller group of people in a smaller class, whereas lecture was like a ton of the lab groups all in one. I really connected with the people in my lab. And the TAs, they were really helpful. I had the same TAs every time. We had memorizing tests and then big tests like the midterm and the final were just big ones that people worried about. But I remember feeling all pumped before I went in because I was just excited because it was something that was really interesting to me. And before going into the tests, it was always with my lab and we said, 'ok! We can do this!' So it was fun, like a support group. So, it was kind of this tight-knit little cohort group thing. And that's what I've noticed is that the best classes I've been in are the small classes where we've all gotten to know each other and the teacher is right there with us. Or it's the TAs. And what I realized is that whenever I'm in one of those classes that's in a huge room or even if those ones have labs but it's more than say, 15 people, I think I didn't sit up front and center because I felt too outnumbered, being the only one who didn't understand.

### Amy—Methods in Health Promotion Course Learning Failures

I took a Methods in Health Promotion class and health promotion is my emphasis. So I thought, 'okay, I need to make sure that I get into this class and that I do well'. I think I got a C+. Maybe it was a B-. I think it was a C+. But, I don't know what happened. Maybe I missed a class in the beginning or kind of felt like I was behind everyone else. Usually I am able to get to know another student and get the notes from them and I think I was able to do that, but for some reason I never felt like I was completely on top of that class. I'm not an extrovert about

certain subjects enough to go out and hold a sign, you know? I don't see myself actually going up and doing things like that, because I'm not that outgoing. I guess

I'm not as passionate about things. Of course I'm passionate to work behind the scenes, but not front and center trying to convince other people—because they have their opinions. And when I try to convince them, I never feel like I have a good enough argument. When I was growing up, I never had a good enough argument for my siblings and they would always win the fights! So, I'm not that type of person and a lot of that class was about doing those sorts of things. Going up to the capital, meeting with boards to convince them that they should change some sort of policy or other about a health issue. And so I think that the whole subject, since it was something that I would rather not do, I just didn't quite understand exactly everything they were saying. So I talked with the teacher and I worked with him a little bit and I was able to get by enough to pass the class. And I was talking to my internship supervisor and we were trying to brainstorm about things and my internship. Because the position I have in my internship is really kind of open. So we were brainstorming about projects that I could do for my internship and he asked, 'well, you've taken the methods class for health promotion, right?' and I said, 'yes' and he said, 'well then you should know about this!'. Then I thought, 'Oh no! I didn't learn that!'. Now I'm thinking, 'oh great! That's going to come back and bite me again!'. So now, I remember that was something that I felt frustrated about in that class-the fact that I really didn't solidify the learning. But now if people ask, 'don't you want to do this? Didn't you learn about this in college?' I say, 'I guess I did, but I didn't want to!'. The whole idea about how a bill becomes a law—I don't know how many times I have been taught that and I still don't get it because I'm just not interested. I don't know when I'm going to learn about that-maybe once I finally do find something that I'm passionate enough about to decide, 'this should become a

law!' Then I'll Google it and really get it down and write notes and draw it out. Maybe it's because I have never done it, but I can't see myself doing it. So, I found something else that I really liked that I thought would be better. It's committees—working in the background. What my internship finally turned out to be was not anything close to lobbying or advocacy work or anything. And I was excited about it because it's not that.

### **Amy—Backstory Learning Failures**

I just always assumed I was going to college, that high school was never the end. Of course I understood that some kids didn't get the chance to go to college but I think because it was such a good chance for me and I was in the situation where I could go to college and get this great education, I think I always just assumed that it was going to happen. I think it took me a while though. I think for me, I've always kind of grown up with this idea that anything is possible, you know? As long as you figure out how it will work. And so, things like the cure to cancer or autism—it's there. We just have to figure out how to get there. I guess I take a lot of personal responsibility for things and so if I'm not learning something it's because of something I'm not doing, you know? So it just means that I stopped, rather than, 'this was just too hard' or 'it's just the subject that makes it too hard for anybody to learn'. It's not anybody else's fault. It's mine. But, there are always exceptions to what I think the rule is in the way that I learn. I have fun talking and realizing things. I realized that I have gotten past some of those barriers I thought I had and it feels great. I think I really have gone somewhere throughout my whole BYU experience. It's fun being able to talk about it now that I've been able to bring up my GPA a little and improve my skills. So I'm okay going back. But I feel if it were back then I would think, 'Oh! I'm horrible!'. It was really hard because I always felt ashamed. I thought, 'I shouldn't be here because I'm a bad student'. But I wanted to stay because I didn't want to quit.

Everyone looks like the perfect students, but they're not. It would be great if every student who was struggling could just talk about stuff like this and just talk through it. I remember. I definitely had to do a few of those academic support papers and having to fill out what my barriers were and my challenges, obstacles, and so forth So I would just go and I would meet with the counselor, because that's what I had to do in order to keep going to school. Maybe you just need another student or the counselor who is going to text you once in a while and say 'hey, how's it going?' and not be bad like me and not respond because you're ashamed you're doing bad. Sometimes I wish I had been more willing to go to counseling. When I say, 'counseling' my initial reaction was 'I'm not that bad. I don't need counseling'. But I think it's simple and it helps. With some of the hard classes I just tried to kind of block them out of my memory. I feel like math was always easier for me to understand growing up and then chemistry. But I didn't ever try chemistry in high school. I did the physics route and that fulfilled that requirement. And physics was easier for me to understand although it was hard too. For me, the math was always the easier part. I think I just understood math better. I took calculus and got a B. That was a really good grade for me and I liked it. It was hard to understand, but when I worked on it with other people, especially in the lab, calculus turned out to be really good for me. I remember in fourth grade having to learn long division. I had to learn it because everything builds on it and all the teachers were there and it looked like all the other kids understood it. So, I thought, 'I have to get this!'. I remember that the concept was so hard at first! Then suddenly it clicked and things were easy and breezy until I found the next big obstacle. And usually math was so easy for me, but at the end of the whole class period I remember that I finally, finally got it—like five minutes before we were supposed to leave! And then I was whipping through my homework that had been taking me a long time. But it was

funny because the teacher was laughing when the other students were coming in and I was saying, 'it's really hard, but don't worry because once you get it you'll do great!'.

Well, I graduated from high school in '04. And then I took my first class from my dad here—one class in the summer of '04. So it's been a long time. For a long time I never was a full-time student. I just took classes here and there for a couple of years because I could never decide about a major. I think it was just realizing how hard it really was and realizing the little that I had to do to make sure that I could get good grades. And even then I didn't do very well. Every class was difficult before my mission. In high school I did a lot of music and I was in marching band and all this stuff. In marching band, you learn three or four songs and memorize them perfectly with all the notes. And then I was marching back and forth to different places on the field. I did all that too. And so having to memorize the songs and go to different spots—that was so easy for me. And then coming to try and learn something from a book and memorize it from the book as opposed to standing and walking and breathing really hard and playing an instrument was hard for me. I feel like for me I have to be walking around and talking, writing, drawing in order to really remember something.

In high school there was a medical technician's class and I remember a physiology class and I had a bunch of friends in that class. I think in high school, I would go with the flow of the crowd with my friends and the people around me. A lot of my friends would say, 'I'm going to be a nurse' or 'I'm going to do this' or 'I'm going to do that'. And I thought, 'If I'm going to be a nurse, then I have to do higher education too. I have to go to college'. So, I just always assumed that I was just going to follow along with what everyone else did with careers and things like that. And I always took things like that into account. What my friends were doing kind of set the stage for what I thought I would be doing. I don't think I would've admitted it then, but as I look back now I realize I was so influenced by my friends and I'm so grateful that I had good friends—friends who were strong in the church and everything. I was strong and had a testimony and everything but, still—I was influenced. Who knows? I like to think I would've been strong.

So, I went on a mission in 2007, like April '07. So I wasn't going to class from like winter of 2007 through fall of 2008. So then I started up again in winter of 2009 and I've been going since then. And now I'm on my very last year and I'm going to graduate in April. So it's taken a long, long time to do my undergrad. But I'm finally getting there. I realized that for me I couldn't wait until I decided on a major. I had to just choose one and get working on it and then realize what I really wanted to do. So I had done one really big major change where a lot of those classes that I took before I didn't end up using. After my mission I was an exercise science major. A lot of those exercise science students are pre-med. You just can't declare your major as pre-med, so they declare it as exercise science. I came into the exercise science program expecting to succeed because it was after my mission. So, I thought, 'I have a fresh start on school. I know I've had a bad record so far, but I am ready to get working!'. And I thought, 'if people could see my transcript right here where I did a lot better. It was hard, but I improved.' And so I was gung-ho in the beginning and then there were classes like chemistry I would start to take and I would think, 'Oh no!' and all the frustrated feelings would come back. And so, it wasn't this miracle change when I got back from my mission. I wasn't suddenly a better student. I was a little bit better, but I wasn't as good as I wanted to be. And then I realized how much I didn't like chemistry and how hard it was for me to understand. So, I changed—to something that was still health-related, but that did not require chemistry. You always hear people moaning and groaning about Chemistry or Physiology or all these other ones that are intense, which are

interesting to me, but I think because of my track record, I thought, 'I'm not going to be able to do really well in those classes'. I think everything started in high school. I took a class that was a medical technician class and it was really fun and I loved it. And I had a lot of friends there too. And they all wanted to be cool and in the medical field, so I thought, 'I want to be cool and in the medical field'. And I always thought that nursing looked cool. When I came to BYU though, I looked at the nursing major and went to a couple of meetings, but then realized how competitive that program was. In high school, I wasn't a bad student, but I wasn't one of the best. And I felt like I was already starting low on the totem pole for getting into the nursing program. And so, before my mission, I still wasn't sure, because I felt that I liked health but I wasn't sure about nursing. So, when I came back from mission I was thinking that physical therapy was something that I wanted to get into because I really liked being in that setting. Then I took the intro to health professions class and a physical therapist came in and talked about his job and I realized that it would be fun, but it wasn't quite what I was looking for and so I still wasn't sure. I was never one of those kids growing up who said, 'I want to be this!'. I never had any idea. I always thought, 'It depends!'. There were so many different things I could do. The GE classes, even though some of them are really hard because they're not exactly what you want to be studying, still helped me rule out other things. Like, if you do horribly in a writing class then you know you were never meant to be a writer.

Honestly, going through BYU and having taken seven years just to do this undergrad and having to retake so many classes wasn't fun. I remember there were so many times after a test where I was walking along campus and I was thinking, 'I don't want to be here!'. But it's not that I didn't want to be here, but I just thought that I wasn't qualified or worthy to be here because I couldn't do well. I saw everybody else working hard to get good grades and obviously I wasn't working hard enough because I wasn't getting good grades. You know? I think American Heritage and Chemistry were where I was coming out of the tests pretty frustrated. There were a bunch of different classes where I came out of a test and just felt horrible afterwards. I think part of my doing bad in school was that I always told myself I was a bad student. And so if something was hard I would think, 'Oh, it's because I'm not a good student'. But it's not that. It's the lazy man's way of getting out of a situation, but you're not really fixing it. You're just saying that, 'it's either this or this. I'm either a perfect student or a bad student'. You know? And no one is either. I took a stress management class and I've been realizing more and more how at times I get frustrated when I start with one negative thought. And then I like to revel in my own self-pity and I feel like, 'aaahhh!'. But then I realized in the class we talked about cognitive restructuring, and how it starts with stopping whatever negative thought you're having and then looking at pros and cons and then choosing a neutral or more positive outlook and then relaxing and going forward from there. I think earlier on if I had started to honestly do the stress management techniques it would've helped out a lot. And something for me that always made me want to try things again was because I saw other people getting it easily and people who, and I hate to say this, but people who I thought, 'I'm as smart as them or smarter'. You know? I thought, 'I can get that, maybe'. So, if they were able to learn it I could learn it. You know? I think sometimes it's experience, being able to learn something in another class, something difficult, and being able to see success and you think, 'well, maybe I can have success in this difficult class'.

In the beginning, when I was really thinking about nursing and starting to take some classes, it was also hard because I did make a few friends who usually sat around me. But, it's terrible because when you're in those huge classes, there are tons of students—especially in

exercise science. You get in these big classes and you get a bunch of loud people who seem to know everything. It feels like everyone around you understands but you. And so, I would kind of make friends with some people but I would hold back because I would feel like, 'I didn't understand this and I'm not as smart as them because they seem to really understand this. So maybe I'm just not meant to be in this class'. I think I struggled a lot going to class because I knew I would be sitting next to those people and they'd all have their assignments ready but I wouldn't. And it was just humiliating sometimes. You know? I should have just been open about it, 'well, I don't understand this'. I think a lot of other people around me would have agreed. That's what I do now. I'm making a lot of good public health friends and we realize that we're in all the same classes, just at different times and we're all helping each other out with different things. So it's nice. But before I didn't do that as much.

When I came home from my mission I was thinking, 'I would love to be a physical therapist' because I was really into athletics and the way the body works and the way it moves. So I took the intro to health professions class that's part of the exercise science major and they had a different health professional person come in once a week and talk about what they do. Some of it was interesting but none of it stood out to me and so I realized that 'none of these are really for me'. Then I remember going to the major fair a few years ago and walking around and looking at public health and realizing that I really liked the idea of helping prevent these diseases from happening rather than treating them. So I talked to a public health student that was there at the major fair and she was really excited about it and it seemed really interesting. Then I talked to the counselors about it and I changed my major. Now I'm doing public health and I'm excited about health promotion. I realized that's what I liked more about health—was living healthy and preventing disease as opposed to trying to backtrack and treat it. It's been so much easier, so

much more fun. Maybe it's because I'm really interested in the subject. I think more of the motivation came when I could see what I wanted to be afterwards. So, when I have that end goal in mind, I really want to keep moving forward. So I met with an advisor and made a graduation plan and I thought, 'okay! I really am close!' or 'I can get there. I just need to take these steps'. Then I came back to Chem 105 and Stats, those hard classes, and tried them again. When you're in the middle of really struggling through a class though, you're not thinking about those steps. You don't think about the end. But whenever I did meet with someone who said, 'you can do this!' then I thought, 'okay! I can do this. It's easy!'. So I would struggle through it again. But, it's when I had that end picture all the time—I had to keep remembering it and then forget all the failures from before and just let them go. It didn't mean that I would fail again and again and again. I just have to let it go. And that was really hard to get over, but I think it really helped to finally push those failures away and think, 'That doesn't mean I'm a bad student'. And I think a lot of it was just that I was here and, 'what else was I going to do except just keep working on this?'.

Sometimes I'm ashamed to say that when I first got to BYU I didn't really think of that end goal because I always thought, 'I'm just going to get married and start having kids', you know? 'I don't have to finish school anyway' because that's how it was for my mom and she's got nine kids and is a totally successful mother and a wife. Everything's great, you know? But I think a lot of it was the idea that I was just going to get married and 'I'm just going to get married' and I didn't have a big goal with school or a job or anything like that. I always assumed that these things were important but I didn't actually picture myself in the situation of what if I didn't get married, 'what am I going to do?'. So I think that by switching to public health, I was starting to actually picture myself in that world of working and taking care of myself and making the goals, the real school goals. So, I think that's when I really started to work harder and started to picture myself being able to support myself and moving forward with my life rather than just waiting to get married, which wasn't coming right away. I know, it sounds ridiculous. Because the older I got, the more I began to realize how silly it was to wait for that to happen-to wait for other goals to happen before I let other big goals begin to materialize. Does that make sense? I have a couple of sisters who had a bunch—by a bunch I mean they had at the most maybe three kids by the time they graduated. So I guess I thought, 'Oh, once I do get married I can still kind of do school'. But I guess school was always on the back burner. It was always there and I was keeping an eye on it. Well, I was trying to keep an eye on it. I think I went to school in the first place because all of my siblings did and it was just expected of me, mainly by my dad and my siblings and by myself. There are nine kids and my family and I'm number seven. So, growing up, Jacob was the construction management guy. Brandon was just the really smart one who always got A's and he did chemical engineering and now he's into computers. Mark did computers. Amy sang. Andrea did this. Brian's the artist. So I felt like, 'what am I?'. Because for me, I guess growing up I never thought I was really good at anything. It was probably part of being too much of a perfectionist. I don't know. I was in band but I wasn't first chair, so I thought, 'well, I can play this instrument but I'm not very good. I don't take lessons' and I didn't always practice.

After I came home from my mission, I started to see things. After being out in Greece, out in the world, I began to realize that this perfect world that I had grown up in wasn't exactly perfect and my family wasn't exactly perfect and I knew I had to accept that. And it wasn't too earth shattering because I realized no one's perfect and we all have our struggles. And what I realized when I came home and started working through things was that my mom never finished college and had a bunch of kids and had a great family and now she's totally happy. What I noticed is that she's happy with her family. But I've been noticing that there's a lot more that she could be doing with her life if she had wanted to go back to school and finish a degree and maybe get a job and stuff. Because right now she hasn't worked since she began having kids which was 35 years ago. But sometimes I wonder about when I get to that point in my life. Do you know? Do I want to be able to say that I have a degree? I think it will have helped me to work through school for so long and still make sure that I finish. Once I get to that point and all my kids are grown up and gone, then I can feel more confident that I'm actually able to go and get a job, to do more and keep contributing to my family. I think that because we were talking about my mom being a big inspiration for me that seeing her now is kind of like my inspiration. She is still my role model. I guess she still is my role model in the fact of helping me see, 'how do I make sure I am not in that specific situation or what not?' Because I don't think she's in a horrible place right now, but I feel like I would like to have this or that changed. So that's also why am trying to improve my life right now, to finish college and see if I can still keep working while having a family. And for a lot of people that's not necessary. But they can kind of still pick up work right after. But I don't know about myself yet. So I guess our parents are still role models even though we don't want to be exactly like them. But we learn from their experiences and their choices. I know that I still want to get a basic understanding of chemistry-really for the purpose of teaching my children one day. I remember wanting to really learn about math because my mom was never a really good help with math. She wasn't too great in it or keen with it and I felt like I could never get help from my mom. And my dad would help me when he could. But I think I really wanted to learn math because I knew my mom couldn't really help me as much and I thought 'I going to be able to help my kids'. Although I need to remember to stay on top of my math knowledge—it might be going.

I don't remember how or where or when I had this conversation, but I remember somebody saying that they, and this is probably an old wives' tale, because someone told me that they heard that it is hard for daughters particularly to go and get more schooling than their mother had been able to get. Maybe this is totally false. It's not that the family discourages education, but maybe families don't encourage very much when the parents didn't get that much education. I don't know. There are always exceptions. It could be, but maybe not. But I am really going to encourage a lot more education than I felt I got because when I came to college I thought that I might not finish. I might meet someone, get married, and start having kids. That's kind of like how it happened with my mom. And I just kind of took things as they came and I didn't make any kind of huge plans. So I think that's kind of why I played around my first couple of years and then went on my mission and realized that I needed to make real life goals. And then I came home and that was a lot better-the life goals part. But, I realized that I don't go anywhere if I don't have that big picture goal. So I think what I would do is really, really encourage my kids to study hard, especially since you never know what effect you're going to have in the future on those around you when you decide to skip class for a day or something. Because I've realized that there are people that I've affected in my life because I chose something that I thought would only affect me. So, I think with school a lot of my procrastination or not really caring as much immediately in school has affected me, number one, because it's taken me a long time to get through school. I don't know. I think I just want to help my kids realize that maybe they don't see it right now and maybe it's a big chore to do homework right now, but they never know what kind of effect it's going to have on the future.

So it's always a good idea to learn as much as you can and keep moving forward. I like to learn in order to be able to teach. When I went on a mission, I remember there were times throughout my mission when I realized 'this is why I had to learn this tiny little thing' or when I had to go through this other experience so I could share it with this person that I'm teaching. And I realized that everything I knew and every talent I had was needed at some point during my mission. That's when I realized that all of the experiences that we go through in this life are for a purpose.

I think, after coming home for my mission I started teaching in the MTC and I loved teaching. And I remember asking my dad one time, 'Dad, what do you think I'm good at? I think I'm mediocre at a lot of things, but I don't think I'm really good at anything'. And he said, 'It's teaching!'. And I realized—and it's not like I'm being boastful—but I think I am good at teaching because I like it so much. And so, that's when I realized that I could stay in something health related and still teach and help to prevent disease instead of just treating it. What I love is the variety too. There's a bunch of places I could go to, like nonprofit organizations, United Way, or the Utah County health Department, or in a hospital. There are different opportunities to go and teach people things like stress management. Or I could go to schools and teach. I don't know. There are a lot of things, like staying away from drugs and alcohol or depending on whatever issue we're trying to focus on. Or working with low-income families-teaching them more nutritious options for food so that childhood obesity in low-income areas is lowered. So it's things like that. I love to go and work with people and teach. I think that's what drew me in with nursing is working with people one-on-one. But then again, I started to like the idea of helping people have a better life instead of just treating something. Because, you can say goodbye and they will still get sick or they'll get hurt again and then they'll come back. But I

really liked the idea of prevention and really helping someone change their life. So with classes that I'm more personally in contact with the teacher or the TAs or other students, I like it more and I do the homework more. But I also think that I stuck with health in the beginning because that was my defining feature with all my siblings. I thought, 'I could be the health person or the teacher' you know? That was something that I liked. I don't know why I had this drive to be different from everyone else. I think that's part of why I love to be in a big family because there's just lots of ways of learning.

For a long time, before I actually met my husband, graduate school was always in the plan. I think because I always assumed that I wanted to be a mother and start a family and everything and I was always willing to give up whatever it takes to be the best at that. I always said I wanted to go to graduate school and I wanted to get a master's degree in public health. And they're starting to require it more and more. It's not totally required, but more and more people like that to be there. But now I'm married. So my husband's working right now while I'm going to school. And I always knew that I had to finish my undergrad. And when I got married I thought, 'okay. Let's speed this up! I've been here long enough!'. So finally, I'm just getting this done. Once I graduate, he's filling out applications for grad school because he graduated last April. So that's the plan for now. We'll go wherever he gets accepted. And then I guess, depending on if we want to start a family there or if there is a really good public health program there that I can start to get involved in, that's kind of up-and-down. Right now, there's times when I'm at school and I'm so tired of it! And I say, 'I don't want to do a masters! I want to be over! I just want to have babies and stay at home!'. But then I realize how much cool learning there is at a university and how many classes I won't be taking advantage of. But oh well. There are a lot of ways to learn still besides school. We'll probably think about starting a

family before I start grad school. We'll see. This is the first time I've actually thought about what I would tell my kids. At least with my husband and I, we at least plan to get all of our kids through college and then let them decide from there. And then they can pay their own way from there too.

### Jason—ASL Learning Failures

ASL just came to my mind right now. I actually really enjoy sign language. I really wanted to learn ASL before because I thought that it was really neat that a deaf person could talk to another person about complex ideas just like another person can. But they don't even have to say a single word. It's just all about facial expression and hands. You could be talking to someone and if they can see your facial expressions just slightly and your hands from however far away, you can talk like another person would, you know? That's just a really cool concept to me. But the ASL grammar thing, when we had to get up in front of the class and sign something—we had to do a children's book. It's pretty standard for the ASL 101 classes. And I'll tell you what—I sure felt the not-knowing-the-grammar on that. Even though the teacher passed me with an A-, I thought, 'what am I doing?'. I was just throwing out signs that I knew because I was scared and I was freaking out. And so, I think it just stands out because it was a more socially embarrassing situation for me.

I actually retained a lot of vocabulary. I've talked to a lot of girls in the class and they kind of did the same thing as me. We were all excited to get into it and then we all got kind of tired of it and we just kind of left off. We don't really hate it or dislike it, but we were thinking, 'I'm not sure I want to go through three more classes of this'. And the grammar of sign language didn't really click with me, even though the teacher explained it. I still treat the grammar like it's English grammar, which is not right. So, I never really knew if I was doing it wrong or not. From what I understand, a deaf person will usually be able to tell or you'll tell them that you're just learning, you're very beginner status. I mean, they're not stupid. They'll see the context of what you're trying to say with your signs and try to put it together. Sometimes it doesn't work, but sometimes it does. So, the teacher knew sign language and I think she knew what I was trying to say most of the time. She did correct me and stuff but I feel like it wasn't consistent. I don't know.

We met this guy who was deaf at the end of my mission right before I went home and so I was all gung ho about finishing off strong. I was in Micronesia. It was funny because with his family, we talked the mom first and then the oldest daughter and then the youngest daughter and then we started on him. And I was so frustrated that I couldn't talk to him. It was kind of funny because we always thought, 'oh, we don't know sign language' and he didn't really know sign language. He knew basic stuff. He even knew some gospel terminology to a point. He actually wasn't 100% deaf. He was 10% or something. A lot of deaf people can actually hear somewhat. And he was actually really good at lip reading and his mom kind of knew how to enunciate certain things in the language, in kind of a different way. It didn't sound like regular Pompeian, but it came across to him very well. Sometimes she would have to repeat herself and she would yell a lot because he would catch it and he would hear a little bit. So, sometimes she would sign if she knew the sign for it. So he kind of used a combination of words and signs to gain an understanding. The first concept we taught him in the lessons was God is our loving Heavenly Father. That was one lesson for him! We were just trying to explain the first sentence and the second sentence. 'God is our loving Heavenly Father. He knows you Kenny!' and it frustrated the heck out of me because I was used to thinking, 'Okay! We're going to do the first lesson here and the second lesson' and of course you're supposed to try and apply it to the person and stuff.

I understand that to a degree, but I'd never seen anybody where they wanted to learn it, but had to go through the lessons so slowly. So, I came back here and I thought, 'I want to learn ASL' so that one day I'll be able to go back and say, 'Hi. My name is Jason' and just do all that stuff. So, I might go back. It's hard to say. I'd like to. I'm not going to do it while I'm single. I've heard that when you get married things get rough. So, my ideal situation is to go back with the wife, but it sounds like the ideal situation is very rare indeed and expensive, especially when you're young and mobile as a couple. So, I'll just go on the honeymoon or something.

So, I really liked ASL, I felt like there was a good reason for me to be in it. I learned it. I don't regret taking that class at all. It was kind of different from my Chem 105 experience, but I would still say that I failed to learn the grammar there. Even though there probably wasn't as much emphasis on it for that meatier class. So, it was still there. I still like ASL, but I'm not feeling pushed towards it. I don't know. Honestly, I haven't really run into very many deaf people either and I feel that with Kenny back in Pompeii, I could see that I at least wanted to be able to learn it so I could talk to him. I don't know, I think that's part of it, that now I can actually say, 'Hi. How are you—Good', you know? Even though I won't be able to talk to him about these complex ideas, we'll still be able to communicate at least. At least now I understand that I have to do facial expressions with a sign and I can still talk to him by mouthing it, shouting it, I don't know. And I think he's a lot smarter than I gave him credit for at the time. He sees what I'm doing and you can make up stuff when you sign, you can improvise a little bit. So, I don't think the grammar is really going to matter there. That's not what I was thinking when I decided I wasn't going to do ASL anymore. I was just thinking, 'Well, ASL is still cool, but I'm not as excited about it as I was'.

## Jason—Backstory Learning Failures

With math when I was a kid I got behind. I went to this weird elementary school and they said, 'your son's doing great in math and stuff!'. And so my mom thought that was good. Then I got into a bigger school for fifth-grade because the school I went to was only first to fourth. So I went into fifth-grade and they started teaching about geometry and I had never heard of the word or that kind of thing. So I was coming out with ADD or ADHD or whatever and my mom was saying, 'Whoa, whoa, whoa, what's going on?'. And then she started doing a summer school kind of thing, personally working with me and trying to teach me. And I could put my head to the wheel and stuff but I can't tell you how many times I said, 'Mom, I don't want to do this. I don't want to do it!' because I wasn't really into learning. I just wanted to go with what I knew and go on from that. I didn't want to spend the extra time inside the house studying when I should be outside playing football or something with the friends. So it was crazy. It has always just been like that. If I'm not interested I have the hardest time putting my head to the wheel and studying.

I sometimes actually fill the joy of learning as president Eyring would say—the joy of learning. I do feel it from time to time but a lot of times it really is hard. It's not even really the professor's fault it's just what makes the difference in doing good in the class and that's making the grade on the big test, you know? I feel like it's really difficult to integrate joy, the joy of learning, with not worrying or worrying about the next test and studying well. For me I've always just tried to do the bare minimum to get the grade on all tests. My mom always told me that I just do what it takes to just make it. That's been so true all the way from elementary school through high school. I think the big thing for me is to be interested in the topic.

other things that kind of build up to your area of specialty. Then you need to get kind of a general to kind of educate you in other areas and I think it's hard to it's always been really hard for me to be interested in those areas.

I did get a 25 on my ACT. From what I remember back in that time, it was just a smidge past average. There is that, but I don't know how they considered my college GPA and stuff for just a term. I thought they only took a GPA from a year of college and if you didn't have a full year then they took high school. My high school was like 3.6 or 3.7, something like that—above a 3.5. But honestly looking at it, I don't know why I got in. On the mission I wasn't really focusing on it, but I felt like I could see myself going either way—I could either go to BYU Idaho or Hawaii. It was probably going to be harder to get in there than here. I think it was kind of divine providence that I got in here because I didn't really see myself as standing out that much compared to a lot of students here. I really don't know why I got in sometimes. I don't think as a high school student you really get an in-depth view—you don't really know what education is like, what's really involved in getting it. I didn't know. So learning what was really involved in the process made me realize that I wasn't willing to put myself through all that.

I'm a sophomore. It's been kind of funny because I went to BYU Idaho for my first term. I loved it actually and I really enjoyed it. I enjoyed the college education, especially the church education and I did really well there. Then I went on a mission and I just came back about a year and half ago on April 1. It was like an April fool's joke. I decided on the mission that I was going to transfer to Provo. Then I would have a lot more options as to what I would do for a major or something. I was never one of those kids that know what they're going to go into, you know? So I was just I felt like Provo was a good option. It was obviously a bigger city and a lot more things to do, with more people. It was just a little more down my aisle I guess. So I came here this last summer, so 2011. I was originally majoring in exercise science and it's that first term that I didn't really get into it much. I was just doing my GE's, like history 201 and psychology. I also took a dance class for fun. I feel like in the first term at BYU Idaho I was really good at studying and stuff because I just didn't really feel that social. I was social, I just didn't really get to be really close friends with people. So I was doing a lot of good studying and stuff and then I came here. It was like I got friends and I was trying to reach out socially and it didn't really mix well that term with the studying and stuff. So I think I kept my head above water but I still lost GPA I didn't do so well. I did okay but I didn't do so well in my history, psychology, and dance classes. Then I went to fall term and that was really the term that I really tanked. It was Chem 105, PDBio, and nutrition.

I'm not really happy with my current major. But I think having the experience there was good, to get some experience in that field, that major. And now I've been spanning across-theboard, trying to see more of what my options are. And I feel like I'm coming out as more of a well-rounded individual in education because of it. So, we'll see where it ends up. It is an interesting experience—seeing what's out there. I also think that I chose some really good classes this term. Usually my religion classes are the ones that I just thrive in. I'm just really into them. But right now they're kind of on the lower end of my interest level and I'm really enjoying my History 202 class. I've been taking a world religions class this semester that's about thinking outside of what you believe and what you've grown up with and trying to see how other people believe and how they think. History 202 is the same thing. The teacher is an intellectual. He's been all over the place, like to Harvard and to Princeton. He's done fellowships everywhere and so he knows his stuff and he's constantly making connections. So I think just being in that environment so much this semester, in particular, is opening new parts of the brain.

I changed my major at the end of winter term. That term was spent just trying to find myself. Honestly, I am a little worried about switching because the reasons I went to public health weren't necessarily right. It felt good at the time to just get out of the exercise science major. But I think it was more a feeling of relief than a feeling of this is what I am supposed to be in. And so now I feel like it's kind of been a path. I feel like I was going into public health because it was more group based rather than going into a major that would lead to a profession where I would deal with individuals. Public health is more with groups of people, epidemics, health promotion and a wider public. Now I'm starting to think that international development was actually a really good minor choice. Then I started thinking about that more—how I really like dealing with different people in different cultures and stuff, 'So why not international relations? What's holding me back from that?'.

Honestly, I was working at Aspen Grove and there are a lot of people that come from California there. These guys are not poor. They are well off. And one of the guys there said, 'If I were hiring somebody, I would be as much for hiring an international relations person to do a public health job as a public health person'. So, I would be much more marketable with an international relations degree, so why not consider that? So I've been thinking about that. Now if we look at international relations and its major courses, there are stats and economics, required classes like Math 112 and Calculus—all that stuff. But even looking at it now, I don't think my reasons were right for getting out of exercise science. I mean there was a good idea behind it. But just because you don't like math and don't feel like you can work through it right now isn't a good reason. I talk to my mom all the time about this stuff. She said, especially about this term, 'You need to prove to yourself that you cannot settle for less and go for more'. I'm a lot more friendly to the idea of trying again and trying to push through those classes. And hopefully somehow I'll be able to conceive of the idea that the future will be better. Working through all these courses won't be as intense as they sound or as intense as it may be. It will be worthwhile because I'll be interested in what I'll be doing in the future because of the degree I get. And so hindsight is 20/20, right? Looking back I thought, 'What doesn't have math in it?'. And so I went public health, health promotion because you don't have any math except for some stats. It's like one class. It's not CHEM 105, 106, and 107 and then 240 and all this crazy stuff. It wasn't time after time. In exercise science, eventually I would be getting into physics and I thought, 'Oh boy!'. So I went health promotion because I honestly have an interest in international work or something. Maybe not a charity. I don't know. It was pretty much just two requirements: no math and something that's kind of in the medical field out there.

And so I switched over to that in winter term, late winter term. Winter term was really just GE's and me trying to like find myself kind of thing. I was just going out there and doing different stuff I wanted to do, like ASL. I always wanted to do an ASL kind of thing. So I took an ASL class and two religion classes: Doctrine and Covenants and New Testament. Actually it took New Testament in the fall. Actually it was International Church History that I took. It was kind of nice to have a class that was in the international realm so I could start thinking about how I felt about talking about people internationally. It was a great class with a 15-page research paper that trashed me. But I got through it and did well with it. Religion classes I felt were the easiest of your classes generally. I guess you could say I've taken easier classes. Even with GE classes I have tried to take easier courses up to this point. And I feel like this is the first time I've really started delving into difficult ones. This semester I'm taking History 202 and Intro to

International Development. I think I'm going to minor in that. It's just one of those intro courses that doesn't sound like a typical 1-credit intro course like Public Health - which I'm also taking. And it's a huge difference in the level there.

With international relations, I still enjoy those classes. I mean, that's really interesting to me. I think the reason I didn't go into it was just didn't feel that the job options were as good. It's interesting, but I couldn't see any good political science careers, you know? I mean CIA, FBI, and all those guys-they're more like analysts from what I saw. All this being said, I'm pre-communications right now. I haven't even applied. If I don't get into this program, I would give it two shots because that's the max that you can give it. I feel really good about it. I've already started getting involved with BYU/SA doing public affairs for them. I started to get involved. I don't know. I'm just doing stuff. I just got onto the advertising committee for the hunger banquet that's going on. I've kind of looked at it before. I mean, when I first came here I thought, 'No way. I'm not the kind of kid'. But now I'm involved in PR and really feeling good about it. It really opened me up to the idea. I knew some people in there. They got me a good position. I went pretty active in it. Right now I'm just kind of the kid who has a lot of energy but doesn't know what the heck he's doing, kind of thing. It's like the missionaries who go into the field and they're brand new and they've got all that fire, you know? They've got fire in them, but they've got no clue what's going on, kind of thing. That's kind of how I am right now. And it sounds like things are already better than they were with the last person. I don't want to say that I'm better than the last person, but it just sounds like there's a lot more good. I don't know. It's really difficult because BYU/SA is stricken with problems just like other organizations. I've already had my ethical experiences where I think, 'Oh my gosh! Why is this policy in place' you know? There are those kind of things, but I don't know. It's just not me. I've never really been

the type to get super involved in stuff, ever. I mean, in sports, sure. But not in the honor society, just because it made me look good on a piece of paper. I actually forget that I was in the National Honor Society. I never put that on my resume. I should do that, except for my resume is starting to explode and stuff, even though it's not that applicable. Doing great grounds maintenance work doesn't really go well with sales. I just need to succeed right now and really get some stuff out of the way.

So, I declared a major for pre-communications. I'm trying to go for PR. It's been fun because I've also been thinking about doing an internship abroad. But, I don't think it's a good time. So, we'll see where it takes me. International relations still sounds tempting even now. Math is a part of it but there are other factors to it. So I started researching more and more and realizing that I didn't want to double major, basically it would be the equivalent of a double major. There was also kind of a time issue there and having less of an idea of what I would do when I got out with that degree. And it's funny because there was this week when I had a close friend of mine, a guy I served with on my mission as a companion. He would know what kind of person I am. He came up to me and said, 'Seriously man, I could really see you in communications and communication studies'. So I thought, it's kind of nice to have people come up to you and tell you how you actually are. And it wasn't like a marketing thing, 'Oh, I'm just trying to get more people in the major'. It was a legitimate face-to-face conversation where he said, 'Seriously, you should think about it'. And so I thought, 'Okay'. And so, before I really got into it I started asking people about it. I asked them, 'Can you see me doing communications?'. I asked my mom, two close friends and they all said, 'Yeah, we really could'. So, I was looking more at communication studies but it wasn't cutting it. It's not going to be in motion much longer. I just barely missed the mark, I guess. If I had applied this fall and

gotten in I would've been one of the last kids in it. But, it's just one of those things. I looked at it, but I think being more specialized would be a better thing. That's usually how it is I think. So I'm going to try to go for PR. So I've been getting involved with the PRSSA. There are a lot of people in my ward that are learning PR, which is great. So I'm getting connections and seeing what's going on here and I've got some close friends in it. So, they're telling me, 'This is kind of how it is and if you want to look good, you have to do this, this, and this'. So, I've been doing that and getting a lot more involved with clubs and stuff like that, which is so not me. I did a lot of that back in elementary school and middle school. But, that was more my mom pushing me. So, it's weird for me to go out of my way on my own interest to do this.

I've never had an experience here at BYU where the faculty were disinterested in the education of the students. Never. They might be very interested in their research, maybe on the same level or even to surpass their students, but they've never not had a significant care for the education of their students. I think that's maybe the reason I'm in communications. The first day of class was this term and I went to my media writing class and my professor Waltz used to be a reporter for ABC news up in Salt Lake or something. He said, 'So why are you in here? Because you don't like math?'. And I said, 'Yeah!'. And he said, 'It's because you hate math, right?' And everybody starts laughing and nodding their heads and stuff and I thought, 'I found my people!'. And he said, 'You'll still get it' and I accept that. In fact, I'm still thinking about doing a minor in business management and everything I've been trying to avoid is in the required classes for that minor. At least I'm pushed towards it. I don't know. I don't know if I could push through all of that. I don't know. All the accounting. I just need to know the terminology for my major and what I want to do and everything. I mean, if I want to do corporate PR or to keep my options open for corporate stuff I have to know what they're saying. That's not going

to come without some basis of knowing what they're saying. I need to know what this chart is showing and if it's reasonable to use in pitching it to this organization over here. So there's application for now. It may look a lot better for a job in the PR field because I'll know what I'm talking about.

I'm in the beginning right now, but I'm trying to absorb as much as I can. My intro to PR teacher, professor McFarland, is saying, 'When you go to a CEO of a company or a business guy comes to you and says, 'hey, we need this to happen. This is our overall objective' one of the first things you're supposed to ask him is 'what is your objective?'' and that means he's going to start giving you business terms and I need to know that. He might give me data. So, it's kind of like I just explained. I need to be able to know the information and to know what else I need to find out about it. So I need to understand it. So, I probably need to know the math, but I could probably get away without getting the minor and not having to go through all that. I would probably be okay, but it just makes me look a little more potent. So I don't know—potent in a field that I'm feeling pretty good about, that I might be more natural at. Just adding on to that, when I was eight or nine or ten or something, I was at my grandma's house. I didn't have a TV at home so my grandma would always let me watch as much TV as I wanted to, you know? I mean, she was grandma. She wasn't going to tell me to do anything. So, I'd be watching cartoons. But then when it came to noon, it was time for news. You know? It was just for 15 minutes. It wasn't that long, but for me, I thought, 'Oh! I hate the news', you know? And then I just snapped and I decided, 'I'm going to try to getting interested in this' and I started watching news from that time on. And I would have my periods where I wouldn't even look at the newspaper or anything, just going on with life. But I just started getting into news and that's what I do in my free time now. I'm more likely to look at news that at Facebook, you know?

The bittersweet thing is that there's an application. You have to apply to the program. It's got a good acceptance rate. I'll be a little over the credit load for what they want there. So they'll take points off for the credits that I'm over, but it's not going to be that much. And if you're really made for the program, they're going to take you. The last time I looked, it was about an 86% acceptance rate. So that's pretty good. But there are pre-req courses you have to take and I feel really good. That's going to be great opportunities to just explore it before you jump head-over-heels into it. I have to take them as soon as I can to get in with the minimum amount of credit loss. So, I'll take the three classes next winter and then apply next fall and just do GE's for the minor. And the following winter would be the same. So I would be into the program. They don't have one of the 100 level exploration classes, but I think the idea is that they try to show you through the three pre-req classes. They try to get you more in-depth than just an intro from three different perspectives. They try to introduce you to communications and then to PR itself and the processes of PR. Then you have to write a thing for your application, like a portfolio kind of thing. And so, I think it's a lot more in-depth, which I think will be a good thing. And there's still going to be math and stuff—there's still statistics. But, really it's not the same as working through a slough all the way through, like working through the mud the whole way through. There will be times I have to focus on it here and there. I don't really have to worry about science in general. But I do enjoy science conceptually. I enjoy the headlines, basically because they speak in basic enough terms-however correct or incorrect I may be.

What I tell people—I'm not sure if I believe it yet—is that I'm hoping that the difference in the application is the math factor. That's one thing I'm really hoping for. That's something I haven't really thought about before when doing math. It's always been the whole thing. It's 'get away from me'. I've always been opposed to the whole thing. But when you get into specifics in anything, when you start going into any area of study there's certain things you do well on and certain things that you don't. So I'm just hoping that there's a difference in the actual math practice. Instead of the physics and the exponents, and so forth they'll make a little more sense in another field. I don't feel like that's a very good argument to really hold onto though. I just feel like I should go at it again. I can't really explain it. I just feel like maybe with the break that I've had I'll be able to look at it differently. I'll get a refreshed view of it. So I should just go at it again until I get it or get broke.

I'm not going to switch back to public health. I feel like I've been dealing more with what I'm supposed to be doing now in this next term. What I have been thinking about is how to tackle it differently—the 'math' math, Math 112 for example. I think that my ACT scores somehow got me to Math 110 so I didn't have to take it. So I was relieved. But at the same time it's kind of a bad thing. Anyways, I'm thinking about taking Math 112 in the summer or spring term and just going part time so I can just focus purely on just that class. I think it would be better to be able to just focus on that one course even if it is a shorter period of time. So, I think a lot of this is because I'm not patient. A lot of my problems with math deal with the fact that I am not patient. How many times do they tell you to go double-check your math? And you know, in the beginning I'll be good - I'll double-check things forever. And then I just think, 'I know how to do this'. Later in the course I'll just do the problem and I don't double-check it and then I get it wrong or multiple problems wrong or something because I just forgot this one thing. The actual answer is supposed to be 'this' and I'll take a look at it and then I get really frustrated really frustrated. So then I double-check. Because in my mind I've been doing this perfectly right and this stupid thing isn't coming out the right way. And so I take a look at it - I doublecheck it. Once I get frustrated I'll do it and I'll double-check it and I'll get mad because it is

wrong. But at least I double-checked it and figured it out. And then I figure out that it's not because I was doing it wrong. I'll double-check it and I'll just get a number off. I just look at the book and see a number and somehow I'll put in on the paper in a problem for some reason and I come out with the wrong answer. And I double-check it after, I see that it's wrong, and I say, 'Oh that's why. Dang-it!'. And on the next one I say, 'Ok. I'm going to get this one perfectly right' and I write numbers down and do everything and I get the wrong answer. I double-check it. Why? Oh, because you were supposed to do it a different way. It wasn't because I got the numbers wrong. And so whatever I do I just tweak something or I'm not focusing on it the right way.

So I'm going into communications and there are specifics in your writing. But I don't do well with the technicalities of math, science, and things that I can't see. Relationships with people—you can see that. You can experience that and get a feel for how that relationship is—at least from an outside perspective or your own personal view of what a relationship is like with a person. That's something I can see and that I can write about. When I have a roommate that is having a hard time with a girl or something or whatever, I can talk to him and say, 'Hey. This isn't how the relationship is'. It's something that's almost tangible. I don't know if that's a good definition of tangible. Anyways, it's a lot easier for me to understand that conceptually than looking at how the sound emits from my mouth and how the molecules move through the airwaves or as a wave. So with exercise science—I don't like math. We've got that—that I don't like math. I had exercise science and it was math. In my mind, exercise science equaled math. Communications equals talking with people, trying to influence attitudes and behaviors in a management function. I know there's math there. There are two types of analysis in the field that's qualitative and quantitative and most of the time, most of the books say that it's mostly

qualitative. But it doesn't cut out quantitative—that's numbers. So, I'm not throwing that out. I just feel like the overall goal isn't math anymore. I think I went into exercise science expecting there would be a little bit of math but not math at the core. And I've never thought about that until now. Really it switched the role. I feel really good about that switching around of the things. It feels good to say. It came across well for me. I don't know.

## **Trent—Accounting Course Learning Failures**

Accounting is a lot better than my other classes. It's more structured. Two nights before the professor sends an email to everyone, 'This is what's due, this is what you should keep in mind, the test is coming up, these are the review sessions'. She's really good about that. We each have a little binder for each day with the schedule so you can never say that you didn't know. And I really appreciate that. So, we sit down and she encourages us to sit next to new people—I'm in my little pod of four or five people that don't mix around. She also has iClicker questions. So, she pauses a lot. There's five iClicker questions for each lecture and they're usually practice problems. So she gives us time, about two minutes. So that's time for us to say, 'I didn't understand what she said'. We have the PowerPoint on our laptops and our iPads, so we can read what she said, then talk for a second and work together on it. Then you click in your answer. And we turn to Shelby if we need to get some clarification. So, there's a lot of interaction with that and practices. Each class you get a goldenrod handout, it's just a gold piece of paper and the quiz that night is based on the handout. So, if you participate in class then you get the answers to the quiz or how to solve for the answers to the quiz for that night. I really like it, it's a really fun class. And I get 100% on almost all the quizzes. Then the test comes and I feel like I get 100%, just like on all the quizzes and then I get a C. There's only been two tests in the class, but everything else I like. There's software—Norm Neimrow, we watch Norm videos

a lot. It's a lot, sometimes it's 4 hours, but I like it. I don't think there's a lot she can change. I think it's just me—that's the problem in Accounting. I don't know what the problem is exactly. That's the anxiety, I don't know. I feel like I do good on the tests. Even with the math, I triple check all my answers and I'm pretty sure I got 100% and then I didn't. And obviously they know that and they put the wrong answers in the multiple-choice to mess with your confidence. I do the practice tests before the Accounting test and I do pretty well, I usually get A's or high B's on those. Maybe it's just test taking and I don't know how to take tests very well. Maybe the nerves get to me. I think that the test is unnecessarily detailed in parts of the class that she didn't focus on. It's like she wanted me to miss it. But I can see how I'm not the most efficient test-taker. I don't take enough time. I usually take three hours for any class I'm in. I take my pen with four colors and I color code and write out everything. I take the test on a scrap piece of paper and then transfer my answers to the bubble sheet so I don't have to erase and get the whole thing gross and messy. So I usually take each test twice in the testing center and change answers a few times. I'm really methodical about it. But it hasn't been effective.

I need some insight into how I can become a better student—particularly in my Accounting class. I'm not doing so hot. Because this is the very first class for any business major, that's why this was so devastating for me. I'm getting a C—maybe that's an indication that I shouldn't be going into business. I guess I have to take other classes and see how that goes. It's kind of just testing the water to see if I like the business atmosphere and the culture of business. I think I like it. I think I'm a people person. That's what my dad does. So Accounting—that's what it was going to be for me—a test or a sample to see if I like it. Right now, it's just Math and Accounting—those are my trials right now. I just finished my last lecture so I'm more willing to talk about it. I'm pretty much done with the class except for the final. The plan is to knock it out of the park. I wrote down the times for each review and I'm going to go to all of them no matter how repetitive it is, I'm going to do the practice exams, I'm going to do everything. I'm not planning on getting an A, I would have to get a 97 in order to get an A in the class, but I'm shooting for an A-. That's like an 84 or an 83. I think she said she actually uses the same questions and she just changes the numbers around. So she said to really rely heavily on the practice exams and on the previous exams. I have a lot of materials to study, so I'm not left in the dark. I just have to be diligent about that. I'm a little nervous.

I'm not going to get an A. I have to get a 96 on the final to get an A, which I know is possible but not really probable. I got a 74 on the first test and a 70 on the second, so if I were to take both tests at the same time, which is basically the final, it's pretty illogical to think that I'm going to get an A on it. Of course I'm going to study, and I think I mentioned this last time, that's what happened in biology. It's graded so that the tests don't matter and she understands that. So if I don't get an A in this class, from what I understand of the pre-business culture of the school then I have a really slim chance of getting into the business school. Everyone says you have to get an A in Accounting to get in. I don't know if that's true or not. And I know if I get a C then I really am in trouble, because that makes sense that I wouldn't get into the business program. I think they can see that you failed it and I don't think you can take that off your transcript. Which, I think you can see it from two different perspectives. You can see it as someone who has tried again or you can see it as someone who just isn't good at accounting. But I don't think you get a chance to explain that. It's an F and then an A. I don't know—I haven't even declared a major yet. So, my goal is to get a B on the final so I can get a B in the class. If I got a B in the class, I don't know what I'm going to do. That's something that I'm kind of wrestling with right now—whether to repeat the class if I got a B. I don't know if the

teacher requires it, it's kind of the culture. So I don't know if they give you a percentage. It will kind of depend on a B versus a B- to help me decide. If I get a B- then I'll be upset for sure because that hurts my GPA. One of the girls in our group—she failed it the first time. This is her second time taken the course. So I might do that. I've talked to my parents about it. But it's an attack on my pride because I really just want to pass the class the first time and not have to repeat it—especially not this one. It's not a fun thing. So, honestly this class is making me question whether I want to study business-because if I'm not succeeding in this class, then what does my future look like in business? So I've really been considering law. It's a weeder class that's the point of the class, to weed out the people that aren't good at it and to strengthen those who know that it's their passion. That's the way I think about it. I haven't taken Chem 105 but I heard it's that way as well - you either fail it or you're really good at it. I don't like that. Then the expectation of getting into the next course is so high, that for someone in my situation I might be dissuaded from continuing. Right now I have a scholarship and I don't want to lose it—I guess not right now, it's starting in spring. For sure, if I get a C I'm going to retake it, I have decided on that. I think what has really hurt me in Accounting are the low test scores because in American Heritage I got a B because I got a B on the final and I got a B on test. So I just took that one and I wasn't considering taking it again. In this class I got a 70 and then a 75, which is significantly lower and it's just emotionally damaging I think.

We have a quiz—we have two or three a week and I've taken the two exams. So I studied with my friends. I've done a lot more than last semester with studying outside of class—eight hours in a row. And the friends that I studied with—I know I shouldn't compare—they all got 94's. So I thought, 'Ok, cool!'. Studying with them, I didn't have any particular difficulties—average or above average with all of those things. So that's why it was a dagger to

the heart, getting the C. And I know success isn't being better than other people, it's just being what you could be—but it sucks. They thought it was easy. I thought it was easy too in the testing center, 'Easy A!'. I got a C on the first test as well and I felt the exact same way. I got like a 75 or 76. I know that's not bad, I'm just kind of a perfectionist and want straight A's. I felt betrayed. I thought I got an A on the test and I didn't. I could look it up, but I think it was a C average for the class as a whole on the first test, which was normal for a test. And then this past test—just add salt to the wound—she was amazed at how well people did. I think the class average was a B+ or something. So good for everyone else.

The friends that we've been talking about right now—they all got B's and C's on the first test as well. Then they all improved to A's and I stayed at a C. I guess I need to find a specific example. We did something like this the first time around and it was like, 'Which federal bureau regulates stocks?' or something that she mentioned during her lecture and I just didn't think it was going to be on the test so I didn't study it. But that's just me complaining. Like I said, it was mainly from that first test that had the questions that I didn't think were going to be on the test. It threw me off guard because I had studied the how-to-do accounting but the test itself was really small details kind of outside the math and the concept and everything. Like the one that I remember, it was the difference between that SEC and the FDIC. I just don't remember which one had what responsibility. That's just part of taking a test—you just don't know what's going to be on it. Online you can see what the question was that you didn't get right and in the test review you find out what the answer is. So I'll be able to figure it out. I actually kept track of the numbers. It's just the number, so I know that I missed number 7 and that it's wrong. And then I was down to question numbers 20 and 25-25 was the most. That just frustrates me. I see this as evidence that there is something wrong with me because everybody else is missing the

same questions and I'm missing something that's just so nitpicky that no one else missed. And if I were to just pay attention to that then I would get the A that I think I deserve. Because the questions I missed obviously were the ones that I didn't practice. But they were the ones that where the nitpicky questions—like, 'What bureau is in charge of setting the regulations?' I was focusing more on the literal accounting part of it. So that was just bad studying on my part.

One of the days that we had the test review in class, the teacher went over the most missed questions and she went down in that order. So, for the first test I missed the questions that nobody else missed, I missed the nitpicky questions. I felt that it didn't have very much to do with the content. So, I got to take notes on the questions and specifically why I missed them. Because I know which letter I put and then I could see which one was the right answer. I appreciated that. So I see where I made mistakes and some of the things are... I feel I could argue I was never taught that, but at the end of the day I can see that it was my fault. So I appreciate the transparency in Accounting and it was a little better than the first time around, but it was the first test that really bothered me because she would say, 'Ok, this is one that everybody missed.' And then she would show it and everybody would say, 'Oh!' And I got it right. So I was there until the end of the period and I missed the three questions that everybody else got right. In my own little world of the four or five people I sit next to, none of them are getting the ones wrong that everybody else got right, but there's about 800 people in the class. So I'm sure there's others. Every time you sit down, the opening PowerPoint slide has you sit down and talk to someone. But we always sit next to each other so it's like no point. And I don't know if that's a problem. I don't know if I'm supposed to be moving around and being a social butterfly. That's not really who I am. That might be the weakness I have in learning. I don't think I would want to sit down next to a stranger every day and do Accounting with them for the semester. I

think I'd rather just be with people that I know. Only the people in the front row raise their hand to ask a question in the class. If you want to ask a question and you're in the back you can, it's just kind of inconvenient. And then you think of the 800 students that understand and you don't want to be the redundant one. And outside this small group of four or five students group of students I'm really not interacting with anyone else. The teacher tries to make it social, her name is Professor Larsen. She is the most helpful person in the class. She's a really great professor. And the people I sit next to are helpful too. I sit next to that girl who failed it the last semester. So, she knows everything—she's known the beginning from the end this whole semester. It's been nice to talk to her. Her name is Shelby and she is thinking either supply chain or HR, but she hasn't decided yet. I think she failed the class last semester and this time around I think she still has an A. And it's been kind of nice because she'll say things like, 'The professor isn't mentioning it now but in a couple of weeks we're going to learn about this'. Just having that different perspective is kind of nice. So I'm with her and a group of friends—about three or four. On the first day we sat by each other, because we already knew each other. I met Shelby just recently in September on a hike. And she was there in class, so I thought, 'Ok, I might as well sit next to you'.

And then my roommate, Clark, is in the class. He and I are very similar, we're kind of in the same boat except that he's thinking business because he really doesn't have anything else. He's leaning more towards entrepreneurship. And he's having a hard time in this class, But I think he's doing a little better in the class. I think he has like an 88 and I'm at an 83 or an 84. So I think we're pretty comparable. I just happened to do poorly on the tests and he did a little bit better. He's actually the one who went with me to Math that first day and then he dropped out. I kind of wish that I had done that as well—because he just didn't want to go through that experience with the professor. He's also my roommate.

Our group isn't all the way in the back, we're about halfway - just not in the front. And we're on the end of the aisle. In our experience Shelby usually knows the answer because she took the class last semester. So usually we just ask her, 'Hey Shelby, what's the answer?'. Within the group we move around, so it doesn't really matter where she's at within our pod area. Shelby answers a lot of the questions. She's kind of proud of that. But there's just a lot of people in the class and from what I can tell, those who usually ask the questions are those who sit in the front. It doesn't need to be like that, it's just the way it is. I do think there's a difference in attitude in the class based on where you're sitting. For the people in the front, it's just right there in their face and they don't have to yell like the people in the back. But they're the kind of people that would get mad at you for stealing their seat. It's kind of intense. I guess they have high confidence. That's just me thinking. I don't know if that holds true for everybody else. It's kind of like in church—that's that family's bench. The bishop's never told them to sit there, but if you sit there somebody's going to be upset. So it's better off to not sit there. It's not done. It's funny because I think it's just something subconscious that everyone has and I think it's really comparable to church. The eager students always sit in the front and the kids who don't care are in the back. And I always find myself somewhere in the middle.

I can reach out to my friends to see what they do, with their A's in Accounting. Or, I'm sure there's peer mentors here but I've never done that. I'm comfortable doing that. I've talked to Shelby, and she doesn't check her answers and that freaks me out, and then she's done. And that is totally not like me. I literally check everything and I think, 'It's one of those five answers right there'. So I need to figure it out. I've tried that before and I don't like it. The others in the

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group are the same way. They understand different things and I've never received any profound insight from them. They just don't have a hard time with it, but I'm good at things that they have a hard time with. That's just part of life. I actually tried going into the Accounting Lab, it's right over in the Learning Commons of the library. The Internet failed while I was taking a quiz—and this was bad, this goes on record—the guy was in there and he was just laying back with his feet on the table. And I told him, 'Hey, the campus Internet failed while I was taking a quiz and I think I might've gotten a zero on it, so what do I do? I'm really stressed out about this class'. And then he said, 'I'm sorry, that just happens'. And I said, 'Is there some sort of program that you can go in to see what I selected or get proof that I worked on it? I can show you my scrap paper, I did work on it, I did take the test'. And he said, 'Nope. I can't do it'. And he didn't sit up or anything. It was bad. It made me upset. It turns out that it did save my answers and I got a nine out of ten on the quiz. So it was okay. But now I don't want to go back to the Accounting Lab because of that—he was kind of a jerk to me. He was sitting in the back of the room flirting with a girl with his feet on the table wearing a lanyard with his name on it. So, I'm pretty sure he was the TA. Heaven forbid that he helps me with something! I know that not all TAs are like him, but I felt like it was a waste of time going in there, even with one quick question—especially when it's the person who is supposed to be in there to help you. It was a customer service issue. He could've just said, 'I'm sorry. The syllabus says this and that really stinks'. But he couldn't care less.

So the TAs are the least helpful people in class. I could reach out and utilize them more. They've only answered a couple of questions that we've asked. They're supposed to walk up and down the aisles looking to see if we have questions in the JSB. In the couple of times we've asked, they haven't known the answer. I mean, I've seen them lean over and kneel down by students and help them, so I know they're working with us, but I haven't experienced that myself. The questions have been about the lecture or about a specific problem. And I don't blame them for that. I don't know how much they know about the practice problems that we do during lecture. So, I can't even tell you an example. I mean, the professor puts a problem up on the board and the question might be something about the problem that the professor said but it wasn't included in the PowerPoint about the problem—something like that. And they just say, 'I don't know, sorry'.

## **Trent—Psychology Course Learning Failures**

All my friends took AP psychology. I actually, literally thought I would rather not take AP because I would rather take it at BYU. So that was me just building it up getting it ready to fall. So, I had never done anything and psychology. So I took the course—it was once a week, so I called it psych night, it was Thursday from 4-7pm. I looked forward to it in the beginning because he did the first half lecture and then we had a break and then his second-half lecture was a PowerPoint with words and jokes from a textbook that he didn't even write. So I thought, 'What are you doing? I could've made these power points!'. And then he would just read the textbook. I know this sounds mean, but I just didn't feel like he was a real professor. He could have been some dude off the street that just read the textbook and then copied and pasted it. We had to write an essay and I liked that. And we got this really long report and then had to do a synthesis of it, and I thought that was cool. Besides that, it was the essay, the four tests, we had to do research studies, and the final. So, there wasn't any group work at all. So I took the Thursday night lectures and outside of class I didn't really know anyone. I literally knew one person from work and I would mention it to her sometimes. But I should've been more outgoing socially, studying with other people. I was just a little disappointed in my psychology class. I

performed well in psychology, but the involvement of the class is what I was kind of disappointed in.

I was really excited about psychology and I think I still got an A- in the class but that passion I had just kind of died down. You know how off I was? One point! I missed it by one point. And psychology is an A- by one point—so it's frustrating. So, there's four tests in the class-four exams. And the week before the final, he announced that he was going to drop our lowest exam, which was like, 'Hooray! That's the best news ever!' because I did really poorly on the first exam. I think I got a 72 on it because I didn't know his testing style. So I did the math and I would've gotten an 84 if I failed the last test, the final exam, or if I just didn't take it. And I was missing an A- by one point. Or, it was the other way around—A- to A. So, if I were to take the test I would have to get at least an 84 to get an A--otherwise the whole test would've been wasted, it might as well have counted for a 0. So I took the test and I got an 83. I literally missed it by one point! That was my frustration. And he made it very clear, 'Do not email me about your points!'. He said, 'Unless you are in the 50 to 60 range and your experience at BYU is being threatened, I don't care about the difference between an A and a B'. Of course, I was the student who was in that position. I didn't want to even bother because I knew he would get mad. It was just beyond frustrating, because that was literally the worst thing that could've happened on the test-to get an 83. Literally, one point-that was the difference between an Aand an A. I don't know if it affects scholarships. I'm still waiting on that. Hopefully not, because that would make it even worse.

The biggest problem in psychology was the tests. The first one, I think I got a 75 on it, and then they got progressively better from that. I found out that the tests were just kind of guessing games of what he wanted me to put. One of the questions on the test was, 'You're in a park. There's a squirrel burying a nut and a girl on a bicycle. What are you experiencing?' and then it was like déjà vu, schizophrenia, multiple personality disorder—'I don't know!'. So, it was disappointing when I would miss questions like that. I just think the class was based more on the professor then on the content. So, compared to other students in the class I think I did above average. I think it's because I'm a good writer on essays. I did not get the 100%-just above average. Some people really struggled on tests. I got a C on the first test and for me, I didn't know how I failed it and then I went back and learned how I failed it and I realized that this class was just guessing what the professor says. I think it's even more frustrating when you take the test and you think you got an A—you know you got an A. So, I would write down his jokes and the specific examples—everything that might later be on the test. I would attend his morning lectures and his evening lectures and I would take note of the things he said in both and I decided that would cover what's on the test and I was usually right. I feel like I regurgitated a lot of the content. So then I did better. But that bothers me that the test was on the professor and not on the content. If I were to take the test right now I would not get an A on it. There's some things that I remember, but I couldn't tell you everything that I learned. I think everyone shares the guilt, but yeah, I think it could've been taught differently. I could've had a different mentality from the start-that I wanted to learn psychology rather than just pass the class. So I could take a deeper course in psychology, but that's not down my career path. I love astronomy and I think it would be really neat to take an astronomy class, but that doesn't have very much to do with business.

The least helpful person in class was the professor. It was kind of a joke. The professor, he's a nice man, but I can tell that he's taught the class and told the same jokes for years. It's very, very recited and what made it worse is that I went to both his lectures in the morning and

evening and it was almost word for word what he had said in both classes. Then you start focusing on that, and you can't pay attention to the guy. And the textbook—it was alright. I didn't like the professor very much. I feel like he looked at us... I know he looked at us as just another number. He would often say to us, 'I don't care what you get on final. I don't care how you do in this class. I'm just here to teach.' Stuff like that just makes me think, 'Come on man!'. I mean, he was like, 'I could care less what happens to you'. And teachers like that, that's just part of life—that's not something I can avoid.

We had to write one paper. The TA graded my paper the first time. And it turns out that it wasn't part of my grade, it was just, 'This is what I would give you if I were grading your paper' and then you rewrite it. So, the TA was moderately helpful but in the lecture he wouldn't do anything. During the lecture the professor would joke around with him-and actually that did bother me. Because I think they knew each other from their home ward, so it was private jokes between Ross, the professor, and Kyle, the TA. I was talking to this girl at work and she had Ross and she loved his humor. I just didn't like it—it's not my thing. I'm still convinced that for the entire class he never said anything that wasn't straight out of the textbook. And I know that that's a pretty bold statement, but I'm pretty sure that it's true. All of his examples, Even his jokes we're right out of the textbook. It was kind of bizarre—and he didn't write it. His best friend or somebody wrote it. I think the best thing for that class, honestly, would just be a new textbook because it would make him work for it and do something. Because I can tell he's been using the same jokes and phrases and awkward pauses for years in his lectures. The TAs were there just to grade the papers and there was no lab. So it was literally you show up and listen to some lectures and then you take the tests do some readings. We did SONA research as well. We have to go in another time and get 10 points, which was my favorite part of the semester. I just wish I had learned more and I wish I had a different professor.

I felt really alone in that class because the professor would just read the text book that we had to read the night before. We had an online quizzing program that was a lot better—I liked it. It was called Learning Curve. So, you start off with a really easy question and if you get it right then it gives you a harder question. If you get that right, then it gives you a really hard question. So you could be done in about five minutes. But if you get it wrong, then it backs you down and you have to spend time answering easier questions. So, I really liked it—it was actually kind of fun. It was like a game. And every time you got it wrong it would show you why, and maybe why you selected a particular answer. So, it was really cool—I liked it. And that's how I learned psychology—it wasn't from the professor at all. I didn't know anyone in the class and it was the same thing as Math. The first day there's a ton of people and then attendance wasn't mandatory and so there's just little pockets of two or three people in the seats. Because if someone had taken psychology in high school—and actually that girl I was telling you about, she's in a different section, she said she had already learned everything when she had taken it in high school—the course itself wasn't necessarily difficult, it was just simple things. So a lot of people were only there to get the credit and then to take the final at the end—because, for some reason, the credits didn't transfer from high school or from another college. This idea about where people sit is funny because I think it's just something subconscious that everyone has and I think it's really comparable to church. This pattern is mostly in Accounting and then psychology. It's just kind of depressing because everyone who is in the class is really struggling and so they just sit there, kind of bored and frustrated. The eager students always sit in the front and the kids who don't care are in the back. And I always find myself somewhere in the middle.

So, I just sat by myself. I tried to sit next to one of the pockets but then they stopped coming. So then I was by myself. I don't know, maybe I have needs—emotional needs. I need to be around people. But I don't think I want to be depending on others. If this is my challenge to pass this course that the university has provided I think I can take it on. And I've been able to with a lot of my classes. I don't know. I don't really want to talk to the TAs. I don't know. That's just not me. That's never been a desire I've had to go and talk to them. I've almost never talked to the TAs or to the professor, so I know that I should. But I would be in that quizzing software and there would be something I didn't know and it wasn't in the textbook—which was a whole other problem—so I would just type it into Google and find the answer. I emailed the TA once and he never responded. Yeah, he never did respond. It was about one of the test or quiz questions and I didn't know anyone that I could ask, so I just used the Internet. I think it was after the first test. He might have responded and I just didn't do anything about it. I don't know. I'll have to look. But I remember that there was a question on the quiz that bothered me and I sent him an email, but I don't think he ever responded.

## **Trent—Math Course Learning Failures**

First of all, math in general—I've never had a good math teacher. So, there could be a friend who's good at math and says they always loved their math teachers and I've never had those teachers. I never liked math and I blame my teachers in part because I have never understood the point of math—it's literally someone making up a problem and making me solve it and I don't see any application in life. I've never felt that more than in this class that I'm in right now. It's called finite mathematics. You're given a table of numbers and you just have to solve it. I've never seen this stuff until this class and it is not fun at all. So I have a big test on this on Tuesday that I have to spend the weekend studying for. Stuff like this, where I don't like

it and I don't see myself using it—I've never met an adult that uses this. It's just in this Math class. And then the icing on the cake is the software program that we use. If you can put the fraction number in for ½, it tells you that you're wrong and it gives 0.5 as the right answer and you lose a point. No—that's not okay! And the teacher—he's a graduate student and he hasn't studied how to teach people, he studied math. And I don't blame him for it. I don't think teaching is his passion. I think it's a bad course design. I should have a math professor and if I don't like it, maybe I shouldn't be in the class. I can see that as well—that's my fault. But it's required for business. I don't think I would use this as a lawyer. I think I would have more people interaction.

And in high school I never learned about matrices—I don't know if that's a college topic, but I've never dealt with them before and everybody else seems to have learned about them before. So I feel like I'm really behind. But that's not BYU's fault—that's just a handicap that I have. This whole class is about matrices and I thought it was a stats class. It's one of the four classes that you have to take before you apply to the business school. I think the class is seeing how well you can apply what is being taught. I don't think I'll be using matrices in whatever business route I take. I see the challenges as dealing with an unprofessional teacher and a crappy computer program to see if I will do it. Which I am. In that sense I am succeeding. I hope that's the attitude I'm supposed to have. I really like school, but my Math class is really rough. The Math class was not so great because of a not so great teacher. It's Math 118. It's only taught by grad students. And to be honest, I think that's ridiculous. I think that a professor should be teaching it - he's not a teacher! He's a student! I don't want to be too harsh, but, I just feel like it's a joke because he's not a professional professor. I don't know how to say that. So there's times that we ask questions and he just says, 'I don't know. You just have to get ready for the test. I don't know what the test is going to look like. I can only guess'. So, totally not helpful at all. There's just graduate students teaching the different sections of the class. That's just what I've heard from my friends who have taken the class and they've all had graduate students teach the class. They loved it. They thought it was great. They were funny. I was just unlucky. It was the luck of the draw. I think when I signed up it didn't say graduate student, it said something like 'staff'. So, I never knew in the first place. I think it is just graduate students. I think it's the basic level math class, so it's not important to the real professors because the harder stuff is later on. And this is a BYU complaint—we don't start with a prayer. But, we all get in there and the slides are already up on the board and we just sit down and he starts and it's just kind of cold turkey. He's just very stark the way he starts it and he goes through and reads the textbook with us and we do a couple of practice problems and then that's it. There's no exercises or anything. Sometimes he gives us time to practice one on our own, which is normal. But the class itself is just lecture. Then at midnight there's an assignment due about what we covered that day. And we have as many times as we want to do it—we can take it as many times as we want. The problem is not the time that we are given, it's that the program is looking for a specific answer and I think it should say that  $\frac{1}{2}$  is the same as 0.5. And the material for me is really difficult because I've never worked with matrices, it's all new. A lot of people in there are going into engineering and math-like routes, so they have to take this class. But I'm looking at this as my last math class ever, which is why am pretty excited right now because it's almost time. It's just been a rough experience.

There's not a lot of interaction between students. It's mainly just the person you're sitting next to. And in Learning Suite, they have the chat option. So some people are doing that but it's never really about the math. It's usually, 'I don't remember if the professor said this or

not, but is this homework due tonight?'. That kind of stuff. There's no group work or anything. I've gone to a couple of reviews, which were frustrating because they were taught by other graduate students who are teaching the class and they just do a better job. I feel like with that class everyone is in it for themselves. The structure of the class has no group work and attendance doesn't matter. So I feel like if you're already comfortable with material it doesn't matter if you come. And if you're having a hard time with the material then it's up to you to figure it out and to come more often and put more effort into it. These people who get it could be showing up and could be helping out but they don't. So you're left with a group of students who are struggling. The review is different because it's a couple of sections that are combined so I didn't know all the students there. But from the ones I did recognize they're the same ones who go to class. I think having mandatory attendance helps all the students in the class because the students who understand and show up mean that the students who are struggling have some chance. In my Accounting class and in my religion classes, I know that somebody's going to have the answer. Whereas in Math, I feel like it's all the people at the bottom of the totem pole, all the people who don't understand. And that's what makes me so frustrated because of all the people in the room who are struggling, no one really knows the answer. Because everyone who knows the answer is either at home or at lunch. I've never really thought about the mandatory attendance like that, but I see how that might benefit me in those situations. They wouldn't go out of their way to do it, but if I leaned over and asked someone a question, they would probably help if they were there.

I have not gone to the labs and I have not done the office hours. It's just that mentality that I think I have where I just need to do it myself. And actually I was thinking about going to the Math Lab on Monday before I take the test on Tuesday. And in Math class I really wanted to ask some questions because I really don't understand it even though I sit in the front, but I just have never wanted to go in for help. I just feel like I should figure it out on my own. There's probably over 150 students. 300 maybe? But only 30 to 40 come each class period - everybody else just doesn't show up. And it's frustrating because I'm on the lower side of the grade and the other people who don't show up, they're good at math. That's okay. I feel like the people who would normally distract me in classroom settings, like with technology, just don't go. So, everyone who is in the room is like me and they actually want to be there and get something out of it. In class, there are people who kind of detract from the learning atmosphere, but other than that, those people just don't show up.

I was with a friend in the class, but he dropped. So now I'm by myself. There's a couple of students asking questions, but most of them don't. Three or four guys. We're the ones who when he asks for questions all of our hands shoot up. My friend went in with me the first day and then dropped it because the teacher was blabbering through the PowerPoint and I decided to stick with it because I'm stubborn. So I don't know anyone in the class that I knew before. I've met a few people, but I haven't reached out to study with anyone outside of class. In that case, I'm doing it on my own. My roommate, Riley, took it last semester so he helped me with some of the homework assignments. Riley is kind of a math person. He's accounting as well, I mean he's studying accounting. And he's taking Accounting with me right now—one of the roommates that's doing really well. And he was one of my really good friends growing up. I am better at writing and organizing, leadership—things that are people oriented. And he's calculus, math, the nitty-gritty stuff. I'm not like that. I've also sat next to this guy, Ryan, and we've asked each other questions and bounced ideas back and forth a couple of times. I used to bounce around and then I sat in the back because I hated the class so much. And then I thought that I did

not want to redo this class, so I went and sat in the front to duke it out. And that's where Ryan was sitting. So, I talk with Ryan in class, but besides him there's nobody else. I think he's just a more math-kind of person. I understand the problem and identifying, 'This is what we're trying to solve' and he's really good at the math part of it, the mechanics of, 'These are the steps that we need to take to get there'. So it's kind of good working together with him. It's not like we planned to sit together and work together, it was just kind of, 'Hey, do you understand this? No?'. So we just had to work through it—while the professor's lecturing usually. I think Ryan's going to be an engineer or something, so I think he's frustrated with the professor like I am, but he likes Math. So it's a more positive experience for him. And he's just able to figure things out a lot easier. Lucky him. I have a hard time being charitable in situations like that.

And then Riley, my roommate took this class in the fall and he loved it. Every time I tell him how much I hate it he's shocked because he really liked it. He's kind of a math person and he's studying accounting as well. I've moved around a little bit and tried working with people. There's a little group were we sit in the front and I ask a ton of questions. So, there's no projects—it's just three tests and the final and then your average online score, which is going to tear me down. Because on some of the assignments I got 54% or 50% - I literally couldn't do it. Somewhere in the site there's a report of how much time you've spent and that's what really made me mad. There's some assignments that are 3 ½ hours to answer 10 questions. That's my beef—it's my trial right now. And I've accepted that. There's two of them—one of them is a 54 and then I got another one that was like 62, which will just bring down my average. But to save my life, I don't think I could've done it. Because you get so close and I would type in my four-digit answer and I would get it wrong because it wanted 5 decimals. And it never specifies what it is and I did the math correctly. I know I should reach out to my instructor, I'm sure there's

something we can do to negotiate and I could get the points, but I haven't done that. I'm just done with it.

Obviously the professor does actually answer questions—sometimes not the way I would like him to, but he is there to help. He answers the questions, but he has to answer them because he teaches them poorly. And I'm not too upset about it because he's not a professor, so there's not a lot I can hold over him because he's not there. Academically, it's alright. In his teaching style, I feel like his objective is to cover the lesson rather than to teach the students. And so when he's going through the PowerPoint which he's giving, he just goes through it. And when we stop him and ask him a question, it kind of throws him back a little, and he has to think about it—but he does help us. And if not, he's just going to keep going through his PowerPoint slides. In the beginning it was pretty bad. I don't know if this is his first time teaching, but he had a rough start back in January. He would just kind of power through it and then at the end he would ask if there were any questions. But I can kind of see that he's learned from it—he pauses every now and then. I think he talked to students about what he should be doing. And they told him, 'ask us if there are any questions'. And he stops and asks us if we have any questions every few seconds. So, he's trying to adapt. I know that he doesn't know very much about the class because we ask him about the homework that's loaded on the online program, he has no idea. We ask him what's going to be on the test and he doesn't know if we're going to be able to use a calculator or not. It's things like that just bother me. But as far as the actual math goes he's pretty capable in that sense.

And in Math —I wish you could see my Math class. It's just kind of depressing because everyone who is in the class is really struggling and so they just sit there, kind of bored and frustrated. But in Accounting—I think it's always been like that in all my classes—the eager students always sit in the front and the kids who don't care are in the back. And I always find myself somewhere in the middle. Sitting in the front means you won't have to redo the classthat's the mentality that I have. I think if you sit in the front that means that you're more devoted to it because the professors is just right there and it feels more personal when you're physically next to him. There's less distraction also. I feel guilty if I pull out my phone and he's right there. So, that's what I'm going to do in all of my classes next semester right from the beginning. Because that's why you're there—to learn. So you might as well sit up front in the middle, right next to the professor. I don't sit in the front row of my other classes right now, it's more towards the back middle. If I choose to sit in the front right now then I'll probably take someone's seat. And that would just be awkward socially. Social awkwardness. Everyone in all of my classes always sits in the same spot. Even in Accounting in the JSB building, I look around and recognize the same faces sitting by me. Everyone kind of has their assigned spot. The kind of students who sit in the front would be upset if you took their seat, so you just have to be careful about whose seat you take. I'll just be one of them next semester and not have any problems. I'm just doing first level classes, so maybe as I get deeper into classes people will move around more. But with American Heritage and psychology, you pick a seat on the first day and you pretty much stay there. People would move around a lot like I did but then they would stay somewhere, it was like an unspoken rule. You basically just show up and pretty much have a fair pick of whatever seat you want.

And the online textbook that we use is totally not user-friendly. For homework there's 11 questions and you have to type in exactly what the answer is and it doesn't tell you that you have to type it in as a decimal or a fraction—it doesn't tell you beforehand. Just annoying things like that. It just makes me really impatient. So I think if I had a better professor, I would have a

different experience. There's no lab I can go to and if there are TAs, I've never seen them. I don't know what they do. I could look it up. He has office hours-the professor. It's two hours a day or something. I haven't gone in and I don't know if I'm going to either. I guess I need to. I just feel like the material in the class is frustrating. I just get bugged when we're learning something and the preface is, 'This is all done automatically on the computer, but we're just teaching you so you know how to do it'. Come on! If it's in the computer, it's in the computer. So that's what we are in right now—applying matrices and stuff. The course is Math 118—it's called finite mathematics. It's also a prerequisite for business. So, Math and Accounting-those are my trials right now. If I was passionate about business I would have to retake the class because it's the same thing as Accounting-you have to do well in the pre-reqs. I just would not be happy retaking it. I think it's comparable to my Accounting situation. My grade in Math right now is higher—I think it's an 89 and Accounting is an 83 I think. The expectation I have for myself is that I want A's. it's hard not getting what you've worked so hard for. I wish I wasn't in this class! But I can see how I should be going into the lab more often. Obviously that's not going to damage my grade. The class is like 20% of the grade is test one, 20% of the grade is test two, and then you get the final. That's it. You don't get any credit for going to class and the online textbook is a joke. The lectures are Tuesdays and Thursdays and every Tuesday night and Thursday night we have an assignment that's due. Then the class has four tests—this syllabus is right here. So, if I were to complain about one thing at BYU, to tell people to avoid, it would be this course right here.

#### - Later in the semester

I had my big Math test, which - I had never experienced this before until just this last week—I literally didn't have time to study for it because of all my other classes. I had other

projects that were due at midnight and other classes to study for and work. I even tried to get time off to study for it and couldn't. So I couldn't study until the day before. So I was up until 2 AM studying which is just two hours before I took it. And that's the class that I'm in that I'm literally failing all the assignments and I can't finish it. And so taking that into account the fact that I got an 84 is actually pretty good. And that's above the average of the class, so I'm pretty excited about it. I think I got an 84 or an 85 on the test—it was somewhere around there. So, I had an 89 before, so it's probably around an 87 or an 86.

I've been thinking about what it means to succeed. I don't think success is being better than others—I think success is looking back 48 hours ago and thinking, 'I would've failed it' and so I did something correct. I even noticed a mistake on the test so I'm going to go and talk to him about it and make it go up a little bit more. I'm doing better that I'm doing in Accounting-I just hate it. I hate everything about the class. I recently reviewed the online program and I was very honest. My biggest problem isn't the teacher, it's the online program, the thing we have to use for submitting homework because you're literally playing guess what the computer wants you to put in for the answer. And if you get it wrong you have to start over because it's a nine step question and if you miss number nine it says, 'Do you want a similar exercise with different numbers?' And then you go back and have to redo it. But I'm about to finish the semester. For Math, I don't think there are any math classes after this. And I could be wrong. I think they're all theory and leadership and communication classes after this. I think this is just covering the fundamentals. I have to take a calculus test in the fall and I've never taken calculus before either. But, it's just a pass/fail test and so I plan on passing that and being done with math forever. You can take it eight times and you have to get at least a 70 to pass, so I'll probably

take it four or five times before I finally do it. It's for any business program. And I'm looking at supply-chain—I'm not very passionate about it and I could easily move to something else.

## **APPENDIX E: Stake Multicase Analysis Worksheets**

## Worksheet 2

The research questions or themes of the multicase study and factors that might be used in a more quantitative study.

Question 1: How do college students reflectively describe the social interactions germane to their learning failure experiences?

Question 2: What is revealed about college student learning failure from their reflective descriptions of social interactions inherent in their failures?

# Worksheet 3

Analyst's Notes while reading a case report

# Amy—Anatomy

Synopsis of case:	Case Findings:	
The Anatomy course has a lecture component and a lab component. Amy succeeded in the lab, but failed to learn the concepts in the lecture. She points out the major contribution her peers and the TAs made to her enjoyment and grasping the concepts in the lab and how the lack of personal connection in the lecture detracted from her experience. Uniqueness of case situation for phenomenon: Amy was socially engaged and successful in the lab section, but not in the lecture section of the course.	<ul> <li>I. Amy trusted the perspectives of other students to gauge the difficulty of the professor and the course.</li> <li>II. When Amy is not close to the professor and engaging with other students, she easily tunes out and struggles to understand the course concepts.</li> <li>III. Because Amy didn't know anyone in the lecture section of the course, she struggled to consistently attend and to understand the concepts.</li> <li>IV. The lecture professor's lack of engaging pedagogy was also disengaging for Amy, leading to skipped classes.</li> <li>V. The lab section had a group component that was really motivating and engaging to Amy.</li> <li>VI. Amy had a strong personal connection to her group in the lab section which motivated her to engage more with the activities and concepts. They provided conceptual and personal support.</li> <li>VII. The TAs were helpful and provided consistent support to Amy to help her resolve her learning failures.</li> <li>VIII. Students were worried about the midterms and final tests, but Amy felt excited and engaged. Amy's enthusiasm was an outgrowth of her social engagement in the lab section.</li> <li>IX. Amy struggled with feelings of inferiority when she was in large classrooms.</li> </ul>	
- How do students socially engage in large sections of a course?		

#### Commentary:

- It's strange that Amy would socially engage in one part of the course and not the other. Perhaps the formation of the groups in the lab section were coordinated by the professor or TA so Amy wouldn't have to initiate them on her own, thereby reducing barriers to social engagement.

Amy's Anatomy course was PD Bio 220 that covered organs and organ systems, tissue structures, and appreciating the human body (retrieved July 5, 2016 from https://catalog.byu.edu/life-sciences/physiology-and-developmental-biology/human-anatomy-lab). She took the course as part of an exercise science major program, which she ultimately abandoned. The Anatomy course had a lecture component and a lab component. Amy succeeded in the lab, but failed to learn the concepts in the lecture that she set out to learn. She pointed out the major contribution her peers and the TAs made to her enjoyment and grasping the concepts in the lab and how the lack of personal connection in the lecture contributed to her learning failures. The following major themes stood out in this case: Professor Challenges, Expectations, Classroom Location, Friend Support, Group Work, TA support, and Comparisons.

*Professor challenges.* Amy took the course from a professor who had a reputation for being difficult. These perspectives from her peers created anxiety about the course and her ability to do well in it. Amy stated how, "I went into the lecture and I had a teacher that everyone said was hard and that the other teacher was more fun and easier." These social perspectives created expectations regarding her teacher and her ability to learn effectively from him. These socially developed expectations for her experience in the course—particularly with the professor—prejudiced Amy early on towards getting the help she would need to overcome her learning failures. This led, in turn, to more difficulties identifying, evaluating, and resolving her learning failures. This theme illustrates the way social influences may bias students against certain resources that they need to access when dealing with learning failures. This is

particularly problematic when the resource is the professor of the course because students rely so much on communication from the professor to learn course concepts and to work through their learning failures.

*Expectations.* Amy developed an expectation that the course would be difficult from her conversations with others because as she stated, "And people say it's kind of hard too." This way of thinking provided socially acceptable attributions for any failure she may have experienced in the course—much like, 'I did poorly in the course because the professor and the material were difficult'. These superficial attributions impeded Amy from looking for deeper causes for her learning failures and impeded her ability to resolve them. Since others had struggled in the course, she was comfortable attributing her failure to this stable, externally located source. Her learning failure experiences involved more complexity and contributing sources than Amy was willing to resolve. Some of this may have been due to her perceived investment to overcome the failure, which was more than she was willing to make. Thus, it was socially acceptable and took less effort to abandon the failure (Turner, Husman, & Schallert, 2002). This insight suggested that the social acceptance of particular types of failures might contribute to a college student's decision to resolve or abandon them. Additionally, if other students had similar learning failure experiences in a given course, these become precedent experiences for future student that affect their motivation to resolve or abandon the failures.

*Classroom location.* Amy sat in a place in the classroom that impeded her ability to pay attention and to stay interested in the lectures. As she pointed out, "I think when I go to class and I'm not up front and up close listening then I don't understand and it just goes over my head, I get sleepy." This was an unexpected insight because it suggested that where a student sits in relation to the professor may affect their engagement in the course. It is possible that Amy may

not have been naturally engaged in the course concept, but where she sat in the course further diminished her engagement, leading to more learning failure. This finding also demonstrated that access to the professor and other students in the social vicinity of the student's place in a classroom affects their ability and motivation to resolve their learning failures.

Friend support. Because she didn't know anyone in the lecture section of the course, Amy struggled to find others who could help her understand the concepts and resolve her learning failures. She explained, "I don't think I knew anyone in lecture because I didn't really understand it very well and honestly I think I skipped quite a few times because the teacher would just go over power point slides that were online anyway." Low expectations for the lectures, poor attendance, and trouble getting to know other students in the large course sections affected Amy's ability to understand the course concepts, leading to her learning failures. Conversely, her experiences connecting to and working with other students on a regular basis in the lab section of the course strengthened her ability to work through her learning failures and understand course content. These supportive groups were especially effective when the professor and/or the TAs could work closely with them. Amy explained that, "before going into the tests, it was always with my lab and we said, "ok! We can do this!" So it was fun, like a support group. So, it was kind of this tight-knit little cohort group thing. And that's what I've noticed is that the best classes I've been in are the small classes where we've all gotten to know each other and the teacher is right there with us. Or it's the TAs." Thus, when provided with support from friends in the lab section of the course, Amy was more motivated to pay attention and to work with others to resolve her learning failures. These insights suggested that support from friends was a significant influence on whether students experienced learning failure as well as whether they were able to resolve their learning failures. Another interesting insight from this theme is that Amy was able to develop a support group of peers in one section of the course and not the other. This suggested that the social context and friendliness of the students in a given section of a course could affect the ability of a struggling student to identify and use peer resources. As Amy pointed out, the ability to connect with peers can affect whether a student resolves or abandons their learning failures.

Group work. Being in a small group in the lab section helped Amy to enjoy the learning experience and understand the course content better. Speaking of her experiences with the lab section of the course she explained, "we were always with the same group, a smaller group of people in a smaller class, whereas lecture was like a ton of the lab groups all in one. I really connected with the people in my lab." Both the number of students present in the course and the social connections within her small group influenced her learning failures. The large numbers of students in the lecture section of the course made it difficult for Amy to establish helpful relationships with other student around her. This could have been due, in part, to the inconsistent seating arrangements during the course, making it difficult for Amy to sit next to the same students from one class to the next. The consistency and size of the small group of students Amy worked with in the lab section made it easier for Amy to get help with her learning failures as they arose. This theme emphasized that working in small, structured groups may help struggling students to identify and to get help from their peers with their learning failures. The small group size is important because it keeps the number of competing needs within the group low, providing opportunities for the struggling students to address the needs related to their learning failures.

*TA support.* Amy was helped by the TAs and appreciated their consistency throughout the course. As she pointed out, "The TAs, they were really helpful. I had the same TAs every

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time." Having consistent access to the same TAs allowed Amy to build relationships with them. These relationships were key to her success in the lab section as they enabled her to get help with her learning failures in an intimate setting from a dedicated resource. Unlike the lecture section where she was embarrassed to ask questions to resolve her learning failures, Amy was actively identifying and resolving her learning failures in the lab section. The helpfulness of the TAs also suggests that they were approachable, meaning that Amy was able to form helpful social connections to them. This theme emphasized that access to support resources may be due, in part, to the approachableness and consistency of the support staff. As struggling students identify their learning failures, they need this consistent access to support staff to resolve their learning failures—otherwise the likelihood of failure abandonment increases.

*Comparisons.* Amy felt confident about her preparation for the tests even when she perceived that others were not as prepared or enthusiastic. Regarding the lab section of the course she recalled, "we had memorizing tests and then big tests like the midterm and the final, just big ones that people worried about. But I remember feeling all pumped before I went in because I was just excited because it was something that was really interesting to me." Amy recognized that her confidence exceeded the confidence of her peers. This comparison and recognition may have increased her engagement with course because it related to her ability to resolve her learning failures and succeed in the class (Ames & Archer, 1988). However, being in larger classrooms triggered a social comparison impulse that led to negative attributions and anxiety related to her ability to succeed and resolve her learning failures. Speaking of the lecture section of the course, Amy stated that, "whenever I'm in one of those classes that's in a huge room or even if those ones have labs but it's more than say, 15 people, I think I hesitated up front and center because I felt too outnumbered, being the only one who didn't understand." Amy's

statement reflected ways that her social comparisons may have influenced her self-efficacy and attributions for her learning failures. Her point about feeling 'outnumbered' and being 'the only one who didn't understand' suggested that Amy based the evaluations of her learning failures and her ability to resolve them, in large measure, on her comparisons to and perceptions of the experiences of her peers. When most students in the class were not asking questions or appeared to understand the course concepts, her confidence in being able to resolve her learning failures decreased. These social comparisons may also have been due to a perceived lack of access to the available support resources in larger classes. The comparisons and conclusions she arrived at in the lecture section led her to abandon her learning failures rather than resolve them. This theme revealed how struggling students' perceptions of peer performance and capabilities may inform and constrain their evaluation of their capacity to resolve their learning failures, resulting in higher incidences of abandonment.

## Amy—methods in health promotion

Symonsis of case:	Case Findings.	
Synopsis of case: Amy wanted to learn the concepts in the course as a preparation for her future career but earned poor grades. She felt like she was way behind the other students. Amy did not like trying to convince people and had reservations about advocacy and lobbying. Her internship coordinator called her on the lack of understanding which implied embarrassment on her part. Uniqueness of case situation for phenomenon: She was able to get help identifying and resolving learning failures from key support staff.	<ul> <li>Case Findings:</li> <li>I. Amy felt like she fell behind everyone else in the class.</li> <li>II. Amy tried to rely on other students in the course to help her get notes and understand the course concepts.</li> <li>III. Past experiences losing arguments with her siblings made Amy feel like she was not going to succeed in the course.</li> <li>IV. Amy was able to work with the teacher to resolve enough learning failures to pass the course.</li> <li>V. Working with the internship supervisor led Amy to identify some of her learning failures in the course.</li> </ul>	
<ul> <li>Factors (optional):</li> <li>Without the student initiating a conversation about learning failures, how can support staff help students identify them?</li> <li>What are the best ways to teach students to identify their own learning failures.</li> </ul> Commentary:		

Amy's Methods in Health Promotion course was HLTH 432, which covered methods and

strategies, intervention categories, selection of strategies, promoting awareness using media,

mobilizing and engaging communities, advocating for policy or environmental change,

communications, and strategy comparisons (retrieved July 5, 2016 from

https://catalog.byu.edu/life-sciences/health-science/methods-health-promotion). She took the

course as part of a health science major. Amy wanted to learn the concepts in the course as a

preparation for her future career but earned poor grades. She felt like she was way behind the

other students. Amy did not like trying to persuade people and had reservations about advocacy

and lobbying. Her internship coordinator called her out on the lack of understanding, which

contributed to her feelings of embarrassment. The following major themes stood out in this case: Peer Influence, Sibling Influence, Professor Benefits, and Academic Support.

*Peer influence.* Amy relied on relationships with other students in the course to get help with assignments, which should have helped her work through her learning failures. However, she explained, "Usually I am able to get to know another student and get the notes from them and I think I was able to do that, but for some reason I never felt like I was completely on top of that class." Amy perceived her peers as a key source of help with her learning failures, but even connecting with her peers was not enough in this course and she fell behind. Her peers were supportive and were able to share their notes and understanding of course concepts with Amy, but her personal lack of engagement with the content still created learning failures for her. This was a powerful finding because it suggested limits for what peers can do to help a struggling student to work through their learning failure. In this case, Amy's lack of motivation to engage with the content rendered the influence of her peers of little or no help to her. She struggled alone and eventually abandoned her learning failures. When a student lacks intrinsic motivation to resolve their learning failures, peer influence may be less beneficial in working through the failures.

*Sibling influence.* Amy's past debate experiences with her siblings created a confidence challenge that hurt her performance in the course leading to learning failures. She commented, "Of course I'm passionate to work behind the scenes, but not front and center trying to convince other people—because they have their opinions. And when I try to convince them, I never feel like I have a good enough argument. When I was growing up, I never had a good enough argument for my siblings and they would always win the fights! So, I'm not that type of person and a lot of that class was about doing those sorts of things." As Amy expressed, these

experiences with her siblings hurt her confidence in her debate skills, which were central to her learning goals for the course. As a result, Amy abandoned her learning failures because her negative experiences in the past went unresolved. This finding first suggested the persistent effects of sibling influence. The fact that these experiences in Amy's past continued to influence her learning failures suggested that the sibling relationship plays a significant role in the development—and potentially in the resolution of learning failure. The second contribution of this finding is that sibling interactions may create expectations and causal attributions for learning failure that impede their resolution. Amy concluded that due to her lack of ability to win debates with her siblings in the past, she must not possess that skill as needed to succeed in the debate activities of the course. As a result, she abandoned the learning failures instead of improving her debate skills and working through her failures.

*Professor benefits.* Amy was able to work with the professor to resolve some of her learning failures and to complete the course. She recalled, "And so I think that the whole subject, since it was something that I would rather not do, I just didn't quite understand exactly everything they were saying. So I talked with the teacher and I worked with him a little bit and I was able to get by enough to pass the class." In this way, Amy's professor was able to compensate for her lack of engagement with the course objectives. The assistance from the professor enabled Amy to work through some of her learning failures by finding ways to leverage her strengths to meet the demands of the course. This finding emphasized the role of the professor in the evaluating and resolving of a college student's learning failures. Particularly, professors may be capable of identifying and helping the student build on their personal strengths in ways that lead to a resolution of the learning failure. This finding also revealed how professors can bridge engagement gaps for students by helping them leverage strengths to accomplish course objectives. Amy's professor realized that she was reticent about debate and advocacy, but was able to identify ways to help her work through certain learning failures and pass the class. Thus, professors might help students to identify and evaluate learning failures and student strengths to compensate for and resolve their learning failures.

Academic support. Amy's internship supervisor pointed out some of her conceptual weaknesses, which led to the identification of past learning failures that had the potential to create additional learning failures. Looking back on the experience, Amy stated, "And I was talking to my internship supervisor and we were trying to brainstorm about things and my internship. Because the position I have in my internship is really kind of open. So we were brainstorming about projects that I could do for my internship and he asked, "well, you've taken the methods class for health promotion, right?" and I said yes and he said, "well then you should know about this!". Then I thought, "Oh no! I didn't learn that!". Now I'm thinking, "oh great! That's going to come back and bite me again!"." Until Amy had this conversation with her internship supervisor, she was unaware of how much she had failed to learn in her methods course. The conversation revealed a weakness in Amy's understanding of course concepts and how valuable the concepts might be to her in the future. As a result, Amy was able to identify the learning failure, which made it possible to resolve it. Support professionals, like professors, might help students best as they ask searching questions and identify ways students can strengthen their skills. As such, these support professionals act in a coaching capacity—helping college students to identify areas for improvement along with ways they can improve.

# Amy—backstory

Synopsis of case:	Case Findings:
Amy felt like other students looked perfect but they weren't, but it made her feel inferior. She shared her experiences with the academic support counselor. Her first college class was from her dad. She shared the influence her high school friends had on her college choices. She felt like other students earned better grades because they worked harder. Amy describes how her friends affected her self- image in different classes. She talked to a student at the major fair, which led to a change of major. Amy's friends encouraged her to succeed in her classes. She describes the influence her mother and sisters' example had on her educational goals. She had a decisive talk with her dad that pushed her into teaching. Getting married at the end of her undergrad program led to goal changes for Amy.	<ul> <li>I. Amy felt privileged to be able to attend college.</li> <li>II. Amy takes sole responsibility for her learning failures even though others contributed to the failures or failed to help her resolve them.</li> <li>III. Amy perceived that there are no perfect students, but that no one is open about their learning failures.</li> <li>IV. Amy was helped a lot by academic counseling, but she was ashamed to go in and get the help she needed.</li> <li>V. Working with other people really helped Amy succeed in her classes.</li> <li>VI. When Amy was able to resolve her learning failures by working with</li> </ul>
Uniqueness of case situation for phenomenon: Amy used her schooling to differentiate herself from her siblings.	others, she developed a desire to teach others what she had learned. VII. Amy's first college course was taught by her dad. VIII. Amy decided on a career and college track in high school based on what her friends were interested in
	pursuing. These relationships were personal rather than just academic. IX. Amy chose her exercise science major because that what she saw others doing who shared her interests.
	<ul> <li>X. Amy was embarrassed by her transcript because of what it reflected about her.</li> <li>XI. Amy's perception of the academic success of her peers led her to attribute her learning failures to a lack of effort and work ethic.</li> </ul>
	XII. Amy saw other students who she considered to be less intelligent than her succeeding academically, which motivated her to work through her learning failures.
	<ul> <li>XIII. Amy felt humiliated around students who were prepared for class when she was not prepared.</li> <li>XIV. Amy reached out to students she saw in multiple courses and began to work together with them.</li> <li>XV. Amy talked to a page student shout</li> </ul>
	XV. Amy talked to a peer student about the health education major and then

made the switch. Consulting with respected peer was enough to char her whole trajectory. XVI. Amy was able to meet with an advisor who showed her how close che was to graduating, which	
her whole trajectory. XVI. Amy was able to meet with an advisor who showed her how close	nge
XVI. Amy was able to meet with an advisor who showed her how close	
advisor who showed her how close	
ale a man de a ma de a de a ma de a de a de a de	e
she was to graduating, which	
motivated Amy to resolve her	
learning failures related to	
graduation.	
KVII. Amy responded really well to	
positive encouragement from othe	rs.
VIII. Amy's backup plan was to get	
married, have children, and not fin	iish
her degree because that is what her	r
mother did.	
XIX. Amy realized that she could contir	nue
to go school even if she was marri	
and had children because of the	
example set by her sisters.	
XX. Amy chose to attend college becau	ise
her siblings did and she saw colleg	
as a way to differentiate herself	
among her siblings because that is	
what they did.	
XXI. Amy's mother became a negative	
example because she failed to finis	sh
college and pursue other professio	nal
and academic interests after she	
finished raising her family.	
XII. One of Amy's primary motivation	S
for going to college was to prepare	e to
teach her own children since her	
mother was not able to help her as	
much with academic assignments.	
XIII. Amy is motivated to earn a college	
degree so that she can encourage h	ner
own children to finish a college	
degree, which was missing from	
Amy's growing up years.	
XIV. Another one of Amy's motivations	S
for learning is so she can teach	
others.	
XV. Amy's dad made an observation the	
Amy was good at teaching, which	
confirmed her choice of major.	
XVI. More interaction with professors a	
TAs increases Amy's engagement	
and motivation to resolve her	
learning failures.	
KVII. After getting married, Amy had to	
socially negotiate her learning goa	
which affects her learning failures	•

Factors (optional):

- How do parents act as both positive and negative role models? How does their influence guide decisions to resolve or abandon learning failures?

Commentary:

- Amy's learning trajectory unfolded as a result of her learning failures. The learning failure experiences her heavily influence, for good or bad, by a wide array of personal and impersonal social influences all around her.

Amy's Backstory case consisted of social interactions that influenced her learning failures across multiple courses. Amy realized that while other students looked perfect, they all had their flaws. She felt like other students earned better grades because they worked harder. Amy described how her friends affected her self-image in different classes and how these comparisons made her feel inferior and contributed to her learning failures. She shared her experiences with the academic support counselor and how her first college class was from her dad, which created performance expectations and helped shaped her learning goals—together with some of her learning failures. She described the influence her mother and sisters' examples had on her educational goals. Getting married at the end of her undergrad program also led to learning goal changes for Amy. She shared the influence that her high school friends had on her college choices and how her college friends encouraged her to succeed in her classes. The following major themes stood out in this case: Comparisons, Academic Counseling, Group Work, Anxiety, Confidence, Parental Influence, Sibling Influence, TA Support, and Spouse Influence.

*Comparisons.* Amy realized that other students appeared to be perfect, but that they each had their own struggles. She also pointed out that students have a hard time talking about their learning failures in a candid manner. She explained how, "Everyone looks like the perfect student, but they're not. It would be great if every student who was struggling could just talk about stuff like this and just talk through it." Amy's comparison between her own learning

failures and the experiences of other students initially led her to incorrectly assume that the other students had no learning failure experiences. What she realized though was that every student experiences learning failure at some point. It was the reflective comparison that led her to challenge her initial conceptions about other students. This finding demonstrated how students might benefit by reflecting longer about negative or self-defeating comparisons related to their learning failures. The other insight Amy offered was that dialogue about learning failures might also benefit students. As student's dialogue about their learning failures, it might help them manage unproductive comparisons and causal attributions.

Amy also commented about the ways that comparisons affected her confidence in her ability to resolve her learning failures, "You always hear people moaning and groaning about Chemistry or Physiology or all these other ones that are intense, which are interesting to me, but I think because of my track record, I thought, 'I'm not going to be able to do really well in those classes'." This statement demonstrated how Amy saw her interest and capabilities in Chemistry and Physiology as above average compared to others, but her past performance created doubt and anxiety related to resolving her learning failures in the future. This finding revealed some of the complex interplay between social comparisons and past experiences related to learning failure. Even though a student may experience above average interest in course concepts, his or her past experiences might counter the positive effects of the comparison—resulting in abandonment of learning failures. Thus, there may be limits to the positive influence of social comparisons on a student's motivation to resolve their learning failures.

Amy also realized through her social comparisons that the nursing program she was trying to enter was very competitive and therefore she decided that she would not be able to compete against other students. Illustrating this learning failure, Amy stated, "When I came to BYU though, I looked at the nursing major and went to a couple of meetings, but then realized how competitive that program was. In high school, I wasn't a bad student, but I wasn't one of the best. And I felt like I was already starting low on the totem pole for getting into the nursing program." This statement revealed some of the complex interplay between past and current comparisons and their influence on learning failure. Amy's conclusion that she could not achieve her learning goal was established first by her comparison of her ability to that of other students going into nursing—but then it was further reinforced by the comparisons she had made between her and other high school students in the past. This finding suggests that social comparisons might reinforce one another over time, thus having a direct influence on a student's decision to resolve or abandon their learning failures.

Amy's comparison to other students also created a perception that she wasn't working hard enough to be able to resolve her learning failures. Amy explained, "I saw everybody else working hard to get good grades and obviously I wasn't working hard enough because I wasn't getting good grades. You know?" Although she may have been working hard enough, the comparison she was making between herself and others led her to this attribution for her failure. Alternatively, when Amy saw others succeeding and mastering difficult concepts, it gave her the confidence to keep working to resolve her learning failures. She stated, "and something for me that always made me want to try things again was because I saw other people getting it easily." These statements from Amy demonstrated that her social comparisons motivated her desires to abandon and resolve her learning failures. This finding suggests that students' motivation to resolve their learning failures can be directly influenced by intentional social comparison. Although Amy may have subconsciously made these social comparisons, they influenced her motivation to resolve and abandon her learning failures in ways she could clearly articulate. Amy also felt comfortable in large classes when she had friends in the course who did not appear significantly more intelligent or prepared compared to her. Amy shared, "When you're in those huge classes, there are tons of students—especially in exercise science. You get in these big classes and you get a bunch of loud people who seem to know everything. It feels like everyone around you understands but you. And so, I would kind of make friends with some people but I would hold back because I would feel like, 'I didn't understand this and I'm not as smart as them because they seem to really understand this. So maybe I'm just not meant to be in this class'." Large classes with lots of students facilitated Amy's social comparisons primarily in a negative way. This was especially true when there were students who consistently answered questions correctly. Thus, a student's social comparisons might create perceptions of skill and knowledge gaps that influence their confidence and decision to resolve or abandon their learning failures.

*Academic counseling.* Talking with a counselor helped Amy set new learning goals, which motivated her to work through her past learning failures. She recalled, "So I met with an advisor and made a graduation plan and I thought, 'okay! I really am close!' or 'I can get there. I just need to take these steps'. Then I came back to Chem 105 and Stats, those hard classes, and tried them again." Amy's academic counselor encouraged her to attempt her difficult classes again and to resolve her learning failures in those classes. The academic counselor also helped Amy to make an academic plan, which further encouraged her to work through her learning failures. For struggling students, academic counselors may be able to provide encouragement and planning services that help the student evaluate and resolve their learning failures.

Amy was also able to get help from academic counselors who talked her through the learning failures in her various classes. In describing these experiences, she stated,

"I remember, I definitely had to do a few of those academic support papers and having to fill out what my barriers were and my challenges, obstacles, and so forth So I would just go and I would meet with the counselor, because that's what I had to do in order to keep going to school. Maybe you just need another student or the counselor who is going to text you once in a while and say "hey, how's it going?" and not be bad like me and not respond because you're ashamed you're doing bad."

This statement revealed the feelings of shame Amy felt when she initially began receiving academic counseling. However, the experience ended well because she was able to talk about her learning failures with someone else who could help her resolve them. The academic counselor also acted in a general support role, providing encouragement to Amy. There were also assignments associated with the academic counseling appointments that helped Amy to explore the reasons for her learning failures. From these insights, it appears that working with a support professional who is trained to help students resolve their learning failures may be one of the foremost resources for struggling students to get help. However, the feelings of shame associated with the learning failure may prevent these social connections with academic counselors.

*Group work.* Working on her assignments with others helped Amy to work through difficult course concepts. In describing a calculus course she said, "I took calculus and got a B. That was a really good grade for me and I liked it. It was hard to understand, but when I worked on it with other people, especially in the lab, calculus turned out to be really good for me." Although Amy struggled with learning failures in the course, she was able to get help from other students to identify and resolve the failures. It took hard work and she was able to put in the effort, but Amy suggested that without the help of the other students, she would not have

succeeded. The group work in the lab led to social connections with other students who were able to help her resolve her learning failures. This suggests that students struggling with their learning failures may be supported by course structures that facilitate group work, including projects, discussions, problem solving, and so forth It may be that these course structures and assignments can help facilitate student connections, especially among students who may be struggling to make those social connections on their own.

Anxiety. Amy remembered feeling anxious in her fourth grade math class because she perceived she would be the only one who did not understand the concept of long division. She shared, "I remember in fourth grade having to learn long division. I had to learn it because everything builds on it and all the teachers were there and it looked like all the other kids understood it. So, I thought, "I have to get this!". I remember that the concept was so hard at first!" The thought of being the only one who did not understand the course concepts caused Amy anxiety. This same anxiety motivated her to work hard to understand the concept eventually leading her to resolve her learning failure. Although anxiety is typically seen as a negative emotion, it may be that social anxiety can act as motivation to help a student persist and resolve their learning failure. Beyond this past learning failure, Amy was also worried about what people would think about her capability when they reviewed her poor grades on her college transcript. She explained, "and I thought, 'if people could see my transcript right here, I did a lot better. It was hard, but I improved'." Amy wanted to control what other people thought about her experiences with learning failure in her college classes. She felt that her transcript reflected not just measures of her intelligence and capability, but also her effort and growth. She was anxious that others would overlook her efforts to improve and focus only on the poor reflections of her intelligence and capability. This suggests that college students struggling with learning

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failure may feel anxiety as they seek to manage the perceptions of others regarding their failure experiences. This social perception management may create anxiety that demotivates them or leads them to abandon their learning failures.

*Confidence.* When Amy understood a concept clearly, she was eager to share her knowledge and confidence with others in the course. Speaking of an earlier experience in a math class, she said, "But it was funny because the teacher was laughing when the other students were coming in and I was saying, "it's really hard, but don't worry because once you get it you'll do great!"." Resolving her learning failure resulted in Amy feeling personally confident in her abilities leading her to encourage other students. This suggests that as college students resolve their learning failures, it may create deeper social engagement that leads to socially supportive behaviors, such as encouragement, helping others identify and resolve their learning failures, and sharing their success strategies.

*Parental influence.* The first college course Amy took was from her dad. "Well, I graduated from high school in '04. And then I took my first class from my dad here—one class in the summer of '04." The influence of Amy's father both as an academic and as a parent strengthen his role as a mentor to Amy. She recalled, "I think, after coming home for my mission I started teaching in the MTC and I loved teaching. And I remember asking my dad one time, 'Dad, what do you think I'm good at? I think I'm mediocre at a lot of things, but I don't think I'm really good at anything'. And he said, 'It's teaching!'. And I realized—and it's not like I'm being boastful—but I think I am good at teaching because I like it so much. And so, that's when I realized that I could stay in something health related and still teach and help to prevent disease instead of just treating it." Up until that conversation, Amy had experience repeated learning failure in her attempts to pursue a degree in nursing and the health sciences.

The comment made by Amy's father about personal strengths led to the selection and confirmation of a teaching oriented major and new academic goals, which led her to abandon her persistent learning failures. These experiences suggest that parents of students who struggle with learning failure may be able to mentor their student in the identification or reassessment of their learning goals. This parental mentoring may lead to self-discovery and new learning goals that allow students to productively move past unresolved learning failures.

Amy's mother also had a significant influence on her learning goals and failures. Her mother's example influenced Amy's expectations for her own academic and life goals. She shared how, "when I first got to BYU I didn't really think of that end goal because I always thought, 'I'm just going to get married and start having kids', you know? 'I don't have to finish school anyway' because that's how it was for my mom and she's got nine kids and is a totally successful mother and a wife." Her mother's modeling of traditional female roles influenced Amy's decisions about which learning goals she would resolve and which she would abandon. In this case, Amy's mother modeled decisions favoring learning failure abandonment rather than failure resolution.

By contrast, her mother's example also influenced Amy to pursue more ambitious academic and career goals. Amy stated, "What I realized when I came home and started working through things was that my mom never finished college and had a bunch of kids and had a great family and now she's totally happy. What I noticed is that she's happy with her family. But I've been noticing that there's a lot more that she could be doing with her life if she had wanted to go back to school and finish a degree and maybe get a job and stuff." She continued, "I guess she still is my role model in the fact of helping me see, 'how do I make sure I am not in that specific situation or what not?' Because I don't think she's in a horrible place right now, but I feel like I would like to have this or that changed." Amy evaluated the learning goals her mother modeled and resolved that she would pursue more schooling than her mother had. This insight suggests that parents of struggling students may model learning goals that motivate their students to achieve more than they have. This modeling dynamic may also work to motivate students to establish learning goals that are inherently different from what their parents have modeled. The influence of parental modeling on a student's selection of their learning goals may also determine the nature of their learning failures and their decision to resolve or abandon the failures.

*Friend influence.* Amy was heavily influenced in her academic and career goals during high school by what her friends were pursuing. She remembered, "I think in high school, I would go with the flow of the crowd with my friends and the people around me. A lot of my friends would say, 'I'm going to be a nurse' or 'I'm going to do this' or 'I'm going to do that'. And I thought, 'If I'm going to be a nurse, then I have to do higher education too. I have to go to college'." This statement from Amy demonstrated the formative effects that her high school friends' learning goals had on her own goals. It also suggested that Amy's learning goals might not have reflected her own interests and abilities. Her college learning failures related to this pursuit of a health sciences degree—failures that she eventually abandoned in favor of learning goals more compatible with her own interests. From this finding it suggests the influence of friends may have related to the learning goals set by students. It also points to the possibility of students borrowing learning goals from their friends without clear motivation to follow through on them—leading to increased incidences of learning failure.

Once she began taking classes in college, Amy realized that she had different interests than her friends. She sought out friends in the new classes for her new major and ultimately was able to succeed in the classes where she had good friends supporting her and helping her resolve her learning failures. She explained, "I should have just been open about it, 'well, I don't understand this'. I think a lot of other people around me would have agreed. That's what I do now. I'm making a lot of good public health friends and we realize that we're in all the same classes, just at different times and we're all helping each other out with different things." From this we see that Amy's ability to connect with and make friends in her classes created a network of resources to help her resolve her learning failures. These friends were taking the same classes as Amy, had similar interests, and provided the social support she needed to feel comfortable asking questions that helped her resolve her learning failures. This suggests that students struggling with learning failure might be able to work through their failures more effectively by connecting with other students who share similar interests and class schedules.

*Sibling influence.* The example of Amy's sisters influenced her own academic and life goals, which influenced which learning failures she chose to resolve and which to abandon. Amy recalled, "I have a couple of sisters who had a bunch—by a bunch I mean they had at the most maybe three kids by the time they graduated. So I guess I thought, 'Oh. Once I do get married I can still kind of do school". But I guess school was always on the back burner." The example set by Amy's sisters gave Amy confidence that despite family decisions, she would still be able to work through her learning failures and pursue her learning goals. The statement also revealed how Amy developed her own learning goals based on the social modeling influence of her sisters, their learning goals and experiences serving as socially acceptable benchmarks. This finding suggests that struggling students may be able to evaluate their learning failures by exploring the learning goals and experiences of their siblings. Helping professionals may also be able to assist struggling students through this evaluation process.

Amy also deliberately chose learning goals that helped her distinguish herself from the roles and experiences of her siblings. She recalled, "There are nine kids and my family and I'm number seven. So, growing up, Jacob was the construction management guy. Brandon was just the really smart one who always got A's and he did chemical engineering and now he's into computers. Mark did computers. Amy sang. Andrea did this. Brian's the artist. So I felt like, 'what am I?'." Amy continued, "I also think that I stuck with health in the beginning because that was my defining feature with all my siblings. I thought, 'I could be the health person or the teacher' you know?"

Amy's reactions to the goals and roles of her siblings defined her own learning goals and thus contributed to the learning failure experiences she encountered. This finding suggests that struggling students may seek to couch their learning goals within the social contexts of their sibling roles leading to limited definitions of success that complicate the resolution of their learning failures. To achieve success, struggling students may need to abandon their learning failures in order to adopt overlapping roles and goals shared by their siblings.

*TA support.* Amy's interactions with course TAs had a positive effect on her ability to work through her learning failures. She remarked, "with classes that I'm more personally in contact with the teacher or the TAs or other students, I like it more and I do the homework more." Amy's comment emphasized that personal contact with the TAs enhanced her engagement with the course concepts and motivated her to work through her course assignments. These personal contacts suggested that TAs had made themselves available to Amy to work with her to resolve her learning failures in her classes. This suggests that struggling students, rather than relying solely on electronic contact with TAs might best get help resolving their learning failures by making time to meet with them in person.

*Spouse influence.* Being married gave Amy added motivation to work through her learning failures so she could graduate sooner. Amy stated, "When I got married I thought, 'Okay. Let's speed this up! I've been here long enough!'. So finally, I'm just getting this done. Once I graduate, he's filling out applications for grad school because he graduated last April. So that's the plan for now." Amy's learning goals were modified to become compatible with her husband's learning goals. This negotiation of learning goals influenced how Amy worked through her learning failures and which ones she chose to abandon. This finding suggests that struggling students may be trying to manage their learning failures in tandem with the learning goals and failures of others, potentially complicating their ability to resolve them. It might be necessary for struggling students to explore the social constraints related to their learning failures and whether they create artificial barriers to resolution.

Amy's decisions about raising a family with her husband also impacted her future learning goals and her motivation to resolve potential learning failures. She shared, "There are a lot of ways to learn still besides school. We'll probably think about starting a family before I start grad school. We'll see." This statement revealed how Amy's considerations about raising a family and completing an advanced college degree seemed potentially at odds with one another. This finding suggested that students may manage current learning failures and future learning goals in context of future relationship goals. It also suggests a hierarchy to learning goals and decisions about management of learning failure. Marriage, being a more committed relationship that mere friendship with fellow students, implies that strong social commitments may override present learning goals and thus influence a student's decision to resolve or abandon their learning failures.

Synopsis of case:	Case Findings:
Jason wanted to learn ASL to talk to his friend from his mission. He shared disappointment in the class with a group of other students. He mentioned not feeling any social motivation to learn more ASL. Uniqueness of case situation for phenomenon: Jason was initially interested in the ASL course because he wanted to converse with deaf people, but then he abandoned this learning goal and expected others to compensate for his learning failures in the course.	<ul> <li>I. Jason took the ASL course to enhance his ability to communicate with others, specifically deaf people.</li> <li>II. Even though he was given a good grade in the course by the teacher, he had no idea how to use proper ASL grammar.</li> <li>III. Jason felt afraid and embarrassed when he had to do a class presentation he was not prepared for.</li> <li>IV. Jason was confirmed in his perceptions of the course after talking to a group of girls who had similar experiences with the course.</li> <li>V. Jason struggled to understand and apply the professor's explanation of ASL grammar.</li> <li>VI. The professor corrected Jason's grammar, but not in a consistent way that he could learn from the feedback.</li> <li>VII. Jason met Kenny, who was deaf, in Micronesia and then took the ASL class so he could go back and talk with him some day.</li> <li>VIII. Jason gave up on his goal to learn ASL because Kenny lived far away and there were not many other deaf people for him to talk to.</li> <li>IX. Jason expected others who use ASL to compensate for his learning failures.</li> </ul>

Commentary:

- Each of our learning goals include a purpose that holds meaning for us now and in the future. The temporality of learning failures relates also to the social influences inherent in the failures because of how the student perceives present and future interactions relative to their learning goals.

Jason's American Sign Language course was ASL 101, which covered exchange of information, describing, storytelling, deaf culture, and deaf history (retrieved July 5, 2016 from https://catalog.byu.edu/humanities/center-language-studies/first-year-american-sign-language-part-1). Jason wanted to learn ASL to talk to his friend from Micronesia, but was unable to learn sufficient ASL grammar to do so. He shared his disappointments with the class with a group of other students. He mentioned not feeling any social motivation to learn more ASL, leading to the abandonment of his learning failures in the course. The following major themes stood out in this case: Embarrassment, Peer Influence, Professor Challenges, Past Experience, and Learning Goal Modification.

*Embarrassment.* Jason felt embarrassed when having to perform ASL signs in front of his peers and the professor, which revealed a learning failure related to his grasp of grammar. In describing his experiences with sign language, Jason shared, "That's just a really cool concept to me. But the ASL grammar thing, when we had to get up in front of the class and sign something—we had to do a children's book. It's pretty standard for the ASL 101 classes. And I'll tell you what—I sure felt the not-knowing-the-grammar on that. Even though the teacher passed me with an A-, I thought, 'what am I doing?'. I was just throwing out signs that I knew because I was scared and I was freaking out. And so, I think it just stands out because it was a more socially embarrassing situation for me." Jason's embarrassment stemmed from the social and public nature of how his learning failure was identified. Even though he received a high grade in the course, the social nature of his learning failures made him uncomfortable. This finding suggested that the socially public or private nature of a student's learning failure may affect them emotionally and decrease motivation to resolve the failure.

*Peer influence.* Jason's conversations with other students in the course led him to abandon his learning failures and initial learning goals in the course. He explained, "I've talked to a lot of girls in the class and they kind of did the same thing as me. We were all excited to get into it and then we all got kind of tired of it and we just kind of left off. We don't really hate it or dislike it, but we were thinking, 'I'm not sure I want to go through three more classes of this'." Although Jason never expressed a dislike for the course, he was also not motivated to resolve his learning failures related to learning ASL grammar. His discussions with peers in the course led him to abandon his learning failures because it became socially acceptable to do. This suggested that struggling students may look to trusted peers for guidance on whether they should resolve or abandon a given learning failure.

*Professor challenges.* The teaching and feedback from the professor was insufficient for Jason to be able to resolve his learning failures related to ASL grammar. He recalled, "And the grammar of sign language didn't really click with me, even though the teacher explained it. I still treat the grammar like it's English grammar, which is not right. So, I never really knew if I was doing it wrong or not." Jason continued, "So, the teacher knew sign language and I think she knew what I was trying to say most of the time. She did correct me and stuff but I feel like it wasn't consistent. I don't know." Jason was unable to get consistent feedback from the professor which made it impossible for him to develop a fundamental understanding of ASL grammar. This learning failure was compounded by Jason's inability to evaluate his learning failure sufficiently to understand what was causing it. This finding emphasizes the role that feedback from professors may play in a student's ability to evaluate and resolve their learning failures.

*Past experience.* Jason met a deaf man in Micronesia and wanted to learn to communicate with him but couldn't, which motivated him later to take the ASL course.

Speaking of his experiences meeting his friend, Kenny, Jason recalled, "I was so frustrated that I couldn't talk to him. It was kind of funny because we always thought, 'Oh, we don't know sign language' and he didn't really know sign language. He knew basic stuff." Jason's experience demonstrated that his learning goals were grounded in past experience, meaning that the root of his learning failures in the course were the result of past social interactions. His frustration about not being able to communicate with Kenny surfaced again in the course when he failed to communicate using proper ASL grammar. This finding suggests that a student's past experiences may contribute to and foreshadow current learning failures. Students may be unaware of this connection between current learning failures and past experiences or they may be very aware. In either case, it could be that an exploration of past social interactions may influence a student's ability to resolve their current learning failures.

*Learning goal modification.* Jason chose to modify his initial learning goal to learn ASL grammar in the course based on his expectation of future experiences with his friend. As he thought about a future encounter with Kenny, Jason said, "Even though I won't be able to talk to him about these complex ideas, we'll still be able to communicate at least. At least now I understand that I have to do facial expressions with a sign and I can still talk to him by mouthing it, shouting it, I don't know. And I think he's a lot smarter than I gave him credit for at the time. He sees what I'm doing and you can make up stuff when you sign, you can improvise a little bit. So, I don't think the grammar is really going to matter there." Jason's learning failures in the course led him to reassess his initial motivations and learning goals related to learning ASL. Due to an unwillingness to resolve his learning failures in the course, Jason imaged a future encounter with Kenny that would not require the skills he failed to acquire. This suggests that students may be constantly reassessing and modifying their learning goals, which affects their

decision to resolve or abandon their learning failures. Additionally, it may be possible that students who assess and modify their learning goals do so in a way that allows for only partial resolution or abandonment.

## Jason—backstory

#### Synopsis of case:

Jason's mom tutored him when he was younger because he had learning difficulties. He continues to go to his mother for advice about school. He also mentioned the impact of high quality college instructors on his cognitive development. Jason's job at Aspen Grove led to a conversation with a successful business person, which shifted his thinking about his major. Jason discusses his volunteer experiences with BYU/SA and their impact on his choice of majors. He talked about conversations with close friends and his mother regarding what major he should choose. He talks about comments made by his communications professor that confirmed his choice of major. He shares an experience at his grandma's house where he began to enjoy reading and watching the news.

Uniqueness of case situation for phenomenon:

Jason reached out to others around him for confirmation of his intentions to shift his learning goals and abandon his learning failures.

#### Case Findings:

- I. When Jason was in fourth grade, he was doing well in math and then he struggled with it in fifth grade. His teachers tried to diagnose him with ADD.
- II. As a result of poor academic performance, Jason's mother began to do an at-home summer school program with him.
- III. Jason did not want to work with his mother to resolve his learning failures, mainly because he didn't own the learning goals—his mother and his teachers did.
- IV. Jason struggles to resolve his learning failures and feel joy in the learning process when he is overly focused on getting a good grade in the course to please someone else—like his mother.
- V. When comparing himself to other students, Jason wondered how he was admitted.
- VI. Jason struggled to make friends at BYU-Idaho who could keep him anchored there socially.
- VII. Jason made friends easily at BYU-Provo, but then he lost focus on his studies, leading to more learning failures.
- VIII. Jason enjoyed his world religions course because the professor was intellectually stimulating, which helped Jason to engage with the course and resolve his learning failures.
- IX. Jason considered a switch to an international relations major because he was interested in future interactions with people of different cultures.
- X. A conversation with a man Jason perceived as well-off led Jason to consider a public relations major, driving him to shift his learning goals and abandon learning failures from his exercise science major.
- XI. Jason's mother encouraged him to work through his learning failures in the public relations major.

	XII. Jason had friends who were able to
	help him get a PR internship with BYUSA that helped him solidify his understanding of PR concepts and set more learning goals related to PR. It also led to new PR-related learning failures that he worked to resolve.
	XIII. One of Jason's friends told him to consider a communications major. Jason then explored the major more by talking to others, including his mother. He then decided to switch into it, abandoning learning failures from his exercise science major.
	<ul> <li>XIV. The professor from Jason's media writing class was able to form a strong connection with Jason, which confirmed his switch to the PR major.</li> <li>XV. Jason's Intro to PR professor helped him understand the relation between</li> </ul>
	the course content and future career activities, which motivated Jason to work through his learning failures in the course.
	XVI. Jason's grandmother used to let him watch the news at her house when he was younger. These experiences led him to an interest in PR later in life.
	VII. Jason struggled to resolve learning failures that did not involve other people, as in his Chemistry course.
Factors (optional):	

- Who do students trust when seeking out social confirmation of learning goals? Why?
- Do students decide to abandon their learning failures and then shift their learning goals or do they shift their learning goals and then abandon their learning failures?

Commentary:

- Students with learning goals that do not align with the instructional goals of a course lack the engagement and motivation to resolve their learning failures in any significant way.

Jason's Backstory case consisted of social interactions that influenced his learning

failures in multiple courses. Jason's mom tutored him when he was younger because he had

learning difficulties. He continued to go to his mother for advice about school. He also

mentioned the impact of high quality college instructors on his cognitive development. Jason's job at Aspen Grove led to a conversation with a successful business person, which shifted his thinking about his learning goals and failures. Jason discussed his volunteer experiences with BYU/SA and their impact on his learning goals. He talked about conversations with close friends and his mother regarding the abandonment of some of his learning failures. He talked about comments made by his communications professor that confirmed his learning goals. The following major themes stood out in this case: Parental Influence, Professor Benefits, Advice, Friend Influence, and Peer Influence.

Parental influence. When Jason started to experience learning failures in grade school, his mother began to help him resolve them. He explained, "So I went into fifth-grade and they started teaching about geometry and I had never heard of the word or that kind of thing. So I was coming out with ADD or ADHD or whatever and my mom was saying, 'Whoa, whoa, whoa, what's going on?'. And then she started doing a summer school kind of thing, personally working with me and trying to teach me.' Jason's mother not only helped him identify his learning failures, but she also worked with him to help resolve them. This suggests that parents may at times be able to work with their struggling student to identify and resolve their learning failures. Jason also commented that his mother would point out some of his learning patterns that were detrimental to his future performance. In describing his mother's feedback, Jason said, "For me I've always just tried to do the bare minimum to get the grade on all tests. My mom always told me that I just do what it takes to just make it. That's been so true all the way from elementary school through high school." From an early age, Jason's mother was mentoring him and providing help to identify and evaluate his learning failures. Jason's past experiences and the influence of his mother suggest that parents of struggling students can identify patterns of

thought, behavior, and effort in their student that contribute to their learning failures. These parental insights may help students make fundamental shifts in the way they set learning goals and approach learning failures in the future, making it more likely that they will resolve their learning failures.

Jason's mother also helped him by giving him advice that encouraged him to work through his learning failures. He shared, "I talk to my mom all the time about this stuff. She said, especially about this term, 'You need to prove to yourself that you cannot settle for less and go for more'. I'm a lot more friendly to the idea of trying again and trying to push through those classes." This mentoring and encouragement from Jason's mother suggests that parents of struggling students can help shift their student's thinking about their learning failures. The way that parents respond to the learning failures or their students may affect the way that their students react to their learning failures, potentially increasing the likelihood that the student will be able to resolve the learning failures.

*Professor benefits.* Some of Jason's professors interacted with him in ways that strengthened his motivation to work through his learning failures. In one instance, Jason's history professor helped him to make connections that increased his capacity to work through learning failures. He recalled, "The teacher is an intellectual. He's been all over the place, like to Harvard and to Princeton. He's done fellowships everywhere and so he knows his stuff and he's constantly making connections. So I think just being in that environment so much this semester, in particular, is opening new parts of the brain." Jason's professor was able to model successful learning behaviors, which influenced Jason's desire to set and accomplish his learning goals. This suggests that the when professors model behaviors related to the accomplishment of learning goals, it may motivate struggling students to persist and resolve their learning failures.

Jason also had a professor who was able to address his concerns about math, which gave him confidence to resolve related learning failures that would come up later in his program. He shared how, "The first day of class was this term and I went to my media writing class and my professor Waltz used to be a reporter for ABC news up in Salt Lake or something. He said, 'So why are you in here? Because you don't like math?'. And I said, 'Yeah!'. And he said, 'It's because you hate math, right?' And everybody starts laughing and nodding their heads and stuff and I thought, 'I found my people!'. This experience demonstrated two key points about learning failure. The first point was that Jason's professor deliberately explored potential attributions of students' past learning failures in a way that helped Jason explore his own attributions for his failures. This suggests that professors may be able to help struggling students to make their tacit attributions for failure explicit by exploring them in a direct way. The second point of this experience is that the way the professor conducted this exploration of attributions helped Jason to realize that several others in the class had likely experienced learning failures similar to his own, making them less embarrassing and more socially acceptable. As such, Jason was more open to abandoning his past learning failures without feelings of shame. This suggests that professors may help their struggling students explore their learning failures through deliberate dialogue with the entire class as a means of helping them decide whether to resolve or abandon the failures.

Another one of Jason's professors emphasized important perspectives in the PR course that helped Jason to prioritize which learning failures were most important to resolve. Jason recalled, "My intro to PR teacher, professor McFarland, is saying, 'When you go to a CEO of a company or a business guy comes to you and says, "Hey, we need this to happen. This is our overall objective" one of the first things you're supposed to ask him is "What is your objective?" and that means he's going to start giving you business terms and I need to know that." This interaction with his professor helped Jason to understand what his future career experiences might entail, which helped Jason determine which learning failures he would and would not need to resolve. This improved insight about future career experiences also motivated Jason to resolve his current learning failures and those he might face the future. This suggests that professors may be able to help students align their learning goals with realistic career expectations, which might help struggling students be more strategic about which learning failures they resolve and which they will abandon.

*Advice.* Jason got advice from a man he perceived as wealthy and successful. This advice led Jason to consider international relations as a major. These considerations led Jason to abandon some of his learning failures. In recalling these experiences at his summer job, Jason explained, "I was working at Aspen Grove and there are a lot of people that come from California there. These guys are not poor. They are well off. And one of the guys there said, 'If I were hiring somebody, I would be as much for hiring an international relations person to do a public health job as a public health person'. So, I would be much more marketable with an international relations degree, so why not consider that?" Jason's perception of the man's success led him to take the advice seriously, leading to new learning goals and the abandonment of previous learning goals. This suggests that a student's perception of the successfulness of an individual may influence how seriously they consider their advice and whether they adjust their learning goals that affect their learning failures.

*Friend influence.* When considering different majors, Jason's close friend advised him to investigate the communications major, which led him to abandon his learning failures in the exercise science major. Jason said, "And it's funny because there was this week when I had a

close friend of mine, a guy I served with on my mission as a companion. He would know what kind of person I am. He came up to me and said, 'Seriously man, I could really see you in communications and communication studies'." Jason continued, "And so, before I really got into it I started asking people about it. I asked them, 'Can you see me doing communications?'. I asked my mom, and two close friends and they all said, 'Yeah, we really could'." Because Jason trusted these close friends, as well as his mother, he was influenced to explore and ultimately select a new major the better fit with his personality and interests. This suggests that the strength of a relationship or the degree of trust may determine whether a struggling student seriously considers the advice of friends related to their learning failures. It also suggests that struggling students may be cautious of modifying learning goals that affect learning failures without first consulting with trusted friends.

*Peer influence.* Peers in Jason's new major advised him to get more involved in PR activities, which led him to abandon the learning failures from his exercise science major. He explained, "So I'm getting connections and seeing what's going on here and I've got some close friends in it. So, they're telling me, 'This is kind of how it is and if you want to look good, you have to do this, this, and this'." These peers modeled success behaviors for Jason that helped him evaluate his learning goals related to his learning failures. This suggests that peer modeling may affect how struggling students evaluate their learning failures and make decisions about whether to resolve or abandon their learning failures.

# Trent—accounting

Uniqueness of case situation

Trent thought he was doing well in the course until

he compared his performance on tests to the

performance of his friends. This helped him to

identify learning failures, but not to evaluate or

for phenomenon:

Synopsis of case:

Trent really enjoyed the structure of the professor and he was able to work with a small group of 4-5 friends and roommates who all seemed to perform better than him on the tests. They all use testing methods that he is uncomfortable with. They also improved their midterm test scores while Trent remained with a C average. Trent's group does not sit in the front, to which he attributes his poor performance and the mindset of his group. A bad experience with a TA turned Trent off from getting help from TAs afterwards. The TAs in general are perceived as unhelpful. Case Findings:

- I. The professor is organized, which helps Trent manage his experiences and learning failures in the course better.
- II. Although the professor encourages students to move around to sit next to new people, Trent sits next to the same 4-5 people.
- III. The group work in the course helps Trent resolve his learning failures within his team, with him relying especially on his friend, Shelby.
- IV. Sometimes Trent perceives that the professor creates her tests in a way that creates learning failures for him.
- V. Trent's father has set an example of success in a business-related field that has motivated him to push through and resolve his learning failures in the course.
- VI. The professor prepares students really well to succeed on the tests with course materials to help them overcome their learning failures.
- VII. Shelby's experience failing the course the first time sets an example for Trent about what he might do if he fails it himself.
- VIII. Trent has counseled with his parents about he should do if he does poorly in his Accounting course.
- IX. Trent studies with his friends in the course, who help him resolve his learning failures, but who also serve as a comparison of the severity of his learning failures.

X. The professor's comments about the improved performance of the class on the test led Trent to identify and evaluate his learning failures in the course.

- XI. Trent's low test performance and the high test performance of his friends led him to identify learning failures in the course.
- XII. Comparing his performance to the performance of his classmates led Trent to attribute his learning failures

	4
resolve them.	to something he was or was not
	doing.
	XIII. Trent's failure to sit by other students
	limits his potential to get help with his
	learning failures from other students.
	XIV. Trent was reluctant to raise his hand
	to resolve his learning failures
	because he didn't want to be
	perceived as the only student who did
	not understand the course concepts.
	XV. Trent compared his performance and
	learning failures in the course to his
	roommate who is also in the course.
	The comparison led him to believe
	that his performance in the course
X	was not as bad as he originally
	thought.
	XVI. Trent's learning groups relies heavily
	on Shelby to help them with their
	learning failures because she
	frequently answers questions
	correctly in class.
	VII. Trent believes that the students who
	understand the course concepts the
	best sit near the front of the class.
	VIII. Trent believes that taking the seat of a
	student who typically sits in front
	would make that student upset.
	XIX. Trent does not believe that his friends
	in the course are capable of helping
	him to resolve his learning failures
	because their study habits do not
	work for him.
	XX. Due to a poor experience with the
	course TÂ, Trent decided that they

Factors (optional):

- Once a learning failure is identified, what should a student do to evaluate the failure?
- -What other ways besides poor test and assignment grades could a student identify their learning failures?

Commentary:

When students are unable to evaluate a learning failure, it increases the likelihood that \_ they will abandon the failure instead of resolving it.

Trent's Accounting course was ACC 200, which covered basic terminology, balance

sheets and income statements, internal accounting tools, writing memos, and using computer-

aided tools and resources (retrieved July 5, 2016 from

https://catalog.byu.edu/management/school-of-accountancy/principles-of-accounting). Trent really enjoyed the structure of the professor and he was able to work with a small group of 4-5 friends and roommates who all seemed to perform better than him on the tests. Unfortunately, they all used testing methods that he was uncomfortable using. They also improved their midterm test scores while Trent remained with a C average. Trent wanted to do well in the course in order to improve his chances of getting into the business program he would apply for. Trent's small group did not sit in the front of the classroom, to which he attributed his poor performance and the mindset of his group. A bad experience with a TA turned Trent off from getting help with his learning failures from the TAs afterwards. The following major themes stood out in this case: Professor Benefits, Professor Challenges, Group Work, Friend Influence, Parental Influence, Comparison, Anxiety, Competition, and TA Challenges.

*Professor benefits.* Trent's professor provided a lot of structure in the course that helped him to work through his learning failures. He said, "Accounting is a lot better than my other classes. It's more structured. Two nights before the professor sends an email to everyone, 'This is what's due, this is what you should keep in mind, the test is coming up, these are the review sessions'. She's really good about that." Trent's professor helped him manage his expectations about assignment due dates so that he could spend more time focusing on resolving his learning failures. This suggests that the way a professor structures assignment due dates and the communication about those dates may help struggling students spend more time resolving their learning failures.

Trent's professor also prepared the students with plenty of study material for the tests. Speaking of the study guides, Trent explained, "I think she said she actually uses the same questions and she just changes the numbers around. So she said to really rely heavily on the practice exams and on the previous exams. I have a lot of materials to study, so I'm not left in the dark." The structure and sharing of advanced study materials helped Trent to structure his time so he could strategically resolve his learning failures. This suggests that the way a professor structures their course might help students know how to structure their study time and thus increase the likelihood of resolving their learning failures.

The professor paused often and gave students an opportunity to work through problems in class, which helped Trent resolve his learning failures. He shared, "So, she pauses a lot. There's five iClicker questions for each lecture and they're usually practice problems. So she gives us time, about two minutes. So that's time for us to say, 'I didn't understand what she said'." These extra opportunities to ask questions and to explore course concepts in more detail helped Trent have time in class to identify, evaluate, and resolve some of his learning failures. This suggests that the way professors structure their in-class time may allow students the time and access to support resources that they need to resolve their learning failures.

*Professor challenges.* Although Trent's Accounting professor was helpful in creating structure within the course, the way the tests were written made it difficult for Trent to get the right answers, which frustrated him and complicated the identification of his learning failures. He recalled, "I think that the test is unnecessarily detailed in parts of the class that she didn't focus on. It's like she wanted me to miss it. But I can see how I'm not the most efficient test-taker." Trent had a difficult time gathering from the professor what she was going to include on her tests. Thus, his poor performance on the tests revealed his learning failures in the course in a way that made him upset. This suggests that the way that professors prepare their exams relative to the material covered in the course may influence a struggling student's expectations about the

exam and either help them resolve their learning failures or make the learning failure more complex and frustrating.

In sharing an example of his frustrations with testing in the course Trent shared, "We did something like this the first time around and it was like, 'Which federal bureau regulates stocks?' or something that she mentioned during her lecture and I just didn't think it was going to be on the test so I didn't study it. But that's just me complaining." Trent was being selective about what he learned in the course and the learning failures he chose to resolve or abandon. He was trying to guess what the professor was going to include in the exams. This suggests that when professors are not explicit about the content on exams or assignments, the ambiguity may create additional learning failure for students. It also suggests that the way students develop their expectations about exams and assignments from communications with the professor may also contribute to their learning failures.

*Group work.* Trent was able to work in a small group that helped him to work through his learning failures. Trent explained, "I'm in my little pod of four or five people that don't mix around... And outside this small group of four or five students group of students I'm really not interacting with anyone else." Although this group was helpful in helping Trent to resolve many of his learning failures, they were his exclusive resource in the course. This limited the help he got from other students in the course. This suggests that while groups may help struggling students work through their learning failures, they may also limit the peer resources available to the student.

*Friend influence.* One of Trent's friends, Shelby, was repeating the course which meant that she knew better than most students what to expect about exams and assignments. As Trent explained, "I sit next to that girl who failed it the last semester. So, she knows everything—she's

known the beginning from the end this whole semester. It's been nice to talk to her. Her name is Shelby and she is thinking either supply chain or HR, but she hasn't decided yet. I think she failed the class last semester and this time around I think she still has an A." Aside from modeling potential outcomes related to his learning failures, Shelby was able to help Trent proactively identify difficult or confusing course concepts. This suggests, first, that a struggling student may be able to get help with their learning failures from those students in the course who have more experience with the course, its content, and the professor. Second, it suggests that when students in a course model positive behavior and attitudes related to their learning failures, it may help other struggling students decide how to react and move forward with their own learning failures.

Trent, along with the others in his small group, looked to Shelby for help resolving his learning failures. Trent said, "In our experience Shelby usually knows the answer because she took the class last semester. So usually we just ask her, 'Hey Shelby, what's the answer?'." Due to the fact that Shelby was willing to help the group members out consistently, Trent and the other students may not have worked as diligently to resolve their learning failures as they would have if Shelby was not available to help them. In this sense, Shelby impeded Trent's ability to identify and evaluate his own learning failures. This suggests that students who volunteer too much support and help may make it difficult for struggling students to develop the skills necessary to resolve their learning failures on their own in the future.

Trent also shared that his friends' study habits were not useful for him. He explained, "I've talked to Shelby, and she doesn't check her answers and that freaks me out, and then she's done. And that is totally not like me. I literally check everything and I think, 'It's one of those five answers right there'." The study habits modeled by his friends did not help Trent as he worked to resolve his learning failures. This suggests that study habits modeled by trusted friends may not be useful to struggling students working to resolve their learning failures.

*Parental influence.* Trent's father worked in business and model success for Trent. In describing his father's influence, Trent said, "It's kind of just testing the water to see if I like the business atmosphere and the culture of business. I think I like it. I think I'm a people person. That's what my dad does. So Accounting—that's what it was going to be for me—a test or a sample to see if I like it." Trent initially set learning goals based on the modeling from his father. As Trent struggled with aspects of his business major, his learning goals became more tenuous due to learning failures. This suggests that although parental modeling may influence the learning goals students set, learning failures may override the modeling influence leading to shifts in the learning goals and failure abandonment.

*Comparison.* Trent felt like his performance on the first test in the course was on par with the performance of his friends. He even had similar feelings of success like his friends after taking the actual test. But then his poor performance on the test and the success of his friends confused him, leading him to identify learning failures. Describing this experience, he said, "So I studied with my friends. I've done a lot more than last semester with studying outside of class—eight hours in a row. And the friends that I studied with—I know I shouldn't compare—they all got 94's. So I thought, 'Ok. Cool!'. Studying with them, I didn't have any particular difficulties—average or above average with all of those things. So that's why it was a dagger to the heart, getting the C." Trent's violated expectations about his testing performance were further aggravated when he compared his scores to the scores of his friends. This dissonance led Trent to identify, but not to evaluate, his learning failures. The initial confusion about what he did wrong in the test motivated him to evaluate the learning failure and to resolve it, if possible.

This suggests that social comparisons of academic performance may help students identify their learning failures and to motivate them to evaluate the failures.

Trent also compared his poor performance on the second test to the improved scores of his friends on the same test. He explained, "I could look it up, but I think it was a C average for the class as a whole on the first test, which was normal for a test. And then this past test—just add salt to the wound-she was amazed at how well people did. I think the class average was a B+ or something. So good for everyone else. The friends that we've been talking about right now—they all got B's and C's on the first test as well. Then they all improved to A's and I stayed at a C." This represented Trent's second comparison of his test performance to the test performance of his friends, which further confirmed his learning failure. This additional identification of the learning failure also demonstrated to Trent that his steps to resolve the initial failures were ineffective. This realization about his learning failure resolution efforts motivated Trent to revisit the evaluation of his learning failure. This all suggests that struggling students who compare their academic performance to that of their peers may be able to use the comparison to generate feedback regarding their learning failure resolution efforts. These benchmarks of academic performance of their peers may also help struggling students to systematically assess their learning failure resolution strategies.

Although the test reviews helped Trent to identify his learning failures, his comparisons of his test performance to that of his peers led to him to attribute his learning failures to poor test construction rather than to influences within his control. He described, "So, for the first test I missed the questions that nobody else missed, I missed the nitpicky questions. I felt that it didn't have very much to do with the content." This attribution of his learning failures to the poor test construction represented Trent's insufficient evaluation of his failures. This suggests that social comparisons of academic performance may lead students to unhelpful attributions for their learning failures, making them more difficult to resolve.

These social comparisons also had a negative effect on his motivation to resolve his learning failures. Speaking further of these comparisons, he said, "It was the first test that really bothered me because she would say, 'Ok, this is one that everybody missed' and then she would show it and everybody would say, 'Oh!' And I got it right. So I was there until the end of the period and I missed the three questions that everybody else got right." Although Trent felt confident that he was not the only one experiencing learning failure in the course, he struggled with being one of the few who missed questions that others got right. This suggests that the comparisons that struggling students make regarding the academic performance of their peers may complicate the process for evaluating the failure when there are no consistent performance patterns identified during the comparison.

Trent also compared his experiences in the course to those of a roommate, excusing his poor performance because of the poor performance of his roommate. Trent explained, "He's having a hard time in this class, but I think he's doing a little better in the class. I think he has like an 88 and I'm at an 83 or an 84. So I think we're pretty comparable. I just happened to do poorly on the tests and he did a little bit better." Trent was unable to understand why his roommate was receiving higher grades than he was despite the fact that they were both struggling with learning failure. This complicated Trent's identification and evaluation of his learning failures because there was no clear explanation for the discrepancy in academic performance. This suggests that struggling students may use social comparison as a means to identify and evaluate their learning failures by seeking clear performance patterns and anomalies. *Anxiety.* In the course, Trent chose to sit next to the same few people because of social anxiety. As he explained, "I don't know if I'm supposed to be moving around and being a social butterfly. That's not really who I am. That might be the weakness I have in learning. I don't think I would want to sit down next to a stranger every day and do accounting with them for the semester. I think I'd rather just be with people that I know." Trent's social anxiety deterred him from working with other students on his learning failures. This suggests that social anxiety may be keeping struggling students from taking advantage of peer resources to get help with their learning failures.

His social anxiety also kept Trent from asking questions in class because where he sat made it inconvenient. Describing this dynamic, he said, "Only the people in the front row raise their hand to ask a question in the class. If you want to ask a question and you're in the back you can, it's just kind of inconvenient. And then you think of the 800 students that understand and you don't want to be the redundant one." Trent tried to avoid asking embarrassingly obvious or simple questions because he did not want to be perceived as incompetent. This suggests that social anxiety may also affect the timing of a struggling student getting help with their learning failures during a class.

*Competition.* Trent believed that where a student sat in the course determined their engagement in the course. Describing the students who sat near the front of the class, Trent explained, "They're the kind of people that would get mad at you for stealing their seat. It's kind of intense. I guess they have high confidence. That's just me thinking. I don't know if that holds true for everybody else. It's kind of like in church—that's that family's bench. The bishop's never told them to sit there, but if you sit there somebody's going to be upset. So it's better off to not sit there. It's not done." This competition between students regarding seating

made Trent reluctant to participate fully in class and to get the help he needed with his learning failures. This suggests that struggling students may feel threatened by other students when establishing seating arrangements that facilitate help seeking for their learning failures. It also suggests that these competitive social dynamics may affect a struggling student's willingness to reach out to peers who are perceived as threatening for help with their learning failures.

*TA challenges.* When Trent or members of his group sought help from the course TAs they were unable to provide satisfactory answers. Describing his interactions with the course TAs, Trent shared, "In the couple of times we've asked, they haven't known the answer. I mean, I've seen them lean over and kneel down by students and help them, so I know they're working with us, but I haven't experienced that myself." This lack of help from the TAs diminished Trent's confidence in their ability to help him resolve his learning failures. This suggests that the perceived helpfulness of interactions with course TAs may affect future help seeking behaviors from struggling students. It also suggests that struggling students may be unwilling to challenge their perceptions of TA helpfulness without direct, positive interactions with the TAs.

Additionally, Trent had a negative experience when he went to the lab to get help with a technical issue. Describing the poor treatment, Trent recalled, "The Internet failed while I was taking a quiz—and this was bad, this goes on record—the guy was in there and he was just laying back with his feet on the table. And I told him, 'Hey, the campus Internet failed while I was taking a quiz and I think I might've gotten a zero on it, so what do I do? I'm really stressed out about this class'. And then he said, 'I'm sorry, that just happens'. And I said, 'Is there some sort of program that you can go in to see what I selected or get proof that I worked on it? I can show you my scrap paper, I did work on it, I did take the test'. And he said, 'Nope. I can't do it'. And he didn't sit up or anything." This poor experience with the course TA led Trent to

avoid getting help from them with future learning failures. This suggests that strong, negative interactions with TAs may significantly diminish the help seeking behaviors of struggling students who need their help to resolve their learning failures. It also suggests that a TAs posture, responses, and demonstrated empathy for struggling students may affect their ability to provide assistance to the students with their learning failures.

# Trent—psychology

Synopsis of case:

Trent was expecting to learn more from the course, but he felt like the professor just read the textbook to them in the class. Trent also didn't know anyone in the course. Trent struggled to understand the professor's testing style. The TA was helpful in giving feedback on essays, but not in answering questions in the course. Trent expressed feeling alone in the course, that there weren't others in the course to help him or to fuel his initial passion for psychology. Attendance was not mandatory, so only those struggling with the course showed up. Trent felt like he was supposed to complete the course on his own without asking for help. The one time he did email a TA for help he was disappointed.

Uniqueness of case situation for phenomenon:

Trent felt a complete lack of support from the professor, the TAs, and other students to resolve his learning failures in the course.

Case Findings:

- I. All of Trent's friends who took AP Psychology in high school led Trent to want to study it at BYU.
- II. Trent criticized the professor's lack of ability to teach without a complete reliance on the textbook.
- III. There was a general lack of group work in the course, which made it difficult for Trent to resolve his learning failures on his own.
- IV. Although the professor was willing to drop the lowest test score to help Trent, he was unwilling to negotiate points to bump Trent up to an A.
- V. Trent struggled to understand the professor's testing protocols in the beginning of the course, which led to the identification of learning failures.
- VI. Trent disagreed with the test content, which he perceived to be more about the professor's comments than the course content.
- VII. Trent perceived that the professor's over-reliance on the textbook and routine jokes diminished his opportunities to learn the course concepts with the depth he wanted.
- VIII. Trent perceived a general lack of caring for the students on the part of the professor.
- IX. The TA was not very helpful to Trent because he failed to respond to the questions Trent asked him.
- X. Trent resented the private jokes between the professor and the TA because they detracted from the learning experience.
- XI. Trent talked to a girl at his work about his experience in the course and she shared her own experience in the course that was completely different from Trent's.
- XII. Trent learned the course concepts from the online teaching tool and from Google, not from the professor's explanations.
- XIII. Trent perceived that most of the students in the course already understood the course concepts from

high school and therefore did not
attend class. This heightened his
sense of inferiority and demotivated
him to learn more about the course
concepts.
XIV. Trent perceived that the eager
students sat in the front of the class.
Trent sits in the middle of the class
and compares his lack of success to
the success of those students in the
front of the class.
XV. Trent felt alone during the course and
that he lacked the support and
resources to resolve his learning
failures.

Factors (optional):

- What role does the internet play in helping students resolve their learning failures?
- What conditions will drive a student to the internet to resolve their learning failures rather than working with a professor, TAs, or other students?

## Commentary:

- Lack of clarity in teaching and testing on the part of the teacher makes it difficult for students to clearly identify their learning failures.
- \*\*\* A learning failure occurs when a student has a goal to understand or perform some academic task and fails to do so either in part or in full. It is their own evaluation of their own performance in relation their own expectation.
- Learning failure is best discussed within the context of a specific course because that is how students typically set their learning goals—they are content and domain specific. That's not to say some learning goals don't extend beyond the limits of a defined course, but it gives a helpful starting point to talk about the failures within a given course and expand the discussion from there.
- In college, a community of practice is tied more to an individual student's intended career and activity goals post-graduation than it is to a particular course. Students are apprenticing themselves to future notions of activity, trying to take benefit and development piecemeal from current academic courses and experiences.
- Within communities of practice, everything is oriented towards some more-involved identity and activity as modeled by masters and expressed in social norms and conventions.

Trent's psychology course was PSYCH 111, which covered theoretical perspectives,

applying psychological principles, and research methods (retrieved July 5, 2016 from

https://catalog.byu.edu/family-home-and-social-sciences/psychology/introduction-psychological-

science). Trent was expecting to learn more from the course, but he felt like the professor just

read the textbook to them in the class. Trent also didn't know anyone in the course. Trent

struggled to understand the professor's testing style, which led to learning failure for Trent. The TA was helpful in giving feedback on essays, but not in answering questions in the course. Trent expressed feeling alone in the course, that there weren't others in the course to help him or to strengthen his initial passion for psychology. Attendance was not mandatory, so only those struggling with the course showed up. Thus, Trent felt like he was expected to complete the course on his own without asking for help. The one time he did email a TA for help he was unsuccessful in getting the help he needed with his learning failures. The following major themes stood out in this case: Professor Challenges, Friends Influence, Group Work, Professor Benefits, Comparison, TA Challenges, Peer Influence, Lack of Resources, and Seating.

*Professor challenges.* The professor taught the course in a way that diminished Trent's confidence in his ability to help Trent resolve his learning failures. He explained, "I looked forward to it in the beginning because he did the first half lecture and then we had a break and then his second-half lecture was a PowerPoint with words and jokes from a textbook that he didn't even write. So I thought, 'What are you doing? I could've made these power points!' and then he would just read the textbook. I know this sounds mean, but I just didn't feel like he was a real professor. He could have been some dude off the street that just read the textbook and then copied and pasted it." The professor's lack of original thought and contributions to the course made it difficult for Trent to trust his ability to help resolve Trent's learning failures in the course. This suggests that a professor's ability to reach and help struggling students resolve their learning failures may be tied to the way they demonstrate competency in their class sessions.

The professor also set a policy at the beginning of the course meant to deter students from arguing about points in the course. This policy deterred Trent from approaching the professor regarding his learning failures. Trent said, "And he made it very clear, 'Do not email me about

your points!'. He said, 'Unless you are in the 50 to 60 range and your experience at BYU is being threatened, I don't care about the difference between an A and a B'. Of course, I was the student who was in that position. I didn't want to even bother because I knew he would get mad." Fearing a negative reaction from the professor, Trent preferred to settle for a lower grade than he had intended for the course, meaning that his learning failures went unresolved. This suggests that the transactional distance (Moore, 1997) between struggling students and their professor may affect the student's willingness to seek help from them with their learning failures.

Trent also struggled to understand the professor's ambiguous test questions, which complicated Trent's ability to clearly identify his learning failures. He shared, "I found out that the tests were just kind of guessing games of what he wanted me to put. One of the questions on the test was, 'You're in a park. There's a squirrel burying a nut and a girl on a bicycle. What are you experiencing?' and then it was like 'déjà vu, schizophrenia, multiple personality disorder—I don't know!'. So, it was disappointing when I would miss questions like that." Trent's difficulty understanding the professor' test questions complicated his ability to identify and resolve his learning failures. This suggests that struggling students may rely on a professor's testing and feedback to identify and evaluate their learning failures. It also suggests that professors may be able to help struggling students to identify and resolve their learning failures by creating clear test questions and reviewing the results of tests with them.

Due to these confusing experiences, Trent worked hard to note everything the professor talked about that might be on the test. This strategy allowed him to perform better on the tests, but complicated his ability to identify and resolve his learning failures. Explaining these difficulties, Trent recalled, "I got a C on the first test and for me, I didn't know how I failed it and then I went back and learned how I failed it and I realized that this class was just guessing what the professor says." Although Trent accepted his responsibility for his learning failures, he recognized that his difficulty in learning the course concepts from the professor was due to a lack of alignment between course instruction and exams. This suggests that professors may be contributing a students' learning failures when they fail to align instruction with appropriate feedback mechanisms, like exams. It also suggests that struggling students may need additional interaction with professors to resolve their learning failures when they are due to this misalignment of course concepts and exam questions.

Trent's perception that the professor was disinterested in his learning goals and future career interests made him comfortable abandoning his learning failures in the course. Reflecting on these decisions, Trent said, "I didn't like the professor very much. I feel like he looked at us... I know he looked at us as just another number. He would often say to us, 'I don't care what you get on final. I don't care how you do in this class. I'm just here to teach.' Stuff like that just makes me think, 'Come on man!'. I mean, he was like, 'I could care less what happens to you'." This lack of interested exhibited by the professor prevented Trent from seeking help with his learning failures. This suggests that professors may be able to strengthen a struggling student's help seeking for their learning failures by demonstrating genuine interest in their learning goals and interests.

*Friend influence.* When talking with a friend at work about the course, Trent got a different perspective of his professor. He shared, "I was talking to this girl at work and she had Ross and she loved his humor. I just didn't like it—it's not my thing. I'm still convinced that for the entire class he never said anything that wasn't straight out of the textbook. And I know that that's a pretty bold statement, but I'm pretty sure that it's true." Despite this contrasting opinion of the professor from his friend, Trent's own experiences and perceptions remained

unchanged. He continued to maintain that the professor was incapable of helping help resolve his learning failures. This suggests that a struggling student's own perceptions and experiences may bias them against resources that could help them resolve their learning failures despite contrary evidence put forth by their friends. It also suggests that struggling students may seek confirmation of their biases that arise from their learning failures.

*Group work.* The lack of interaction in class made it difficult for Trent to connect with other students who could help him resolve his learning failures. Reflecting on the course, Trent explained, "There wasn't any group work at all. So, I took the Thursday night lectures and outside of class I didn't really know anyone. I literally knew one person from work and I would mention it to her sometimes. But I should've been more outgoing socially, studying with other people. I was just a little disappointed in my psychology class. I performed well in psychology, but the involvement of the class is what I was kind of disappointed in." His lack of group work and social interaction made it difficult for Trent to reach out to others for help with his learning failures. This suggests that group work may facilitate strengthened social interactions for struggling students seeking help with their learning failures.

*Professor benefits.* Although Trent struggled to understand the teaching and testing style of the professor, he did drop the lowest test grade, which compensated for some of Trent's learning failures. Trent said, "And the week before the final, he announced that he was going to drop our lowest exam, which was like, 'Hooray! That's the best news ever!' because I did really poorly on the first exam. I think I got a 72 on it because I didn't know his testing style." The boost to his course performance from the professor's dropped score policy encouraged Trent to continue resolving his learning failures in the course. This policy was beneficial because Trent had already identified and adequately evaluated his learning failures. Had he not been able to

understand his learning failures so well, dropping a low test grade may reduce a struggling student's motivation to resolve their learning failures. This suggests that professors may affect a struggling student's motivation to resolve their learning failures by instituting policies that support or impede their learning goals.

*Comparison.* Trent compared his performance to the performance of other students, which made him feel comfortable with how he was doing in resolving his learning failures. Talking about these comparisons, he reflected, "So, compared to other students in the class I think I did above average. I think it's because I'm a good writer on essays. I did not get the 100%—just above average. Some people really struggled on tests." Since Trent had performed better than others on the tests, he believed that he was at least as capable as other students in resolving his learning failures in the course. This boosted his confidence in his ability to resolve his learning failures and succeed in the class. This suggests that social comparisons that boost a struggling student's confidence in their ability to succeed may motivate them to resolve more of their learning failures.

*TA challenges.* Trent's experiences with the TA led him to believe that the TA was incapable or unwilling to help him resolve his learning failures. He recalled, "We had to write one paper. The TA graded my paper the first time. And it turns out that it wasn't part of my grade, it was just, 'This is what I would give you if I were grading your paper' and then you rewrite it. So, the TA was moderately helpful but in the lecture he wouldn't do anything." The TA did not perform the responsibilities in the course that Trent expected, which led Trent to believe he was incapable of helping Trent resolve his learning failures. This suggests that the way TAs perform their responsibilities in class may affect a struggling student's decision to seek help from them for their learning failures.

The lack of responsiveness from a TA led Trent to stop reaching out to him for help with his learning failures. Trent explained, "I emailed the TA once and he never responded. Yeah, he never did respond. It was about one of the test or quiz questions and I didn't know anyone that I could ask, so I just used the Internet. I think it was after the first test. He might have responded and I just didn't do anything about it. I don't know. I'll have to look. But I remember that there was a question on the quiz that bothered me and I sent him an email, but I don't think he ever responded." Trent tried to reach out to the TA because the TA was the established course resource for helping people with the learning failures. The TAs lack of response led Trent to believe that he was incapable of helping Trent resolve his learning failures. This suggests that TAs may be able to strengthen their ability to help struggling students resolve their learning failures.

*Peer influence.* Most students in the class had taken the course in high school and were not mandated to come to class, which limited the peer resources available to Trent. He recalled, "I didn't know anyone in the class and it was the same thing as math. The first day there's a ton of people and then attendance wasn't mandatory and so there's just little pockets of two or three people in the seats. Because if someone had taken psychology in high school—and actually that girl I was telling you about, she's in a different section, she said she had already learned everything when she had taken it in high school—the course itself wasn't necessarily difficult, it was just simple things. So a lot of people were only there to get the credit and then to take the final at the end—because, for some reason, the credits didn't transfer from high school or from another college." The result of the attendance policy was limited peer influence from those who could help Trent resolve his learning failures. This suggests that struggling students may be disadvantaged by course policies that make social participation optional for the more knowledgeable students.

*Lack of resources.* Trent had no confidence in the TAs or the professor, which made him feel like he was on his own to resolve his learning failures. He shared, "The TAs were there just to grade the papers and there was no lab. So it was literally you show up and listen to some lectures and then you take the tests do some readings." Trent continued, "I felt really alone in that class because the professor would just read the text book that we had to read the night before." Trent's perception of the professor and the TAs, coupled with his lack of experiences with other students in the course led him to feel like he had to resolve his learning failures all on his own. This suggests that struggling students may have a limited perspective about who can help them resolve their learning failures. If the professor and course TAs prove to be unhelpful, struggling students may assume that they are expected to resolve their learning failures on their own.

*Seating.* Trent was unable to find people to sit next to who could help him resolve his learning failures. He stated, "The eager students always sit in the front and the kids who don't care are in the back. And I always find myself somewhere in the middle. So, I just sat by myself. I tried to sit next to one of the pockets but then they stopped coming." As students stopped coming to class, Trent felt more alone and isolated from other students. He had low expectations for getting help from the remaining students to resolve his learning failures. This suggests that course seating patterns may influence a struggling student's access to peer and other course resources to help them with their learning failures.

## Trent—math

Synopsis of case: Trent struggled with math and its application before ever coming to BYU. He has never had a math teacher that helped him understand the purposes and uses for math. He has also struggled with the computer program answer inputs. Trent has struggled with the teacher's style. Trent's perception is that the only other students that come to class are the ones struggling. He had a friend who dropped the course, so then he didn't know anyone in the course. He has a roommate who took the class that helped him with the homework once. Trent also sat next to a student, Ryan, who helped him in the course. All of the students Trent knows that have taken the class have enjoyed it and he believes it's because they all loved math. Of the students in the class, Trent believes those who sit in the front get better grades. There are no TAs as far as Trent knows.

Uniqueness of case situation for phenomenon:

Trent blames the professor and all of his other math teachers, almost exclusively, for his math-related learning failures.

## Case Findings:

- I. Trent blames all of his math teachers for failing to help him understand the practical application of math, which has reduced his desires to resolve his math-related learning failures.
- II. Trent struggles with the professor's lack of pedagogical capacity, which has created learning failures for Trent.
- III. Trent expects more from the professor than he is delivering, which impedes Trent's ability to effectively evaluate and make attributions for his learning failures.
- IV. Trent's friends who have taken the course and enjoyed the teaching experience have led Trent to believe he just got a bad teacher, which is an unproductive attribution for resolving his learning failures.
- V. Trent struggles to understand the course concepts because of the way the professor relies on lecture and practice problems without a lot of feedback.
- VI. Trent feels like most of the other students in the course are in mathoriented majors, which makes him feel inferior and demotivated to resolve his learning failures.
- VII. The lack of interaction between students in the course makes it difficult for Trent to get help with his learning failures from other students.
- VIII. Students in the course do not use the electronic chat tool in ways that could help Trent resolve his learning failures.
- IX. The students who would be most helpful to Trent don't come because they already understand the material and attendance is not mandatory.
- X. The only students who show up to class are those who need to resolve learning failures like Trent.
- XI. Trent did not go to the labs or to the office hours because he felt like he should be able to resolve his learning failures on his own.
- XII. Trent was taking the course with a

	friend who dropped the course
	because the professor struggled so
	much to deliver his presentation of
	the course concepts.
	XIII. Trent is among a small handful of
	students who ask questions in the
	course, but most students do not ask
	questions.
	XIV. The professor is caught off-guard
	when students ask questions because
	he would prefer to just go through hi
	presentation slides.
	XV. Trent's roommate, who took the
	course last year, was able to help
	Trent resolve some of his learning
	failures.
	XVI. Trent was able to sit next to another
	student in the course who he could
	work with to resolve their mutual
	learning failures.
	VII. Trent feels that the professor did a
	poor job of answering questions and
	explaining course concepts.
	VIII. The professor talked to students in the
	class and got feedback he could use to improve his pedagogy.
	XIX. Trent perceives that all the other
	students in his course are bored and
	struggling with the course concepts.
	XX. Trent perceives that all of the
	successful students sit in the front of
	the class.
	XXI. Trent does not want to take the seat o
	someone sitting in the front because
	he believes it would socially
	awkward.
	XII. Trent perceives that where people
	choose to sit at the beginning of the
	course is where they will choose to si
	throughout the course duration.
	XIII. Trent is unaware of any TAs who are
	available in the course to help him
	resolve his learning failures.
	XIV. During the course, Trent's concept of
	success shifted from social
	comparison to personal achievement.
	XV.
ptional):	· · · · · · · · · · · · · · · · · · ·

- What characteristics and behaviors lead students to perceive other students are more competent than they are?

#### Commentary:

- The role of the professor is to clearly outline the problems of the discipline and then to guide students through a systematic exploration and resolution of representative problems. This includes didactic instruction, but it also includes hands-on guidance through practical experiences.
- When teachers make mistakes, it interferes with a student's identification of their learning failures because the student is left wondering whether the learning failure is their own fault or a mistake on the part of the professor.
- Students may feel more comfortable working together when they perceive that they are struggling with mutual types of learning failures.

Trent's Math course was Math 118, which covered the basic elements and applications of finite mathematics (retrieved July 5, 2016 from https://catalog.byu.edu/physical-and-mathematical-sciences/mathematics/finite-mathematics). Trent struggled with math and its application before ever coming to BYU. He never had a math teacher that helped him understand the purposes and uses for math. He also struggled with the course's computer program and its answer inputs. Trent struggled with the teacher's style and there were no TAs as far as he was aware. He had a friend who dropped the course, which meant that he did not have strong social relationships with anyone in the course. His perception was that the only students that came to class were the ones, like himself, who were struggling to resolve their learning failures. Trent also sat next to a student, Ryan, who helped him with his learning failures occasionally. The following major themes stood out in this case: Professor Challenges, Comparison, Group Work, Independence, Environment, Friend Influence, and Seating.

*Professor challenges.* Trent struggled to understand the course concepts and how they applied to his future career experiences. Speaking of the course, Trent explained, "I never liked math and I blame my teachers in part because I have never understood the point of math—it's literally someone making up a problem and making me solve it and I don't see any application in life. I've never felt that more than in this class that I'm in right now." The professors lack of

ability to help Trent see connections between course concepts and his career goals discouraged Trent from resolving his learning failures in the course. This suggests that struggling students may regulate their motivation to resolve their learning failures based on professor-facilitated connections between course concepts and the student's future career expectations.

Trent also had general difficulty learning from the professor. He explained, "And the teacher—he's a graduate student and he hasn't studied how to teach people, he studied math. And I don't blame him for it. I don't think teaching is his passion. I think it's a bad course design. I should have a math professor and if I don't like it, maybe I shouldn't be in the class." Trent continued, "I see the challenges as dealing with an unprofessional teacher and a crappy computer program to see if I will do it. Which I am. In that sense I am succeeding. I hope that's the attitude I'm supposed to have. I really like school, but my Math class is really rough." Trent believed that the professor lacked pedagogical training and that the course program the professor used was ineffective. As a result, Trent perceived that the professor was not capable of helping him to resolve his learning failures. This suggests that struggling students may evaluate a professor's ability to help them with their learning failures against the professor's pedagogical approaches, technological systems, and professional etiquette.

Trent also had experiences that led him to believe that the professor was unable to prepare him for the assignments and tests. Speaking of these experiences, Trent explained, "So there's times that we ask questions and he just says, 'I don't know. You just have to get ready for the test. I don't know what the test is going to look like. I can only guess'. So, totally not helpful at all." These experiences demonstrated to Trent that there were significant limits to the knowledge of the professor about the course structure. These experiences reinforced to Trent that the professor would not have sufficient understanding to help him prepare for tests or resolve his learning failures. This suggests that professors who demonstrate a lack of understanding about course structures may inhibit students from seeking their help to resolve their learning failures.

The professor's mode of instruction limited the amount of help Trent and others could get during the lecture. Explaining these challenges, Trent recalled, "In his teaching style, I feel like his objective is to cover the lesson rather than to teach the students. And so when he's going through the PowerPoint which he's giving, he just goes through it. And when we stop him and ask him a question, it kind of throws him back a little, and he has to think about it—but he does help us. And if not, he's just going to keep going through his PowerPoint slides." Although the professor demonstrated competence related to course concepts, his pedagogical deficits led to learning failures that Trent struggled to resolve on his own. This suggests that struggling students may need more time to ask questions of the professor in class to get help resolving their learning failures.

*Comparison.* Trent believed that he was the only student in the course who had not learned the course concepts in high school. Speaking of this comparative deficit, he said, "And in high school I never learned about matrices—I don't know if that's a college topic, but I've never dealt with them before and everybody else seems to have learned about them before. So I feel like I'm really behind. But that's not BYU's fault—that's just a handicap that I have." This comparison helped Trent identify his learning failures, but it also led him to exaggerate the difficulty of resolving the failures. This suggests that social comparisons may lead struggling students to inaccurately evaluate their learning failures and the effort required to resolve them.

In a conversation with friends from other sections of the course, Trent compared the experience he was having to the experiences of his friends. He recalled, "There's just graduate

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students teaching the different sections of the class. That's just what I've heard from my friends who have taken the class and they've all had graduate students teach the class. They loved it. They thought it was great. They were funny. I was just unlucky. It was the luck of the draw." This social comparison of his experiences to those of his friends led Trent to attribute his learning failures in the class to the deficiencies of his professor rather than deficits in his ability. This suggests that the social comparisons struggling students make may lead them to make attributions for their learning failures that are unproductive.

Talking about his perceptions of other students, Trent said, "And the material for me is really difficult because I've never worked with matrices, it's all new. A lot of people in there are going into engineering and math-like routes, so they have to take this class." Trent's social comparison of motives for taking the class led him to attribute his learning failures in the course to his lack of aptitude in math relative to the high math aptitude of his peers. Trent also saw math aptitude as the most significant aspect of other students' success in the course. This suggests that struggling students may use social comparisons to identify aptitude deficits when developing their attributions for their learning failures.

*Group work.* The lack of group work and interaction with other students made it difficult for Trent to get help from other students with his learning failures. Trent recalled, "There's not a lot of interaction between students. It's mainly just the person you're sitting next to. And in Learning Suite, they have the chat option. So some people are doing that but it's never really about the math. It's usually, "I don't remember if the professor said this or not, but is this homework due tonight?". That kind of stuff. There's no group work or anything." The lack of course structure supporting group work led Trent to struggle getting help from others to resolve his learning failures. This suggests that without explicit guidance, social course tools may not be used to facilitate struggling students getting help with their learning failures.

A non-mandatory attendance policy in the course also reduced the effectiveness of group work in the course. Trent shared, "I feel like with that class everyone is in it for themselves. The structure of the class has no group work and attendance doesn't matter. So I feel like if you're already comfortable with material it doesn't matter if you come. And if you're having a hard time with the material then it's up to you to figure it out and to come more often and put more effort into it. These people who get it could be showing up and could be helping out but they don't. So you're left with a group of students who are struggling." Even though Trent could have reached out to other students to get help, the fact that the attending students were also struggling made it difficult for Trent to get any real help with his learning failures from them. This suggests that course attendance policies may influence the quality of group work interactions and may reduce the effectiveness of help resources that struggling students have access to for help with their learning failures.

*Independence.* Trent wanted to resolve his learning failures on his own without getting help from the professor. He explained, "I have not gone to the labs and I have not done the office hours. It's just that mentality that I think I have where I just need to do it myself. And actually I was thinking about going to the Math Lab on Monday before I take the test on Tuesday. And in Math class I really wanted to ask some questions because I really don't understand it even though I sit in the front, but I just have never wanted to go in for help. I just feel like I should figure it out on my own." Even though Trent wanted to ask questions of the professor outside of class, he didn't. He decided instead to work to resolve his learning failures on his own because of a lack of confidence and connection with the professor. This suggests that

some struggling students may develop a mindset that they must resolve their learning failures without help in order to demonstrate their competence.

*Environment.* The people who attended class with Trent wanted to be there and wanted to learn, so that helped him to avoid distractions that would complicate his learning failures. He shared, "I feel like the people who would normally distract me in classroom settings, like with technology, just don't go. So, everyone who is in the room is like me and they actually want to be there and get something out of it. In class, there are people who kind of detract from the learning atmosphere, but other than that, those people just don't show up." The students who did not attend class were not present to distract Trent. This ability to focus on course content and stay engaged reduced the number of learning failures Trent experienced in the course. This suggests that the types of interactions struggling students experience with their peers in class may influence the number of learning failures they experience as a result of distraction and lack of engagement.

*Friend influence.* One of Trent's friend dropped the course, leaving Trent to question whether it was worth the effort to persist in the course and resolve his learning failures on his own. He explained, "My friend went in with me the first day and then dropped it because the teacher was blabbering through the PowerPoint and I decided to stick with it because I'm stubborn. So I don't know anyone in the class that I knew before. I've met a few people, but I haven't reached out to study with anyone outside of class. In that case, I'm doing it on my own." This loneliness affected Trent's motivation to resolve his learning failures. Since Trent's friend dropped the course, he was left to struggle alone with his learning failures. This suggests that a struggling student's motivation to resolve their learning failures may be influenced by the strength of their social connections to others in the course.

Although he was not taking the course at the same time, Trent's had a friend, Riley, who was able to help him work through some of his learning failures in the course. Trent explained, "My roommate, Riley, took it last semester so he helped me with some of the homework assignments. Riley is kind of a math person. He's accounting as well; I mean he's studying accounting. And he's taking Accounting with me right now—one of the roommates that's doing really well. And he was one of my really good friends growing up. I am better at writing and organizing, leadership—things that are people oriented. And he's calculus, math, the nitty-gritty stuff. I'm not like that." Trent perceived Riley as someone who enjoyed math and therefore capable of helping him resolve his learning failures. This suggests that struggling students may evaluate the capacity of others to help them resolve their learning failures by the person's explicit aptitudes and interests.

*Seating.* Trent believed that the eager students sat in the front of the class. Trent explained that he sat in the middle of the class. He recalled, "The eager students always sit in the front and the kids who don't care are in the back. And I always find myself somewhere in the middle. Sitting in the front means you won't have to redo the class—that's the mentality that I have. I think if you sit in the front that means that you're more devoted to it because the professor is just right there and it feels more personal when you're physically next to him. There's less distraction also. I feel guilty if I pull out my phone and he's right there." These social dynamics related to seating in the class revealed some of Trent's attributions for his learning failures. This suggests that struggling students may evaluate their academic ability based on where they sit in relation to other students in a class, potentially leading to ineffective learning failure attributions.

Trent also noticed a social competitiveness related to sitting in the front of the classroom. He explained, "If I choose to sit in the front right now then I'll probably take someone's seat. And that would just be awkward socially. Social awkwardness. Everyone in all of my classes always sits in the same spot." Trent believed that students who sat in the front of the class were better able to resolve their learning failures in the course. The added social dynamics related to taking another student's seat complicated Trent's evaluations and attributions for his learning failures. This suggests that interpersonal conflict may complicate the way struggling students evaluate and develop attributions for their learning failures.

## Worksheet 4

# Estimates of Ordinariness of the Situation of Each Case and Estimates of Manifestation of

## **Multicase Themes in Each Case**

### Amy cross-case

W = highly unusual situation, u = somewhat unusual situation, blank = ordinary situation M = high manifestation, m = some manifestation, blank = almost no manifestation

	Anatomy	Methods and Health Promotion	Backstory
Ordinariness of this Case's situation:			
Original Multicase Themes			
Professor Challenges	MW		
Professor Benefits		MW	
Expectations	MW		
Classroom Location	MW		
Friend Support	mu		mu
Group Work	mu	mu	mu
TA Support	mu		mu
Comparisons	mu		mu
Learning Support Staff		mu	mu
Anxiety and Confidence			MW
Parental Influence			MW
Sibling Influence		mu	mu
Spouse Influence			MW
Added Multicase Themes			
Perceptual Deficits	mu	mu	mu

High manifestation means that the Theme is prominent in this particular case study.

A highly unusual situation (far from ordinary) is one that is expected to challenge the generality of themes.

As indicated, the original themes can be augmented by additional themes even as late as the beginning of the crosscase analysis. The paragraphs on each Theme should be attached to the matrix so that the basis for estimates can be readily examined.

Differences in social influences across cases. Each of Amy's cases provided unique

aspects of the social influences that contributed to her learning failures. Amy's learning failures

in her Anatomy course highlighted differences in social interaction between the lecture section

and the lab section of the same course. Amy succeeded in the lab section, but failed to learn the

concepts in the lecture section. The key difference between sections was the strength of social

connections with peers, TAs, and the professor. Amy's learning failures in her Methods in Health Promotion course emphasized her tendencies to compare herself to other students and the role her advisors played in both helping to identify her learning failures and compensating for them. Amy's Backstory provided details of past social interactions, especially with friends, siblings, and parents, which gave context for her learning failures in her college courses.

*Cross-case social influence themes.* The themes from Amy's learning failure experiences in her Anatomy, Methods in Health Promotion, and Backstory cases were compared and contrasted to document their similarities and unique complexities. Through this analysis, additional themes were identified and included. This section reports on the following cross-case themes: Professor Mentoring, Expectations, Classroom Location, Friend Support, Group Work, TA Support, Comparisons, Learning Support Staff, Anxiety and Confidence, Parental Influence, Sibling Influence, Spouse Influence, and Perceptual Deficits.

*Professor mentoring.* Amy's perspectives about the lecture professor in her Anatomy course created expectations for learning failure in the course. In that particular course, her enthusiasm for the lab section was strong in spite of the poor experiences with the professor in the lecture section. Difficulties with the professor created learning failures for her while strong social connections with classmates and the TAs helped her resolve the failures. In the Methods in Health Promotion course her learning failures stemmed more from a general disengagement with the course than with the professor. In fact, the professor in that course was able to work with Amy to resolve her learning failures. In her Backstory, Amy makes no mention of specific challenges with her professors related to her learning failures. In general, however, when Amy struggled to understand and connect with her professors, she experienced more learning failures. These insights suggest that strong social relationships with professors may enhance a struggling

student's ability to comprehend course concepts, reducing the number of learning failures experienced in the course. It also suggests that professors may be able to influence a struggling student's engagement with course concepts through personal mentoring that may increase the student's ability to resolve their learning failures.

*Expectations.* In her Anatomy course, Amy was expecting learning failures because her peers had told her about the difficulty of the course. Amy's negative expectations played out in the lecture section of the course, but not in the lab section of the course. The strong social support in the lab section was sufficient to overcome her initial expectations of learning failures. In her Methods in Health Promotion course, Amy also expected learning failure to occur, but mainly due to her disengagement with the course content. In that course, her learning failures occurred through her own self-founded expectations and not by the influence of others. In her Backstory, Amy mentions many sources of social expectations for courses, including friends from high school, college peers, parents, siblings, and professors. These socially-generated expectations both contributed to and led to the resolution of Amy's learning failures. This suggests that several different types of social interactions may contribute to the complexity of a struggling student's expectations for success or failure in a given course. These expectations may also influence a struggling student's attributions for their learning failures and the student's decision to resolve or abandon them.

*Classroom location.* In her Anatomy course, Amy specifically mentioned sitting in an undesirable location in the classroom. Her location reduced her engagement in the course and made her unwilling to ask questions in class to resolve her learning failures. Although Amy did not mention details about her classroom location in the Methods in Health Promotion course, she was able to engage with the professor in a way that led to the resolution of her learning failures.

This suggests that the difficulties with the professor in the Anatomy course were complicated by her disadvantaged classroom location, whereas Amy's location played a lesser role in the Methods in Health Promotion course. In her Backstory, Amy does not mention the role of her classroom location in her learning failures. These insights suggested that classroom location might only contribute to a student's learning failures if the student has a weak social relationship with the professor that prevents them from seeking help with their learning failures.

Friend support. In her Anatomy course, Amy expressed a lack of connection with and support from friends in the lecture section of the course. However, in the lab section of the course she was able to connect with a small group of friends who provided one another with mutual support to resolve learning failures. This friend support, when combined with support from TAs and the professor, was especially effective in helping her resolve her learning failures. By contrast, Amy struggled in her Methods in Health Promotion course to connect with others to get help with assignments, which made it difficult for her to resolve her learning failures on her own. In her Backstory, Amy further stated that the influence of her friends in high school led to the development of her learning and career goals. This influence, which was strong initially, was not sufficient for her to persist through her learning failures. Amy eventually abandoned her learning failures associated with the initial medical field orientation of her learning and career goals, shifting to something related, but inherently different. Thus, the support of friends in Amy's experiences was key to both the formation of her learning goals and the resolution of her learning failures. These points suggest that struggling students may set their learning goals based on modeling and recommendations from peers. It may be also that the support that struggling students receive from their friends in a given course influence the student's motivation to resolve their learning failures.

*Group work.* In her Anatomy course, Amy had success engaging the course content and resolving her learning failures by working in a small group. In particular, her small group provided support to her while working in the lab section of the course. She makes no mention of similar group interaction in her Methods in Health Promotion course. However, in her Backstory, Amy made the observation that working with other people in various courses helped her to understand course concepts and to work through her learning failures. Group work even strengthened her engagement in the course. These small groups seem to facilitate opportunities for Amy to ask questions of her peers to get answers and identify resources to help her resolve her learning failures. The students in these groups also encouraged her, thus strengthening her motivation to resolve her learning failures. This suggests that courses with structured group work may provide the support struggling students need to resolve their learning failures.

*TA support.* Amy's experience with the TAs in the Anatomy course was very helpful in that they helped her work through her learning failures in the course. They were also consistently available to her as a resource. In her Backstory, Amy explained that she perceived a greater intrinsic motivation to resolve her learning failures and to learn the course concepts when she worked with the TAs. In the Methods in Health Promotion course, Amy did not mention working with TAs. This lack of connection with the TAs may have contributed to the abandonment of her learning failures in that course. These insights suggest that TAs may be most effective in helping struggling students resolve their learning failures when they are consistently available during the entire course to work with individual students.

*Comparisons.* Amy had completely opposite social experiences in the lecture and lab sections of her Anatomy course. In the lecture section her social comparisons led her to feel unprepared and anxious whereas in the lab section they led her to feel energized and intelligent.

In the lecture section she felt that there were so many people and that they were all better prepared than she was. In the lab section, she perceived that she had a small, dedicated support group to help her resolve her learning failures. In her Backstory, Amy further realized that there are no perfect students and that the appearance of their perfection is a facade. When she honestly assessed her own conceptual ability independent of comparisons, she admitted feeling above average in her abilities to learn and apply course concepts. Even so, her past mistakes led her to doubt her future potential and abilities. This doubt led her to develop a competition ethic when making comparisons to her classmates, focusing on their successes relative to her failures. These comparisons affected her self-confidence and motivation to resolve her learning failures. She would see others mastering difficult concepts, which would motivate her to attempt to resolve her own learning failures. However, she would abandon these attempts because she was not experiencing the degree of success that she perceived others in her courses were experiencing. Thus, when Amy perceived she was succeeding more than her peers in resolving her learning failures, she continued to attempt to resolve them. When her comparison demonstrated a relative lack of success, she would abandon them. These insights suggest that struggling students may be able to make more productive social comparisons of academic ability and success in small groups rather than in large classes. This may also mean that struggling students may make more helpful social comparisons that influence their evaluations of their learning failures when interacting in small, intimate groups rather than in large, impersonal class sessions.

*Learning support staff.* When Amy was struggling in her Methods in Health Promotion course, she took the opportunity to meet with her internship supervisor who was able to help her find a way to fulfill the course requirements in a modified way. Because of this intervention, Amy was able to resolve her learning failures in the course she had previously thought were

unresolvable. In her Backstory, Amy explained that she was required to meet with academic support personnel who helped her to identify and work through her learning failures and to talk through her difficult experiences. Amy cites these conversations as key to helping her evaluate her learning failures and to make progress in resolving them. These conversations with the support staff also helped her clarify and modify her learning goals, which allowed her to strategically abandon those learning failures that did not align with the new goals. Although Amy did not explicitly make the connection, due to these new learning goals, some of the learning failures she abandoned were from her Anatomy course. This suggests that support staff may best help struggling students to resolve their learning failures by dialoguing with the student to help them evaluate the failures. It may also be that struggling students will identify more learning failures or shift their learning failure attributions in the course of the dialogue.

Anxiety and confidence. In her Backstory, Amy explained that she had felt anxious about how others perceived her learning abilities since grade school. She was embarrassed by the poor grades on her college transcript and she felt anxious when she could not resolve her learning failures on her own. However, when she did resolve her learning failures, she developed confidence in her ability to resolve her failures in the future. This confidence extended itself to helping others in the course to resolve their learning failures. In her Anatomy course, Amy worked with and supported her small group in the lab section of the course providing encouragement and working with them to resolve the learning failures of the group. In the Methods in Health Promotion course, Amy struggled to resolve her learning failures on her own and experienced anxiety about fulfilling the course requirements, as well as about what others thought about her abilities. These experiences suggest that struggling students may develop greater confidence in their ability to resolve their learning failures as they successfully resolve other learning failures. It also suggests that the strategic resolution or abandonment of learning failures may be influenced by a struggling student's personal confidence in their ability to resolve their failures—either on their own or with help from others.

*Parental influence.* Amy's father and mother primarily influenced her learning goals. From her Backstory, Amy explained that her father was her professor in her first course in college and that he helped shape her learning goals to pursue a teaching emphasis. This influence from her father confirmed Amy's pursuit of new learning goals and allowed her to feel socially supported in abandoning her former learning failures. By contrast, Amy's mother served as a role model of contradistinction. In the beginning of her college career, Amy saw her mother's life experiences as the least that she, herself, could attain. Amy wanted to do more than her mother had done in terms of intellectual attainment. In her Backstory, Amy identified the deficits of her mother's intellectual involvement in her own life and wanted to provide more to her children than her mother had provided for her. This desire pushed her to resolve her learning failures on her own as much as possible. Amy wanted to do more with her life than she had seen her mother do. This desire pushed Amy to set ambitious learning goals and to work hard. These insights suggest that parents may provide complex modeling and mentoring to struggling students that affect the student's decisions to resolve or abandon their learning failures. Supportive mentoring from parents may help struggling students develop the motivation they need to resolve their learning failures. However, parental modeling that contradicts a struggling student's learning goals may lead them to abandon those learning goals promoted by the modeling.

*Sibling influence.* In describing her learning failures associated with her Methods in Health Promotion course, Amy explained that they were due in part to experiences with her

siblings. She felt that she was unable to make a convincing argument when debating with her siblings prior to college. These deficit experiences led her to feel incapable of resolving her learning failures related to debate-oriented skills in the course. It's possible that there were also similar experiences with her siblings that created expectations for Amy related to her learning failures in the Anatomy course. However, in her Backstory Amy further explained that rather than compete with her siblings, she sought to distinguish herself from them by establishing unique learning and career goals that would make her different. This necessarily led Amy to learning failures her siblings could not help her resolve, meaning they were no longer a resource to her. In another sense, Amy looked specifically to her sisters and their academic experiences as a model for her own experiences. Because she saw that they had been able to start a family and continue in school, she felt she would be able to do the same. They were able to resolve their learning failures in their courses despite the new roles and responsibilities associated with family life and bearing children—so she should be able to do so as well. This suggests that siblings of struggling students may provide both modeling and support that influences the student's decision to resolve their learning failures. In one sense, this sibling modeling may influence the initial learning goals that students set, which goals may later be challenged as learning failures are identified.

*Spouse influence.* Once Amy got married, she explained in her Backstory that she developed a stronger motivation to resolve her learning failures and to finish college sooner. Considerations related to having children and attending graduate school became factors to her learning goals. These considerations influenced which learning failures she resolved and which she could abandon and still complete college. Although not specifically mentioned in her Anatomy or Methods in Health Promotion cases, these considerations certainly influenced

Amy's strategic decisions for all her learning failures. It reveals that struggling students who are married may make decisions to resolve or abandon their own learning failures based on the advice or mutually negotiated family goals set in the marriage.

*Perceptual deficits.* Amy consistently perceived deficits in her ability to resolve her learning failures. In the Anatomy course, her deficits were substantiated by her observations of the successes of others. In the Methods in Health Promotion course, her deficits were substantiated by her inability to resolve her learning failures on her own. In her Backstory, it was interactions with her peers, parents, and other teachers that led her to perceive deficits in her learning goals and her abilities to resolve her learning failures. These perceived deficits were contextualized within specific, limited experiences and then generalized by Amy to the rest of her experiences. The generalization of these deficits to all of her learning experiences may have led Amy to erroneously underestimate her abilities and her capacity to overcome her learning failures. This suggests that some students may overgeneralize the effects of their learning failures in one learning domain to another, which may reduce their motivation to resolve their learning failures in these other domains.

#### Jason cross-case

	ASL	Backstory
Ordinariness of this Case's situation:		
Original Multicase Themes		
Parental Influence		MW
Professor Benefits		MW
Professor Challenges	MW	
Advice		MW
Peer Influence	mu	mu
Embarrassment	MW	
Past Experience	MW	
Added Multicase Themes		
Social Goal Modification	mu	mu

W = highly unusual situation, u = somewhat unusual situation, blank = ordinary situation M = high manifestation, m = some manifestation, blank = almost no manifestation

High manifestation means that the Theme is prominent in this particular case study.

A highly unusual situation (far from ordinary) is one that is expected to challenge the generality of themes.

As indicated, the original themes can be augmented by additional themes even as late as the beginning of the crosscase analysis. The paragraphs on each Theme should be attached to the matrix so that the basis for estimates can be readily examined.

Differences in social influences across cases. Jason's cases provided two different

perspectives about social influences related to his learning failures. First, his learning failures in the ASL course were abandoned based on conversations with classmates. These interactions made it socially acceptable to give up on his initial learning goals. Second, Jason's social interactions in his Backstory emphasized how completely he relied on input from others to form his learning goals. He described the influence of his mother, his peers, and even perceptibly successful individuals and how their advice shaped his decisions to form learning goals and to strategically abandon certain learning failures.

*Cross-case social influence themes.* The themes from Jason's learning failure experiences in his ASL and Backstory cases were compared and contrasted to document their similarities and unique complexities. Through this analysis, additional themes were identified

and included. This section reports on the following cross-case themes: Parental Influence, Professor Benefits, Professor Challenges, Advice, Peer Influence, Embarrassment, Past Experience, and Social Goal Modification.

**Parental influence.** Jason's central parent influence related to his learning failures came from his mother. In his Backstory, Jason explained that his mother used to help him resolve his learning failures when he was still in grade school. She also provided coaching and guidance to him as he developed learning and career goals. She pushed him to accomplish as much as he could. Jason also explained that she would encourage him to work hard to resolve his learning failures and not to settle for less than he wanted. This persistent pushing from his mother led Jason to join clubs and to ultimately change his major to something more suited to his talents and interests. This shift in learning goals led Jason to abandon his failures in courses related to his previous major. In his ASL course, however, there was no mention of parental involvement or support. Jason's motives for taking the ASL course were intrinsic and rooted in other life experiences. Whereas Jason's mother had helped him identify and resolve his learning failures earlier in life, her role shifted to guidance and mentoring when he entered college. This all suggests that a struggling student's parents may have more influence with learning failures related to career goals than with those failures related to personal interests. It may be that parental influence operates this way because the primary parent role is modeling successful goals and achievement for their struggling student in a way that motivates the student to persistently resolve their learning failures.

*Professor benefits.* In his Backstory, Jason explained that there were certain professors who helped him develop the capacity and motivation to work through his learning failures. They were able to help him by providing three specific services: (a) helping him make conceptual

connections related to course concepts, (b) debunking his fears about his learning failures, and (c) helping him strategically select which learning failures he would resolve and which he could abandon. Jason makes no mention that his ASL professor did any of these three services for him. It is assumed that when his professors did offer these services, they enabled Jason to identify and resolve his learning failures more successfully. This suggests that these three services may be key roles professors can use to assist struggling students resolve their learning failures.

*Professor challenges.* In his ASL course, Jason struggled to learn ASL grammar from the professor mainly because of a lack of helpful feedback. Jason's perception was that the feedback he did receive from the professor was inconsistent and unhelpful. Additionally, there were times when he felt he could have been productively corrected in his grammar by the professor, but wasn't. Jason makes no mention of similar expectations or experiences with other professors in his Backstory. He stated that he could have learned ASL grammar better had the professor been more effective and consistent in providing useful and relevant feedback. This principle of feedback would likely apply to his learning failures in other courses. This suggests that professors may be able to assist struggling students to work through their learning failures by providing the student with clear, timely feedback related to their failures. This kind of personalized interaction with the instructor may best take place in performance exams with the struggling student, which may also help them identify additional learning failures.

*Advice.* Jason looked for career and learning goal advice from others. In his Backstory, he mentions an experience during a summer job where he received advice from a man he perceived to be wealthy and successful. The advice led Jason to consider a larger variety of career and learning goals, enabling him to abandon some of his unresolved learning failures. In

his ASL course, Jason does not mention taking advice from anyone related to his goals in the course or the way the course would figure into his future career. In the ASL course, Jason's learning goals did not connect with any future career goals, but instead with his personal goals. This may have been why he did not seek advice regarding his learning failures in the course, but chose instead to abandon them. Jason's primary motive for seeking advice about his career seemed to be that he was unsure of which learning goals would enable him to achieve his career goals. The advice sought allowed him to navigate the uncertainty with greater confidence.

*Peer influence.* Jason's peers influenced his learning failures in three primary ways: (a) in the selection of learning and career goals, (b) in greater engagement with activities related to his learning and career goals, and (c) in the strategic abandonment of unresolved learning failures. In his Backstory, Jason relates that his close friends advised him to explore communications majors, which led him to eventually switch to his PR major. These conversations led to greater involvement with PR activities, helping Jason to further clarify and solidify new learning goals. These new learning goals led Jason to abandon unresolved learning failures related to his previous exercise science major. In his ASL course, Jason explained that he also abandoned unresolved learning failures. With his ASL learning failures, Jason identified with a group of girls who were abandoning their failures in the course for various reasons and so he felt socially supported in abandoning his own failures. Thus, it appears that Jason's peers influenced his learning failures in different ways depending on the nature of his learning goals whether they were related to personal or professional pursuits. This suggests that peer influence on a struggling student's learning failures may depend on the nature of the learning goals themselves-whether they are personal enrichment goals or career oriented goals.

*Embarrassment.* Jason mentioned feeling embarrassed when he was demonstrated his skills in an ASL performance exam. There is no corresponding mention of embarrassment anywhere in his Backstory. The source of the embarrassment in the ASL course was the public nature of his learning failure identification. By contrast, Jason's Backstory suggested that he was able to identify his learning failures and resolve them in private or in consultation with trusted friends and family members. Thus, it appears that Jason preferred to identify his learning failures in private rather than have them revealed in public. This suggests that a struggling student's level of comfort with public failure may influence how they are willing to identify and evaluate their learning failures. It may also be that students who identify their learning failures in public might suffer from embarrassment or shame that negatively impacts their motivation to resolve their learning failure.

*Past experience.* In his ASL course, Jason stated that his primary motivation for taking the course and learning content could be traced back to experiences he had with a man in Micronesia. These previous social experiences influenced Jason's learning goals, but were insufficiently strong to motivate him to resolve his learning failure in the course. Similarly, Jason's past experiences with math teachers in grade school led him to avoid learning and career goals related to math. These previous experiences were sufficiently strong to motivate him to avoid learning failures related to math. These previous experiences were sufficiently strong to motivate him to avoid learning goals and resolving learning failures related to math. This suggests that the positive or negative nature of past social interactions may influence the learning goals established by struggling students, which may also determine how the student experiences their learning failures.

*Social goal modification.* In the ASL course, Jason's classmates influenced him to abandon his learning failures as well as his learning goals in the course. In his Backstory, Jason

shared several instances where other people influenced the setting and abandonment of his learning goals and learning failures. The degree of modification or abandonment seemed to depend on how many people were influencing Jason as well as the nature of his learning goals. If they were personal goals, Jason was more easily persuaded to abandon them—as in the case of Jason's goal to learn ASL grammar. If the learning goals tied clearly to his career goals, he needed much more persuasion—as in the case of switching his major to PR. This suggests that the nature of a struggling student's learning goals, whether they are for personal enrichment or are preparation for future career roles, may influence the degree to which others are able to persuade them to resolve or abandon their learning failures and to modify their learning goals.

## Trent cross-case

	Psychology	Math	Accounting
Ordinariness of this Case's situation:			
Original Multicase Themes			
Friend Influence	mu	mu	mu
Professor Challenges	mu	mu	mu
Professor Benefits	mu		mu
Group Work	mu	mu	mu
Comparison	mu	mu	mu
TA Challenges	mu		mu
Seating	mu	mu	mu
Parental Influence			MW
Added Multicase Themes			
Rejection of Social Perspectives	mu	mu	mu

W = highly unusual situation, u = somewhat unusual situation, blank = ordinary situation M = high manifestation, m = some manifestation, blank = almost no manifestation

High manifestation means that the Theme is prominent in this particular case study.

A highly unusual situation (far from ordinary) is one that is expected to challenge the generality of themes.

As indicated, the original themes can be augmented by additional themes even as late as the beginning of the crosscase analysis. The paragraphs on each Theme should be attached to the matrix so that the basis for estimates can be readily examined.

*Differences in social influences across cases.* Trent's cases each emphasized the role of peer interactions, but the nature of the interactions were slightly different in each case. In his Accounting course, Trent worked well with a small group of students who helped him identify and resolve some of his learning failures. In his Math course, Trent was able to work with another classmate and a roommate who were able only occasionally to help him work through his learning failures. In his Psychology course, Trent was unable to work with any of his peers and was left to work through his learning failures on his own. The differences in peer interactions were underscored by a consistent lack of engagement with TAs and a lack of personal connection with his professors.

*Cross-case social influence themes.* The themes from Trent's learning failure experiences in his Accounting, Psychology, and Math cases were compared and contrasted to document their similarities and unique complexities. Through this analysis, additional themes were identified and included. This section reports on the following cross-case themes: Friend Influence, Professor Challenges, Professor Benefits, Group Work, Comparison, TA Challenges, Seating, Parental Influence, and Rejection of Social Perspectives.

Friend influence. In his Psychology course, Trent's positive anticipation from the course came from his friends in high school who had positive experiences themselves with their high school psychology course. His learning failures in the college psychology course violated Trent's initial expectations for the course and led him to shift his learning goals and abandon his failures. Even alternative perspectives about the course from a friend in a different section were insufficient to motivate him to work through his learning failures. In his Math course, Trent was taking the course with a friend who dropped it early on in the semester. This left him feeling that he had to work through his learning failures in the course alone. He did have a roommate, Riley, who had taken the course and who was able to help him. Trent was also able to sit next to another struggling student named Ryan who helped him occasionally. This support from friends helped Trent work through his learning failures more successfully than in the Psychology course-even though Trent expressed his lack of past success and his personal deficits related to math courses. Whereas he felt alone in the Psychology course, he was able to connect with friends to help him with the Math course learning failures. In a similar experience, Trent was able to work with a small group of friends in his Accounting course who helped him work through his learning failures. One of the members of the group had also failed the course before, providing Trent with a model of academic resiliency that he could emulate if he were

unsuccessful in resolving his learning failures. This was unique to his Accounting course as no such peer modeling was mentioned in relation to his Math and Psychology courses. Without a peer model for failure, Trent expressed more reservations about repeating his Math and Psychology courses. In the Accounting course, Trent also explained the study habits of his friends and why they would not work for him. In doing so, he concluded that his learning failures must be inherently different from their failures and that they could not serve as a source of help to him. This was in contrast to the help he was getting from friends in the Math course. Thus, it seems that in courses where Trent was able to connect with friends and experience learning failures similar to theirs, he was able to get help from them with his failures. If he perceived his learning failures to be inherently different from those of his friends, he stopped using them as a resource for resolving his failures. This suggests that struggling students may get the most help from peers whose learning failures are similar to their own. If the learning failures are too different, the struggling student may not rely on them as much for help with the failures.

*Professor challenges.* Trent's professors contributed to his learning failures in three distinct ways: (a) by their expressed lack of interest in his success, (b) by their failure to share their own contributions to the course material, and (c) by their lack of clarity about their test content. In the psychology course, the professor explicitly told students he was not interested in their success, only in his contractual agreement to teach the course. He also mentioned that he was not willing to negotiate points in the course, which discouraged Trent from approaching him for help with his learning failures. In the Math course, Trent perceived that the professor was more interested in working through his lecture presentation than in helping students learn. By contrast, Trent felt that his Accounting professor was very interested in student success and

provided opportunities for students to get help with their learning failures. Trent also characterized his Accounting professor as well-organized and insightful during lectures. By contrast, Trent criticized both his Math and Psychology professors for delivering rote presentations during their lectures, failing to make relevant contributions to the course. He struggled to learn the course concepts from these lectures, leading to additional learning failures. Trent also struggled with the testing styles for each professor, due to a lack of clarity about content and test construction. This combination of challenges with his professors made it more difficult for Trent to identify, evaluate, and get help with his learning failures in these courses. This suggests that struggling students may be willing to get help with their learning failures from professors who demonstrate genuine interest in their personal and professional success. It may also be that struggling students evaluate a professor's capacity to help them with their learning failures by how they make original conceptual contributions within their lectures.

*Professor benefits.* Even though Trent struggled with several aspects of his professors' teaching and testing styles, there were aspects of their teaching styles that helped him resolve his learning failures. In his Psychology course, the professor instituted a policy dropping the lowest test score—enabling Trent to recover from part of the negative grade impact caused by his learning failures. In the Accounting course, the professor was able to provide good structure to the assignments as well as extra study aids that helped Trent work through his learning failures. She also expected students to come to class thoroughly prepared from the take home assignments, paused often, and encouraged group interaction—all of which gave Trent ample opportunities to identify, evaluate, and get help with his learning failures. By contrast, Trent did not mention any such benefits provided by his Math professor. This suggests that professors may be able to help their struggling students to work through their learning failures by

maintaining high expectations for learner preparation. They may also help their students work through their learning failures by instituting course policies and clear course structures that give their students multiple opportunities to recover from their failures.

Group work. There were no assignments or opportunities for Trent to engage in group work in his Psychology course. He also experienced this same lack of group interaction in his Math course. Trent cited the lack of mandatory attendance policies in his Psychology and Math courses for the lack of group work in those courses. When successful students did not attend class, they were unavailable to help Trent and the other struggling students work through their learning failures. To compensate for the lack of group work in his Math course, he tried to sit up front in the classroom by other students who were interested in asking questions during the lectures to resolve their learning failures. This group made it socially acceptable for Trent to ask questions to resolve his learning failures. By contrast, Trent worked closely with a small group in his Accounting course. Trent's exclusive work with this small group limited his access to expertise from other students who could have worked with him to resolve his learning failures. This suggests that struggling students may benefit from small group work when the group possesses the resources to help the struggling student resolve their learning failures. It may also be that the group helps the struggling student more when the nature of the learning failures of the group members is similar enough that they collaboratively work to resolve them. Conversely, if the group lacks the resources or mutual natures of their learning failures, it may become a hindrance to the struggling student's efforts to resolve their learning failures.

*Comparison.* Trent made both positive and negative comparisons between his performance and the performance of other students in his courses. In his Psychology course, Trent perceived his performance to be better than that of his peers. This comparison gave him

satisfaction regarding the resolutions of his learning failures in that course. By contrast, he perceived his performance to be inferior to that of his peers in his Math and Accounting courses. In his Math course, Trent perceived that the other students had covered the course concepts in prior courses, including high school courses. He also perceived that they were having an easier time with the course concepts than he was because of their native math ability, which believed he lacked. Trent made similar conjectures about his relative performance in his Accounting course, but he also experienced significant expectation failures when he thought he had performed well but received poor grades on tests. These expectation failures stood in contrast to his peers who expected to perform well on the tests and received high grades. These social comparisons, both the positive and the negative, appeared to have two key influences on Trent's learning failures. The first was that the comparisons led Trent to believe there was something inherently flawed about his conceptual ability in the courses. His attributions for the learning failures were stable and internal, leading him to believe he could not resolve them on his own. The second was that the comparisons and his attributions for his learning failures made it difficult to identify the underlying reasons for his failures. His superficial attributions led him to reason that his learning failures were due to insufficient teaching and poorly worded test questions on the part of the professor, which played against his personal inadequacies. All of these influences made is more difficult for Trent to identify and resolve his learning failures. This suggests that struggling students may make social comparisons that based on their perceptions of their relative performance on related learning goals. These social comparisons may strengthen or challenge the struggling student's attributions for their earning failures. These attributions may also affect the student's decision to resolve or abandon their learning failures.

*TA challenges.* In all three cases, Trent struggled to get help from the course TAs. In the Psychology course, the TA provided only superficial advice and failed to respond adequately to Trent's questions. In the Accounting course, Trent and his friends asked questions of the course TAs that they were unable to answer. Trent also had an additional negative experience in the Accounting course with a TA who demonstrated a complete lack of interest in helping him with a technical issue. Trent made no mention of interactions with TAs in the Math course, only that he believed there were no TAs and that he had no desire to work with them. These negative experiences hurt Trent's confidence in the ability of a course TA to help him resolve his learning failures, limiting the support resources available to him. This suggests that struggling students may be willing to approach course TAs for help with their learning failures if the TAs demonstrate that they are both willing and capable of helping with the failure. If the struggling student perceives that a course TA is unwilling or unable to help them with their learning failure, they may avoid asking them for help.

*Seating.* Where Trent sat in a class affected his learning failures because seating determined who was available to influence him. In his Psychology course, he explained that it was difficult to find people to sit next to who could help him with his learning failures. He explained that sitting in the front of the classroom would have provided access to engaged, helpful students, but that it was socially awkward to try to sit with them after the semester started. Trent explained that this same pattern was present in the Math and Accounting courses. However, in the Psychology and Math courses Trent expressed feeling alone and moving around to try to find people to work with on his learning failures. In the Accounting course he was able to find a helpful group of friends to sit with, which meant that it did not matter where the group sat, as long as they sat together and helped each other. Even so, Trent still expressed a degree of

social anxiety related to asking questions in the Accounting course during the lectures. He did not want to ask questions that others would perceive as obvious or remedial, especially compared to the questions asked by those sitting in the front of the classroom. Trent also explained that the lack of mandatory attendance policies in the Psychology and Math courses exacerbated these seating dynamics because only the struggling students would attend. Thus, seating influenced Trent's access to other students who could work with him to resolve his learning failures. This suggests that struggling students may gain access to help with their learning failure from students that are more knowledgeable by strategically selecting their seats early in the course. It may also be that struggling students need to move their seating around more often to sit next to students who can help them resolve their learning failures.

*Parental influence.* Trent talked with his parents about the possibility of repeating courses related to his business major. He sought their advice, but also their confirmation, in making decisions as to what learning failures he would resolve and which he would abandon. Unlike his experiences in the Psychology and Math courses, Trent's father also provided a model of success in his Accounting course. The business experiences of Trent's father gave Trent a sense of the types of uses for the Accounting course concepts. This led Trent to set learning goals in the course that he could clearly connect to useful career skills. These clear learning goals and his father's model of success motivated Trent to resolve his learning failures in the Accounting course in a stronger way than in the Psychology and Math courses where no modeling was present. Thus, Trent's motivation to resolve his learning failures was stronger in courses where he had a personal model of success that connected his learning goals to his anticipated career needs. This suggests that parents of struggling students may help them resolve their learning failures by providing positive modeling that guides the student to set meaningful

learning goals. It may also be that this parental modeling helps struggling students evaluate their own learning failures more productively, helping them resolve the failures.

**Rejection of social perspectives.** Despite attempts made by peers to share alternative perspectives about course structures, learning failures, and course concept presented in his cases, Trent consistently rejected perspectives that contradicted his own perspectives. In the Psychology course, Trent's friend from work expressed that she enjoyed the course and the professor, which contradicted his experience. In the Math course, Trent's roommate Riley expressed really enjoying and succeeding in the course while Trent struggled significantly. In both these courses, Trent's reaction to these contrary social perspectives was to dismiss them or attribute them to personal characteristics of the individual. In the Accounting course, Trent made similar rejections of social perspectives based on his perceptions of classmates' experiences rather than on their explicit statements. Once more, he attributed their contrary experiences to their personal characteristics and aptitudes when discounting their experiences. These rejections of contrary social perspectives represented a complex interplay of Trent's identification, evaluation, and attributions for his learning failures. The contrary perspectives and experiences of his classmates confused Trent about whether he had experienced a learning failure, why it may have occurred, and what the implications of the failure were. This suggests that struggling students may have a difficult time resolving discrepancies between their personal experience and the shared experiences of classmates related to their learning failures. These social discrepancies may complicate the struggling student's ability to identify, evaluate, and resolve their learning failures.

## All-participant cross-case

	Amy Backstory	Amy Methods and Health Promotion	Amy Anatomy	Jason ASL	Jason Backstory	Trent Psychology	Trent Math	Trent Accounting
Ordinariness of this Case's situation:								
Original Multicase Themes:								
Professor Connections		mu	mu	mu	mu	mu	mu	mu
TA Interactions	mu		mu			mu		mu
Parental Influence	mu				mu			mu
Sibling Influence	mu	mu						
Spouse Influence	MW							
Supportive Others	mu	mu			mu			
Comparison	mu		mu			mu	mu	mu
Group Work	mu	mu	mu			mu	mu	mu
Classroom Seating			mu			mu	mu	mu
Course Expectations	mu		mu			mu		
Anxiety	mu			mu			mu	mu
Rejection of Contrary Perspectives						mu	mu	mu

W = highly unusual situation, u = somewhat unusual situation, blank = ordinary situation M = high manifestation, m = some manifestation, blank = almost no manifestation

High manifestation means that the Theme is prominent in this particular case study.

A highly unusual situation (far from ordinary) is one that is expected to challenge the generality of themes.

As indicated, the original themes can be augmented by additional themes even as late as the beginning of the crosscase analysis. The paragraphs on each Theme should be attached to the matrix so that the basis for estimates can be readily examined.

Differences in social influences across cases. The full cross-case analysis of all eight

cases identified four differences regarding the social influences related to learning failure. First,

each participant had different degrees of personal interaction with peers when resolving their

learning failures. Amy's social anxiety made it difficult to connect with peers, but when she did,

she was able to more successfully work through her learning failures. Jason never discussed

working with peers to resolve his learning failures. Trent worked with a small group of peers to resolve his learning failures in one course, but he did not engage the students in his courses. Second, each participant had different experiences with TAs in their courses. Amy was able to work through many of her learning failures because of her interactions with the TAs. Jason never mentioned working with TAs to resolve his learning failures. Trent only expressed frustration related to getting help with his learning failures from TAs.

Third, there were differences in how social influences led to learning goal and learning failure abandonment. Amy formed learning goals based on peer influence as well as reaction against the learning goals of her siblings. Jason formed learning goals based on personal experiences and recommendations from others but he also justified abandoning learning failures through these same interactions. Trent formed learning goals primarily by attention to the modeling and encouragement of his parents and rejected the learning goals of peers and others he saw as having different skills and aptitudes than he possessed. Fourth, the participants drew different conclusions from their social comparisons to their peers. Amy concluded that her learning failures were unique and that she was one of a few students who struggled in her college courses. Jason's perspective was that other students were firmer in their learning goals and that he was less confident because of his learning failures. Trent's social comparisons led him to conclude that other students were different from him in their learning goals and aptitudes and that his learning failures were due to these differences.

*Cross-case social influence themes.* The themes from each participant's learning failure experiences in all eight analyzed cases were compared and contrasted to document their similarities and unique complexities. Through this analysis, additional themes were identified and included. This section reports on the following cross-case themes: Professor Connections,

TA Interactions, Peer Influence, Parental Influence, Sibling Influence, Spouse Influence, Supportive Others, Comparison, Group Work, Classroom Seating, Course Expectations, Anxiety, and Rejection of Contrary Perspectives.

**Professor connections.** All three participants related that poor social connections with their professors resulted in more learning failure. Poor social connections typically consisted of a lack of opportunities to ask questions in class or during office hours, difficulties understanding their explanations and examples during lectures, a lack of feedback, and a general lack of personal interest in student success. Trent had the highest expectations for professor interactions and was the most disappointed participant. Amy was the most intimidated to approach her professors to get help with her learning failures. Jason got the least benefit from interactions with his professors. The most beneficial interactions with professors across all participants included policy changes that mitigated the impact of learning failures, strong course structure and scaffolding, explicitly addressing fears related to learning failures, making connections between course concepts and the expected career activities of the students, and opportunities to personally ask questions of the professor in a one-on-one setting. Trent and Amy benefitted most from the policy changes that mitigated or compensated for their learning failures. Jason benefited most when his professors could help him make connections to future career activities. This suggests that professors may provide personalized feedback and structure course policies in ways that give struggling students time and guidance to recover from their learning failures. It also suggests that the struggling students may expect professors to function in an advising and resolving capacity relative to their learning failures—not just in a lecturing capacity.

*TA interactions.* Trent and Amy mentioned TA interactions specifically while Jason did not. Trent's experiences in his three cases suggested that course TAs were unhelpful and

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unresponsive. He had no confidence in their ability or desire to help him resolve his learning failures. By contrast, Amy explicitly shared positive experiences with TAs. Her positive experiences were due to consistent, personal contact with the TAs in her labs as she worked with them to resolve her learning failures. TAs, when perceived to be helpful and available were able to effectively work with students to resolve their learning failures. This contrast in perceived helpfulness of course TAs may be due to the struggling student's personal relational style. Trent expressed his perception that he was expected to work through his learning failures on his own. Amy, by contrast, expressed that she was unable to resolve her learning failures, which suggested that he struggled to evaluate the failures. This poor learning failure evaluation may have left Jason confused about whether he was capable of resolving his learning failures on his own or with help from professors and TAs. This all suggests that struggling students may need to recognize a lack of ability to resolve their learning failures on their own before they decide to seek help from course TAs.

*Peer influence.* All three participants mentioned the influence of peers in relation to their learning failures. Amy primarily mentioned peers in connection with their influence on her learning goals and as a source of support for working through her learning failures. Jason's perspective was similar in that he mentioned peers in connection with setting learning and career goals. However, he did not mention their support in helping him resolve his learning failures. Trent's experience with his peers consisted of working with small groups of friends and roommates to work through his learning failures. He did not mention that his peers influenced his learning goals. Instead, he mentioned how independent and different he was from his peers in terms of abilities and learning goals. This suggests that peers may influence the learning goals

of struggling students, but this influence might not be necessary in order for them to help the student work through their learning failures.

**Parental influence.** All three participants mentioned the influence of parents in relation to their learning failures—but in distinctly different ways. Trent discussed his learning failures with his parents and sought for their approval to abandon those learning failures he considered irrelevant to his future career path. His father also served as a model of career success that shaped the learning goals Trent set for himself. Jason mentioned his mother actively working with him to resolve his learning failures before college and providing encouragement and motivation to him as he worked through his learning failures in college. Amy mentioned her father as a mentor and sounding board for the learning goals she was setting for herself. She mentioned her mother as a role model—both positive and negative. The positive modeling aspects included demonstrating to Amy a life path that included family and college—that it was possible for Amy to successfully work through difficult learning failures even while raising a family. The negative aspects modeled to Amy were the lack of intellectual ability to help Amy work through her learning failures together with a lack of career opportunities after she raised her family. These models influenced Amy's learning goals and her decisions about which learning failures she would abandon. This suggests that parents may influence their struggling students through their modeling of learning goals and by mentoring them in their decisions regarding resolving and abandoning their learning goals. It also suggests that parents may provide their struggling student with the social approbation the student seeks when they are making their decision to abandon their learning failures.

*Sibling influence.* Amy was the only participant to mention her siblings in connection with her learning failures in the reviewed cases. She explained how she set learning goals to

distinguish herself from her siblings and how her learning failures were an outgrowth of past experiences with her siblings. Her sisters, in particular, served as models to Amy of different ways to navigate college and family life should she get married. Thus, the major role Amy's siblings played relative to her learning failures was to influence the learning goals she set for herself. This suggests that one way struggling students may identify their learning failures is by comparison to the modeling provided by their siblings. The lack of mention regarding sibling influence from the other participants may also suggest that this influence has limits, possibly arising from the nature and closeness of the sibling relationship. For example, those struggling students who develop shared identity with siblings (Whiteman, McHale, & Crouter, 2007) may be more prone to the influence of those siblings when navigating their learning failure experiences.

*Spouse influence.* Amy was the only participant who was married at the time of her participation which meant that she was the only participant who mentioned the influence of her spouse on her learning failures. First, her marriage influenced her learning goals. Due to the fact that her spouse would graduate before her and apply for graduate school outside of the state, Amy's marriage led to her desire to finish her degree program faster. This new course of action led Amy to strategically evaluate her learning failures and to abandon those failures that would not impact her path to graduation. These shifts in Amy's approach to her learning failures represent the influence of negotiating shared and potentially competing learning goals with a spouse. This suggests that struggling students who are married may consider the immediate and future impacts of the learning goals they negotiate with their spouse when deciding to resolve or abandon their own learning failures. This further suggests that conflicts in the negotiation process with their spouse may add additional complexity to the struggling student's ability to identify, evaluate, and resolve their learning failures.

*Supportive others.* Aside from working with professors, TAs, and peers, Amy also mentioned working with an internship coordinator who was able to help her work through her learning failures. She also worked with an academic adviser to evaluate her learning failures and set new learning goals. Jason mentioned taking career advice from a man he met at work that led him to modify his learning goals and ultimately to abandon certain learning failures. Trent did not mention working with other supporting individuals, but rather expressed his lack of trust of those placed in helping roles because of his negative experiences with them. Supportive individuals met with the students outside of the regular class time and provided help to evaluate learning failures and to guide them in the strategic abandonment of certain learning goals. This suggests those individuals who influence a struggling student's identification, evaluation, and resolution of their learning failures may not be limited to those who interact with them in classroom settings. The role of these supportive individuals may be influenced by the struggling student's learning failure context and the perceived ability and willingness of the supportive individual to address the student's needs.

*Comparison.* All three participants mentioned that they compared their abilities and learning failures to those of their classmates. Amy was able to identify learning failures via comparisons she made between herself and other students. When she perceived that her classmates understood certain course concepts better than she did, she characterized it as her learning failure. But when she understood certain course concepts better than her classmates, she did not characterize it as their learning failure. Amy also saw her learning failures and the successes of her peers as an indication that she would be able to work through her learning

failures. By contrast, Trent identified his learning failures independent of his classmates' performance. His comparisons focused on the difficulty he had resolving his learning failures compared to the effort his classmates made to resolve their learning failures. These comparisons neglected other factors that may have influenced the failures, such as time spent studying or other personal circumstances affecting students' ability to learn and perform well in a given course. Jason and Trent also used their comparisons of classmates' learning failures to justify the strategic abandonment of their own learning failures. In these ways, the comparisons Amy, Jason, and Trent made to their classmates complicated their ability to accurately and consistently identify and evaluate their learning failures. This suggests that the way a struggling student compares their performance and effort to that of their classmates may influence their identification and attributions for their learning failures. It also suggests that comparisons to classmates may influence a struggling student's evaluation of their learning failures and their decision whether to abandon the failures. These comparisons emphasize that classmates may serve in both modeling and resolving capacities—not just in social support roles.

*Group work.* Trent and Amy specifically mentioned the influence of group work on their learning failures, whereas Jason makes no mention of them. Amy consistently struggled to resolve her learning failures when she did not work in a group. For Trent, working with small groups helped him to resolve many of his learning failures, but only in his Accounting course. There were not enough students in his other courses who were succeeding that he could work with. Trent was supported by the groups he worked with, but Amy was almost totally dependent on the group to help her resolve her learning failures. The degree of benefit or support derived from group work was dependent on the participant's ability to resolve their learning failures independently. Where Trent worked more independently to resolve his learning failures, Amy

needed more support. This suggests that as struggling students identify and evaluate their learning failures, group work may help them resolve the failures to the degree that the student perceives the help is necessary. It also suggests that struggling students may not perceive the individuals in the groups they work with to possess the competence needed to help them resolve their learning failures leading to less engagement with the group.

*Classroom seating.* Both Trent and Amy mentioned seating when sharing about their learning failures. For Amy, her location in the classroom inhibited her from asking questions to resolve her learning failures. She also mentioned being disengaged when she sat in undesirable locations. Trent shared similar details and noted that the undesirable seating tended to be towards the back of the classroom away from the professors. He perceived that the successful students sat in the front of the classroom and if he was not sitting near them, then he was disadvantaged as he had fewer resources to help him resolve his learning failures. This suggests that where a struggling student sits in relation to the professor and other successful students in the classroom may negatively impact their access to resources for helping them resolve their learning failures. It also suggests that seating arrangements may inhibit struggling students from seeking help with their learning failures due to perceived ability deficits arising from social comparisons.

*Course expectations.* Amy mentioned how conversations with her parents, siblings, high school friends, professors, college peers, and TAs influenced her expectations for her performance in her college courses. These expectations were typically negative and were frequently substantiated by significant learning failure experiences. However, there were times when significant peer and TA support, coupled with successful learning experiences, led her to adjust her expectations. Trent expressed that his friends' experiences with their psychology

course in high school led him to have high expectations for success and learning in his college psychology course. However, a series of learning failures in the course led him to abandon the learning failures and to shift away from future learning goals related to psychology. Jason mentioned how his experiences in Micronesia influenced his motivation and expectations for his ASL course but that his learning failures in the course led him to abandon his learning failures and related future learning goals. This suggests that social interactions may influence initial expectations for learning success or failure but that experiences in the course may modify these expectations. It also suggests that learning failure experiences may reinforce perceptions of personal ability, course difficulty, and expectations for failure in ways that may influence a struggling student's motivation to resolve their learning failures.

*Anxiety.* Amy and Jason mentioned feeling social anxiety and embarrassment associated with their learning failures. Trent did not mention anxiety related to his learning failures, but there may have been anxiety related to the possibility of having to retake prerequisite courses for his major. Although he talked about the implications of retaking the course as they related to his acceptance into his program, he did not mention embarrassment or anxiety. Amy's social anxiety was focused on how others might perceive her learning failures—and by extension her personal capabilities. Amy also mentioned that when she was able to work through her learning failures that the experience helped to reduce her social anxiety. Jason mentioned social anxiety and embarrassment, but only when his learning failures were public. Jason's response to the anxiety induced by his learning failures was to abandon his failures and to modify his learning goals. This suggests that social anxiety may affect a struggling student's ability to identify and evaluate their learning failures—particularly when the identification and evaluation of the failure occur publicly. However, it may be that struggling students who are able to resolve their

learning failures experience a reduction of social anxiety, which may help them successfully identify and evaluate additional learning failures.

*Rejection of contrary perspectives.* When Trent encountered peer perspectives about his learning failures that conflicted with his own, he rejected the contrary perspective by ascribing it to the personal attributes and abilities of the peer. These rejections made it difficult for Trent to identify and evaluate his learning failures. By contrast, Amy and Jason frequently embraced the perspectives of others as a means of identifying and evaluating their learning failures. This suggests that some struggling students may reject help identifying and evaluating their learning failures if the help represents a perspective of their failures that contradicts their own. This rejection of contrary perspectives may arise from a desire to resolve the learning failure independent of other's help as mentioned by Trent in his cases.

# **APPENDIX F: Reflective Journaling**

# Thematic Relationship of SI Framework Attributes | 7 Jan 2017 (12:07pm)

CASE	CASE THEME	SI FRAMEWORK ATTRIBUTES
Amy—Anatomy	<ul> <li>Professor Challenges</li> <li>Expectations</li> <li>Classroom Location</li> <li>Friend Support</li> <li>Group Work</li> <li>TA support</li> <li>Comparisons</li> </ul>	<ul> <li>Roles—Passive</li> <li>Roles—Active</li> <li>Context—Temporal</li> <li>Context—Physical</li> <li>Context—Relational</li> <li>Context—Emotional</li> <li>Phases—Evaluation</li> <li>Phases—Attribution</li> </ul>
Amy—Methods in Health Promotion	<ul> <li>Peer Influence</li> <li>Sibling Influence</li> <li>Professor Benefits</li> <li>Academic Support</li> </ul>	<ul> <li>Role—Passive</li> <li>Roles—Active</li> <li>Context—Emotional</li> <li>Context—Relational</li> <li>Context—Temporal</li> <li>Phases—Identification</li> <li>Phases—Progression</li> </ul>
Amy—Backstory	<ul> <li>Comparisons</li> <li>Academic Counseling</li> <li>Group Work</li> <li>Anxiety</li> <li>Confidence</li> <li>Parental Influence</li> <li>Sibling Influence</li> <li>TA Support</li> <li>Spouse Influence</li> </ul>	<ul> <li>Roles—Passive</li> <li>Roles—Active</li> <li>Context - Relational</li> <li>Context—Emotional</li> <li>Context—Temporal</li> <li>Phases—Attribution</li> <li>Phases—Progression</li> </ul>
Jason—ASL	<ul> <li>Embarrassment</li> <li>Peer Influence</li> <li>Professor Challenges</li> <li>Past Experience</li> <li>Learning Goal Modification</li> </ul>	<ul> <li>Roles—Passive</li> <li>Context—Relational</li> <li>Context—Emotional</li> <li>Context—Temporal</li> <li>Phases—Identification</li> <li>Phases—Progression</li> </ul>

Jason—Backstory	<ul> <li>Parental Influence</li> <li>Professor Benefits</li> <li>Advice</li> <li>Friend Influence</li> <li>Peer Influence</li> </ul>	<ul> <li>Roles—Passive</li> <li>Roles—Active</li> <li>Context—Relational</li> <li>Context—Temporal</li> <li>Phases—Identification</li> <li>Phases—Attribution</li> <li>Phases—Progression</li> </ul>
Trent—Accounting	<ul> <li>Professor Benefits</li> <li>Professor Challenges</li> <li>Group Work</li> <li>Friend Influence</li> <li>Parental Influence</li> <li>Comparison</li> <li>Anxiety</li> <li>Competition</li> <li>TA Challenges</li> </ul>	<ul> <li>Roles—Passive</li> <li>Roles—Active</li> <li>Context—Physical</li> <li>Context—Intellectual</li> <li>Context—Relational</li> <li>Phases—Identification</li> <li>Phases—Attribution</li> </ul>
Trent—Psychology	<ul> <li>Professor Challenges</li> <li>Friends Influence</li> <li>Group Work</li> <li>Professor Benefits</li> <li>Comparison</li> <li>TA Challenges</li> <li>Peer Influence</li> <li>Lack of Resources</li> <li>Seating</li> </ul>	<ul> <li>Roles—Passive</li> <li>Context—Physical</li> <li>Context—Intellectual</li> <li>Context—Relational</li> <li>Context—Temporal</li> <li>Phases—Identification</li> <li>Phases - Progression</li> </ul>
Trent—Math	<ul> <li>Professor Challenges</li> <li>Comparison</li> <li>Group Work</li> <li>Independence</li> <li>Environment</li> <li>Friend Influence</li> <li>Seating</li> </ul>	<ul> <li>Roles—Passive</li> <li>Context—Physical</li> <li>Context—Intellectual</li> <li>Context—Relational</li> <li>Phases—Identification</li> <li>Phases—Attribution</li> </ul>

Amy—Cross-Case	<ul> <li>Professor Mentoring</li> <li>Expectations</li> <li>Classroom Location</li> <li>Friend Support</li> <li>Group Work</li> <li>TA Support</li> <li>Comparisons</li> <li>Learning Support Staff</li> <li>Anxiety and Confidence</li> <li>Parental Influence</li> <li>Sibling Influence</li> <li>Spouse Influence</li> <li>Perceptual Deficits</li> </ul>	<ul> <li>Roles—Passive</li> <li>Roles—Active</li> <li>Context—Intellectual</li> <li>Context—Relational</li> <li>Context—Temporal</li> <li>Phases—Identification</li> <li>Phases—Evaluation</li> <li>Phases—Attribution</li> </ul>
Jason—Cross-Case	<ul> <li>Parental Influence</li> <li>Professor Benefits</li> <li>Professor Challenges</li> <li>Advice</li> <li>Peer Influence</li> <li>Embarrassment</li> <li>Past Experience</li> <li>Social Goal Modification</li> </ul>	<ul> <li>Roles—Passive</li> <li>Roles—Active</li> <li>Context—Intellectual</li> <li>Context—Relational</li> <li>Context—Temporal</li> <li>Phases—Evaluation</li> <li>Phases—Progression</li> </ul>
Trent—Cross-Case	<ul> <li>Friend Influence</li> <li>Professor Challenges</li> <li>Professor Benefits</li> <li>Group Work</li> <li>Comparison</li> <li>TA Challenges</li> <li>Seating</li> <li>Parental Influence</li> <li>Rejection of Social Perspectives</li> </ul>	<ul> <li>Roles—Passive</li> <li>Roles—Active</li> <li>Context - Physical</li> <li>Context—Intellectual</li> <li>Context—Relational</li> <li>Context—Temporal</li> <li>Phases—Identification</li> <li>Phases—Evaluation</li> <li>Phases—Attribution</li> </ul>

All Participant Cross-Case Professor Connections TA Interactions Roles—Active • Peer Influence • • Parental Influence • • Sibling Influence • • Spouse Influence • • Supportive Others • Comparison •

- Group Work •
- Classroom Seating
- Course Expectations •
- Anxietv •

•

**Rejection of Contrary** Perspectives

- Roles—Passive •
- Context Physical
- Context—Intellectual
- Context—Relational
- Context—Emotional
- Context—Temporal
- Phases—Identification •
- Phases—Evaluation
- Phases—Attribution
- Phases—Progression

Learning Failure vs Learning Success | 8 Dec 2016 (2:09pm)

As I finish a new revision of my dissertation today I felt to record some key impressions about exploring learning failure rather than learning success:

Learning success can only be identified as having occurred in the past. Educational assessments measure only that learning has occurred, not when it occurred. Because it is difficult to determine when learning occurred, it is also difficult to measure how it occurred. As a result, instructional designs focused on learning success bear an inherent flaw. By contrast, learning failures are much easier to measure because there is typically a precise event in which they are identified. As such, it becomes possible to know both when and how the learning failure occurred. As a result, instructional designs that focus on resolution of learning failures can be: (1) more adapted to an individual's context, (2) developed with greater precision relative to instructional/learning objectives, and (3) evaluated for success based on explicit outcomes. Longitudinally, the assessment of instructional designs based on learning failure recovery can be more precisely measured than those based on learning successes.

## New Insights into Learning Failure | 2 Nov 2016 (10:58am)

I have been working to reduce the page size of my dissertation by moving parts around and making quotes shorter with clearer explanations. In the process, I have developed new insights about learning failure. In the past, I have considered learning failure to be fairly linear as follows:

- 1. Student identifies learning failure
- 2. Student evaluates the learning failure
  - Social dynamics
  - Past/present experiences
- 3. Student makes attribution for the learning failure

- 4. Student chooses to abandon or resolve learning failure
- 5. Self-discovery occurs

As I have refined the findings section of my dissertation, it has required additional reviews of my data, which have generated new insights (which are not helpful for the purposes of reducing the dissertation size, but are nonetheless interesting and valuable). These new insights have led me to conceive of learning failure with a greater emphasis on the evaluation period and post-reflective action stages of the experience:

- 1. Student identifies their learning failure
- 2. Student evaluates their learning failure
  - Social influences (past, present, and anticipated) constantly affect the evaluation of the failure
  - Attributions for the failure are made and re-made as evaluation and reflection continue
  - The evaluation of the failure prompts self-awareness and discovery that influences understanding of the failure and decisions about how to proceed
  - The decision to resolve or abandon the failure is revisited with each new realization that comes from the evaluation of the failure
- 3. Action taken
  - Student decides to resolve the learning failure
    - Possible engagement in help-seeking behaviors
    - More struggling and learning failure
    - Successful accomplishment of learning goal
    - Establishment of new learning goals
  - Student decides to abandon the learning failure
  - Student feels guilt or shame regarding course of action and makes a change

This model is more nuanced and complex (better representing the realities of the lived experience of the students). The role of the social influence, although situated within the evaluation phase, plays a role at every stage of the experience. Social influence, at times, leads to the identification of the learning failure. Throughout the evaluation phase, social influences guide the student's developing understanding of the impacts, attributions for, and nature of their learning failures. Outside of a social context, it might be argued that learning failures don't exist because of the fundamental role social influence plays in learning failure experiences. In the action stage, social influences provide students with ways to work through their learning failures as well as motivation and modeling that influences the establishment or refinement of the student's learning goals.

The complex phenomenon of learning failure is not only ubiquitous to learning, but is fundamental to it. Learning failures prompt learner reflection and decision-making in ways that define the student's developmental trajectory. As such, they may represent one of the most powerful forces that shape human experience and growth.

## Deepening Framework | 11 Jul 2016 (10:01pm)

I have been going back through and deepening the analyses in my findings section, which has helped move my thinking forward on the framework of social influences related to learning failures. One of the categories of the framework refers to people. Thinking deeper about the influences of people has led me to identify three key roles people play in learning failures:

- Modeling
- Advising
- Resolving

Modeling refers to people who indirectly influence learning failures by behaviors and interactions that guide students to behave in the same way—or in some instances, to behave in the exact opposite way. Advising refers to people who indirectly influence learning failures by providing students with advice related to learning goals, learning strategies, or career options that may, in turn, affect learning failures. Resolving refers to people who directly work with students to identify, evaluate, and resolve specific learning failures. This distinction is critical when developing interventions because all three roles are necessary depending on the different stages a student may be in that are related to the resolution of their learning failures. Being able to identify where a student is at in this process is a critical component of a successful intervention.

## Analyses Complete - An Emergent Framework | 14 Jun 2016 (8:04pm)

I have now completed all of the cross-case analyses and have begun looking at an emergent framework of three attributes for describing the role of social influences in college student learning failure experiences:

Roles

- Professor
- TA
- Peer
- Parent
- Sibling
- Spouse
- Supportive Others

Classroom dynamics

- Comparison
- Group Work
- Classroom Seating

Interaction Effects

- Course Expectations
- Anxiety
- Rejection of Contrary Perspectives

Roles consist of the different individuals mentioned by the participants who influenced their learning failures in some significant way. These roles are distinct in the way their influence on the learning failures was described. Classroom dynamics are the social aspects of the learning failures that transpired in the physical space of a classroom. These dynamics each influenced the learning failures in different ways. Interaction effects were aspects of learning failure experiences that came about by direct interaction with other people. These effects varied by context and were the most difficult to analyze. In reality there may be a lot more to Interaction Effects than what I could capture from just the eight analyzed cases, but this is a great start to the framework. Additional research and case study can expand the categories and potentially challenge the three attributes of the framework. With the analysis complete I now look to finalize the findings section of my dissertation and to turn my attention to writing the discussion section—in which I will elaborate more on the emergent framework, the interplay between the attributes, and the implications for future research, practice, and intervention design.

#### Final Analysis and Insights | 8 Jun 2016 (9:01pm)

I have begun to work on the final full multicase analysis and it has been a good synthesis so far. I am seeing that there are some general trends, but also characteristics unique to each participant that create different dynamics to each. The analysis is revealing a lot of the contextual nature of each learning failure and the complexities of the social aspects of the experiences. As part of the synthesis, I am looking for a way to group the findings in a way that reduces some of the complexity. So far it looks like there are categories of people, perceptions, student characteristics, and situational aspects. I'm not set on these categories, so they may shift as this final analysis is conducted. I'm expecting that these categories will form the final framework components. It is interesting to explore how these categories, or framework components, interact with each other and play out in the learning failure experiences of these students. It's also interesting to test these assertions against my own experiences. If I am completely honest, I can see that my own learning failures do not necessarily fit nicely into the developing framework. So, perhaps that is part of the negative case analysis. There has been plenty of negative case analysis in the case reviews that primarily create additional themes and/or additional categories. This has been especially true for the themes related to influences by specific groups of people (professors, TAs, peers, parents, siblings). There is no common way these influences play out in the learning failures, so I document the complexities to be explored in more detail in the discussion chapter of the dissertation.

So, I am constantly challenged in the way I think about these social influences related to learning failures. Rather than a framework of techniques or best practices, this dissertation is likely going to yield a series of questions for consideration within each category or element when diagnosing and designing interventions to help students resolve their learning failures. While similar in application to the framework generated by my thesis, this more nuanced framework of social aspects may provide a better set of principles to enhance current trial-and-error approaches to social-based interventions. While getting a group of failing students to work together may produce good results, a more intentional and robust principle-based approach may improve outcomes more significantly. I am excited to make these contributions and share them with the larger academic community soon.

#### Amy's Cross-Case Analysis and Negative Case Analysis | 1 Jun 2016 (4:08pm)

I have now finished Amy's cross-case analysis based on three of her cases: (1) Anatomy, (2) Methods and Health Promotion, and (3) Backstory. The synthesis was significantly more difficult across three cases than just two because the third case adds an almost infinite additional source of comparison. Stake's worksheet 4 for the multicase analysis provides an excellent framework for negative case analysis by guiding the researcher to determine the generality and uniqueness of each theme compared across each case. It also helped me to combine certain themes together across the different cases. So the analysis is going well, it's just taking me a bit longer than I expected. I did add one multicase theme to Amy's set called Perceptual Deficits. I think this may be unique to Amy, but it represents her willingness to identify deficits in herself substantiated by limited social comparisons and experiences. She finds evidence to substantiate the deficits and then these perceived deficits weaken her motivation to resolve her learning failures. The deficits also influence the way Amy evaluates her progress towards her learning goals and whether she is capable of achieving them. This behavior aligns with Dweck's research on mindsets and attribution theory, which states that a student who believes they are capable of developing greater capacity can, and likely will, resolve their learning failures (Dweck, C. (2008). Mindset. New York: Ballantine Books).

Jason only has two cases, but Trent has three. Then the cross-participant cross-case analysis will have eight cases, so there is still a lot of work to do. The key is to synthesize from the unique themes of individual cases to the larger context of all eight cases. This will be accomplished mainly via the comparison and contrast of the negative case analysis and the addition of new multicase themes. Following these multicase analyses an additional analysis using the communities of practice lens will add additional richness and depth that can strengthen the social framework that is the object of this dissertation.

### Case Analysis and Social Expectations | 16 May 2016 (7:28pm)

I finished my second analysis of the final 8 individual cases and was very intrigued by the differences in attitudes towards professors across the participants. Trent seemed almost completely dependent on the professors in his courses for his success. If the professor was good, then Trent would succeed. Trent expected great pedagogy and clear testing protocols from his professors and when they lacked in these areas, Trent attributed his learning failures to the professor. Amy relied almost exclusively on other students and on TAs for her success. She seemed intimidated by professors and never resolved her learning failures by working with them. Jason was somewhere between Trent and Amy in his attitudes towards professors. He expected professors to be caring and competent, but he was intimidated, like Amy, when he had a learning failure to resolve with them. This idea of expectation is intriguing to me because I think it can have a powerful influence on a student's decision to resolve or abandon their learning failure. If the student's expectations of the professor, or TAs, or other helpful people is low, then they may turn inward and feel like they have to resolve the learning failures on their own. However, if the expectations are high for these helpful people, the student will, at least initially, reach out to them for help with their learning failures. Experiences with these helpful people and the outcomes of those experiences then modify a student's expectations for future interactions and helpfulness, strengthening a student's willingness to go to them for help with future learning failures. From a communities of practice perspective, it is interesting to consider the

expectations that community members have of one another and how those expectations influence the nature of their interactions. Students who perceive that a professor has something of value to their developing competence and ability in the community may be more likely to work with that professor to resolve learning failures. The converse of this principle is also true. Some of the help-seeking aversion in the social literature reviewed for this dissertation could be explained by these expectations that students have of the people who are supposed to be helping them. Expectations and intentions may be a powerful indicator of whether a student will chose to abandon or resolve a learning failure. Next steps include a participant-specific cross-case analysis for each of the three participants. Then a cross-case analysis of all cases for all participants. I am working to conclude these analyses by the end of the week.

## Case Sampling | 9 May 2016 (9:19pm)

In order to build the social influences framework for this dissertation I need to make sure the case analysis leads productively towards that convergent end. After the initial review of social themes in the cases, the following cases seem to be richest and most potentially beneficial:

- Amy
  - Anatomy
  - Backstory
  - Methods and Health Promotion
- Jason
  - ASL
  - Backstory
- Trent
  - $\circ$  Accounting
  - o Math
  - o Psychology

A cross case analysis involving these cases will give me a maximum variation of themes, but also afford me convergence to get at the framework components. For the thesis I reviewed two cases from each participant, so I expect that this dissertation analysis will be even richer by adding the third participant and increasing the number of cases per participant. A thematic matrix for the case analysis to this point is available <u>here</u>.

## Communities of Practice - A Lens of Analysis | 9 May 2016 (1:04pm)

I have begun to analyze the dissertation cases from a communities of practice perspective, using Lave and Wenger's definitions as a jumping off point:

"Learning viewed as situated activity has as its central defining characteristic a process that we call legitimate peripheral participation. By this we mean to draw attention to the point that learners inevitably participate in communities of practitioners and that the mastery of knowledge and skill requires newcomers to move toward full participation in the sociocultural practices of a community. "Legitimate peripheral participation" provides a way to speak about the relations between newcomers and old-timers, and about activities, identities, artifacts, and communities of knowledge and practice. It concerns the process by which newcomers become part of a community of practice. A person's intentions to learn are engaged and the meaning of learning is configured through the process of becoming a full participant in a sociocultural practice. This social process includes, indeed it subsumes, the learning of knowledgeable skills." (Situated Learning, p. 29)

"Legitimate peripheral participation is proposed as a descriptor of engagement in social practice that entails learning as an integral constituent." (p. 35)

"Peripheral participation is about being located in the social world. Changing locations and perspectives are part of actors' learning trajectories, developing identities, and forms of membership." (p. 36)

"Legitimate peripheral participation is not itself an educational form, much less a pedagogical strategy or a teaching technique. It is an analytical viewpoint on learning, a way of understanding learning." (p. 40)

In this dissertation, the following key themes related to communities of practice will be explored:

- legitimate peripheral participation as a component of learning failure experiences
- social reproduction of knowledge and practice as a result of and through learning failure
- social practices leading to learning failure and its resolution
- social group dynamics leading to learning failures
- contradistinction practices in developing identities and group memberships inherent to learning failure
- socially-constructed perspectives of experience
- developmental outcomes of learning failure within a social context

These constructs are relevant to the research questions of the dissertation and can be identified in the experiences shared by participants. They do not represent an inherent focus of the dissertation on communities of practice, but rather an infusion of communities of practice themes into the analysis so as to deepen the exploration of the complexity of learning failure.

## Analysis 2 Complete with Insights | 7 May 2016 (7:17pm)

I was able to finish the second round of analyses looking for basic social themes related to my dissertation questions:

- How do college students reflectively perceive the social interactions germane to their learning failure experiences?
- What is revealed about college student learning failure from reflective descriptions of the students' social interactions inherent in their failures?

This analysis has yield some interesting insights:

• Role models create expectations for students about what learning failures they will or will not resolve (viz. "If I want to be successful like \_\_\_\_\_, then there are specific learning

failures I will have to resolve, while there are others that I can abandon without consequence."

- When a student fails to talk about learning failures in a particular course it's usually an indication that the critical ones were all resolved. Learning and completing a course is nothing more than identifying and resolving learning failures—it is problem solving.
- Lack of clarity in teaching and testing on the part of the teacher makes it difficult for students to clearly identify their learning failures.
- \*\*\* A learning failure occurs when a student has a goal to understand or perform some academic task and fails to do so either in part or in full. It is their own evaluation of their own performance in relation their own expectation.
- Learning failure is best discussed within the context of a specific course because that is how students typically set their learning goals—they are content and domain specific. That's not to say some learning goals don't extend beyond the limits of a defined course, but it gives a helpful starting point to talk about the failures within a given course and expand the discussion from there.
- In college, a community of practice is tied more to an individual student's intended career and activity goals post-graduation than it is to a particular course. Students are apprenticing themselves to future notions of activity, trying to take benefit and development piecemeal from current academic courses and experiences.
- Within communities of practice, everything is oriented towards some more-involved identity and activity as modeled by masters and expressed in social norms and conventions.
- The role of the professor is to clearly outline the problems of the discipline and then to guide students through a systematic exploration and resolution of representative problems. This includes didactic instruction, but it also includes hands-on guidance through practical experiences.
- When teachers make mistakes, it interferes with a student's identification of their learning failures because the student is left wondering whether the learning failure is their own fault or a mistake on the part of the professor.

The next step is to do an analysis looking for themes related to communities of practice. I think this will be an interesting facet of this dissertation that will produce some unexpected findings.

## Case Analyses and Insights | 6 May 2016 (11:22am)

I was able to review 7 more cases last night and gain some interesting insights about learning failure abandonment. It seems that the role parents play in a student's learning failures it that of modeling and setting expectations for which failures will or will not be resolved. If a parent was able to successfully resolve a particular learning failure, then the student feels like they should have been able to resolve the learning failure. With peer and friend influences, a student may actually be persuaded that a particular learning failure is not worth resolving and thus, the student abandons the learning failure altogether. This is usually because peers and friends were able to persuade the student to shift their learning goals in a way that allowed for the abandonment of the initial learning goal. This was an unexpected finding in the difference of influence between parents and peers.

I am also finding that the analysis for all of the available cases is going to be massive. In the thesis I was able to sample for maximum variance among the cases and choose four total cases to include in the final analysis. In the dissertation, I am still looking for maximum variance, but I think it may be most appropriate to select two cases per participant (6 total cases) to include in the final cross-case analysis. I will make more of these decisions after I have finished the analyses of all available cases individually.

#### Case Structures and Initial Analyses | 4 May 2016 (10:28pm)

Reading through these cases for the analyses has been good. The participants' own words adds an authenticity to each case, a sort of genuiness. Some of the syntax is strange when I'm reading because people don't always talk like they write, but it gives the case a more conversational style. I have read through each of the cases and have completed the first review to compile the case summaries. I have also read through three cases for thematic analysis. I sense that each participant has unique social influences and reactions to those influences. This reflects a complexity that makes it difficult to design blanket or even group interventions for learning failures. My hope is that as I work through this dissertation and create a framework of the social influences related to learning failure experiences that I can make a contribution of guidelines to design better, individualized interventions.

In the cases that I reviewed tonight, I am seeing social comparisons as a major theme that affects everything from motivation to resolve learning failures to shifts in learning goals themselves. I'm also seeing that parental, sibling, and friend influences vary widely by context and depth so that it's hard to say anything about them at this point. Through the cross-case analyses I hope to find more clarity in these particular influences.

### Case Summaries Completed | 3 May 2016 (9:45pm)

So all told, I have 17 cases with summaries. Trent's cases are by far the richest and most socially oriented. But that will serve as a lens to help me see more in the other cases. In writing the summaries for Trent's cases, I noticed that he struggles a lot with his professors' teaching and testing styles. I'm not sure if he struggles with his professors because he is struggling with the course content or if he struggles with the course content because of his professors. I'm not sure he would even know the answer to that question. He also perceives giftedness in other students who are not struggling. For example, he remarks that his roommates who have taken the math class he is in really enjoyed it—because they enjoy math. He then infers that he doesn't like the course because he doesn't like math, or is "not good at it". This is intriguing because he is making a socially-based attribution for his failure and the success of others. Had he not perceived their enjoyment of math, Trent may have generated a different attribution for his failures and the successes of his roommates. From a practitioner perspective, this is a powerful way to help students reframe their attributions-through the exploration of the student's perspectives of their peers in relation to their own experiences. In this regard, Trent also had interesting points about everyone struggling to some degree but being unwilling to admit it. This is another complicated social influence impeding a student's identification and resolution of their learning failures. It also retards the formation of their identity as a successful scholar to be isolated from other students in these ways.

Social perception of other students is a major theme in all of the case summaries. All three participants in this study struggled with perceiving other students to be successful while they, themselves, struggle. They varied slightly in their rationale for why others succeeded, but they all remarked that there is a prevailing, but false, perfectionism among students. Trent expressed a self-determination to succeed on his own as a way to prove "himself to himself". This perspective seems to reinforce the keeping up of appearances of success while experiencing irresolvable learning failures. The more students attempt to hide their learning failures from others, the more difficult—even impossible, it becomes to resolve them. I wonder what it would take to convince students that everyone falls short at something and to make learning failures easier to divulge and resolve. I almost suspect a dangerous collusion of sorts that is reinforced by the collective definitions of success prevalent in US universities—straight A's, pristine projects, breakthrough discoveries, published research, and so forth I'm excited to continue exploring these ideas in more detail.

#### Trent's Cases | 2 May 2016 (9:49pm)

I was able to work with my transcripts from interviews with Trent to compile 5 additional cases for review: (1) Accounting, (2) Math, (3) Psychology, (4) Biology, and (5) Backstory. The Backstory case is a generic case with relevant social influences that are not tied to a specific course or learning failure experience, but that play into multiple experiences—like mentoring relationships with Trent's father and brothers-in-law. The Biology experience is not a characteristic learning failure experience, but Trent uses it to create distinction between his learning failures in other classes. I'm not sure how I will use it exactly. I am currently using Stake's worksheets to do the initial read of the new cases to create brief summaries of the main social influence points. Once I have reviewed and completed initial summaries for each of the new cases I will do the second read of all the cases individually to code for social influence themes. Then I will conduct a third review looking for Communities of Practice concepts in each of the cases individually. Then I will do a deeper fourth review of all the cases looking for patterns, connections, negative cases, and any additional themes. Then I will begin a cross-case comparison of all cases for each participant. Finally, I will conduct a cross-case analysis of all cases for all participants. Once I have concluded this final cross-case analysis I will identify the thematic categories that will form the basis of my social influences framework.

Although I am following Stake's multiple case analysis methods, I could easily adapt them to align with a Strauss and Corbin Grounded Theory approach, which I think most people expect when a framework is generated from qualitative research. However, I think Stake's approach offers a more versatile analysis approach and is more appropriate for exploratory-type studies like this dissertation. As I continue this line of learning failure research, I may need to enhance my methods with approaches beyond multiple case study.

So far, Trent's cases have been richer and more detailed than those from the thesis because of the focused line of questioning and the narrower focus on social influences. The cases also emphasize the inter-relatedness between the various components of the general learning failure framework—something that I had not anticipated. I chose to look at the social component of the framework because I thought I could isolate its influence on learning failure experiences. In reality, these type of experiences are complex and resist any such isolation of individual components. Instead, I am beginning to understand the value of emphasizing one

framework component to better understand the others. This will definitely be a recommended methodological strategy for future learning failure research.

### Trent's 4th Interview | 26 Apr 2016 (5:05pm)

I finished transcribing Trent's 4<sup>th</sup> interview last night. He has been really enthusiastic about these multiple interviews and sharing his perspectives. That makes the interviewing process flow better and generate more productive dialogue. I feel like this last interview was the richest of them all as we focused on specific people who were helpful and unhelpful in each of his difficult courses. I gave me a lot of insight into his implicit expectations for the people in his life, as well as those for himself. I was surprised as we talked about his family's role in his learning failures that they were not more prominent. It was as though the thought of their influence in his life was something he had not considered previously. The other major insight in the interview was regarding seating. We talked about social hierarchies related to seating positions within the classroom, both perceptually and from experiences Trent had. This was a dynamic I have been aware of, but it's not discussed in the literature I reviewed for this dissertation. It surprised me how articulate Trent was about the role seating-especially seating in the front of the class, had on the resolution of learning failures. The dynamics were really two-fold. In the first case, sitting in the front was reserved for the eager and ambitious students, providing access to the best minds in the class. If you worked with the people around you, the intelligence was graded by how close to the professor you sat. The second dynamic related to moving seating during the semester. Trent explained that seating was somewhat territorial and if you had been sitting somewhere besides the front, to make that shift was like taking a family's pew in church. Sitting in the back then made it more difficult to interrupt the class with questions because the student would have to yell their question over everybody (a socially unacceptable thing to do apparently) and initiate a yelling conversation between professor and student. This creates a somewhat inequitable position for struggling students who need help to work through their learning failures. In another context, Trent also described the effects of courses where attendance was not mandatory. He explained that when attendance is not mandatory, only those struggling in the course show up. This limits access to other students who could be helping those of their classmates who are struggling. These dynamics were both unexpected and they add a degree of complexity to the dissertation I was not anticipating. This is a good thing as this was the purpose of this study—to discover the complexities of social dynamics inherent in college student learning failure experiences.

These interviews with Trent are sufficiently rich that I am confident I can begin building his cases and using constructs from Communities of Practice to begin the analysis of all of the cases—including those from the thesis. There is a new lens here because of these interviews with Trent that will enrich the analysis in a way that would have been unlikely if I have simply jumped into the analysis of the thesis data. I am excited to discover more as I use Stake's Multiple Case Study approach to systematically dive deeper into these ideas.

#### Trent and Interview 3 - Goals | 21 Apr 2016 (5:53pm)

I have finished transcribing Trent's third interview and the main theme of the discussion were his goals. There were two interesting points I took away from the interviews:

- 1. We can have competing goals that may prevent us from learning what we want to. These goals are largely tacit until some experience drives us to reflect on them—this is typically a negative experience because as Schank points out that when expectations are violated we must make sense out of the experience.
- 2. Trent's goals seem heavily influenced by the perspectives he has of his siblings and parents and their experiences with both school and a profession. Trent cites the success of his father who never attended college and then he questions his own motives for attending college—especially when there are inconsistencies in his expectations for a course, for the people associated with the course, or with the level of difficulty in the course.

Learning failure experiences are terribly complex because of the myriad influences from others on perceptions of the failures, the motives to resolve the failures, or the ability to understand the failure in light of the experiences of others. Social dynamics vary considerably from one learning failure experience to another and elicit different social memories and expectations depending on context and expectations. It also makes me appreciate more the work Lave and Wenger did to label the idea of a Community of Practice. There is so much complexity in the social interactions, especially with the directional concept of becoming and socially constituted identity. Without trying to tackle the entire complexity of specific situations mentioned in their book (i.e., Midwives), they were able to take a macro approach and make a significant contribution to construct a dialogue across these experiences on the basis of their commonalities. Communities of Practice thus becomes a framework for exploring a myriad of experiences related to becoming that are not readily apparent from comparisons between guild-like disciplines. My aim is similar in that I am developing a framework to explore learning failure experiences across a myriad of disciplines at a macro level, but in a way, that leaves the complexities of the individual experiences intact—a sort of anti-reductionist approach to the lived experience. With one more interview from Trent to translate, I believe that from his experiences and those collected in my thesis I would have enough material to construct the framework of social influence for learning failure experiences. We'll see what more comes to me as I transcribe this last interview.

## Trent Interview 4 and Rachel No-Go | 12 Apr 2016 (9:31am)

I had a great interview with Trent yesterday. I thought we had hit a wall with the interviews and that he had said everything he had to say about his learning failures. But I got an idea to try a different line of questioning that worked out really well. I first focused on one of the courses we had discussed and I asked him to list all of the helpful people in the class. Then we talked about what made them helpful. Then I had him list all of the unhelpful people in the class. He then described what made them unhelpful. Finally, we talked about family members and their relation to the learning failure experiences he has shared up to this point. Some of the key insights from these conversations are as follows:

- In attendance-mandatory courses, the "smart" students sit in the front of the room and ferociously protect their seating hierarchy
  - Trying to get help from them is useless as there is a strong competition ethic
  - These students dominate the question-asking because of where they sit in the class

- The seating hierarchy is established within the first week of the course—for the entire set of students
- In courses without mandatory attendance requirements, the "smart" students do not attend
  - In these courses, everyone that attends class is struggling and cannot provide the help needed to one another
  - The professor and TA resources are critical in these courses—but if they are insufficient, the struggling student has no recourse
- If a TA proves to be unhelpful twice, they are deemed as unhelpful for the duration of the course
- Although a professor may make identifiable improvements to their lectures, the changes may not be sufficient to change the students' perceptions of the course

This was a rich interview with key insights about some of the boundaries or limitations of the positive social aspects related to learning failures. It was also the clearest articulation of a student's perspectives of the social aspects related to learning failure. I feel like Trent has been a good person to work with in piloting interview questions.

I had hoped to use these refined set of questions in a second interview with Rachel, but she has now failed to keep her scheduled meeting time with me three times. At this point, I am going to focus on transcribing and analyzing Trent's interviews together with my existing thesis cases to see what I can come up with. As I go forward with the analysis, I may conduct further interviews with Trent. In the very least I will do some member checking with him on the themes from the analysis. I have done some of the member checking with him in the interviews and I feel it's been a revelatory process for the both of us. In yesterday's interview he called our interactions "academic therapy". I'd never heard that term used before, but I kind of like it. It embodies more of what I think universities need to offer but don't. There are career counselors, and major advisers, and personal/emotional therapists, but no one to help students work through their academic struggles (unless the student is on probation or about to be dismissed—but then it's too late). I am learning so much from this study that I am excited to include in the final report.

## First Transcript and Insights | 4 Apr 2016 (9:43pm)

I finished the transcription of Trent's first interview (1 of 3) today. His educational transcript is all A's essentially and yet he has identified several learning failure experiences across four courses that no one but he would recognize. We had some interesting discussions about the key people that have influenced his experiences—namely a father, multiple brothersin-law, his older sisters, professors (both good and bad), peers, and TAs. These seem to form the primary cadre of social influences for the other students I have interviewed as well. The key is that the influences are different from student to student and across contexts. This realization is the crux of the analysis of this dissertation—revealing the richness and the uniqueness of these influences and how they influence the learning failures of university students. While generalizability is not the aim of this study, there are certainly common themes across the experiences that I am excited to explore with more depth in the cross-case analysis. Even in the interviews some of these themes are apparent:

- tacit goal competition/interference—including social goals
- social inhibitors to help-seeking
- parental modeling and cognitive scaffolding
- socialized self-awareness via feedback

These are just beginning themes that may or may not play out in the actual analysis. But I felt it was important to document them as a potential contribution to the analysis and the framework.

### Interviews, Case Summaries and Thematic Saturation | 29 Mar 2016 (8:18pm)

I have now interviewed 4 different people with varying results. I have a third interview scheduled with Trent for Friday and a second interview scheduled with Rachel for next Tuesday. Everyone I have met with has expressed gratitude for the chance to talk about their experiences. They have all mentioned insights about their experiences that have come through our interviews, so that is good. I'm finding, however, that they have difficulty talking about the social aspects of their learning failure experiences. They keep saying the same thing over and over—which is an indication to me that they might have unstable attributions for the learning failure experiences themselves, but not for the social influences related to the failures. This is really interesting because in Carol Dweck's work on learned helplessness and her book "Mindsets" this would suggest a major barrier to working through the social challenges impacting students' learning failures. So I'm now watching for more of this in the interviews.

Trent has some real richness to his descriptions of the learning failures and the social aspects. Rachel seems like she could have more richness, but I need this second interview to know for sure. She seems enthusiastic about talking more about her experiences anyhow. From the first interview, she just seemed bored with school more so than having experienced learning failures. But I think that's due in part to the fact that she is a freshman student and doesn't have enough experience and context to compare and contrast her learning experiences. She also seems less self-aware than Trent and others, which makes both the identification and articulation of learning failure experiences difficult.

I have finished the case summaries for the existing cases from my thesis using Stake's worksheet #3. This is the first read prior to progressive coding and the identification of themes. My plan is to now work concurrently on the transcription of the new interviews, compiling the new cases, and the progressive coding of the existing cases. The priority is the transcription because that will hold me up the most. I feel like there is already a semblance of thematic saturation from the thesis cases and the new interviews, so I've got the beginnings of a framework of social influence in my mind. I'm trying to suspend these types of thoughts because I want to come at everything fresh, but I think the categories are a lot more focused and explicit than in the thesis because the interviews are more keyed in on the social aspects of the learning failures. So maybe it's ok.

My plan is to finish all interviews by next week and to have at least the first two interviews transcribed from Trent and Rachel. I'm going to try to get a third interview in with Rachel next week around Friday. I need to work quickly with her because she is going to serve a mission after this semester. I think Trent is happy to keep meeting and discussing, but I feel like we are almost as thorough as we can get with the learning failures he has shared. So, we'll have to see...

#### Interviews and Case Summaries | 22 Mar 2016 (8:53pm)

I decided to follow up with Trent and to schedule with a new student, Sarah. Trent's follow up will focus more on specific difficulties with course topics in the courses we discussed earlier. I found in the last study that talking through specific course concepts often elicited more detailed descriptions of learning failure experiences, specifically regarding individuals that helped them work through the failure.

My hope is to finish interviews next week and begin the case summaries (first review). I have Stake's worksheet 2 filled out and have set up his worksheet 3 for each of the existing cases from my thesis (15 cases in all). Knowing that I am working toward the development of a framework of social concepts will help reduce the ambiguity of the analysis and push it in a more productive direction. Also, the fact that I have the thesis data to build from means that if the analysis stagnates I can derive ideas from the former research.

My current strategy is to conduct and transcribe interviews at the same time I begin the analysis of the thesis cases—leading to the development of an initial framework. That way, when these new interview transcriptions and cases are prepared, I can analyze them and use them in my negative case analysis and my analysis of conceptual saturation. I am still confident that I can conduct the analysis and compile the findings by the end of April, pushing the deadlines in the prospectus up slightly. We'll see how things actually play out...

## **Communities of Practice - Inadequacies and Opportunities | 19 Mar 2016 (4:25pm)**

As I reflect on the interviews I had last week with Trent, Tanner, and Rachel I realize that using communities of practice as a principle of analysis will be inadequate because students do not think in terms of community, they think mainly of their own personal experiences. Because of the relational nature of communities of practice, they initially seemed to be a natural starting place for the analysis of social influences related to learning failures. However, I have found that at best, students describe social influences related to their learning failures in terms of specific social interactions with one or a group of people without considering their participation in a larger community. Thus, to use communities of practice as the sole analytic lens does not make sense for this study. I can still use constructs inherent to communities of practice to analyze the cases for this study, but they will likely become part of a larger, more organic framework of social constructs relating to learning failure experiences.

<u>Cox (2005)</u> reviewed four key documents treating communities of practice and made a comparison of the key constructs from each work:

- concept of community
- view of learning
- power and conflict
- change
- formality/informality
- diversity

Cox goes on to list a series of characteristics defining communities of practice taken from Wenger's 1998 work entitled, "Communities of Practice: learning, meaning and identity" (p. 125-126):

1. sustained mutual relationships—harmonious or conflictual

2. shared ways of engaging in doing things together

3. the rapid flow of information and propagation of innovation

4. absence of introductory preambles, as if conversations and interactions were merely the continuation of an ongoing process

5. very quick setup of a problem to be discussed

6. substantial overlap in participants' descriptions of who belongs

7. knowing what others know, what they can do, and how they can contribute to an enterprise

8. mutually defining identities

9. the ability to assess the appropriateness of actions and products

- 10. specific tools, representations, and other artifacts
- 11. local lore, shared stories, inside jokes, knowing laughter

12. jargon and shortcuts to communication as well as the ease of producing new ones

- 13. certain styles recognized as displaying membership
- 14. a shared discourse reflecting a certain perspective on the world.

Cox, Andrew M. (2005) What are communities of practice? A comparative review of four seminal works. *Journal of Information Science*, 31 (6). pp. 527-540.

Wenger, E. (1998): *Communities of Practice: learning, meaning and identity*, Cambridge, Cambridge University Press.

It may also be important to develop a framework or set of constructs that students can use to analyze their learning failures. Trent actually made this point during our interview when I mentioned that the initial learning failure study I conducted in 2012 yielded a 6-component framework. When I shared the components with him, he stated that it gave him a way to evaluate some the learning failures we had discussed.

## Dissertation Interviews | 17 Mar 2016 (8:44pm)

My interview with Trent on Monday was good. I think he has genuinely experienced learning failure and has sought understanding. There was some good initial detail and the potential to dive deeper into the social aspects. He was also fairly articulate in his descriptions of the experiences and the social influences. My initial interview with Tanner today was good, but not as rich as with Trent. Tanner has experienced learning failure but has resolved most, if not all of them. While this is good, it makes him less reflective and articulate about the experiences themselves. His attributions for the failures and their resolution are so solidified that he has difficulty describing them with any detail. Also, because of his ability to resolve his learning failures, he is a more conscientious and successful learner, so the prospect of future learning failures are less likely. He seemed rather self-aware and will likely be "successful" in his future coursework.

I had an interview with Rachel that went ok. She was more articulate than either Trent or Tanner, but she just seems bored and unfocused more so than failing to accomplish learning goals. If anything, her learning goals are still largely tacit and she is engaging in a self-discovery

process. She is also planning on a mission after this semester, so she may not be a viable candidate for this study.

So far, I think Trent is the only viable candidate for the study. I also think I am getting saturation of the themes from my thesis cases, for good or for bad. It's difficult for students to reflectively describe their learning failures with any degree of detail. We tend to hit a wall after two or three interviews where the students are unable to articulate any more detail about their learning failures. At least that has been the case. We'll see what happens...

## Student motivation | 11 Dec 2015 (9:52am)

I had an epiphany recently about motivation. Teachers do not motivate students. Students are naturally motivated, just not always to learn or do what their teachers want for them. So, I do not believe there is such a thing as an unmotivated student. In reality, students are either motivated or demotivated to learn and do what their teachers want for them (apathy is a neutral third option, but it doesn't last long enough to have any real effect). The goal is to align a student's motivation with the instructional objectives of the teacher. To do this, all demotivators must be eliminated. The following is a brief list of potential demotivators:

- Learning failure
- Negative social interactions
- Tradition/preconceptions
- Values misalignment
- Misalignment with future aspirations

When demotivators are eliminated, students will naturally pursue the instructional goals of their teachers.

## Learning Failure vs Academic Failure | 29 Aug 2015 (4:22pm)

In academic literature searches for my thesis and dissertation, I have had to use the term *academic failure* instead of *learning failure* since the latter term is not present. One of the outcomes of my research is the development of more precise terms that are capable of guiding research to more productive conclusions. Academic Failure is too broad a term, encompassing an almost infinite array of experiences, contexts, and discourses. Learning Failure is a limited term, focusing specifically on a specific failure experience as related from the learner's perspective. The precision of the term Learning Failure makes it useful in exploring constructs related to the broader term, Academic Failure. Precision in thought and discourse leads to more precise intervention and instructional design, which in turn yield better learning experiences.

## Learning Failure and the Learner Context | 29 Aug 2015 (3:35pm)

What if learning failure is not an *outcome* of a learning experience, but rather an *integral part* of it? Learning failure is often viewed as an outcome of the learning process, distinct and opposite from successful learning. This viewpoint arises from a limited definition of learning that ignores context and experience while focusing solely on objectives or outcomes. As defined

in this research, learning failures are the unrealized intentions of the learner and as such they do not exist outside the context of the learner. Meaning that it is possible for the learner to perceive a learning failure that is not detected by an observer focused on instructional objectives and unfamiliar with the learner's intent. Therefore, to assist a learner to resolve his/her learning failure, it is critical to guide *them* to identify, evaluate, and understand their own failure. It is not enough to understand the failure for them. Those who would help must first understand the learner's intent and perspective of their learning failure before guiding them to a resolution of the failure.

From the learner's perspective, learning failure, or the failure to accomplish a learning goal, is an inevitable part of the learning experience, treating learning as a continuous experience rather than a discrete outcome. The fact that learning failures are continuous and context dependent makes them necessarily social by nature. The learner's perspective of their social influences thus becomes critical to how they identify, evaluate, and resolve their learning failures. Therefore, research should explore and reveal the complexities of a learner's social perspective relative to their learning failure experiences as a means of helping learners to resolve their failures. The purpose of this dissertation is to qualitatively explore these complex social perspectives relative to learning failure in the experiences of two college students, Jason and Amy. The comparison of experiences across several courses and between each of these learners will lead to a rich description of the range of social perspectives relative to learning failure. It is expected that this dissertation will provide critical insight about how learners perceive social influences related to their learning failure experiences making possible improved interventions, instructional designs, and academic support services.

Dissertation questions: (1) How do college students reflectively describe their perspectives of social influences relative to their learning failure experiences? (2) What do a college student's reflective descriptions of social influences relative to their learning failures reveal about the experience of learning failure?

#### LPP Assumptions | 12 Aug 2015 (8:45pm)

Legitimate peripheral participation is determined more by a student's responses to their learning failures than to their successes. Success may be an indicator of LPP, but failure is the mediating construct in the achievement of LPP.

#### **Responses from Lave and Wenger | 5 Aug 2015 (8:12pm)**

Because of past success getting a response from Etienne Wenger regarding my Thesis ideas, I reached out to both he and Jean Lave. Their responses confirmed my assumptions that no one is really looking at learning failures within social contexts. Although learning is admittedly social, the failures inherent in learning and the role that social influences play in these failures seems understated and under-researched.

From Jean Lave (July 13, 2015):

#### Dear Keith Proctor,

You might read in juxtaposition with each other Ray McDermott's Achieving School Failure,

Michel Foucault's book Discipline and Punish and my Introduction to Chaiklin and Lave (Understanding Practice). They all offer critical discussions of "failure".

I like your idea of looking at the failure of students as made in their relations with each other. But note that the communities of practice most central to the students may well shape how they participate in courses, while it must be pretty rare that a course generates a community of practice. Think of students coming into a classroom from some other context of practice, and leaving the class to move on to another context of participation. It's useful to ask what class participation means to students in their broader everyday lives.

Well -- that's a few thoughts, anyhow.

Very best concerning your research.

From Etienne Wenger (August 4, 2015):

Keith,

I have not explored the role of failure in LPP explicitly, but being legitimately peripheral means that your failures are viewed as opportunities to develop your competence rather than as reasons to exclude you.

We are exploring the use of failures more explicitly on our more recent work on learning loops in communities of practice: <u>http://wenger-trayner.com/resources/planning-and-evaluating-social-learning/</u>.

But that is a view of social learning that is broader than strict LPP.

All the best,

Etienne

## Identifying Learning Failures | 21 Apr 2015 (10:09pm)

I have been doing a lot of research on topics related to my thesis on learning failure. I am extremely interested in focusing my dissertation on how students identify their learning failures. So far I have the following assumptions:

- Identifying learning failures requires feedback from others
- Identifying failure requires the definition of what failure looks like for a specific set of learning goals within a specific context
- A student's learning goals have a direct impact on how they identify their learning failures
- Students do not always fail the same way that other students do—even in similar contexts and with similar learning goals

- Learning failures are only identified after the fact when a student's learning goals remain tacit—once they are explicit, the student can identify failures before they happen
- Helping students to articulate and make their learning goals explicit is the first step to helping them proactively identify their learning failures
- Learning failures make students self-aware of their learning goals—see Roger Schank's concept of "Expectation Failure"
- Learning failures may occur simply because the related learning goal evolves through experience
- Learning failures may occur because of a misalignment between learning goals and instructional objectives
- Learning failures cannot be identified until the learner accepts the responsibility for learning—instead of passing the responsibility on to teachers, peers, and so forth

These initial assumptions have guided my search of the literature for related strands of research. I also looked for related sessions at the recent 2015 AERA conference. Unfortunately, there is still too much emphasis on controlling success to the neglect of failure in educational research. I am confident that if we turned our collective focus to resolving learning failures by teaching students how to recognize and resolve them on their own, learning would occur naturally—by engaged and intrinsically motivated students. We are deluding ourselves by thinking we can "create" (i.e., predict and control) success for students. The student must learn to identify their learning failures and resolve them.