INFLUENCES ON PRE-SERVICE TEACHERS' BELIEFS ABOUT MOTIVATION

by

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(Under the Direction of Nancy Flanagan Knapp)

ABSTRACT

Three studies were conducted to investigate pre-service teachers' beliefs about motivation in the first and last weeks of an introductory educational psychology course. The first study qualitatively analyzed 184 journal entries in which pre-service teachers responded to a scenario depicting a classroom with common motivation issues by suggesting three likely causes of the problems and three strategies for addressing the problems. The second study analyzed 33 pre-service teachers' responses to a questionnaire given in the first and last weeks of the Fall 2008 semester in order to investigate influences on their beliefs about motivation and whether or not their beliefs changed after taking an educational psychology course. The questionnaire was designed to measure their beliefs about the sources of student motivation, whether they hold an entity or incremental view of motivation, and their beliefs about the usefulness of common motivation strategies. Also measured were potential influences on these beliefs, including their own goal orientations as students in K-12, their anticipated teacher efficacy, and other demographic information. The third study investigated other influences on pre-service teachers' beliefs about motivation through semi-structured interviews conducted with eight participants and specifically addressed the influence of the course on any belief change. The results of all three studies indicate that these pre-service teachers hold conflicting beliefs about student

motivation, particularly about the sources of motivation influenced primarily by their own experiences as successful and motivated students. While the results suggests that they entered the course with an incremental view of motivation and a belief that the teacher is a source of student motivation, these beliefs did not increase, or change after taking the course. One area that did change was an increase in endorsement of “helpless strategies”, which state that there is very little a teacher can do to increase student motivation. Implications for the design of educational psychology courses and teacher education are discussion, as are suggestions for future research.

INDEX WORDS: Pre-service teachers, beliefs, motivation, educational psychology

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DEDICATION

This dissertation is dedicated to my father.

John M. Harper

1952-2002

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CHAPTER 1

INTRODUCTION

Motivating students to learn is one of the most important roles teachers have in encouraging students' academic success (Brophy, 2004). Students' motivation influences critical academic outcomes, including, but not limited to: test scores, grades, school completion, goals, effort, and quality of work (Hidi & Harachiewicz, 2000; Linnenbrink & Pintrich, 2002; Pintrich, 2003; Reeve, 1996).

While many features of a teachers' classroom are controlled by school policy and curriculum, teachers' motivational strategies are mostly within their own control (Guay, Vallerand, & Blanchard, 2000). In addition to motivational strategies, teachers also impact student motivation through other classroom decisions and actions. As Murdock, Anderman, and Hodge (2000) explain, "teachers communicate information regarding the value of schooling and their expectations for individual students' success both directly and tacitly through teaching practices such as evaluation and goal setting". Because of the impact of their motivational and instructional practices, teachers play a crucial role in students' motivation and academic success.

Teachers' beliefs are thought to have an importance influence on these teaching practices (Pajares, 1992). However, research on teachers' beliefs has tended to focus on teachers' beliefs about learning and conceptual understanding and have considered student motivation as a byproduct, rather than as a significant goal of education (Bruning & Horn, 2000; Oldfather & Wigfield, 1996). While the literature on teacher beliefs is scarce, a growing number of researchers are beginning to investigate teachers' beliefs about motivation and how these beliefs influence teachers' use of motivational strategies (Hardre, Davis, & Sullivan, 2008; Linnenbrink & Pintrich, 2002; Sansone & Morgan, 1992).

A large body of research has also shown that beliefs play an important role in pre-service teachers' learning in teacher education courses. Many studies suggest that pre-service teachers enter teacher education programs with their beliefs about student learning and firmly established (Ashton & Webb, 1986; Brookhart & Freeman, 1992; Pajares, 1992). These beliefs appear to be based on their experiences as students, developed during an "apprenticeship of observation" (Lortie, 1975), and are often implicit and difficult for them to articulate (Torff & Sternberg, 2001). Research has also shown that these beliefs serve as filters that influence what pre-service teachers learn and retain from teacher education (Holt-Reynolds, 1992; Nespor, 1987; Pajares, 1992; Weinstein, 1989). Thus, pre-service teachers' beliefs about motivation and motivational strategies are important areas of study, as they influence the beliefs and strategies they will enact in the classroom. However, we know even less about pre-service teachers' implicit beliefs about motivation than we do about those held by in-service teachers (Patrick & Pintrich, 2001). One common observation is that pre-service teachers tend have an implicit view motivation as a stable "trait" of a student, one that is difficult, if not impossible for the teacher to change (Holt-Reynolds, 1992; Knapp & Harper, 2009; Patrick & Pintrich, 2001; Peterson & Moss, 2006).

Research has demonstrated that people's implicit psychological theories strongly influence their behaviors and interactions with others in a number of areas, including the classroom (Dweck, Chiu, & Hong, 1995). Thus, teachers' and pre-service teachers' implicit theories of motivation directly impact what teachers will do in the classroom. Supporting this assertion are key theories of motivation as well as specific empirical evidence.

Weiner's attribution theory holds that both the degree and direction of our decision to act in a problematic situation is directly related to our attributions regarding the cause of the problem: whether that cause is internal or external, stable or malleable, controllable or

uncontrollable. Thus, this theory would predict that when teachers ascribe student motivation, or lack thereof, to the presence or absence of an internal, trait-like "motive to achieve" (Atkinson, 1964), they will be less likely to attempt to develop or use strategies to motivate unengaged students in their classrooms. More recently, in Weiner's (2000) expansion of attribution theory to incorporate interpersonal emotions and actions, he has demonstrated that when people attribute negative behavior to a cause that is controllable by the actor (such as laziness), they feel angry and are more likely to punish the individual, rather than feeling compassion or an urge to help.

Teachers' behaviors in the classroom have been shown to be directly related to their attributions for student failure. Studies by Brophy and Rohrkemper (1981) and Prawat, Byers, and Anderson (1983) suggest that when teachers attribute a student's failure to lack of effort or laziness, they were less likely to offer help and more likely to react with threats and punishments. In 1984, Peterson & Barger found that teachers tended to focus on the consistency of students' motivational responses, implying a belief that motivation was primarily a stable trait of students, rather than on contextual or situational variations in students' motivation, which would suggest a theory of motivation as a more flexible "state," resulting from an interaction between the student and the instructional setting. The effects of such a "trait vs. state" attribution were further described by Clarke and Peterson, who found that teachers who considered student motivation to be a personal trait felt less responsible for maintaining or increasing students' level of motivation. More recently, Georgiou, Christou, Stavrinides, and Panaoura (2002) found that teachers who attributed a student's failure to lack of effort not only felt angry at the student, but were also less likely to accept any responsibility for the student's failure and more likely to simply "give up" on the student.

In contrast, Tschannen-Moran, Hoy, & Hoy (1998), studying teachers who had high self-efficacy in teaching, describe the greater effort they put into engaging students in learning than teachers with low self-efficacy and the wide variety of instructional strategies used to achieve this end. These teachers' attribution of student motivation to a more situational, malleable and controllable (by the teacher) state were clearly associated with better teaching, which in turn reinforced their beliefs in their own abilities to positively influence student motivation and encouraged them to find even better ways to do so.

The above findings suggest that teachers who attribute students' motivation to stable, entity-like, trait are less likely to believe that they can have a positive influence on students' motivation, and less likely to use effective strategies to do so than teachers who attribute motivation to more situational factors. Where do these beliefs originate? Courses in educational psychology are the most likely place for pre-service teachers to encounter theories of motivation and gain knowledge of effective motivating strategies. However, at least one published study points to other sources of these implicit beliefs about student motivation. Beghetto (2007), in a study of 166 pre-service teachers, reported that they tended to base expectations for students' motivation on their own past goal orientations in K-12 schooling. Specifically, those who held performance goal orientations were more likely to attribute students' lack of motivation to "laziness". Overall, the pre-service teachers in his study, regardless of prior goal orientation, were more likely to attribute student motivation to "internal" factors.

My own previous work (Harper, 2006), analyzing pre-service teachers' journals regarding their beliefs about the challenges of teaching revealed that the challenges they anticipate about motivation are related to whether they express an entity or incremental view of motivation. Those that held an entity view reported expecting motivating students to be

challenging because there would be very little they could do to change a student's motivation. On the other hand, the pre-service teachers who seemed to hold an incremental view also stated that motivating students would be a challenge, but expressed a desire to increase motivation and even suggested strategies they thought would be helpful to do so.

PURPOSE OF THE STUDY

These studies indicate that teachers' implicit theories of motivation may already be in place during teacher education. This study seeks to further our understanding of the implicit theories pre-service teachers may bring to the study of motivation in educational psychology classes. The implicit beliefs that pre-service teachers' hold prior to starting their teacher education courses should influence and be reflected in the strategies they are developing for use in their future classrooms. Since research has demonstrated that implicit beliefs, like explicit beliefs, are learned (Bergen, 1991; Chiu, Hong, & Dweck, 1997), they should be susceptible to change if specifically addressed during a course in educational psychology that encourages teachers' to take an incremental and situational view of student motivation.

Therefore, the purpose of this study is to explore pre-service teachers' implicit theories, beliefs, and strategies regarding student motivation and the influences on these beliefs and asks the following four questions:

1. What implicit theories of motivation do pre-service teachers entering an introductory educational psychology course hold? What are some of the sources of these beliefs (e.g., own history as a student, previous teachers, family)?

2. Do these beliefs change by the end of the course in educational psychology; specifically after the unit on motivation?

3. What strategies to motivate students do pre-service teachers anticipate using, at the start and the end of the class?

4. What are the relationships between pre-service teachers' initial and final theories and strategies?

CHAPTER 2

LITERATURE REVIEW

In this chapter, I review three areas that form the theoretical and psychological background for this study; relevant theories of motivation, teachers' beliefs about motivation and motivating strategies, and the potential impact of these beliefs on teachers' actions in the classroom.

I have chosen to focus on motivation, rather than the related construct of academic engagement for several reasons. Multiple definitions for engagement can be found in the literature, emphasizing the multiple perspectives and conceptualizations of engagement (Fredricks, Blumenfeld, & Parks, 2004; Jimmerson, Campos, & Grief, 2003; Libbey, 2004). At the center of most of these conceptualization is that engagement refers to the "*quality* of student participation with learning activities" (Skinner, Kindermann, & Furrer, 2008), which has led many motivational theorists to consider engagement to be an outward manifestation of motivation (Connell & Wellborn, 1991; Deci & Ryan, 1985, 2000; Wentzel, 1997). Taking this perspective, I consider motivation to be the underlying construct which influences, among other things, the behavior of engaging in school and tasks. Motivation is also the older and more generally used term in both psychology and education.

REVIEW OF RELEVANT MOTIVATION THEORIES

The literature on human motivation encompasses many concepts and constructs that explain why people perform certain behaviors, but the most current theories focuses on two beliefs that appear to be at the heart of student motivation: expectancy and value (Wigfield &

Eccles, 2000). It is around these two beliefs that I have organized my review of the theories of motivation most relevant to student motivation. Essentially, the Wigfield and Eccles Expectancy-Value model of achievement is presented as an "umbrella" theory, under which other theories of motivation can placed (see Figure 1).

An Expectancy – Value Theory of Motivation

Atkinson's Theory of Achievement Motivation (1964) proposes that the tendency to achieve at a particular task is a product of a person's *drive to achieve*, the *probability* or expectation of success, and the *incentive value* of success. Many other models of motivation drew from Atkinsons' theory to address the roles of expectancy and value (Heckhausen, 1977; Pekrun, 1993; Rheinberg, Vollmeyer, & Rollett, 2000), but arguably the most currently influential of these in the context of education is the model proposed by Eccles and Wigfield (Wigfield & Eccles, 2000). This model resembles Atkinson's theory, as it emphasizes the importance of expectancy and task value, which are essentially the same constructs as Atkinson's probability for success and incentive value. However, it does not include the *motives to succeed* or *avoid failure,* which Atkinson proposed as stable traits, and it treats task value as a more complex construct than simply an inverse of expectancy.

According to Eccles' and Wigfield's model, students' expectancy and value beliefs are influenced by a number of factors included memories of past success or failure, goals and self-concepts, and social factors (Wigfield, 1994). Students who have had negative experiences with a subject, such as science, may expect to have difficulties in the future, leading to less value and lower motivation for the subject. Students' self-concepts reflect their beliefs about what kind of person they are, what they could become and what they are able to do (Eccles, 1983; Harter,

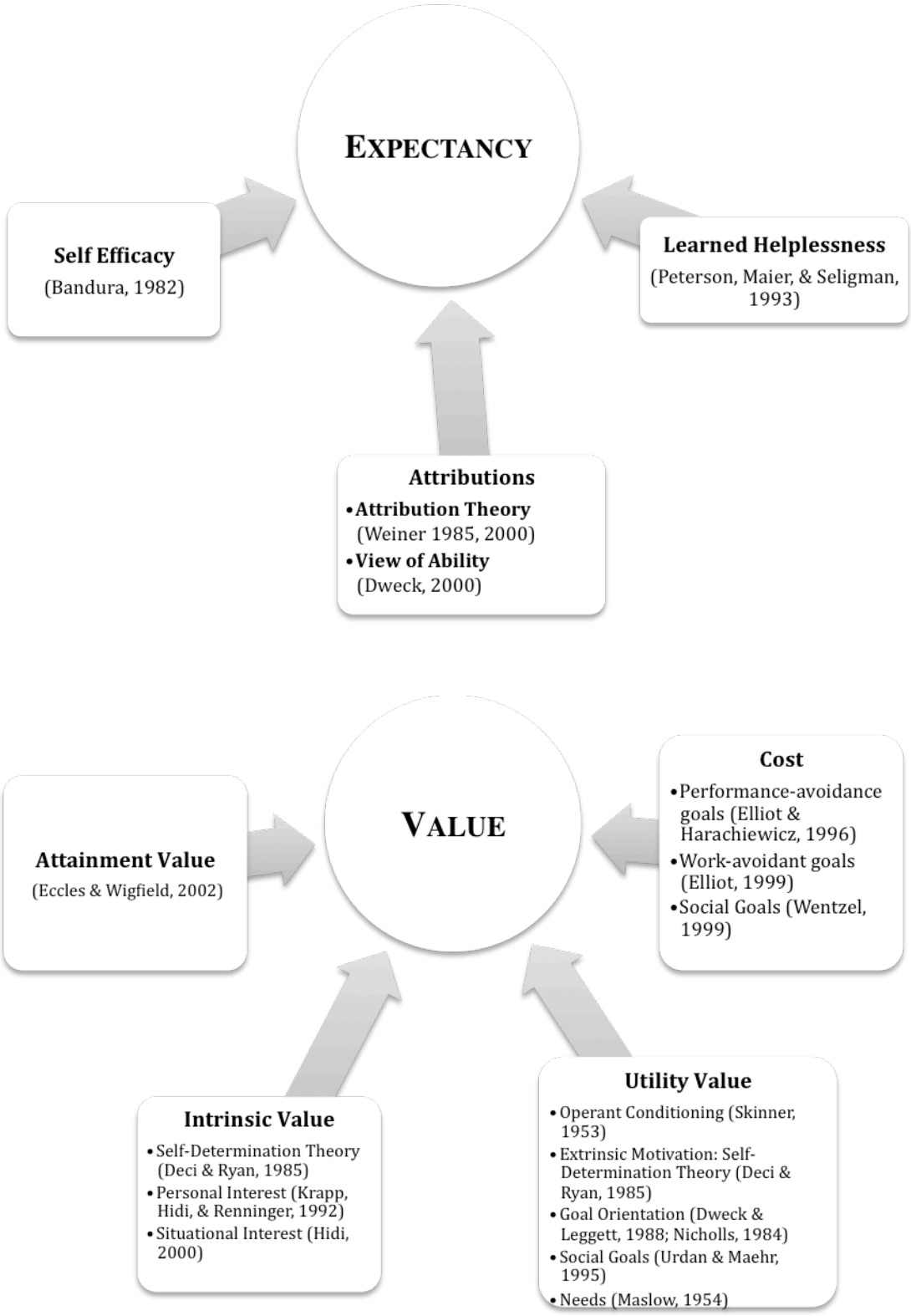

Figure 1: Constructs and Theories Related to Expectancy and Value

1983; Markus & Nurius, 1986; Marsh, 1990). Social factors that influence students' expectancy and value beliefs include the students' interactions with friends, family, teachers, and the general culture. These can all influence students' beliefs by the messages they send to the students about their abilities and value of tasks. According to the model, these messages are filtered through students' perceptions.

Expectancy and Related Constructs and Theories

Students' expectancy beliefs, according to the Eccles and Wigfield Model, are their answers to the question, "*Can* I do this task?" (Eccles, A. Wigfield, & U. Schiefele, 1998). These beliefs refer to the students' expectation for a successful outcome and be condensed to subsume the related constructs of self-efficacy, attributions, locus of control, and learned helplessness (Bandura, 1982; Peterson, Maier, & Seligman, 1993; Weiner, 1985, 2000)

Self-efficacy

Bandura (1986) coined the term *self-efficacy* to describe "people's judgments of their capabilities to organize and execute courses of action" (p.391) to accomplish a task. Self-efficacy is often domain specific, in that a student may feel very confident in their ability and skills in science, but not feel efficacious in art. Students with high confidence in their ability have been shown to put forth more effort and persistence on difficult tasks (Bandura & Cervone, 1983).

Self-efficacy is in an area is only one part of expectancy for success on a task: beliefs about ability influence how *well* one expects to do on a task. According to Bandura, "if you control for how well people judge they can perform, you account for much of the variance in the kinds of *outcomes* they expect" (1986, p.393). Further, Bandura (1982) suggested possible behaviors and emotions that could result from the combination of the various levels of efficacy and expectancy. For example, a student may enroll in an advanced science course and have a

rather positive judgment of ability (high self-efficacy) in science but not expect to get an A in the course (low expectancy) and might, according to Bandura, study hard but argue with the teacher about the grading system.

Attribution Theory

Another influence on expectancy are students' attributions for past success and failures. Attributions can affect their expectancy beliefs as they represent the students' search for the causes of their success or failure. According to Bernard Weiner, originator of attribution theory, attributions are categorized along three dimensions: locus, stability and control (1985, 2000). The dimension of locus refers to whether the behavior or outcome can be attributed to personal, or internal, causes such as ability or to situational, or external causes, such as a lack of a favorable judge. The dimension of stability refers to whether the behavior or outcomes can be attributed to causes that change over time or not. Finally, causes may be classified as being either controllable or uncontrollable.

The three dimensions of attributions can have important consequences for individuals' expectancy beliefs (Weiner, 1986). If an attribution for failure is made to a cause that is internal and stable ("I failed the science test because I am not smart"), the student is less likely to expect to do well in the future. However, if the student makes an attribution to an internal, but unstable cause ("I failed the science test because I didn't study"), then the student might reasonably expect to do better in the future with more effort. While all three dimensions are important, Weiner suggests that the stability dimension is the most closely linked with future expectancy beliefs, because it emphasizes the possibility of change in future outcomes (1986).

Carol Dweck's work on students' views of their own ability also emphasizes the perception of stability (Dweck, 2000; Dweck & Leggett, 1988). Students with an *incremental*

view of ability believe that they can change and increase their abilities with effort and persistence. Students with an entity view view ability as a permanent trait, one that cannot be changed, hold an *entity view*. These various attributions of ability influence future expectancy beliefs, with the *incremental view* linked to higher expectancy for success and the *entity view* linked to low expectancy for success, especially after an initial experience of failure or difficulty (Dweck, 2000).

Learned Helplessness

The combination of low self-efficacy and uncontrollable, stable attributions, (e.g. an entity view of ability) can cause students to develop an habitual explanatory style called *learned helplessness,* which negatively influences future expectations for success (Peterson, et al., 1993 1993). Students experiencing learned helplessness believe they are unable to do something and will *never* be able to do it, beliefs that result in low motivation for learning task (Weisz, 1986). These students are less likely to put forth effort and persist through difficulty and are more likely to "give up" or alternative set easy or impossible goals for themselves (Dweck, 2000; Seligman, 1975).

Value and Related Constructs and Theories

Students' beliefs about the value of a task are their answers to the question, "Why *should* I do this task?" (Eccles, 1983; Eccles, Wigfield, & Schiefele, 1998). Students may answer this question in many ways, reflecting the complexity of this construct. Possible answers may be related to attainment value or personal importance (It is *important* to me to learn about science), intrinsic interest (I *enjoy* science), utility (I *need* this science class to prepare for college), and costs (If I take this science class, I won't be able to take art with my friends). In this way, the concept of task value subsumes other motivational constructs including intrinsic and extrinsic

motivation, interest, prior needs, and goals (Deci & Ryan, 1985; Elliot & Dweck, 1988; Harter, 1981; Hidi, 1990; Maslow, 1954; Skinner, 1953). In this review, and in Figure 1, these aspects of some of these constructs, such as the various goal theories, have been separated to fit the Expectancy-Value model, however, they are interrelated.

Attainment Value

Eccles and Wigfield (2002) define attainment value as the "personal importance of doing well on a task" (p.119). A task holds personal importance when it confirms or disconfirms aspects of one's self-schema, or identity such as masculinity, femininity, and/or competence in various domains. Thus for students who identify with academic achievement ("I'm an A student"), doing well in school helps them confirm that aspect of their self-schema. Conversely, some students do not identify with academic achievement, and the opposite hold true ("I'm just a C student", or "I'm a bad student").

Intrinsic Value

Students who are intrinsically motivated work on school tasks because they find them enjoyable. Working on a task may satisfy internal reasons for doing something or relate to the interest that a task holds. Ryan's and Deci's Self-Determination Theory (2002) addresses internal reasons for engaging in a task, while the research on interest (Hidi, 1990; Hidi & Harachiewicz, 2000) focuses on features of tasks that may promote intrinsic motivation.

Intrinsic Motivation as the Drive for Self-Determination

Self-Determination theory defines intrinsic motivation as "the human need to be competent and self-determining in relation to the environment" (Deci, 1980). That is, people are intrinsically motivated to engage in tasks make them feel capable or in control. In this view, students are more intrinsically motivated when they can choose the topic they want to learn, or

the book they want to read because they feel more in control. Intrinsic motivation is derived from engaging in tasks for their own sake, not to achieve an externally imposed goal or consequence. When another person or event is perceived as exerting control over the situation (such as a deadline or required activity) this directly effects the perception of autonomy and undermines motivation (Deci & Ryan, 1985). When an event increases perceived control (such as choice), intrinsic motivation tends to be enhanced (Ryan & Deci, 2002).

Intrinsic Motivation as Interest

Personal and situational interest in a task or subject can also enhance a students' intrinsic interest (Krapp, Hidi, & Renninger, 1992). Krapp and her colleagues conceptualized personal interest as a relatively stable characteristic of an individuals, which is usually directed toward a specific domain or activity. For example, students may have a personal interest in specific subjects, such as science or language arts, or in activities such as sports, dance, and music. Students might express personal interest in a subject because of a general sense of preference, liking, or enjoyment (Schiefele, Krapp, & Winteler, 1992). Thus, personal interest is more stable than situational interest, which refers to the psychological state of being interested in a specific task or activity (Krapp, et al., 1992), and depends more on contextual features of a lesson or activity than personal interest does. For example, a student may not have a general personal interest in science, but might be interested in the teachers' demonstration of an explosive chemical reaction. Since not all students will be personally interested in a subject, situational interest is one common way to motivate students (Hidi, 2000; Hidi & Anderson, 1992).

Utility Value

Utility value refers to how well a task relates to current and future goals. A task can have utility value to a student because it facilitates future goals, even if the student is not personally or

intrinsically interested in the task. Students often take courses they do not enjoy but that they need to fulfill a particular goal, such as fulfilling a degree requirement, or to please their parents. Thus, while utility value relates directly to students' internalized goals, it also captures more "extrinsic" reasons for attempting a task and subsumes theories that relate to extrinsic motivation, such Operant Conditioning and parts of as Self-Determination Theory.

Operant Conditioning Theory

Eccles and Wigfield do not include behaviorist theories in their expectancy-value model of achievement, but these approaches are commonly used to motivate students in schools. According to Skinner's Operant Conditioning Theory (1954), external rewards, or reinforcing consequences, increase the rate of (or motivation for) performing, that response in the future. Consequences that are punishing decrease the likelihood of responding. Thus, Operant Conditioning would suggest that if students are rewarded for performing a task, they will be more likely to perform the task in the future and the task will have utility value, as the students will expect to receive the reward, again. However, if students are punished for failing to perform a task, operant conditioning suggests they will be more likely to perform the task in the future. In this case, performing the task holds utility value as it facilitates the goal to avoid punishment. From the behaviorist view, grades, praise, and privileges are direct ways to reinforce effort and increase motivation for future tasks (Stipek, 1996).

Extrinsic Motivation from the Self-Determination Theory

Ryan and Deci (2002) propose that some extrinsic motivators may become internalized and utilized in self-regulation, leading to a more internal, though not intrinsic, motivation. According to their theory, extrinsic motivation includes four types of motivated behavior, representing the various ways that the external controls may be integrated and considered

autonomous. The least autonomous form of extrinsic motivation is *external regulation*, which describes behavior performed solely for external reasons, such as to obtain rewards or avoid punishments, as in Operant Conditioning. *Introjected regulation* involves some sense of integration, such that success or failure affects self-esteem (Deci & Ryan, 1995), but is considered to still be externally controlled. *Identified regulation* refers to instances when an individual identifies with or values a goal or reason for doing something. When individuals identify with or value the reason for doing something, they feel as if they have more choice, or self-determination. When individuals not only value and feel they have a choice but are able integrate these into their existing sense of self, they are said to have *integrated motivation*. Integrated motivation is the type of extrinsic motivation most similar to intrinsic motivation, but the key difference is that the individual is valuing the *outcome* of the activity and not the activity itself. Students who want to do well in a class in order to get a good grade may feel autonomous and competent in achieving this goal, but are still *extrinsically* motivated by the grade.

Goal Orientation

Goal theorists have focused on the orientation, or types of the goals we set, and the directionality of these goals, i.e. whether we are trying to achieve or avoid something. Goals focused on approaching achievement hold utility value while goals to avoid something are more related to *cost* and will be addressed later.

There are a number of goal orientation theorists (Ames & Archer, 1988; Dweck & Leggett, 1988; Elliot & Dweck, 1988; Midgley, Kaplan, & Middleton, 2001; Nicholls, 1984) and though each may use different labels, they similarly distinguish between mastery and performance goals. Students with *mastery goals* (also called *learning* or *task* –involved goals; Nicholls, 1990) focus on learning and understanding school content. Students who set

performance goals (also called *ego-involved* goals) focus on demonstrating ability, getting grades, or outperforming others. While much research suggests that mastery goals are related to deeper understanding and higher levels of strategy use, some studies indicate that students can benefit from the use of both types of goals as a focus on performance can lead to higher grades and scores (Harackiewicz, Barron, Tauer, Carter, & Elliot, 2000; Midgley, et al., 2001; Valle, et al., 2003; Young, 1997). Thus, these goal orientations are not mutually exclusive; students can set both mastery and performance goals for a task.

Social Goals

Students also pursue social goals in the classroom and at school along with achievement goals. Many students are motivated by a goal to please or be accepted by others. Doing well in school, then, may have utility value if it earns this pleasure or acceptance. Social goals that include pleasing parents and teachers, or being part of a peer group that values academic achievement, support achievement goals (Brophy, 2004; Urdan & Maehr, 1995).

Needs

Other types of goals that humans pursue include the fulfillment of physical and psychological needs. Maslow's Hierarchy of Needs (1954) classifies human needs into five, hierarchical categories. According to this theory, humans are motivated to satisfy these needs, and if two different needs are in conflict, the lower need will become the primary goal (Maslow, 1954). The higher needs for esteem and self-actualization are more difficult to satisfy until the lower needs, such as the physiological and safety needs, are met. Thus, students' needs for hunger, safety, and acceptance must be met before they are likely to pursue achievement goals in school.

Cost

Eccles and Wigfield (2002) conceptualized cost in terms of the negative aspects of engaging in a task. Cost can refer to negative emotions, such as the fear of failure, or the repercussions of performing a task, including the lost opportunities or even a fear of success. Thus, while some types of goals were discussed as illustrating utility value, other goals are best subsumed under *cost*.

Performance-Avoidance Goals

Nicholls' (Nicholls & Miller, 1984) use of the term *ego-involved* emphasizes the social comparison inherent in performance goals, where the reason for engaging in tasks is to maintain, or enhance, one's image. Yet, not all students can, or want to be, the best in the class; rather, they just don't want to be the worst. This recognition led to the separation of performance goals into two forms, *approach* and *avoidance* (Eccles, 1983; Elliot, 1997; Elliot & Harachiewicz, 1996; Midgley & Edelin, 1998). Students can be motivated either to perform better than others (performance-approach) or to simply avoid failure (performance-avoidance). Unsurprisingly, a performance-approach orientation has been linked to higher levels of achievement and efficacy (Midgley, et al., 2001), while a performance-avoidance orientation is associated with ineffective strategy use, negative outcomes and affects (Harachiewicz, et al, 2002; McGregor & Elliot, 2002).

Work-Avoidant Goals

Some students do not care so much about approaching achievement or avoiding failure; rather, they are mainly motivated to avoid work. These students complete assignments without regard for learning the content or getting a good grade, but with the least amount of effort possible. As such, they often meet only the minimal requirements or copy other students' work

(Dowson & McInerney, 2001). Students with this *work-avoidance* orientation feel successful when they get by with putting in as little effort as possible (Elliot, 1999; Nicholls, 1984).

Social Goals

Social goals were discussed earlier under *utility value* in describing students who perform academic tasks because they seek praise or acceptance from parents, teachers, or peers. However, students can also be socially motivated to avoid achievement because they do not want to outperform their friends or because their peers do not value academic success (Wentzel, 1999; White, Sanbonmatsu, Croyle, & Smittipatana, 2002). In this sense, performing well would *cost* the students socially, as it may cause conflict with their friends or causes them to lose social standing in their peer group.

IMPACT OF TEACHERS' BELIEFS

Few would argue with the psychological principal that an individual's beliefs strongly affect their behavior (Pajares, 1992). After all, beliefs are instrumental in defining tasks and organizing knowledge and information to solve those tasks (Abelson, 1979; Bandura, 1986; Brown & Cooney, 1982; Nespor, 1987; Nisbett & Ross, 1980; Pajares, 1992; Rokeach, 1968). From this perspective, teachers' beliefs are thought to have an important influence on their teaching decisions and practices (Calderhead, 1996; Pajares, 1992; Richardson & Placier, 2001). Researchers have found links between teachers' attributions and their reactions and behaviors towards students (Weiner, 1986), based largely on judgments of responsibility and implicit theories (Chiu, et al., 1997).

Teacher's attributions for students' success or failure are defined as their judgments of who is responsible and, as such, they impact teachers' emotional reactions to students. According to

Weiner's interpersonal theory of motivation, when we attribute someone else's negative outcome to something they could have controlled (such as effort), we hold them responsible and may become angry at them. However, if the negative outcome was due to something they could not control, such as low ability or an illness, then we tend to hold them less responsible and react with sympathy or pity (Weiner, 1995, 2000). Such judgments of responsibility and the associated emotions give rise to different behavioral reactions. According to this theory, teachers are less likely to punish, or react negatively, to a student who fails due to lack of ability (Weiner, 1986). In such a case, they are more likely to feel pity and offer more help, or give more instruction and support (Brophy & Rohrkemper, 1981; Covington, Spratt, & Omelich, 1980 1980; Georgiou, et al., 2002 & Panaoura, 2002; King, 1980; Prawatt, et al., 1983). However, the studies by Brophy and Rohrkemper and Prawat, Byers and Anderson also found that when teachers attributed student failure to lack of effort, or laziness, they were less likely to offer help and more likely to react with threats and punishments. More disturbingly, Georgiou and colleagues found that teachers who attributed students' failure to lack of effort not only felt angry, but were also less likely to accept any responsibility for students' failure and gave up on the students.

Dweck and her colleagues have proposed that people's implicit theories about human characteristics and behaviors influence their judgments and reactions (attribution) to others' behavior (Dweck et al. 1995). In essence, individuals' attributional style is influenced by their implicit theories in an area. Dweck et. al. suggested that *entity theorists* are those who believe personal attributes and characteristics are fixed traits and cannot be changed, while *incremental theorist*s believe they can be changed. Therefore, entity theorists tend to attribute behavior and outcomes to personal traits, while incremental theorists tend to make more situational

attributions. Although her research has focused on implicit theories of intelligence and morality (Dweck, Hong, & Chiu, 1993; Dweck & Leggett, 1988), Dweck's model suggests that one's implicit theories can influence one's attributions for any personal characteristic, including motivation.

In accordance with this model, teachers with an *entity view* of motivation, who believe it is a stable trait of a student that cannot be changed, should react with pity and sympathy toward that student. However, as Prawat, Byers and Anderson (1983) point out, this is not the case. Teachers' attributions for student motivation appear more complex than their attributions for ability, differentially impacting teacher behavior. Within the expectancy-value model (Eccles & Wigfield, 2002), teachers' attributions for students' motivation would influence their own expectancy of success in motivating students. Those with an *entity view* should feel less efficacious in their ability to motivate students than those with an incremental view. However, it seems as though teachers with an entity view may also feel less value for motivating students.

Ames (1982) suggests that teachers' attributions are affected by their "value for responsibility". High-value teachers, Ames hypothesizes, believe that teaching is important, intentionally designed for success, and that student success is generally feasible. Because of these beliefs, Ames would expect high-value teachers to take more responsibility for student outcomes and hold a more incremental view of motivation, believing that it can be strongly influenced by the teachers' actions. On the other hand, according to Ames' theory, low-value teachers, who take less responsibility for student outcomes, would be more likely to hold an entity view of motivation and would be more likely to give up on unmotivated students.

Ames' theory suggests a connection between teachers' attributions for student behaviors and their own sense of teaching efficacy. Research has found that teachers with higher teaching

efficacy believe they can create successful and motivating lessons and tend to have greater commitment to teaching (Evans & Tribble, 1986). It seems reasonable to assume that teachers with higher efficacy have a higher value for teaching and a tendency to make situational attributions for students' motivation, as teacher efficacy influences the effort teachers invest and the goals they set for their classrooms (Tschannen-Moran, Hoy, & Hoy, 1998).

The research cited above suggests that teachers' beliefs influence their teaching practices, including decisions about strategy use. However, some studies point to discrepancies between teachers' beliefs and observed or reported practices (Galton, Simon, & Cross, 1980), particularly concerning student motivation (Hardre, et al., 2008). As we will see, teachers' beliefs about the causes of motivation do not always align with their beliefs about motivational strategies. Therefore, while it is important to review what researchers have found regarding teachers' beliefs about motivation, it is also important to do so with the understanding that these beliefs and their effects may be more complex than we realize.

Teachers and Pre-service Teachers' Beliefs about Student Motivation

A common observation in the literature is that in-service and pre-service teachers tend to view motivation as a stable trait of the student; a trait that determines whether or not a student is motivated in school (Holt-Reynolds, 1992; Moss & Peterson, 2007; Patrick & Pintrich, 2001; Knapp & Harper, 2009; Peterson & Moss, 2006). However, there is little published research to support this common observation (Knapp & Harper, 2009; Patrick & Pintrich, 2001; Peterson & Moss, 2006). What has been documented are teachers' beliefs about what influences student motivation (Hufton, Elliott, & Illushin, 2003), teachers' perceptions of the causes of student motivation in their classrooms (Hardre, et al., 2008) and pre-service teachers' beliefs about students' goal orientations (Beghetto, 2007).

Teachers' Beliefs about the Influences on Student Motivation

Hufton, Elliott, and Illushin (2003) investigated teachers' beliefs about the influences on student motivation and de-motivation from a cross-cultural perspective. Using interviews with 108 teachers in the United States, the United Kingdom, and Russia, they found similarities in the teachers' opinions. The teachers tended to agree on the positive influence on motivation of parent involvement, teacher-student relationships, extrinsic rewards (praise, token rewards, and grades), and student success in learning. They also agreed on the negative influence on motivation of extra-curricular and leisure activities and the perception of the value of education for employment. Because the researchers were examining the potential cultural differences that influence student motivation, they did not ask the teachers' about their personal beliefs of motivation.

Teacher Perceptions about Student Motivation in their Classrooms

To date, the work of Patricia Hardre and her colleagues (Hardre, Davis, & Sullivan, 2008: Hardre & Sullivan, 2008) provides the most comprehensive research on teachers' beliefs about their own students' motivation. Their research explores teachers' perceptions of their students' motivation, particularly their perceptions of the reasons for students' lack of motivation in their own classrooms, using the Perceptions of Student Motivation questionnaire. The PSM measures teachers' overall perceptions of students' motivation in their classrooms and perceptions of the reason (Hardre, Davis & Sullivan, 2008). Reasons included on the PSM are categorized into five clusters: home factors, relevance/value of course; aspirations/future goals; negative peer pressure; and personal traits. In a study of 74 rural high school teachers (Hardre & Sullivan, 2008), the average weight teachers gave to these causes for lack of motivation in their

classrooms were, in order from highest to lowest: relevance/value of course (5.1), home factors (4.5), aspirations/future goals (4.5), personal trait (4.2), and negative peer pressure (3.7).

In interviews with 66 of the same group of participants, the researchers explored teachers' beliefs about the relative influence of peers (versus the teacher), parental participation, administrative participation, their own knowledge and strategies for motivating students, and their own responsibility for motivating students. Analysis of the interviews revealed that teachers generally expressed strong beliefs that student motivation was more influenced by peers than the teacher and that the majority lack of respondent lacked confidence in both their knowledge about motivation and motivational strategies and their abilities to motivate students. Additionally, most respondents felt that their efforts to motivate students were not supported by parents or the school administration, and that this had a great effect on their students' lack of motivation. The researchers also found that these teachers differed greatly in their beliefs about the whether motivation was primarily the teacher's or the student's responsibility.

Teachers' Beliefs about Students' Goal Orientations

A third line of research on teachers' beliefs about student motivation is concerned with possible influences on pre-service teachers' beliefs about the goal orientations of students. Beghetto (2007) explored the relationship between 166 pre-service teachers' own past achievement goals and their beliefs about students' goal orientations and behavior. His results indicate that the pre-service teachers expected their students to pursue the same goal orientations they had in school. Additionally, his results suggested that pre-service teachers who had held performance-approach goals were more likely to view student avoidance behaviors as a sign of "laziness," while those who themselves had held performance-avoidance goals more often viewed student avoidance behaviors as a result of low confidence or lack of support.

Beliefs about Motivating Strategies

Researchers have also looked at the strategies pre-service and in-service teachers suggest or use to motivate students. Most researchers have studied the two groups separately, utilizing both qualitative and quantitative methods. I will discuss the research conducted with in-service teachers first, followed by one study that compares pre-service and in-service teachers' beliefs about the usefulness of strategies to motivate students.

Hardre and her colleagues have also studied the influences of teachers' perceptions of their students' motivation on the teachers' motivating strategies (Hardre & Sullivan, 2008). Using a 7-point Likert scale, teachers were asked to report their level of use of 13 motivational strategies. The researchers sorted these strategies into five clusters representing four types of strategies teachers used to motivate their students (providing emotional support, increasing relevance and value, focusing on students' aspirations and future, addressing peer pressure) as well as a two items that indicated a belief that a teacher cannot influence motivation, which they labeled "helpless" strategies. In a study of 75 rural high school teachers, individual means for each of the four cluster of motivating strategies were similarly high and with a pair wise correlation ranging from .36 to .87, indicating that the teachers tend to use all of these types strategies in their classrooms. Strong negative correlations between the "helpless" strategies and the other four clusters were found, indicating that teachers who tend to use the other types of strategies more frequently, were less likely to use the "helpless" strategies. Additionally, the teachers' perceptions of the causes of students' motivation or lack of motivation, as measured by the PSM (Hardre, Davis, & Sullivan, 2008), were not correlated to their strategy use. Similar results were obtained in a second study conducted with 96 high school teachers, which found that teachers' perceptions of causes of motivation did not predict their strategy selection (Hardre,

Sullivan, & White, 2008). Taken together, these results suggest that teachers use multiple strategies to motivate their students and that their use of strategies is not necessarily based on beliefs they report as to the causes of lack of motivation in students.

One explanation for this disconnect is that teachers' strategy use may be influenced by a belief that students require different types of strategies based on their differing level of achievement. As part of a larger study on teachers' perceptions of students' motivation to read, Sweet, Guthrie, and Ng (1998) interviewed 6 elementary school teachers about their perceptions of their students' motivation and what the teachers might do to motivate them. The teachers indicated that higher achievers in readings were more intrinsically motivated than lower achievers, who required more extrinsic motivation from the teacher. The study did not address teachers' *actual* motivating strategies for their students, but does indicate that teachers might choose use strategies based on student achievement levels, rather than general beliefs about student motivation.

Nolen and Nicholls (1994) surveyed 178 elementary school teachers' beliefs about the effectiveness of 40 strategies that were based on various motivation theories. The teachers were asked to rate each strategy on a 5-point scale: from Very Useful (5) to Very Harmful (1). The teachers reported that promoting cooperation, giving students choices, and attributing students' success to effort were useful strategies, indicating an agreement with leading motivation researchers (Brophy, 1987; Deci & Ryan, 1985; Nicholls, 1984; Schunk, 2000). The teachers also agreed with researchers about the potential harm of public comparison and competition and special rewards or privileges for high achievers. Nolen and Nicholls point out the contrast of these teachers' endorsement of strategies to foster intrinsic motivation and the extrinsic strategies most often observed in classrooms. They suggest that teachers' strategy use in practice may be

based on pressure to keep students focused on topics tested by standardized tests, rather than on their knowledge of how to foster intrinsic motivation. Nolen and Nicholls report that they also used the same instrument to survey to 276 pre-service teachers, but as the responses were "nearly identical" (p.59), they disappointingly chose not to include the results in their article.

Fives and Manning (2005) elicited teachers' beliefs about motivational strategies by asking 120 pre-service and 102 in-service teachers to respond to a vignette describing a unmotivated student by listing as many strategies as possible to address the problems and rating each of these strategies on how useful they perceived them to be to solve the problem. The researchers found that the two groups reported and ranked most strategies very similarly, highly related strategies included: connecting content to student interests, devising a plan for the student to complete her work, supporting autonomy, and conferencing with parent/guardian. However, the pre-service teachers reported fewer extrinsic strategies than the practicing teachers and ranked those extrinsic strategies they did list as less useful to solving the problem.

Teachers Efficacy Beliefs for Motivating Students

A third area that may impact teachers' beliefs about motivational strategies is their sense of teaching efficacy. Personal teaching efficacy refers to teachers' beliefs about their own ability to teach and motivate students (Gibson & Dembo, 1984). The most popular measure of teacher efficacy, the Teacher Efficacy Scale, (Tschannen-Moran, Hoy & Hoy, 1998) includes three subscales measuring teachers' efficacy for engagement, instruction, and classroom management. Teachers with high levels of overall teacher efficacy are more likely to persevere with struggling students, develop more challenging lessons, and actively seek resources (Bandura, 1997; Deemer, 2004; Pajares, 1996; Tschannen-Moran, et al., 1998). They are also more likely to promote students' autonomy and provide choices, which as previously discussed, can enhance

students' intrinsic motivation (Woolfolk Hoy & Hoy, 1990). Additionally, teachers with higher overall teaching efficacy believe they can create successful and motivating lessons and tend to have greater commitment to teaching (Coladarchi, 1992; Evans & Tribble, 1985).

In the same study discussed previously, Hardre and Sullivan (2008) designed three items to measure teachers' efficacy for *diagnosing* motivation problems and found that they more powerfully predicted teachers' motivational strategy use than items on the efficacy for engagement subscale of the Teacher Efficacy Scale (Tschannen-Moran, Hoy & Hoy, 1998). Additionally, during interviews, teachers expressed more confidence in diagnosing motivation problems but more frustration and helplessness about *solving* them. The teachers' demonstrated knowledge about *why* students might not be motivated but, contrary to Nolen and Nichols' results, felt they lacked knowledge of *how* to motivate students. These teachers felt even less able to influence the most unmotivated students, who motivation they attributed to a stable trait, than to students they felt were at least "somewhat" motivated.

SUMMARY

Teachers' beliefs are assumed to have an important influence on their classroom practices (Calderhead, 1996; Pajares, 1992; Richardson & Placier, 2001). However, given the literature cited above, there seems to be a divide between teachers' reported beliefs about student motivation and their reported knowledge and use of motivational strategies. There are two possible reasons for this division. First, one might hypothesize that teachers do not actually believe that all students can be motivated or that strategies that would promote intrinsic motivation are valuable for the classroom, but merely feel a pressure to report these "social desirable" beliefs. A more likely explanation is found in Hardre's work (Hardre, et al., 2008), in

which teachers reported feeling frustrated and helpless about motivating students. Teachers in her study expressed a desire to motivate their students, indicating that they truly *value* student motivation, but because of repeated failed attempts and a lack of knowledge of how to effectively motivate their students, they do not *expect* to be able to motivate low performing students. These low expectations of success may cause the teachers to develop an entity view of motivation, to explain their difficulties and lessen their own burden and responsibility for motivating students who "cannot be motivated."

CHAPTER 3

METHODOLOGY

In order to answer the research questions set out in the first chapter, it was necessary to collect data with three separate studies. Appendix A summarizes each study, along with the participants, data collection methods, and its relation to the research questions. Studies 1 and 2 both took place in the Fall 2008 semester, with Study 1 conducted in the first week of classes and Study 2 during the beginning and final two weeks of the semester. Study 3 occurred in the first half of the Spring 2009 semester. The description of the participants, data collection methods and analysis for each study follows.

Each semester approximately 350 students enroll in EPSY 2130: Exploring Teaching and Learning; this is the introductory educational course required of all undergraduate teacher certification candidates at the University of Georgia. Approximately two-thirds of the students entering this course are primarily interested in a career in teaching; the other third plan to pursue careers in related fields such as social work, physical therapy, dietetics, medicine, and law. I decided to draw my sample from the students in this course who plan to become teachers because students must take and pass EPSY 2130 before they can apply to any of the specific teaching majors at the University, so for the majority this course is their first formal exposure to concepts and theories about teaching, learning, and motivation (Knapp, 2005).

STUDY 1

Participants

Students in EPSY 2130 are given a journal assignment in the first week or so of the class that typically covers a broad range of the topics that will be taught, such as asking them to describe characteristics of good teachers. A journal assignment was designed to address the research questions regarding pre-service teachers' implicit beliefs and strategies upon entering an educational psychology course. Contingent on the agreement of the 2130 instructors, in the Fall of 2008, students in nine classes were given a scenario to respond to in their first journals in which the issues was primarily motivational (see Appendix B).

Typically a third of the students do not plan to teach because the course is also a requirement for students pursuing majors other than education, including, but not limited to, speech and language pathology, physical therapy. With this in mind, students were given a choice to answer this journal prompt, or another, which more generally addressed difficulties they may face in their careers. All eight instructors of EPSY 2130 agreed to participate, however one instructor did not submit copies of the journals in time to be included in the analysis. The seven instructors who did participate represent nine sections of the course, and assuming an enrollment of 28 students per section, 252 participants were possible. However, because I had asked only for the journals that responded to the prompt I designed, 184 journals were collected and turned into me. Presumably, the other journals were from students who did not plan to teach. Therefore, 184 students enrolled in EPSY 2130 intending to become teachers and whose instructors agreed to use this journal question were participants in this Study (1), which was conducted under an already existing IRB approval allowing the use of regular

classroom assignments and materials from EPSY 2130 for purposes of researching the effectiveness of the class.

Study 1 Data Collection

The journal assignment used to collect data in this study depicted a classroom with common motivation problems such as students with low self-efficacy and learned helplessness, and students with low value for the course. Students were asked assume that the classroom was based in the grade level and or subject they plan to teach (and to indicate their intended grade level and/or subject in their responses) and to write about three possible causes of the problems in the vignette and describe three strategies they would recommend the teacher could use to address these problems.

This journal question format conforms to a question format used repeatedly throughout the course, as well as on the midterm and the final exam, so one instructional purpose of this assignment was to introduce students to this question format early in the course. Prior to grading the journal assignment, instructors made copies of students' responses, removing all names but coding for gender, to turn over to me. They then scored and commented on the assignments as usual.

Study 1 Data Analysis

The journal assignments were scanned or transcribed into electronic format. They were analyzed using Atlas.Ti qualitative analysis software to identify thematic units corresponding to both known motivational theories (particularly those included in the literature review) and emergent naïve theories, in a process similar to Bogdan and Biklen's (1992) constant comparative analysis. Each "cause" and "strategy" formed the "thematic units" (Krippendor, 1980) used in this initial analysis. A "thematic unit" generally comprised a sentence or paragraph detailing the cause or strategy.

The initial analysis resulted in total of 87 codes assigned to the "thematic units". In the second stage of analysis, axial coding (Strauss & Corbin, 1990) was used to group and combine initial codes into 7 categories and 13 groups related to motivational theories. While the analysis of data collected in this study was primarily qualitative, a feature of Atlas.Ti was employed to produce a matrix of the number of thematic units in each code per journal. This matrix was uploaded to a spreadsheet with filters embedded for each code and category, which facilitated analysis of descriptive statistics, including the frequencies and percentage of causes and strategies suggested by pre-service teachers', which are reported in the results. I had initially planned to analyze patterns within the responses related to gender, but after looking at the data concluded that this would not substantially add to the study.

STUDY 2

Study 2 Participants

Approximately 224 students from eight sections of EPSY 2130 whose instructors agree to participate were recruited for the second study. All of the instructors who agreed to participate in Study 1, myself excluded, also agreed to participate in Study 2. Therefore, almost all of the participants in Study 2 were participants in Study 1. During the initial weeks of class, I gave a 5-minute talk in each participating instructor's class, at their convenience, explaining the purpose and procedures of the study and asking for volunteers. At that time, I asked students who were interested in participating to provide their names and e-mail addresses so they could be contacted about data collection session times for the first questionnaire. A total of 100 students provided this information, indicating an interest in participating. Volunteers were allowed to come to any session that they found convenient, as I provided a variety of times throughout a two-week

period. Of the 100 students contacted, 50 came to a session and completed the first questionnaire. The e-mail addresses were used to send the second questionnaire to the 50 volunteers but only thirty-three completed the second questionnaire.

As an incentive, participants were entered into a raffle for a $100 gift certificate to the University Bookstore although students who elected not to participate but wished to be enlisted in the raffle were given the opportunity to do so and it was made known that any student who withdrew participation would not be removed from the raffle. However, no student asked to be entered into the raffle without participation in the study.

According to their responses to the demographic section of the questionnaire, the sample of 33 who took both questionnaires included White (25), Asian (4), African-American (3), and Puerto-Rican (1) undergraduates, of which there were 29 females and 4 males. The majority of the participants were in their second year of college (17), although there were some in their first (7), third (5), fourth year (2) of college and even in graduate school (2). Fourteen plan to teach elementary school, three plan to teach middle school, 14 plan to teach high school and two did not answer this question. Only one expects to teach for a few years, while 13 indicated a commitment to teach for at least ten years and 19 expect to teach for more than 10 years. When asked what type of certification they might seek, 16 selected gifted, while six plan to become ESOL certified, and five indicated they would likely seek special education certification. Four of the participants indicated that they plan to seek certification in two or more of these areas, while 18 did not respond to this question. In terms of the setting they are considering working in, 30 hope to work in suburban schools, 16 plan to teach in urban districts, 14 in rural districts and eight indicated that they would teach in any of these settings.

Study 2 Data Collection

A survey questionnaire (see Appendix C) was used to obtain pre-service teachers' beliefs about motivation and motivating strategies in the first and last weeks of the Fall 2009 semester as well as influences on these beliefs. EPSY 2130 students who volunteered to participate in this Study of the research completed this questionnaire twice; Form A near the beginning of the course, and Form B near the end of the course after the lessons on motivation. Both Forms contained the same questions, except for two sections, A and B, which were only administered in Form A. The questions in the other three sections were reordered for From B. Questions included demographic items, items selected and adapted from three scales used with in-service teachers in previous studies related to this topic (Dweck, et al., 1995; Hidi & Anderson, 1992; Carol Midgley, et al., 2000; Tschannen-Moran & Hoy, 2001), and items generated for this study.

Study 2 Data Analysis

Items on the questionnaire used in this study were initially divided into five sections: A) demographic items, B) personal recollections of motivation as a K-12 student, C) teacher efficacy for engagement and instruction, D) implicit beliefs of motivation and the sources of student motivation, E) beliefs about the usefulness of various motivational strategies in classrooms). Each section (B-E) was constructed to reflect and was analyzed according to respondents' alternative theories regarding motivation, as follows:

Section B: Recollections of Goal Orientation as a K-12 Student

Teachers' achievement goal orientations have been linked to their use of strategies (Beghetto, 2007). Therefore, items from the personal achievement goal orientations scale from the revised student version of the Patterns of Adaptive Learning Scales (Midgley, et al., 2000) were adapted for use in this section. The personal achievement goal orientations scale consists

of three subscales, Mastery, Performance Approach, and Performance Avoidance. Students with a *mastery orientation* tend to approach achievement with a focus on learning. Students with a *performance approach* orientation focus on getting a good grade or winning praise or recognition, while students with a *performance avoidance* focus on not failing, or looking "dumb". The reported reliability coefficients for each subscales are .85, .89, and .74, respectively and the validity information is reported in Midgley et al (2000).

Since the questions were seeking participants' goal orientations as a student in the grade they plan to teach, the 14 items were modified to reflect the past tense and participants are asked to recollect how important each item was to them, using a 5-item scale ranging from 1 (not at all true) to 5 (very true). Examples of items measuring mastery orientation include, "it was important to me that I learn a lot of new concepts that year" and it was important to me that I thoroughly understand my class work." Performance approach items included statement such as, one of my goals was to show others that I was good at my class work," while performance avoidance items included statements such as, "it was important to me that I didn't look stupid in class." Means for the three subscales were obtained for each participant and used in calculating correlations between responses on other sections. An open-ended question was added to this section, asking the participants about other factors that had influenced their goals at the time. Since I was not investigating a change in their perceptions of their own past goal orientations, it was not necessary to have participants answer these questions again at the end of the semester. Therefore this section was only included on the first administration of the questionnaire.

Section C: Anticipated Efficacy for Engaging and Instructing Students

Teachers' efficacy for engaging and instructing students implies a belief that the teacher *can* influence student learning and motivation and has been linked to the use of effective

strategies to do so (Woolfolk, Rosoff, & Hoy, 1990). Therefore, the items in this section were adapted from the Teacher's Sense of Efficacy Scale Short Form (Megan Tschannen-Moran & Hoy, 2001). The Teacher's Sense of Efficacy Scale Short Form is a 12-item self-report measure designed to assess efficacy in student engagement (4 items), efficacy in instructional strategies (4 items) and efficacy in classroom management. Reliability alphas of .90 were reported for all items and reliability coefficients for engagement and instruction were found to be .81 and .86, respectively. Construct validity information are reported in Tschannen-Moran & Hoy (2001).

For this study, only the items from the student engagement and instructional strategy subscales were used and the questions have been reframed for pre-service teachers with the stem, "When you are a teacher, how much do you expect to be able to do to . . .." Efficacy in Engagement includes items asking about participating belief in their ability "to motivate students who show low interest in school work", while Efficacy in Instruction includes items such as ability "to adjust your lessons to the proper level for individual students ". Participants were asked to answer using a 6-point scale ranging from 1 (nothing) to a 6 (a great deal). Means for student engagement and instructional strategies along with an overall mean score were obtained for each participant and any changes from the two administrations analyzed using paired t-tests. The scores were also be used in calculating correlations between responses on other sections of the questionnaire.

Section D: Beliefs About the Sources of Motivation

Four items in this section were constructed to measure participants' implicit views of motivation based on items developed by Dweck and her colleagues (1995). Three of the statements reflect an entity view of motivation, ("A student's level of motivation is something very basic about them, and it can't be changed very much") and one reflects an incremental view

("A student's level of motivation in a class is something that the teacher can change with good teaching"). The statements reflecting an entity view follow the format of Dweck's measures of implicit view intelligence and morality, in both wording and scale. Participants are asked to respond using a 6-point scale ranging from 1 (strongly agree) to a 6 (strongly disagree) so that a mean score close to 1 reflects an entity view and a mean score close to 6 reflects an incremental view. Given this coding scheme, the incremental item was reversed scored. A mean of the four scores was calculated for each participant and any changes between the first and second administrations were analyzed using repeated measures ANOVA. The mean scores were also used in calculating correlations between entity-incremental views and motivational beliefs captured on other sections of the questionnaire.

Twenty-two separate items were constructed to reflect implicit theories of the sources of motivation, based on instruments developed by Guskey (1981) and Hardre, Davis, and Sullivan (2008). Items from the original questions were liberally adapted since no measure existed to capture beliefs about sources of motivation related to all three factors I was interested in: students, teachers, and subjects. These factors reflect three domains of responsibility for motivation, *student-related sources* (which include items on family and peer influences, personal traits, goals and goal orientations, prior needs, and self-efficacy), *teacher-related sources* (which include items on relating lessons to students' interests and lives, communicating clear directions and high expectations, and appropriately challenging students), and *subject-related sources* (which include items that reflect the belief that some subjects are inherently more or less interesting). Since these 22 items utilize the same 6-point response scale as the four described above, the responses were reversed scored so that a high score (6) indicates a high level of agreement with the statement. Means were obtained for each of the three domains (Student-

Related, Teacher-Related, and Subject-Related) and analyzed using repeated measures ANOVA and in calculating correlations between responses on other sections of the questionnaire.

Section E: Intended Motivational Strategies

Data obtained from this section includes each participant's intention to use 22 motivational strategies drawn from strategies included on other instruments (Hardre, Davis, & Sullivan, 2008; Nolen & Nicholls, 1994). Using a 3-point Likert scale, participants were asked to indicate how likely (1= not very likely, 2=somewhat likely, 3= very likely) they were to use each strategy to motivate students in their future classrooms. The strategies, reflecting various theories of motivation, are categorized according whether they would likely promote *mastery* or *performance* goals, or teacher *"helplessness."* Two of the three categories capture the intended outcome of using the strategy. Thus, strategies related to *mastery* include strategies to increase students' expectancy for success and confidence, orientation and adoption of mastery learning and mastery goal orientation. *Performance strategies* include strategies intended to increase student attention and or effort, such as behaviorist strategies, strategies to increase situational interest ("make lessons colorful and fun"), and adoption of performance goal orientations. "Teacher Helplessness" strategies are not so much strategies, as admission of inaction as they include statements about ignoring unmotivated students. Means were obtained for each category and analyzed using repeated measures ANOVA and in calculating correlations between responses on other sections of the questionnaire.

STUDY 3

Study 3 Participants

Based on their responses to the questionnaires, after the end of the course 9 of the participants in Study 2 were recruited to participate in a follow-up interview explaining their responses in Study 2 in greater depth. Participants in this study were identified based on whether their responses to the questionnaire indicated a change in belief, or not, and the directionality of the change. The interview request was sent to the e-mail addresses they had supplied when originally recruited in Study 1. Nine participants out of the 33 who completed both questionnaires in Study 2 were selected to participated in Study 3 based primarily on whether their view of motivation and sources of motivation changed based on their responses in Study 2. Four participants whose view of motivation shifted towards an entity view by the end of the Fall semester were recruited, two who increased their incremental view, and two whose views of motivation did not change. Only one participant, who had originally agreed to be contacted for an interview on the consent form, did not respond to the e-mail request for an interview nor to a reminder e-mail sent two weeks later, and was not contacted again. Thus, a total of 8 participants completed an interview in Study 3. These 8 were participants in all three studies in this dissertation.

Study 3 Data Collection

Semi-structured interviews lasting between 45 minutes and an hour were conducted with a purposeful sample of participants recruited on the basis of their responses in Study 2. Interviews explored these responses, addressing the potential sources of the beliefs implied in participants' initial responses and asking about elements of the course or other factors that may have influenced any changes (or lack of changes) in their responses at the end of the course.

Each interview was administered individually and was digitally recorded, transcribed, and verified. Core questions were pre-developed to explore participants' beliefs and additional probes were used based on each participants' answers (see Appendix D).

Study 3 Data Analysis

Each interview transcript was read thoroughly and all responses relevant to the phenomena of interest, primarily beliefs about the role of expectancy and value and potential influences on these beliefs, were noted on the transcript. When events or beliefs were found to be similar in nature, they were grouped under broader and more abstract categories (Strauss & Corbin, 1990). These categories were clustered into themes, representing expectancy and value and related constructs and other emergent themes. Then, I looked for patterns in the data across all participants, and as it became necessary expanded categories based on the responses to include influences and relationships between themes, in a process similar to constant comparative analysis (Bogdan & Bilken, 1992). Direct quotes were extracted to illustrate the themes and patterns.

Consent and Confidentiality

Throughout all three studies, measures were taken to obtain consent and ensure confidentiality. When volunteers came to the data collection sessions, they were given a consent form explaining the purpose and procedure of the study, their right to voluntarily withdraw the study at any time, and steps taken to protect the confidentiality of the respondents, and also asking if they would be willing to participate in the follow-up interview (Study 3). It was made very clear that student participation or the lack thereof would in no way affect their activities or grades in the 2130 class. To ensure this, I did not recruit students from the sessions of 2130 for

which I was the instructor for the latter two studies. At the start of these interviews in Study 3, an additional oral assent was obtained and recorded.

To ensure confidentiality, each instructor who agreed to participate in Study 1 removed or blacked out all names from each journal before making copies to give to me. Participants in Study 2 chose a coded identity with which to sign questionnaire forms; the same code was used to identify all interview recordings. A single master list of codes referenced to participants' names was retained only until follow-up interviews had been completed, and then destroyed, leaving no traceable links to specific participants' responses. All research materials, including consent form and audio materials, were kept in a secure location. The audio-taping, which was digital, was deleted as soon as analysis was complete.

CHAPTER 4

STUDY 1

The purpose of the journal assignment in Study 1 was to discover implicit theories of student motivation of pre-service teachers at the beginning of their educational psychology course and the strategies they believed to be effective to motivate students. A total of 184 journals were collected and turned into me by seven of the eight instructors of EPSY 2130: Exploring Learning and Teaching. The journal assignment prompted respondents to indicate the grade level they intend to teach and all but 22 did so; 72 (44%) intended to teach pre-kindergarten and elementary grades, 16 (10%) middle school, 73 (45%) high school, and one who planned to teach college. The instructors indicated the author's gender on all but 11 journals and 173 journals (80%) were coded female.

RESULTS

The respondents typically wrote about three likely causes of the problems in the described in the scenario and three pieces of advice, as prompted by the assignment. However, some offered more or less than three. A total of 533 thematic units were identified for causes, and 554 were identified as strategies.

Causes of Classroom Problems

The causes hypothesized by respondents clearly fit the Eccles and Wigfield (2002) expectancy-value model, and related theories outlined in the literature review, with only one exception. Causes concerning students' *expectancy for success* accounted for 24% (129 thematic units) of all suggested causes, while many more suggested causes were related to *task value*

(388, 73%). One cause, suggested by 16 respondents, *no respect for authority* (3% of all causes), did not fit into either expectancy or value and is discussed separately.

Causes Related to Expectancy for Success

The causes attributed to students' expectancy for success fell into three categories: causes *internal to the student*, causes *external to the student*, and *learned helplessness,* which is influenced by both internal and external factors (see Figure 2).

Causes Internal to the Student

The 39 (7% of all suggested causes) thematic units attributing the problems in the classroom to causes internal to the students, specifically those related to students' low self-efficacy, suggested three different reasons why the students in the scenario might not feel capable of doing well in the class. The majority (29) suggested that the class was *too difficult* for the students. If the assignments were too difficult, the students would not have felt confident in their ability to successfully complete them, resulting in their low motivation. The following is a typical example of one such response:

> *While class work should certainly challenge the students, it should not be so difficult as too seem impossible. When consistently assigned work that is too difficult to complete, even the most eager student will become frustrated and eventually "check-out" of the class.*

Seven other thematic units suggested that the students' self-efficacy (and thus motivation in the class) was negatively impacted because the teacher was *highlighting student failures*. These respondents suggested that the teacher's decision to pull students aside to talk about their low scores or incomplete work actually conveyed lower teacher expectations, causing the students to feel less confident that they could improve. For example:

> *Singling certain students out only to remind them that they are doing poorly is likely detrimental to the student's morale. This will only perpetuate their dislike for both the class and the assignments.*

Only three thematic units suggested that a lack of homework, or inadequate time to practice the material in class caused the students to feel less efficacious. These respondents suggested that without the time to practice, the students did not get enough personal feedback from doing the assignments to assess how much they learned, causing them to loose motivation.

Causes External to the Student

Respondents attributed 58 (11%) of the causes of the student motivation problems to external sources. These respondents suggested that students' low expectancy for success was due to the possibility that the *teacher did not recognize the learning problems* (18), that students arrived to the class with *insufficient prior knowledge* (16), that the *teachers' expectations* are too high (14), the students *lack parental involvement or support* in their work (6), or there is a *lack of resources in the class or school* (4).

Teacher did not recognize learning problems. The respondents who suggested that the teacher may have not recognized the learning problems talked about students would feel little help was available to them in learning. Without support from the teacher the students that were struggling to learn would feel that they could not succeed lost their motivation, as the following quote explains:

> *Before anything had gotten particularly bad, even though most of the students were participating in class, they demonstrated that they did not know the material very well. This should have immediately been recognized as a problem, because if the students do not understand the material properly, they will a) not enjoy learning the material, and b) feel discouraged that their efforts have not shown rewards. This is why after time, the students were participating less and were becoming less responsive.*

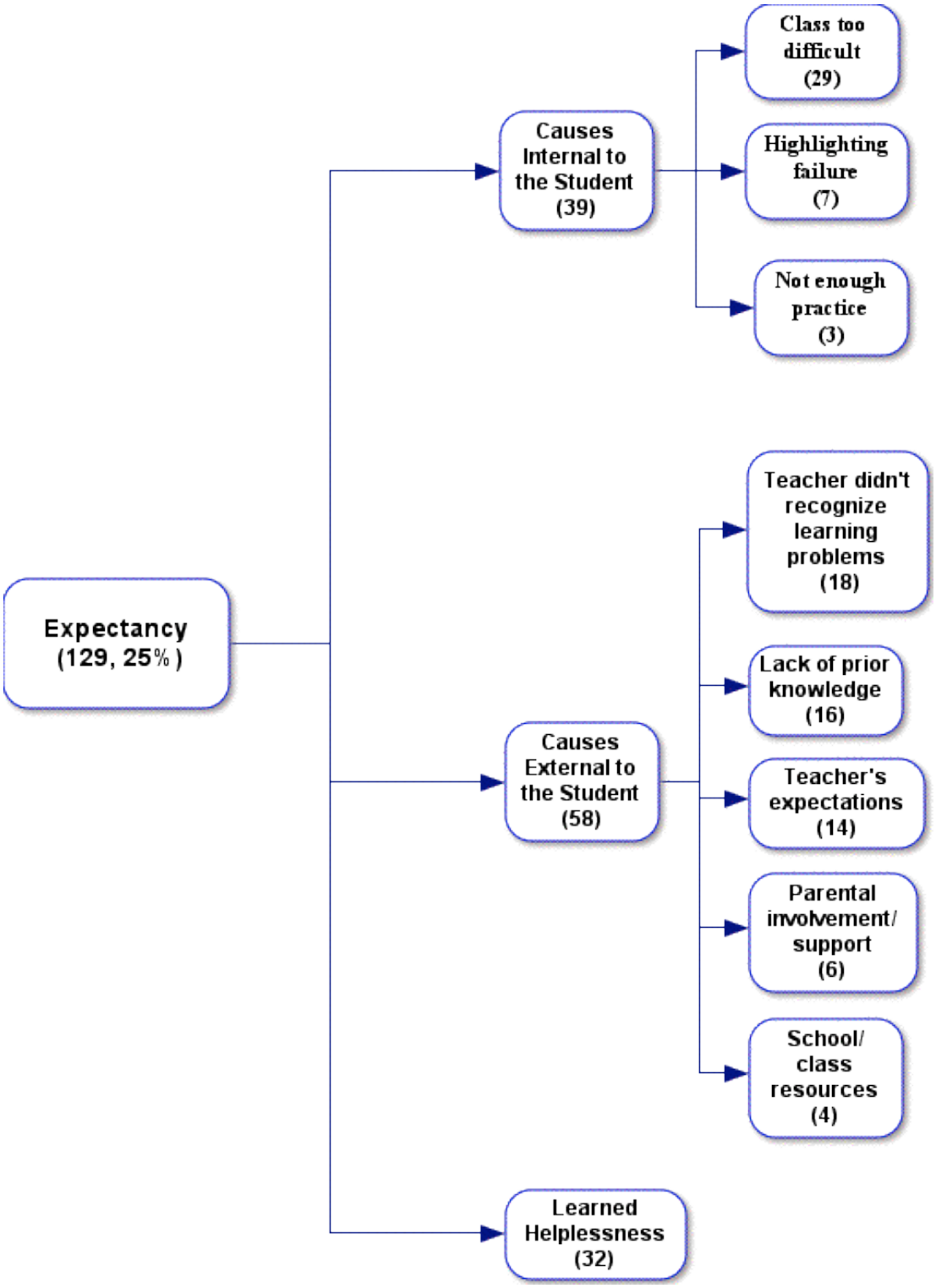

Figure 2: Suggested Causes Related to Expectancy for Success

Another respondent framed the teachers' actions slightly differently. In this case, the teachers' efforts to encourage the students were perceived as unhelpful, and even demotivating. By not offering the students additional help or concrete ways to improve, the students might have felt less encouraged than before.

> *When she met with students who did poorly "individually", it sounds as if she just stated the obvious to the students and reiterated they are supposed to "do their best in class if they wanted to pass." Duh! The kids know that already! No new information here! Did she give them any tools to do better or just a pointless lecture? How helpless they must feel!*

Lack of prior knowledge. The 16 respondents who suggested that the students' motivation was impacted by a lack of prior knowledge attributed this primarily to their previous classes and teachers. In this sense, the students did not expect to succeed because they did not understand the material. These respondents suggested that the lack of prior knowledge was not due to students' low ability (an internal attribution), or the expectations of the current teacher. Rather, they blamed the students' previous teachers for not adequately preparing them.

> *First of all, the entirety of the problem does not lie completely with her. Some students struggled from the get go, demonstrating that perhaps their lack of education in this area in previous grades contributed to the children's behavior.*

Teacher's expectations. Whereas the students' lack of prior knowledge was attributed to previous teachers, other respondents (14) suggested that the students have a low expectancy for success because Ms. Hopkins, the teacher in the scenario, has expectations that are unrealistic for all of the students. These responses are distinct from those that suggested the class was too difficult, because the focus is not on the students' perceptions of class difficulty. Instead, these respondents felt that the teacher's expectations did not take into account the differences among students in terms of ability, prior knowledge, or amount of time needed to complete assignments.

> *Ms. Hopkins has set the bar way too high. It is impossible to enter a classroom with the same expectation for every student, especially when such expectation is nearly impossible to fulfill.*

Lack of parental involvement or support. The thematic units grouped in this category suggested that students might have had a low expectancy for success in the class because their parents did not help them with their work at home. The explanations for this lack of involvement tended to focus on parents who were not *able* to help their children, either because of busy work schedules or language barriers. If students have difficulty on their homework and cannot get help from their parents, these responses hypothesize, they may become less motivated.

> *Some of Ms. Hopkins's students may also have parents who work a lot and do not help them with their work. Without the extra help and attention from their parents, they might not be able to complete their homework.*

Lack of class or school resources. The four responses in this category suggested that the students' motivation might be impacted by their school environment. Two of the responses mentioned that the unavailability of equipment or textbooks would impact students' expectations of success. All four hypothesized that class sizes may be too large, preventing the students from receiving individual attention.

Learned Helplessness

Thirty-two thematic units (6% of all causes) attributed the causes of the problems to students' *learned helplessness*. This contains factors that are both internal to the student (self-efficacy) and external (task difficulty or lack of support) The following quote best represents the consensus among the responses in this category about how the students developed learned helplessness in this class.

Her students' initial enthusiastic participation is quelled by their failures in the classroom, and their mindset turned from a "can do" attitude, to one of defeatism.

Causes Related to Task Value

Eccles' and Wigfield's (2002) expectancy-value model of motivation describes four types of value a task can hold for students: attainment, intrinsic, utility, and cost. These four categories were used to sort responses indicating that the causes of motivation problems in the scenario were related to students' value for the assigned tasks (see Figure 2).

Attainment Value

Attainment value refers to the personal importance a task holds for a student, including whether the task enhances important aspects of one's identity (e.g. "a good student"). The responses categorized as related to attainment value (88, 17% of all suggested causes) suggested two reasons why the class might not hold personal importance for the students. The first hypothesizes that doing well in school is not important to many students (51, 10%). The second suggests that the students do not perceive the class to be relevant to their lives (37, 7%).

School is not important. All of the responses in this category attributed students' low value for the class to attitudes toward school in general. While 17 suggested that the reason students did not value school was because they just "don't care", the majority attributed this to parental influence (26) and the rest to students' economic backgrounds (8). As the following quotes illustrate, respondents felt that students may hold a low attainment value because in school because they are not encouraged to by their parents to see themselves as good students, because they are more concerned with the social rather than academic aspects of school, or because they come from a low socio-economic background.

> *The old saying that the apple doesn't fall far from the tree is, sadly, often the case for better and for worse. Knowing something of the situation at home, Ms. Hopkins should have a better idea of what educational message the child is receiving at home and perhaps help her to find other ways to engage that student.*
>
> *Most middle school students could honestly care less about school. They are more worried about who broke up today and who is wearing hideous jeans.*
>
> *Studies show that motivation is commonly directly related to socio-economic status, which creates a conundrum for teachers: how do you help out a tough home life and motivate an unmotivated student?*

Relevance. Another reason suggested for why the class does not hold attainment value for students was because it does not seem relevant to students' personal lives or community. Thirty-seven thematic units suggested that at if students do not understand how material is related to their own lives, they will not be motivated to learn it.

> *A lot of students, especially in the high school age, are unmotivated in subjects that they don't think apply to their lives. It is the goal of the teacher to get the students to understand why their topic is relative [sic]. Ms. Hopkins' class obviously doesn't see the relation of Spanish to their rural-Georgia lives.*

Three thematic units took a more social view, suggesting that the lack of community involvement in the school could be a reason why students do not hold attainment value for the class, or for school in general.

> *Ms. Hopkins is probably teaching in a small, rural town. It is likely that the community is not involved in the schools. When a community is not involved in its schools, the students don't see how their education is an important part of their community's future.*

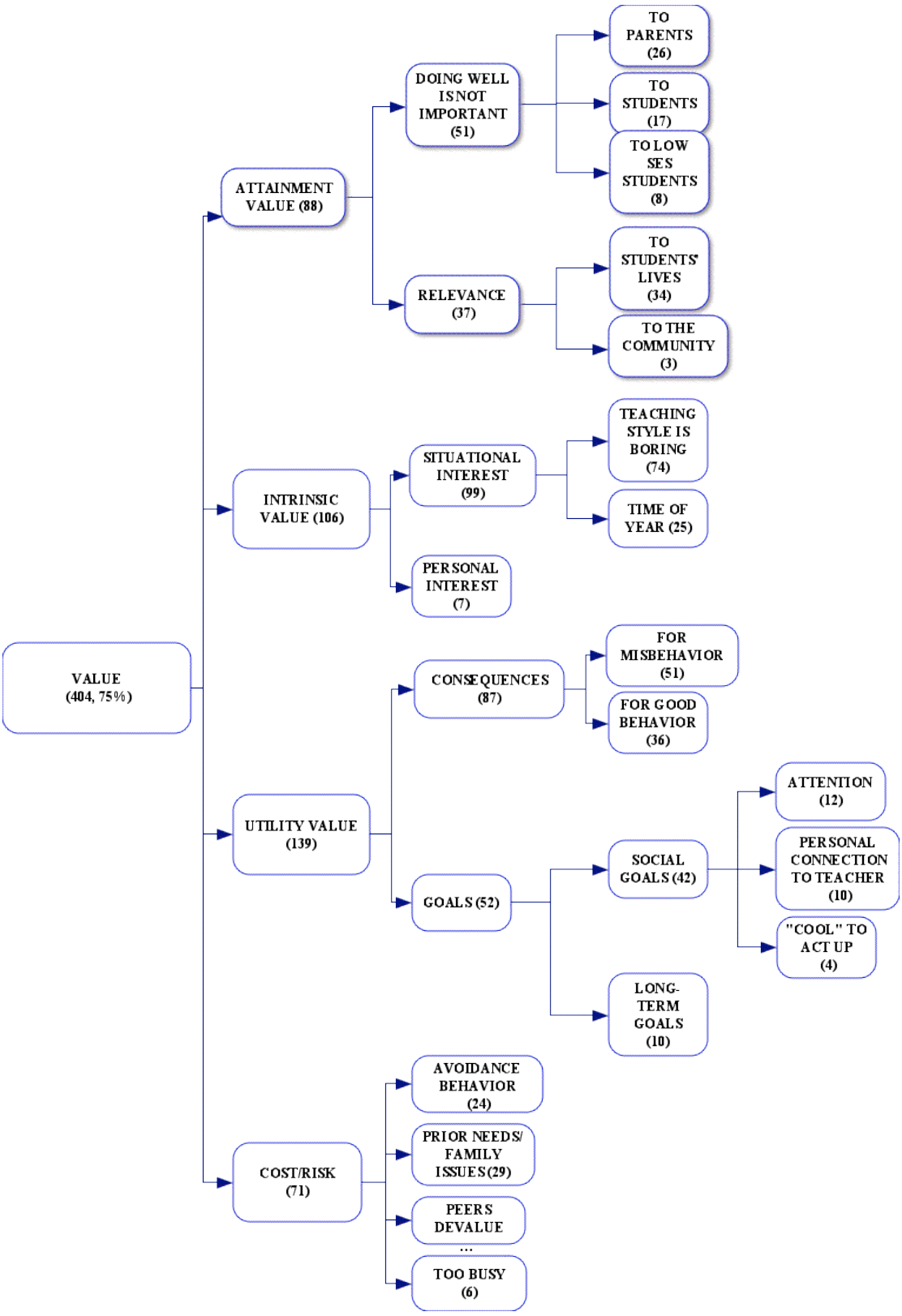

Figure 3: Suggested Causes Related to Task Value

Intrinsic Value

The second largest category of causes, with 106 thematic units (20% of all causes), suggested that the class' topic and activities did not intrinsically motivate students; it did not hold either situational interest (99, 19%) or personal interest (7, 1%) for the students.

Situational interest. The main reason why respondents in this category believed the students were not interested was because the teacher's *teaching style is boring* (74). As the following quote explains, elementary students need class to be "fun".

> *The kindergarten students in Ms. Hopkins' class are possibly not engaging as much as they initially were in class activities and acting rudely because maybe Ms. Hopkins has lost her sense of "fun." These are children who are ages five and six; they need for things to be creative and entertaining. If she has slowly become more and more frustrated with the misbehavior of the students, she easily could have forgotten to plan activities for her lessons and to be creative.*

I noticed a difference in the way the respondents introduced this cause, depending on the grade level they planned to teach. The responses from those who planned to teach elementary school tended to say outright that the teaching style was boring, while those who planned to teach middle and high school initially say that the students are not interested, then go on to explain that it is because of the lack of variety or "fun".

> *It seems like the students are not interested in what she is teaching them, which is a common problem in middle school. It may be that Ms. Hopkins teaches the same way every day, which causes the students to become bored and zone out.*

Another reason why cited for students are not interested was because of the *time of year*. Twenty-five thematic units addressed this cause. The respondents spoke of a pattern they themselves had experienced, wherein students start the year with high motivation, but become burnt out toward the end of the semester or year.

> *Considering I myself am a student, I realize the reason why her students might seem interested at first. Every year I notice a pattern to my studies. I start out the year as a hard worker and slowly dwindle down to a disinterested student. The constant grind slowly wears away any interest that was there in the beginning.*

Others in this category suggested that students in the class may be experiencing a lack of motivation because of an upcoming school break.

> *The last reason is that it could be getting closer to a break, like Thanksgiving and Christmas, and therefore they are way more concerned about the breaks than her class.*

Personal interest. Only seven respondents suggested that the class did not hold *personal interest* for the students. Most of these, as exemplified by the following quote, explained that students who were required to take a course without any personal interest in the subject, would be less motivated.

> *As for students who "act out", many schools simply "dump" students in music classes and some may be less than enthusiastic about participating in the class.*

Utility Value

The category with the most suggested causes (123, 23%) addressed the lack of utility value that the class holds for the students in the scenario. More of the responses that fell into this category suggested that the students were not motivated because there were *no tangible consequences* (87, 16%) for their behavior than for reasons related to their *goals* (36, 7%).

No consequences. Many respondents attributed the students' lack of motivation to a lack of consequences for misbehavior (51) or for positive behavior (36). Those who wrote about a lack of consequences for misbehavior hypothesized that the teacher in the scenario had not

adequately disciplined the students who had not turned in their work, or punished their misbehavior.

> *I feel as if the students got away without doing their work or participating and never faced any consequences. If students were able to get away with doing no work and never participating than they will never change their habits and never do their work.*

> *Ms. Hopkins loves to be a fun teacher and hates punishing her students because she does not want to be labeled mean. The school has a discipline system that the students are aware of, but when the break the rules and do not get the punishment they were warned about, it makes them think the rules are not real. The students will never learn if they are not disciplined. Discipline is not only important in terms of punishment, it is important to have self discipline in order to complete assignments and focus in class.*

Others who wrote about the lack of consequences for positive behavior, considered how students' motivation would be negatively impacted by not getting recognized and reinforced for their efforts and good behavior.

> *While Ms. Hopkins attempts to build relationships and stress the importance of the course, it is not stated whether or not she provides any incentive for effort, such as rewarding and congratulating success. If the student only hears "Do better" but never "You've done well," he or she may not see the benefits of striving to be more successful.*

> *Plus, thirdly, how do the kids that did do WELL on the tests feel? Did they get to meet individually with Ms. Hopkins too? It said only those that did poorly met with Ms. Hopkins. Did the students who did O.K. or better get any recognition for their hard work? Do they feel less important than the other kids who got her attention?*

Like Skinner and his colleagues, these respondents seemed to see behavior as the main issue in motivation. Their responses suggest that if one can compel students to engage in learning behaviors, then one has created motivation to learn.

Goals. These respondents talked about the impact of students' goals in two ways. The first and most common response was to suggest that students had *social goals* that were in

competition to doing their work or behaving appropriately (26, 5%). These included a suggestion that students who were disrupting class did so *seeking attention* from the teacher or their peers.

> *Another big issue that I believe could be contributing to the problems in the class is that there are a few children who are acting out to get attention. These are the enthusiastic and off-topic talkers who even go as far as to shout negative things during class.*

A related suggestion was that students were acting out as a way to please or impress their peers. This is not necessarily about sociability, but to obtain a specific goal of attention or acceptance.

> *The reason they act out in-class is because it would appear cool to the other students. I really am thinking that at this point ignoring their negative behavior would not work because at this age, they don't care about getting the teacher's attention, but about their peers'.*

One explanation for why the students might not have a social goal to please or impress their teacher was that they had not developed a personal connection with her. This was considered to negatively impact their motivation in the class.

> *Kids love to be cherished and appreciated, and Mrs. Hopkins may be treating them too much as students rather than as young people she respects and wants to see do well in life, so they probably have no desire to want to do well in her class. I know that when I have a teacher who I really admire I am much more motivated to do well in her class. I'm assuming the same could apply for second grader.*

Ten thematic units (2%) hypothesize that the students simply do not have specific long-term goals they are working towards. All but two of these were written by respondents who plan to teach high school and primarily address goals to attend college.

> *The students who are acting out are probably the students who don't plan to go to college. It can be hard to teach students who do not have any goals and aren't motivated to do well in school.*

However, as the following quote from a respondent who plans to teach elementary school points out, emphasizing long-term goals with very young students who have not begun to develop college or career goals may not have much of an impact on their motivation.

> *Kids are typically not terribly interested in their future careers when they are only seven years old. So, if Ms. Hopkins is helping students with phrases things like "Math is important so that you can get a good job," her students are probably not relating to her, and she needs to find a different form of encouragement.*

Cost or Risk

The 71 thematic units (13% of all causes) in this category suggested several reasons why doing work or performing appropriately in class could have come with a *cost* or put the students at a *risk* of loosing something they valued. These responses emphasized that students may have competing values that negatively impact their motivation to achieve at school.

Most of the responses in this category (29) discussed the possibility that students have *prior needs* that have not been met, or *issues* at home that kept them from being motivated in school. Students who are anxious about these needs or issues could place a lower value on schoolwork, as the following quote nicely explains.

> *These students could be dealing with issues in their personal and home lives, which are potentially causing a disturbance in the students' focus at school. If a student's parents are going through a divorce, or if a family member passed away, then the student is likely to be having a hard time concentrating for an entire school day. In this case, a student's inattentiveness is not necessarily a lack of interest in or dislike of the subject, but merely a rough patch, which needs to be worked through.*

Almost as many responses (24) suggested that the students were misbehaving as a way to cover up their difficulty with the material. In this case, respondents hypothesized that students feel

they would risk a more negative image by asking for help than by acting out, and so are exhibiting avoidance behavior.

> *Also, many children, especially having struggled with their work since the very beginning, could have become discouraged upon realizing that their efforts still did not earn them success in their grades, and may have decided it was not even worth trying. This discouragement could also cause the negative attitudes of the students. Unable to understand or be successful in their work, and perhaps too afraid to express their difficulties or to ask for or seek help from someone else, they probably feel more comfortable making fun of the work and acting like it is of little importance to them, so that if they do fail, it won't seem to matter as much.*

Another risk that doing work might pose is to students' social image, especially if their *peers devalue academics*. Eleven of the 12 responses in this category addressed the perception that "being smart isn't cool", while one, quoted below, addressed the potential cost to a student's gender identity that success could pose.

> *Especially for a middle school boy, the pressures from his classmates and in some cases the parents often cause a young man to question his commitment to such a program. The reasons for this are many, but the most common is the conception that being in a music program in effeminate and not the socially accepted norm of "masculine."*

Finally, six respondents hypothesized that the students could be too busy with non-academic activities to complete their assigned work, especially homework or independent project. Only respondents planning to teach high school suggested this as a possible cause, presumably because of the increased liklihood that students would have extracurricular activities or jobs after school.

> Ms. Hopkins's students could have busy lives outside of school. They could be on a lot of sports teams, which would cause them to have little time for schoolwork. Her students may practice every night and then come home too tired to do any work.

Strategies for Addressing Motivation Problems

Most strategies suggested by respondents also fit well into the expectancy-value model (Eccles & Wigfield, 2002), and the related theories outlined in the literature review. As with suggested causes, strategies for increasing students' *expectancy for success* accounted for only a quarter (137 thematic units, 25%) of all suggested strategies, while many more strategies were related to increasing students *task value* (403, 73%). Again, one category, *establish authority* (14, 2% of all strategies), did not fit into either *expectancy* or *value* and is discussed separately.

Strategies for Increasing Expectancy for Success

Strategies for increasing students' expectancy for success in the classroom included ways the teacher could *increase self-efficacy* (96, 17%) and *promote an incremental view of ability* (41, 7%). Figure 3 presents the number of thematic units within each category related to *expectancy*.

Increase Self-Efficacy

The thematic units addressing ways to increase students' self-efficacy in the class mentioned two related, but somewhat separate avenues the teacher could take. The first was to *ensure that students are able* to be successful in the class (63, 11%). The second was to *provide assistance* (33, 6%).

Ensure students are able. Responses in this category suggested four things the teacher could do to make sure students can successfully complete their work. The most common suggestion (34) was that the teacher should change her teaching style to accommodate students' learning needs. These responses focused on teaching with different learning styles in mind.

> *Some students may be visual learners, where as others may be audio learners; therefore, Mrs. Hopkins should include a lesson plan that incorporates different approaches to the same concept being taught.*

Eleven responses discussed ways the teacher could structure, or break down, lessons to ensure success. As the following quote explains, breaking lessons down provides more opportunities for students to experience success, thereby increasing their sense of efficacy.

> *In order to help motivate the students, Ms. Hopkins can try to make the task of learning appear much easier. By breaking down the assignment into steps and processes, the students maybe motivated to attempt an easier task.*

Eleven other responses suggested that the teacher needed to evaluate students' prior knowledge (or should have at the beginning of the year) in order assess whether students were able to do the level of work her class required. Two different options for doing this were given. One way was to give the students a placement test to understand what they know. However, the most common way, suggested in 8 of these responses, was that the teacher needed to speak with other teachers who might have knowledge of what students learned previously.

> *Ms. Hopkins could speak with other teachers from her school that either teach second-grade also or have been her students' previous teachers. Insight from other teachers, as well as her own students, could be beneficial to everyone.*

A related strategy, suggested in 7 responses, was to decrease the difficulty of the class in light of students' ability.

> *To fix this problem I would recommend re-evaluating the course material in view of the children's demonstrated ability level.*

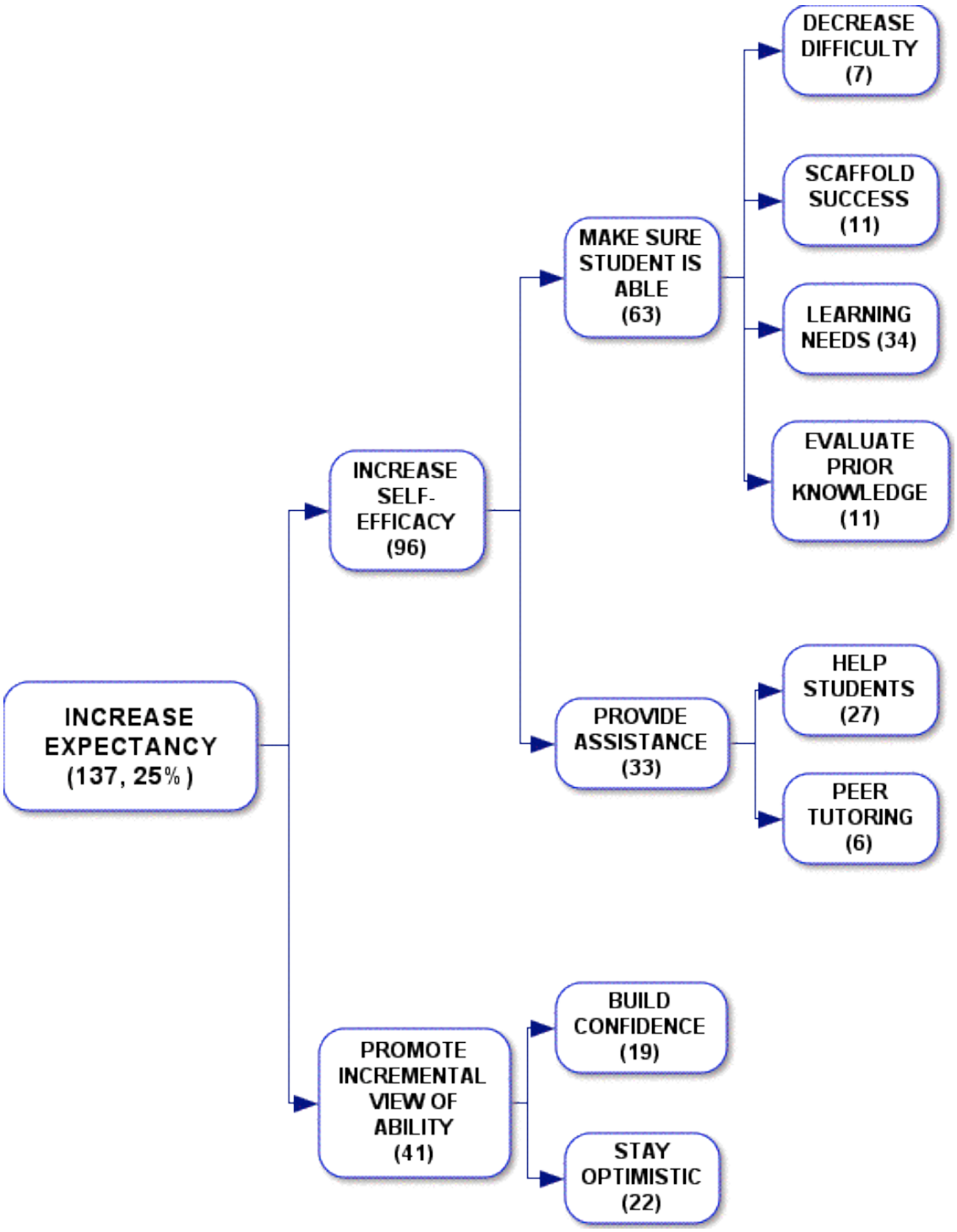

Figure 4: Suggested Strategies to Address Expectancy for Success

Provide assistance. Two forms of assistance were suggested. The most common (27)

was that the teacher needed to provide clear, direct assistance to struggling students.

> *When Ms. Hopkins does sit down with the students that are struggling, it should not be just to remind them that they need improvement or they will fail. She should offer the students advice on how to improve their grades. She may decide to offer make up work, or an extra-credit project for those who would like them. Ms. Hopkins should also hold after or before school review sessions to make sure that all of her students understand the material.*

Another way the teacher could provide assistance and increase self-efficacy, suggested in 6 responses, was to use *peer tutoring* in class or after school with older or more capable students.

> *Mrs. Hopkins could set up learning groups pairing good students, both behaviorally and academically, with the struggling students. This pairing will give the students a chance to help each other through the tasks, thus freeing Mrs. Hopkins up to answer more questions and pay particular attention to the students who are really struggling.*

Promote Incremental View of Ability

The 41 responses suggesting that the teacher promote an incremental view of ability mentioned two ways to accomplish this. The first was to model this view of ability by *staying optimistic* (22). These responses point to the teachers' own struggles as a first year teacher and implore her to stay optimistic and positive about her ability to solve her students' problems.

> *The first thing I would tell Ms. Hopkins is not to feel like a failure. Even though she is the teacher, we are all still learning every day of our lives.*

> *She needs to stay positive, and she cannot give up because the second she gives up is also the second that the kids will give up.*

The second way to promote an incremental view of ability respondents suggested was to *highlight improvement* (19). While many of these suggestions offered a strategy similar to *structure success*, the responses in this category also suggest that the teacher encourage and praise the students' effort after accomplishing each step or task, a strategy related to shaping.

> *She could set goals with each individual to accomplish; for example, if a student*

is doing poorly she might have a conference with him to try to improve 10 points on the next math quiz. She would continue to help him though this process with positive vocal encouragement. This will help get the child's grades up with a goal that can be seen in the near future. Once a kid reaches each goal they will be more encouraged and feel good about each little accomplishment.

Strategies for Increasing Task Value

As with the causes, the 403 suggested strategies for increasing task value clearly fell into the four types of value included in the expectancy-value model: *attainment value* (42, 8% of all strategies), *intrinsic value* (147, 27%), *utility value* (193, 35%), and *cost* (35, 6%). Figure 3 presents the number of thematic units within each category and its subcategories.

Increase Attainment Value

The only type of strategy respondents suggested as a way to increase attainment value was to increase the relevance of the class or lesson. All of the 42 responses described how relating content to students' lives, or helping students make real-world applications would improve student motivation.

Ms. Hopkins needs to explain to her students why pre-algebra is an important subject and how it relates to their everyday life. She can explain how it helps with problem solving skills and actually give example that the students can relate to.

Art can be integrated into any subject so maybe Ms. Hopkins can try to show the students how art can help them in other aspects of their lives or educational careers. For example, it is easy to help students learn history by teaching them different painting or sculptures from time periods that correspond to each era or event. Art is also very helpful when teaching math problems or illustrating emotions or ideas from a poem or story in literature.

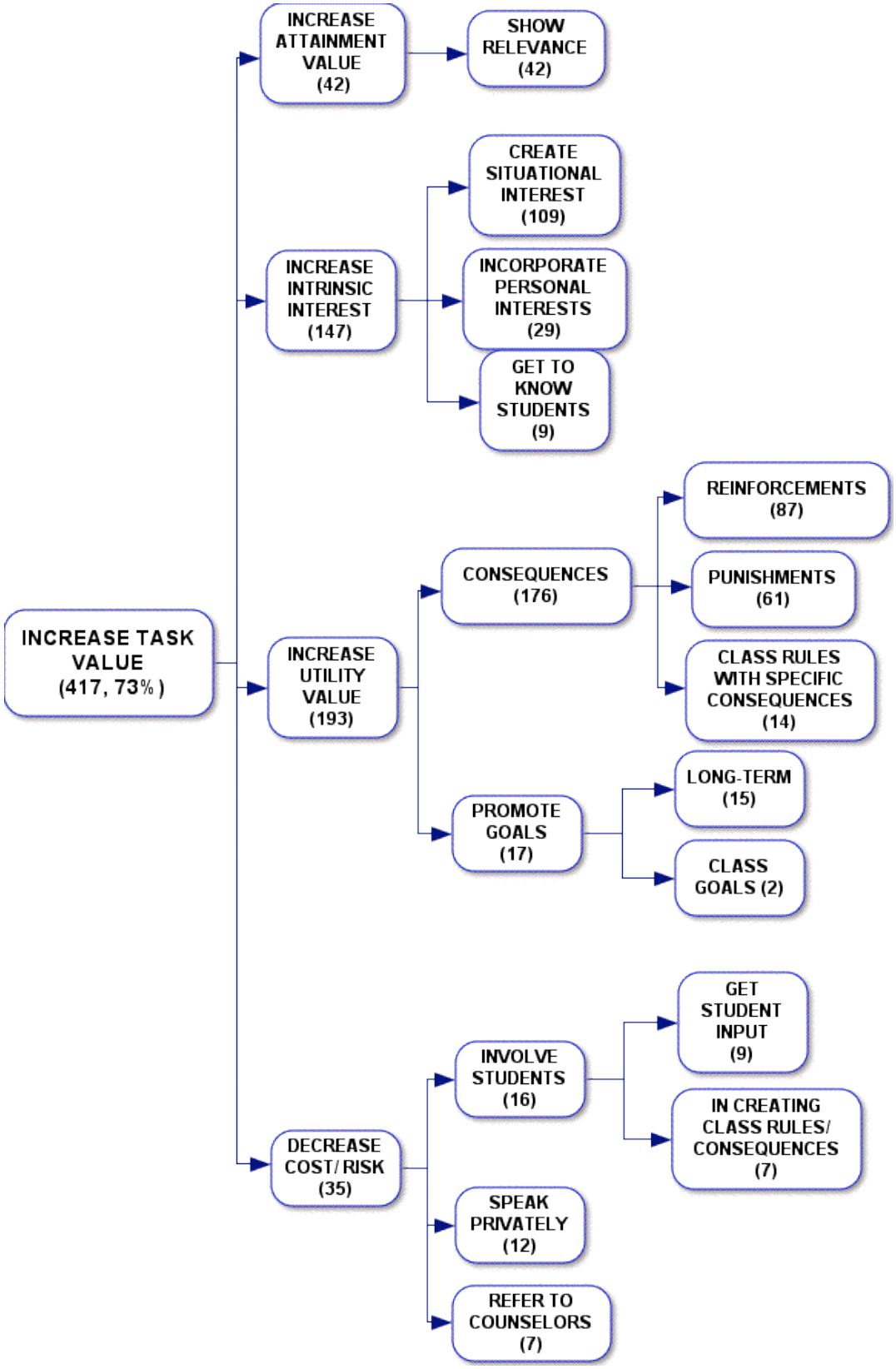

Figure 5: Strategies to Address Task Value

Increase Intrinsic Value

The responses related to increasing the intrinsic value of the class included three ways to do so. The majority of the strategies in this category were about *creating situational interest* (109, 20% of all strategies). These responses offered two ways to increase situational interest. One ideas was that the teacher could incorporate a variety of instructional techniques to hold students' attention and keep them interested. Another was that she could also create "fun" activities for students to do. Many respondents combined the two.

> *One way to solve this problem is to teach the material with props, examples of funny or pivotal quotes from important figures in history, video clips, current events, or open debates. This would encourage students to pay attention in class if the material is presented in a different, enjoyable way.*

> *I would tell her to always have fun activities for them to participate in. She could create games and arts and crafts that support the lesson. If she can't think of any on her own, she can search online for fun things for them to do*

Twenty-nine responses (5%) suggested that the teacher could incorporate students' *personal interests* into the lessons as a way to increase motivation.

> *Ms. Hopkins may want to try to tie the music being learned in class to music the students prefer. My orchestra director would use hip-hop beats in order to make learning scales much more laid back and enjoyable.*

> *It would be so easy for Ms. Hopkins to make the extra effort to include some of the interests of the students in her curriculum. Math makes just as much sense, sometimes even more, when it is coupled with a reference to the game baseball. The children find the lesson interesting, find themselves listening, even if they did not originally intend to do so, and they might even learn something significant in the process.*

A strategy related to the previous categories is to *get to know students better* (9, 2%). These strategies recognize that in order to increase situational interest or incorporate students' personal interests, the teacher has to learn what interests the students.

> *She needs to observe her kids so that she can easily identify what they like, how they get motivated, and what kind of things they are interested in. With*

> *thorough observations, Ms. Hopkins can revise a plan that encourages everyone to participate in activities, which can elevate her students' interests.*

Increase Utility Value

The largest category of strategies included those related to increasing *utility value* (179, 32%). Overwhelmingly, these responses suggested strategies that included *implementing positive and negative consequences* (162, 29%). A few suggested that the teacher could increase student motivation by *promoting goals* (17, 3%).

Positive and negative consequences. Reflecting Operant Conditioning Theory, these respondents suggested three ways that the teacher could increase utility value for the course by means of implementing consequences. The most common suggestion was to focus on *praise and reinforce* students' positive behavior (87) in order to give them an incentive or attention for doing their work or behaving appropriately.

> *Ms. Hopkins could possibly implement a system of rewards for work that is turned in and completed effectively on time. Also, by rewarding the students who are completing the work, the less motivated children may have a greater incentive to do the same. This arrangement could increase the students' willingness to do what Ms. Hopkins asks of them.*

Another group of responses suggested, that the teacher should focus on *punishments* for the students' behavior (61). This was suggested as a strategy to increase both good behavior and completion of work.

> *Ms. Hopkins needs to enforce discipline in her class; if students are aware that they will be punished then they probably won't act up.*

> *After Ms. Hopkins saw the incomplete assignments from the students, I think she should have used a type of punishment. Removal punishment would have been the best in this situation because she could have removed their recess or the extra playtime the children get to have at the end of class. By doing this, the behavior would decrease and the students would begin to complete their assignments.*

A separate group of responses in this category emphasize the creation of *class rules* with *specified consequences* (14). These responses advise the teacher to make the rules and consequences explicit, so that students know what will happen if they do, or do not, follow the rules. In this sense, these responses included both positive and negative consequences.

> *Mrs. Hopkins should start being clear about breaking rules and establish positive consequences and punishments that follow. This will teach the students what will happen if they act up and help change their behavior because they'll also know that there will be a positive consequence to behaving well.*

Promote Goals. A second set of strategies for increasing the utility value of the class was for the teacher to promote goal for the students. The most common (15) suggestion in this group was that the teacher emphasize students' long-term goals and explain how the class would help them achieve a good job or acceptance to college.

> *I would also advise her to enforce that their grades are a very essential part of the class, and that this class would be to their advantage in college if they plan to attend college.*

Two responses related to goals advised the teacher to create a class goal to direct the students' towards. The following quote is from a respondent who planned to teach middle school band.

> *Ms. Hopkins should create a class goal. Make sure the students are aware that together, you and the students are working toward a specific outcome, such as a well-performed end of the year concert. Having something to work toward will help motivate the students to practice more and pay attention during rehearsal.*

Decrease Cost or Risk

Thirty-five thematic units (6% of all strategies) addressed ways to decrease the cost or risk to students of putting forth effort in their work or behaving in class. Respondents suggested that the teacher should *involve the students* in solving the classroom problems (16), *speak privately* to students (12), or *refer students to counselors* (7).

Involve the students. Of the 16 thematic units in this group, nine advised the teacher to ask the students how they would like her to teach and what they believed were contributing to the problem, while seven said students should be involved in creating class rules and suggesting consequences. The respondents explained that if students have some input into how the class is run then it may hold more value for them. This would decrease the cost of compromising one's identity and beliefs about what is fair, as students would be able to incorporate their own ideas about what is appropriate behavior and consequences.

> *She needs to tell the students that things are going to change, but that she wants them to help her set up the class rules. This can result in a class discussion of what behaviors they think are acceptable and which are not. By doing this, Ms. Hopkins won't feel like a "mean teacher" because everyone will agree on what the rules are. It may also help to let the students suggest appropriate rewards and consequences for following or breaking the rules.*

Speak privately. Twelve thematic units address the risk of "singling students out" by publicly reprimanding them or highlighting failure. Rather than speaking to students in front of the whole class, these strategies suggest that the teacher do so more privately.

> *I would also advise Ms. Hopkins to be careful when she is talking to the students that did poorly on their nine-weeks' progress report. It is possible that students may feel slightly embarrassed for being separated from the rest of the class in a negative way, and may be hesitant to work harder to improve their grades. I know that Ms. Hopkins wants each of her students to perform well in all that they do, I just would advise her to be careful how she goes about encouraging them.*

Refer to counselors. The seven responses that advised the teacher to refer students to counselors suggested that students who are going through very difficult situations at home should be allowed to talk to counselors. The respondents seem to suggest that the teacher may not be able to help with very serious issues, but that she can demonstrate understanding and care by referring students and making the accommodations that allow the students to have extra time to complete their work.

If students are dealing with issues at home, Ms. Hopkins may need to send them to talk to the school counselors. She needs the students to know that if they are feeling sad or stressed out, that they can talk to someone. Ms. Hopkins may not have the time or psychological background to help students overcome their problems, but she can show them that she cares and let them make up any assignments they may miss while talking to the counselors.

Causes and Strategies Not Related to Expectancy or Value

One set of related causes and strategies did not fit within the expectancy-value model. Rather, 16 causal thematic units suggested that the students did not respect the teacher, causing them to act inappropriately or lose motivation and 14 strategic units suggested that in order to solve the problems, the teacher needed to gain the students' respect. None of the respondents explained exactly what respect includes or how a teacher establishes it. The following quotes exemplify the vagueness of this category of responses:

Another problem I see in Ms. Hopkins class is that she has several students that do respect her. When she assigns worksheet or written assignments, students will not do them. She encourages them, but has a hard time actually influencing them to complete their assignments.

She needs to put the point across that she is an authority figure who deserves the respect of her students in the classroom. When the students begin to respect her, they will respect her class more and become more interested in the subject.

I had originally categorized these causes and strategies along with those related to *utility value*, as they appeared similar to those suggesting that the lack of a discipline plan was causing the problems in the scenario, and that a solution would be to implement one. However, when I compared the thematic units from the two categories, it seemed as though those focused on *respect* were not suggesting that students felt there was nothing to "get" from behaving or doing their work and therefore needed some incentive or punishment. Rather, these responses appeared to be expressing a social norm of the middle class from which most respondents were

drawn, namely, that students *should* respect the teacher's authority without question and without (necessarily) any outside incentive. That none of the respondents defined respect points to the unexamined nature of this norm. While it does fall generally under *value*, respect for authority is not addressed by any of the motivation theories included in the expectancy-value model, suggesting a potential gap in the expectancy-value mode, since it does not directly address cultural norms.

DISCUSSION

In this chapter, I have presented the results of the qualitative analysis of pre-service teachers' responses to a journal assignment which asked them to describe three likely causes and three strategies for the problems described in a scenario. The results reveal that pre-service teachers' beliefs about motivation fall mainly within the expectancy-value model (with one small exception). There were essentially an equal amount of causal thematic units as strategic units addressing expectancy for success. Similarly, three quarters of the suggested causes and 73% of suggested strategies addressed value. These results suggest that, for the most part, pre-service teachers' strategies for increasing motivation appear to be consistent with what they think may be causing the problem. This finding was not necessarily expected, given Hardre's (Hardre & Sullivan, 2008) finding that teachers' strategies are not related to their perceptions of the causes of lack of motivation.

The results also suggest that the pre-service teachers believe that the main reason students are not motivated is because of a lack of value, rather than because students do not expect to succeed. This is inconsistent with Brophy's (1999) finding that the teachers he studied did not pay as much attention to the value of learning tasks as to expectancy. However, students who

enroll in EPSY 2130 typically have experienced success in school and may not consider that a lot of students are not as successful. Essentially, expectancy for success may never have been an issue for these respondents, explaining why they may have focused primarily on value.

However, within the responses related to value, the majority were concerned with *utility value,* mainly behaviorist reasons for motivation. Interestingly, only 87 of the thematic units describing causes were specifically about the lack of consequences or incentives for good behavior while behaviorist-related strategies numbered 162, almost double. This finding suggests that the pre-service teachers believe that behaviorist strategies, such as reinforcing or punishing behavior, are good strategies to address multiple causes of motivation problems even though they suggested fewer behaviorist causes.

There was a marked differed between the number of responses related to situational interest and personal interest. Only seven thematic units described causes suggesting that students may not have personal interest in the subject of the class or lessons, while 99 suggested there was a lack of situational interest. One explanation for this finding is that it may reflect an expectation on the part of those pre-service teachers that many students generally have little personal interest in academic subjects, anyway (Knapp & Harper, 2009). If they do not expect their classes to hold personal interest for any students, then they may not consider a lack of personal interest to be a potential cause the motivation problems described in the scenario. On the other hand, 29 thematic units describe strategies to include students' personal interests indicating that the pre-service teachers think personal interest would be useful to help motivate students.

Some differences were found in the responses of the pre-service teachers based on the grade level they planned to teach. Surprisingly, the only cause suggested by more respondents

planning to teach secondary grade levels was that the students do not have long-term goals, such as college to give the class utility value. There was no marked difference in any other category. However, I did notice patterns in the way that the pre-service teachers talked about some issues, particularly when they hypothesized that the *teaching style is boring*. Those who plan to teach high school tended to initially attribute the cause to students' lack of interest, suggesting that interest, or motivation, is a trait of the student but then went on to explain that the lack of interest could be due to the teacher's style or format of the class. On the other hand, those who plan to teach elementary school began their responses in this category by talking about the teaching style. This slight difference may indicate a shift, as intended grade level increases, towards attributing motivation to students rather than the situational features of the classroom. However, this was not a pattern found throughout the responses.

In fact, the responses were surprisingly focused on the actions and attitudes of the teacher as the main source of the problems. The only exceptions were causes attributed to students' home or social lives, which were viewed as having competing values that kept students from being motivated in class. It is likely that these causes were seen as things outside of the teacher's control because only a few strategies were suggested to address them, such as *referring students to counselors* and *speaking privately* to students. Yet these strategies only dealt with ways to reduce the risk or cost of participating in school, not to solve the problems themselves, indicating that the pre-service teachers were less sure about how to address these sorts of problems.

Given the dramatic increase in the responses related to reinforcement and punishment in the strategies over the causes, one could hypothesize that if the pre-service teachers believed they could not address a low attainment value for school in general, that they could at least try to increase the utility value of completing work and behaving appropriately.

Another possibility for the large number of behaviorist strategies, and the surprising number of those focusing solely on praise and reinforcements, is that the journal assignment was due the same week that the class covered Behaviorist theories of learning. The journal assignment was given during the first week of class and was due before the first in-class lesson on behaviorism in an attempt to minimize this effect, but it is very possible that students had read the assigned readings before writing their journals. This seems likely as the reading assignments include an article titled "Just Rewards" (Schandler, 1996) in which the author describes how she found success in improving student behavior by focusing on praising students' good behavior and ignoring the bad. Thus, the results may be skewed towards these ideas and may not accurately reflect the pre-service teachers' implicit beliefs about these types of strategies.

I also have to emphasize that the journal assignment asked the pre-service teachers to "give three pieces of advice to the teacher" in the scenario and was deliberately phrased in such a way as to not limit the responses to strategies. It was assumed that they could give the teacher any type of advice, including statements that there may be nothing she could do. However, since they all wrote about things the teacher *could* or *should* do, the results indicate that they do believe that teacher could effect change in these areas, representing an implicit belief that motivation is an incremental state.

CHAPTER 5

STUDY 2

The second study measured responses from students enrolled in the same semester of EPSY 2130 who volunteered to complete a questionnaire given in the first and last weeks of the semester. Therefore, many of the participants in Study 1 may have also participated in Study 2. However, Human Subjects prevented cross-identification. The first administration of this questionnaire, or pre-measure, included five sections: Section A, demographic questions; Section B, recollections of goal orientations as a K-12 Student; Section C, anticipated teacher efficacy; Section D, beliefs about motivation; and Section E, beliefs about motivation strategies. The post-measure, conducted via e-mail, included only Sections C, D, and E. Fifty students took the pre-measure, but only 33 of those responded to the post-measure. Since a main purpose of the study was to measure change in beliefs across the semester, all analyses were conducted using only responses from those 33 participants.

RESULTS

Descriptive and Repeated Measures Analyses

Descriptive statistics and reliability for each of the four non-demographic sections are discussed below. Tests for significant differences between the means of pre- and post-measures in each section of the questionnaire using conducted with one-way within-subjects repeated measures ANOVAs. Table 1 presents the descriptive statistics for both administrations as well as results of the repeated measures ANOVAs for each section.

Table 1

Descriptive Statistics and One-Way Repeated Measures Results (N = 33)

Measure	M_{pre} *(SD)*	M_{post} *(SD)*	(M_{post}-M_{pre})	*F*	*p*
Past Goal Orientation (Section B)					
Mastery	3.75 (.86)				
Approach	3.78(.89)				
Avoid	3.58 (.90)				
Anticipated Teacher Efficacy (Section C)					
Engagement	5.05 (.67)	4.77 (.65)	-0.28	*2.04*	*0.05*
Instruction	4.99 (.61)	4.80 (.85)	-0.19	1.36	0.18
Overall	5.02 (.54)	4.78 (.68)	-0.24	*2.00*	*0.05*
Beliefs about Motivation (Section D)					
Entity/ Incremental View	4.79 (.72)	4.70 (.89)	-0.09	0.47	0.65
Teacher Sources	3.89 (.66)	4.13 (.62)	-0.66	*2.14*	*0.04*
Student Sources	3.67 (.45)	3.62 (.10)	-0.05	0.60	0.55
Subject Sources	4.44 (.87)	4.55 (.80)	0.24	0.72	0.48
Intended Strategies					
Mastery	2.60 (.18)	2.55 (.34)	-0.05	0.75	0.45
Performance	2.26 (.23)	2.29 (.36)	0.03	-0.44	0.66
Helpless	1.30 (.22)	1.54 (.51)	0.24	*-2.52*	*0.02*

Section B: Recollections of Goal Orientation as a K-12 Student

This section of the questionnaire assessed participants' recollections of their own motivations as students at the grade levels they plan to teach using the Personal Achievement Goal Orientations scale from the revised student version of the Patterns of Adaptive Learning Scales (Midgley et al., 2000). All respondents indicated a grade level

consistent with the grade level they plan to teach as reported on the demographic section. On a scale of 1-4, with 4 indicating a high orientation, the means were similar and high for each subscale: Mastery (M = 3.76), Performance Approach (M = 3.78), Performance Avoidance (M = 3.58); suggesting that the participants were highly oriented in K-12 toward all three types of academic goals. However, in my experience as an instructor of EPSY 2130 I have come to realize that for these pre-service teachers, a performance avoidance orientation means avoiding failure by putting forth more effort on tasks rather than not attempting them at all. Therefore, for the later analyses of relationships among belief scales, I combined the two performance subscales for the analyses of relationships. The reliability coefficients for the three subscales (.90, .89, .79) were at least as high, if not higher than previously published results (85, .89, and .74).

Participants were also given the opportunity, on an open-ended question, to list other factors that had influenced their goals at that time in school. Only 19 participants responded to this question, and unlike the subscale results, their responses seemed to indicate a primarily performance orientation. Sixteen wrote about expectations and pressure to do well in school from their families (8), friends (4), and college requirements (4). Only three wrote about potentially mastery-oriented factors: the satisfaction of feeling smart (2) and being recognized for accomplishing something difficult (1).

Section C: Anticipated Teacher Efficacy

Participants' anticipated efficacy as a teacher in motivating students was measured using questions adapted from two subscales of the Teacher's Sense of Efficacy Scale (Tschannen-Moran & Hoy, 2001). Again, the main purpose was to discover relationships between anticipated efficacy and beliefs about motivation. Still, the results show that these pre-service

teachers report a great deal of confidence that they will be able to motivate and instruct their students. On a scale of 6, with a 1 indicating an expectation that there would be *nothing* the participant would be able to do to engage or instruct their students, and a 6 indicating an expectation that the participant would be able to do *a great deal* to engage and instruct, the means on the pre-measure for this section and each subscale were fairly high: Overall (M = 5.02), Engagement (M = 5.05), Instruction (M = 4.99). On the post-measure, means for each subscale were somewhat lower than on the pre-measure, but still fairly high: Overall (M = 4.78), Engagement (M = 4.77), Instruction (M = 4.80). The reliability coefficients were slightly lower than reported by Tschannen-Moran and Hoy (2001), but were acceptable for both administrations (at or above .70).

The change in overall efficacy was significantly different on the pre-measure versus the post-measure ($F(2,31) = 2.00, p < .05$, d = -.41). Participants did not feel as confident about their ability to engage students at the end of the semester as they did at the beginning ($F(2,31) = 2.04, p < .05$, d = .-42). Their change in efficacy for instruction was not significantly different between administrations ($F(2,31) = 1.36, p = .06, d = -.26$). The results indicate that participants were less confident in their ability to engage their future students, but were not significantly less confident in their ability to provide effective instruction suggesting that the decrease in overall anticipated efficacy is all about engagement.

Section D: Beliefs about Motivation

This scale focused on a main research question, "What beliefs about motivation do pre-service teachers hold at the beginning of an educational psychology course". Two subscales were developed to measured participants' views of motivation and beliefs about the causes of motivation.

For the first subscale, four questions were drawn from Dweck's (1995) measures of individuals' views of ability and modified to assess whether participants had an entity or incremental view of student motivation. On a scale of 6, a 1 indicated agreement with an entity view while a 6 indicated a more incremental view. Group means for the pre-measure (M = 4.79) and post-measure (M = 4.70) suggest that participants tend to view motivation as more incremental than fixed. That no participant had a average score below 3, (3.33 was the lowest on the pre-measure, 3.67 on the post-measure) suggests that none of the participants in this study held a strong entity view of motivation. The Cronbach α was lower than the recommended acceptable levels (.62) for the first administrations, likely due to the small number of questions (N=4) but was acceptable for the second administration (.71).

Participants' mean scores for view of motivation on the post-measure, though slightly lower, was not significantly different from that on the pre-measure: $F(2,31) = .47$, $p = .65$, d= -.11. Some individuals did become more incremental, while others shift towards a more entity view on the post-measure, leading them to be selected as participants in the interviews in Study 3.

The other 22 questions in this section addressed pre-service teachers' beliefs about sources of motivation. On a scale of 6, with 6 indicating high agreement, participants were asked to indicate agreement to statements that attributed student motivation to either characteristics of the students, actions of the teacher, or features of the subject. The results of the both administrations revealed that participants attributed motivation first to the subject, then the teacher and student. Reliability for teacher-related and subject-related sources were at acceptable levels for both administrations (at or above .70), but the Cronbach's α for student related sources were slightly lower (.64 and .65).

Differences on the two measures for beliefs about student-related sources of motivation were not significant, *F(2,31) = .60, p=.55, d=.-18*, nor were differences for subject-related sources, *F(2,31) = .72, p=.48, d=.12*. However, the mean score for teacher-related sources was significantly higher on the post-measure, *F(2,31) = 2.14, p = .04,* d= *.38*. The results suggest that the only change in this area across the semester was a greater recognition of the impact of the teachers' actions on student motivation.

Section E: Beliefs about Motivating Strategies

Beliefs about the participants' intentions to use various strategies to motivate students was measured using 22 items drawn from instruments designed by Hardre, Davis, and Sullivan (2008) and Nolen and Nicholls (1994). Prior to the first administration of the questionnaire, I categorized the items according to whether they promote learning (or mastery goals) performance goals, or indicated feelings of teacher helplessness to affect student motivation. Obviously, as there are no intentional strategies to promote performance avoidance none were included, so for the purposes of the discussion, these will be referred to *mastery*, *performance*, or "*helpless*" strategies. On a scale of 1-3, the group means for mastery and performance strategies were high on both the pre-measure (*M* = 2.60; *M* = 2.26) and on the post-measure (*M* = 2.55; *M* = 2.29). However, the means for "helpless" strategies were much lower on both administrations (*M* = 1.30; *M* = 1.54, respectively). The reliability coefficients were similar for each administration with the αs for learning and helplessness at acceptable levels (at or above .70) and performance at or just below the acceptable level (.68 on the pre-measure, .70 on the post-measure).

Participants' intended use of strategies that promote mastery goals was not significantly different on the post-measure than on the pre-measure (*F(2,31) = .75, p = .45, d = -.19)*. Nor

was their intended use of strategies that promote performance goals statistically higher on the post-measure, $F(2,31) = -.44$, $p = .66$, $d=.10$. Interestingly, there was a significant increase with a moderate effect size in intention to use "helpless" strategies ($F(2,31) = -2.52$, $p = .02$, d =.66).

The results suggest that the participants did not change their anticipations of using strategies to promote learning or performance. However, the means were very high on the pre-measures ($M = 2.6$ on a 3-point scale) indicating that they were already quite likely to use such strategies.

Analysis of Relationships Between Variables

One of the purposes of the study was to investigate influences on participants' beliefs about motivation, including influences of their own goal orientations as a student and other characteristics of participants gathered on the demographic section. Another purpose was to investigate relationships among participants' beliefs about motivation, including their anticipated efficacy, their beliefs about the sources of motivation, and their beliefs about motivating strategies. Analysis of these relationships was conducted using either correlational analysis and analysis of variance, as appropriate to the nature of the variables.

For the purposes of the analysis, I have grouped Sections A and B as "participant characteristics." In addition to demographic information, Section A included questions regarding the grade level and number of years respondents intend to teach. The number of years they intend to teach may serve as an indicator of their commitment to the teaching profession and to an identity as a teacher. Likewise, given the different developmental needs and expectations of elementary and high school students, it was assumed that there may be differences between participants based on which grade level they intend to teach. Therefore, I expected to see some differences in their responses based on the number of years and grade level participants intended

to teach. Section B measured their recollections of goal orientation as a K-12 student. Since a mastery goal orientation has been linked to increased effort and persistence in the face of difficult tasks (Urdan, 1997) and teachers' own goal orientations have been linked to the orientations they expect their students to adopt (Beghetto, 2007) I expected to find some differences in participants' responses based on their past goal orientations.

Relationships Between Participants' Characteristics and Anticipated Efficacy

No significant differences were found for participants' anticipated teacher efficacy based on grade level or years they intend to teach on either measure (see Tables 2 and 3). However, moderate positive correlations existed on the pre-measure for participants' performance goal orientation and overall efficacy (.36, $p < .05$) and efficacy for instruction (.32, $p < .05$). The opposite was true of mastery goal orientation, which was not correlated with efficacy on the pre-measure, but was moderately correlated to efficacy for engagement (.43, $p < .05$), instruction (.43, $p < .05$), and overall efficacy (.47, $p < .01$) on the post-measure. Table 4 presents the correlations on the pre-measure; post-measure correlations are presented in Table 5.

Table 2

Relationships Between Anticipated Teacher Efficacy and Grade Level Participants Intend to Teach

	Pre-Measure				Post-Measure			
	ES	MS	HS		ES	MS	HS	
Efficacy	*M* (SD)	*M*(SD)	*M*(SD)	F	*M*(SD)	*M*(SD)	*M*(SD)	F
Engage	5.10 (.68)	5.83 (.14)	4.90 (.69)	1.39	4.88 (.61)	4.17 (.88)	4.77 (.63)	1.56
Instruct	5.12 (.58)	5.08 (1.15)	4.85 (.54)	.73	4.91 (.53)	4.23 (1.68)	4.80 (.95)	.80
Overall	5.11 (.56)	5.34 (.61)	4.89 (.49)	1.29	4.89 (.54)	4.19 (1.22)	4.78 (.68)	1.38

Note: No Fs were significant

Table 3

Relationships Between Anticipated Teacher Efficacy and Years Participants Intend to Teach

	Pre-Measure			Post-Measure		
	< 10	> 10		< 10	> 10	
Efficacy	*M* (SD)	*M* (SD)	*F*	*M* (SD)	*M* (SD)	*F*
Engage	5.05 (.65)	5.05 (.71)	.00	4.82 (.65)	4.73 (.67)	.18
Instruct	4.86 (.67)	5.09 (.57)	1.18	4.8 3(.84)	4.77 (.86)	.04
Overall	4.96 (.50)	5.07 (.57)	.37	4.83 (.71)	4.74 (.67)	.11

Note: No Fs were significant.

Table 4

Correlations Between Past Goal Orientation and Anticipated Teacher Efficacy on the Pre-Measure

	1	2	3	4	5
1. Mastery Orientation	-				
2. Performance Orientation	.13	-			
3. Efficacy for Engagement	.11	.28	-		
4. Efficacy for Instruction	.29	*.32**	*.39**	-	
5. Overall Efficacy	.23	*.36**	*.85***	*.82***	-

*** $p < .01$
* $p < .05$

Table 5

Correlations Between Past Goal Orientation and Anticipated Teacher Efficacy on the Post-Measure

	1	2	3	4	5
1. Mastery Orientation	-				
2. Performance Orientation	.13	-			
3. Efficacy for Engagement	.43*	.07	-		
4. Efficacy for Instruction	.43*	*.17*	*.69***	-	
5. Overall Efficacy	.47**	*.10*	*.92***	*.92***	-

*** $p < .01$
* $p < .05$

Relationships Between Participants' Characteristics and Beliefs about Motivation

Intended teaching grade level was not significantly related to most aspects of participants' beliefs about motivation, and neither was the number of years participants intended to teach (see Tables 6 and 7). However, on the pre-measure, a significant difference in participants' incremental/entity view of motivation was found based on the grade levels they intended to teach ($F(2,32) = 4.07$, $p < .03$). The mean for participants who plan to teach elementary school ($M = 5.05$) was significantly higher (indicating a more incremental view) than the mean for participants who plan to teach middle school ($M = 3.89$). Neither was significantly different than those who plan to teach high school (M=4.71).

No significant relationships between the grade level participants intend to teach and their beliefs about student-related and subject-related sources of motivation were found on the pre-measure. Also, means for beliefs about teacher-related causes were significantly different based on participants' intended grade level ($F(2,32) = 4.44$, $p < .05$). Specifically, the mean for participants who planned to teach middle school ($M = 4.05$) was significantly higher than the mean for participants who plan to teach elementary school ($M = 3.55$). Again, neither was significantly different than those who plan to teach high school and no significant differences were found on the post-measure.

The number of years participants intended to teach and an incremental/entity view of motivation were not related on the pre-measure. Nor were any relationships found between time commitment and beliefs about the causes of motivation on the pre-measure. However, on the post-measure, a significant difference was found for beliefs about subject-related causes of motivation based on participants' time commitment to teaching, $F(2,32) = 12.64$, $p < .01$. The mean for participants who plan to teach for less than 10 years ($M = 5.04$) was significantly

Table 6

Relationships Between Beliefs about Motivation and Grade Level Participants Intend to Teach

	Pre-Measure				Post-Measure			
	ES	MS	HS		ES	MS	HS	
Beliefs about Motivation	*M*(SD)	*M*(SD)	*M*(SD)	F	*M*(SD)	*M*(SD)	*M*(SD)	F
Incremental/ Entity	5.05 (.70)	3.89 (.38)	4.71 (.64)	*4.07**	4.73 (.70)	5.11 (1.26)	4.65 (.91)	.38
Teacher Sources	3.55 (.76)	4.05 (.36)	4.19 (.41)	*4.44**	3.99 (.42)	4.38 (.86)	4.23 (.73)	.82
Student Sources	3.62 (.55)	3.47 (.13)	3.75 (.39)	.64	3.64 (.49)	3.47 (.67)	3.62 (.67)	.10
Subject Sources	4.47 (.69)	3.67 (1.76)	4.57 (.82)	1.37	4.40 (.87)	4.83 (.57)	4.63 (.77)	.52

** $p < .01$
* $p < .05$

Table 7

Relationships Between Beliefs about Motivation and Years Participants Intend to Teach

	Pre-Measure			Post-Measure		
	< 10	> 10		< 10	> 10	
Beliefs about Motivation	*M* (SD)	*M* (SD)	*F*	*M* (SD)	*M* (SD)	*F*
Incremental/ Entity	4.88 (.69)	4.72 (.75)	.40	5.00 (.89)	4.53 (.76)	2.73
Teacher Sources	4.08 (.49)	3.74 (.74)	2.22	4.42 (.55)	3.92 (.59)	*5.97**
Student Sources	3.72 (.42)	3.64 (.49)	.34	3.81 (.61)	3.47 (.52)	2.87
Subject Sources	4.65 (.79)	4.29 (.92)	1.34	5.04 (.63)	4.18 (.71)	*12.64***

** $p < .01$
* $p < .05$

higher than the mean for those who plan to teach for more than 10 years ($M = 4.18$). This possibly indicates that participants who plan to teacher for fewer years feel that the subject they plan to teach, while one they have enjoy, does not hold personal interest for many students.

No significant relationships were found between participants' reported goal orientation as a K-12 student and their beliefs about student motivation on either administration of the questionnaire (see Tables 8 and 9).

Table 8

Correlations Among Past Goal Orientation and Beliefs about Motivation on the Pre-Measure

	1	2	3	4	5	6
1. Mastery Orientation	-					
2. Performance Orientation	.13	-				
3. Incremental View	.22	-.12	-			
4. Student-Related Sources	.05	.25	.13	-		
5. Teacher-Related Sources	.18	.13	-.20	*.70***	-	
6. Subject-Related Sources	.34	*.16*	*.16*	*.40**	*.19*	-

** $p < .01$
* $p < .05$

Table 9

Correlations Among Past Goal Orientation and Beliefs about Motivation on the Post-Measure

	1	2	3	4	5	6
1. Mastery Orientation	-					
2. Performance Orientation	.13	-				
3. Incremental View	.26	-.30	-			
4. Student-Related Sources	-.01	-.16	.33	-		
5. Teacher-Related Sources	-.01	-.16	.24	*.53***	-	
6. Subject-Related Sources	.23	-.01	.28	*.53***	*.44**	-

** $p < .01$
* $p < .05$

Relationships Between Participants' Characteristics and Motivating Strategies

No significant relationships were found between participants' intention to use various types of motivating strategies and the grade levels or number of years they plan to teach (see Tables 10 and 11). Nor were significant correlations found between participants' goal orientations as K-12 students and their intended motivating strategies (see Tables 12 and 13).

Table 10

Relationships Between Motivation Strategies and Grade Level Participants Intend to Teach

Strategies	Pre-Measure				Post-Measure			
	Elem	MS	HS		ES	MS	HS	
	M(SD)	*M*(SD)	*M*(SD)	F	*M*(SD)	*M*(SD)	*M*(SD)	F
Mastery	2.74 (.14)	2.70 (.34)	2.73 (.22)	.06	2.70 (.29)	2.33 (.73)	2.68 (.37)	1.27
Performance	2.27 (.22)	1.97 (.21)	2.17 (.25)	2.18	2.55 (.23)	2.27 (.51)	2.36 (.36)	1.76
Helpless	1.32 (.24)	1.17 (.14)	1.30 (.22)	.57	1.45 (.42)	1.59 (.58)	1.62 (.58)	.41

Note: No Fs were significant.

Table 11

Relationships Between Motivation Strategies and Years Participants Intend to Teach

Strategies	Pre-Measure			Post-Measure		
	<10	>10		<10	>10	
	M (SD)	*M* (SD)	*F*	*M* (SD)	*M* (SD)	*F*
Mastery	2.74 (.21)	2.72 (.18)	.03	2.72 (.36)	2.62 (.39)	.49
Performance	2.22 (.24)	2.18 (.25)	.25	2.44 (.33)	2.44 (.33)	.00
Helpless	1.29 (.19)	1.30 (.24)	.05	1.45 (.48)	1.61 (.52)	.79

Note: No Fs were significant.

Table 12

Correlations Between Past Goal Orientation and Motivation Strategies on the Pre-Measure

	1	2	3	4	5
1. Mastery Orientation	-				
2. Performance Orientation	.13	-			
3. Mastery Strategies	.22	.05	-		
4. Performance Strategies	-.02	.07	.16	-	
5. Helpless Strategies	.29	.17	-.31	-.04	-

** $p < .01$
* $p < .05$

Table 13

Correlations Between Past Goal Orientation and Motivation Strategies on the Post-Measure

	1	2	3	4	5
1. Mastery Orientation	-				
2. Performance Orientation	.13	-			
3. Mastery Strategies	.27	-.14	-		
4. Performance Strategies	-.02	-.01	.62	-	
5. Helpless Strategies	.29	.28	-.55**	-.27	-

** $P < .01$
* $P < .05$

Relationships Among Variables in Sections C, D, and E

Pearson-product moment correlations were conducted to analyze the relationships between measures of anticipated teacher efficacy, beliefs about motivation, and intention to use motivating strategies. Relationships across each section are discussed for both the pre-measure (see Table 14) and the post-measure (see Table 15).

Correlations Between Anticipated Efficacy and Beliefs about Motivation

On the pre-measure, only efficacy for instruction was correlated in any way with beliefs about motivation, showing a moderate relationship (.34, < .05) with student-related causes. No

significant correlations with anticipated teacher efficacy were found for teacher-related or student-related causes. Nor was anticipated teacher efficacy correlated with incremental/entity view of motivation (see Table 14).

Table 14

Correlations Among Anticipated Teacher Efficacy, Beliefs about Motivation, and Motivation Strategies on the Pre-Measure

	1	2	3	4	5	6	7	8	9
1.Overall Efficacy	-								
2. Instruct Eff.	.82**	-							
3. Engage Eff.	.85**	.39**	-						
4. Increm./ Entity	.02	.04	.01	-					
5. Teacher Sources	.20	.26	.08	-.20	-				
6. Student Sources	.68	.34*	.10	-.13	.70**	-			
7. Subject Sources	.09	.09	-.12	.16	.19	.41*	-		
8. Mastery Strats.	.28	.26	.22	.18	.15	.12	.02	-	
9. Perf. Strats.	.10	.27	-.09	.23	.02	.25	.17	.16	-
10. Helpless Strats.	.17	.18	-.12	.10	-.20	-.10	.06	-.31	-.04

** $p < .01$
* $p < .05$

However, on the post-measure, all subscales of anticipated efficacy were moderately correlated with incremental/entity view (.59, p < .01; .50, p < .01; .59, p < .01), such that participants' with higher anticipated efficacy for instructing and engaging their students were more likely to have an incremental view of motivation than those who felt they would be less efficacious. Participants' anticipation of instructional and overall efficacy were also moderately correlated with their beliefs about the teacher as source of motivation (.43, p < .05; .50, p < .01). Interestingly, anticipated efficacy for engagement was not significantly correlated with teacher-related causes of motivation (see Table 15).

Table 15

Correlations Among Anticipated Teacher Efficacy, Beliefs about Motivation, and Motivation Strategies on the Post-measure

	1	2	3	4	5	6	7	8	9
1.Overall Efficacy	-								
2. Instruct Eff.	.92**	-							
3. Engage Eff.	.92**	.69**	-						
4. Increm./ Entity	.59**	.50**	.59**	-					
5. Teacher Sources	.43*	.50**	.29	.33	-				
6. Student Sources	.33	.31	.29	.24	.53**	-			
7. Subject Sources	.22	.21	.20	.28	.53**	.44*	-		
8. Mastery Strats.	.75**	.76**	.62**	.45**	.45**	.38*	.29	-	
9. Perf. Strats.	.57**	.54**	.50**	.34*	.19	.34	.15	.62**	-
10. Helpless Strats.	-.51**	-.48**	-.47**	-.57**	-.41*	-.23	-.19	-.55**	-.27

** $p < .01$
* $p < .05$

Correlations Between Anticipated Teacher Efficacy and Motivating Strategies

On the pre-measure, participants' anticipated efficacy was not significantly correlated with the types of motivating strategies they intend to use. However, on the post-measure, some moderate to strong correlations were found. Strategies to promote a mastery orientation were quite positively correlated with anticipated efficacy for engagement (.62, $p < .01$), instruction (.76, $p < .01$), and overall (.75, $p < .01$). Similarly, strategies to promote a performance orientation were moderately correlated with efficacy for engagement (.50, $p < .01$), instruction (.54, $p < .01$) and overall efficacy (.57, $p < .01$). As expected, "helpless" strategies were negative and moderately correlated with anticipated efficacy for engagement (-.47, $p < .01$), instruction (-.48, $p < .01$), and overall efficacy (-.51, $p < .01$). The result suggest that

participants who felt they would not be able to successfully engage and instruct their students were less likely to indicate an intention to use strategies that might motivate students than those with higher anticipated teacher efficacy.

Correlations Between Beliefs about Motivation and Motivating Strategies

Correlations between participants' beliefs about motivation and motivating strategies on the pre-measure were not significant. However, on the post-measure, some moderate correlations were found. Intention to use strategies that would promote a mastery orientation was positively correlated with beliefs attributing student motivation to teacher-related (.45, $p <$ .01) and student-related (.38, $p < .05$) sources. Intention to use strategies that would promote a mastery orientation was also correlated with a more incremental rather than an entity view of motivation (.45, $p < .01$). The intention to use strategies to promote performance was also moderately correlated with an incremental view of motivation (.34, $p < .05$). Not surprisingly intention to use "helpless" strategies was negatively correlated with teacher-related causes of motivation (-.41, $p < .05$), a more incremental view of motivation (-.57, $p < .01$), and also with the intention to use strategies that would promote mastery goals (-55, $p < .01$).

DISCUSSION

In this chapter, I have presented the analysis of data from the second study, which included two measures of 33 pre-service teachers' beliefs about student motivation and motivating strategies, given in the beginning and final weeks of an educational psychology course. Some relationships were found between participants' beliefs and their intended strategies. As expected, anticipated teacher efficacy was related to a more incremental view of motivation and a belief that the teacher's actions are a primary source of student motivation.

Efficacy for instruction and engagement were also positively related to intention to use strategies that would promote both student learning and performance and negatively related to intention to use "helpless" strategies. Participants' view of motivation, while more incremental than expected, was also correlated with intention to use strategies to promote both performance and mastery goals and negatively correlated to helpless strategies.

The finding that participants' own reported goal orientations in K-12 were not related to their intention to use of motivation strategies leading to different goal orientations was unexpected, given Beghetto's (2007) study, which found a relationship between pre-service teachers' goal orientations and their beliefs about motivation. His results suggested that pre-service teachers may expect their students to pursue the same goal orientations they had Beghetto did not distinguish between past and current goal orientations, and as we will see in Study 3, the can be different. In addition, the range of participants' scores was restricted, in that almost all scored highly on all three orientations; therefore one would not expect to find a statistical correlation. However, this does not mean that these pre-service teachers' goal orientations and beliefs about motivation strategies are not related. The participants in EPSY 2130 are typically very successful students who took honors or AP courses in high school. In my experience as an instructor of this course, I have learned that for these students, a grade lower than an A is considered failure. Thus, a performance-avoidance goal orientation takes on a different meaning for them. Rather than reacting with typical avoidance behaviors, such as not studying or devaluing a course when they fear they may fail or appear unable, these pre-service teachers typically react with increased effort and studying. Since they reported having had both mastery and performance orientations as students, they may, in fact, expect their future students to pursue

both orientations, which would explain why they highly endorsed strategies that would promote both mastery and promote performance orientations.

The results also suggest that most of the pre-service teachers entered this course with a largely incremental view of student motivation and a high anticipated efficacy for engaging students. Overall, they intend to use strategies that would promote both mastery and performance goals in their students and reported that they would not be likely to use strategies indicating teacher helplessness. Many of these beliefs did not change by the end of the course, but some did so in somewhat contradictory ways. While their view of motivation as incremental did not significantly change, participants did significantly increase their belief that the teacher is a source of student motivation, while at the same time, also significantly increased their intention to use "helpless" strategies which state that there is little a teacher can do to increase motivation.

Given these contradictory results, it is not surprising that their anticipated efficacy for engaging students significantly decreased by the end of the semester. However, it is concerning. This finding indicates that by the end of the course, participants were less confident in their abilities to motivate their future students than they were at the beginning of the course. Previous studies have shown that pre-service teachers' efficacy usually remains high throughout teacher education until student teaching, when it drops dramatically (Woolfolk Hoy & Hoy, 1990). Certain features of this particular educational psychology course may account for the unexpected decrease found in this study. First, the course introduces many factors that affect student motivation with the intention of helping pre-service teachers diagnose motivation problems. It may be that participants felt overwhelmed after learning about all of these factors and felt less confident in their ability to address all of the factors. Additionally, many students work with disadvantaged students during the course to fulfill a service-learning requirement. They often

struggle to work with and motivate students who are not like them, who do not enjoy school or experience success, an experience that pre-service teachers in other institutions may not encounter until student teaching. These two features of the course may have increased students' awareness of the complexity of motivation and the reality of teaching, resulting in the decreased efficacy for teaching not usually seen until student teaching.

Additionally, this finding seems to echo results from Hardre and Sullivan (2008)'s study in which teachers expressed confidence in diagnosing motivation problems, but frustration and helplessness about solving them. This may also be true for these pre-service teachers, especially given that participants with higher efficacy were more likely to view student motivation as something that could be changed and less likely to endorse helpless strategies. However, the current study did not distinguish between efficacy for diagnosing and efficacy for solving motivating problems, as did Hardre and Sullivan (2008).

Another finding of Study 2 was that participants did change some of their beliefs about the sources of motivation and the effectiveness of some motivating strategies after completing the course. Some of these changes were anticipated, while others were not. The results suggest that the participants, overall, did not view motivation as a fixed and relatively stable trait of the student, and that this did not change over the course of the semester. Additionally, participants were more likely to agree that a teacher can influence students' motivation at the end of the course than they were at the beginning. On the other hand, the participants increased their endorsement of some strategies that suggest teachers cannot affect student motivation. Taken together, the results suggest that the participants hold contradictory beliefs of motivation. We will see more of these contradictory beliefs about motivation in Study 3 along with some of the influences on these beliefs.

CHAPTER 6

STUDY 3

The purpose of the semi-structured interviews conducted in Study 3 in the first half of the Spring 2009 semester was to further identify and explore the sources of the pre-service teachers' beliefs about student motivation measured in Study 2, including any aspects of the educational psychology course that may have influenced changes or stability in their beliefs (see Appendix C). Many questions in the interviews addressed participants' own experiences as students, especially in the grades they intend to teach, in order to identify strongly held beliefs and influences on these beliefs. Other questions directly addressed aspects of EPSY 2130 to ascertain its impact on their beliefs. Dominant patterns and themes resulting from analysis of the interviews are presented in this chapter, following a brief description of each of the interview participants.

PARTICIPANT PROFILES

A total of eight pre-service teachers were selected to participate in an interview based on their responses to the questionnaires in Study 3. I deliberately selected participants who moved closer to an entity view of motivation as well as those who strengthened their incremental view or one who did not change. Their profiles, summarized in Table 1, are organized based on the participants' year in college at the time of the interview, beginning with first-year students. All names are pseudonyms.

Table 19

Description of Interview Participants and Their Definitions of Motivation

Name	**Year in College**	**Ethnicity** (as indicated on questionnaire)	**Intends to Teach**	**Change in Entity/ Incremental**	**Change in Beliefs about Sources of Motivation**	**Definition of Motivation**
Myoung	1st	Asian-American	High School Foreign Language	increased incremental view	no change	*"It's something that keeps you going."*
Lindsey	1st	White	Elementary	increased entity view	teacher increased	*"The extra push that makes a student want to learn, or try again what they failed the first time at. An extra word of encouragement; extra time at the end of the day."*
Michelle	1st	African-American	High School Math	no change	no change	*"It's something that you're willing to do."*
Meghan	1st	White	High School English	increased entity view	subject decreased	*"It's a mind-set you have to have"*
Libby	2nd	Asian-American	High School History	increased incremental view	teacher increased subject decreased	*"Interested in like actually learning the subject beyond just what the teacher gives you."*
Nicole	2nd	White	Elementary School	increased entity view	no change	*"The* want *to … do whatever you're doing. The* want *to."*
Erin	2nd	White	no longer plans to teach, hopes to become a camp director	increased entity view	no change	*"Your reason to do well, to succeed, to put effort in."*
Amanda	5th	White	Elementary	increased entity view	subject decreased	*"You self will yourself to accomplish something"*

Myoung

Myoung was the only male who participated in Study 3 in part because there were only four males in Study 2 and because he was the only male who agreed to an interview. While his parents still live in South Korea, Myoung was legally adopted by his aunt and uncle so that he could attend American high school and college. A first-year student, he admitted that he often had a difficult time motivating himself to study for his courses and made lower grades than he had expected in his first semester. As he started his second semester of college, he said he was motivated to improve his grades and study more because his grades were very low for his first semester. However, he admitted that at the time of the interview, which was conducted towards the end of the second week of the Spring 2009 semester, he had not yet changed his study habits.

Myoung plans to teach high school foreign language, preferably Japanese. However, he said that he would be willing to teach other subjects, as well. He believes he would make a good teacher and good motivator because he had success in some of the leadership positions he held in high school, particularly in Junior ROTC. Myoung was asked to participate in Study 3 because his responses to the questionnaires in Study 2 indicated he had a stronger incremental view of motivation by the end of the semester ($M_{pre} = 4.33$; $M_{post} = 6.00$).

Lindsey

Lindsey had had a lot of previous experience with young children, though baby-sitting and a course in high school that allowed her to "intern" in a kindergarten class. Therefore, it is no surprise that as a first-year student, Lindsey had already decided that she wanted to teach elementary school. While she is open to teaching first or second grade, she would prefer to teach kindergarten because she wants to help students build their "foundation" for later learning.

Lindsey described herself as a motivated student, and emphasized the value her parents had put on her education. In the interview, her descriptions of her academic behaviors in elementary school were mainly compatible with those associated with a performance-approach orientation, in that she wanted to get good grades and compete with her sister, whom she called a "brainiac". However, she also described enjoying the "feeling of putting my hard work into something", indicating she also had a somewhat mastery orientation as well. Lindsey's responses to the questionnaires in Study 2 indicated that her view of motivation became less incremental by the end of the educational psychology course ($M_{pre} = 5.61$; $M_{post} = 4.33$) and increased her belief that the teacher is a source of students' motivation ($M_{pre} = 2.43$; $M_{post} = 4.00$).

Michelle

A first-year student, Michelle was the only participant who had anticipated that she would need to increase her effort and amount of time studying in order to perform well in college. She was also the only participant who attended an urban, predominately African-American high school. With the intention of teaching high school mathematics, Michelle hopes to double-major in math and mathematics education.

Michelle emphasized three influences on her motivation as a student: her family, who pushed her to succeed and told her she was smart; her belief that she actually was smart; and her faith that God would help her overcome any obstacles. Her responses to the questionnaires in Study 2 indicated that her beliefs about motivation did not change by the end of the semester.

Meghan

Meghan, also a first-year student, was the most talkative of all the participants, and definitely the loudest and most outspoken and most detailed about her experiences in school. She plans to teach high school English, AP Literature in particular, because, in her own words,

"obviously, I like to discuss things and want to be able to talk all day about books and poems". Like most of the participants, Meghan attended a predominately White, suburban school district, but she was the only one to characterize her school as "ridiculously wealthy."

Meghan did describe herself as a motivated student, but clarified that she has different goal orientations for different classes. She is motivated to get good grades in all of her classes, but only motivated to really put in effort when she is interested in the subject, or knows that she will need to, in order to get the requisite A. Because of this she said she was not "an above and beyond person." Meghan's responses to the questionnaires in Study 2 indicated that her incremental view of motivation decreased slightly ($M_{pre} = 5.00$; $M_{post} = 4.00$).

Libby

Libby, a second-year student, had originally planned to major in pre-medicine. She admitted that this plan had been due to pressure from her parents, but when she had a difficult time in her organic chemistry class, she started to question what *she* actually wanted do for a career. An Asian-American, Libby had been successful in all of her subjects in high school, but said that she had always enjoyed her history classes more than any others. Therefore, when she took the educational psychology course, it was to fulfill a requirement for social studies education, and was her first education course.

Like Meghan, Libby also drew a distinction between her motivation for courses she is very interested in, such as history, and that for other courses in which she "couldn't care less". When she is interested she wants to know "all about it and read other stuff about it," reflecting a mastery orientation. However, when she is not interested in a course, she tends to "plow through the material and just get it over with." Libby's responses to the questionnaires in Study 2 indicated a shift towards an stronger incremental view ($M_{pre} = 3.67$; $M_{post} = 5.33$).

Nicole

Nicole, a second-year student, plans to teach elementary school. She is especially interested in second or third graders because, as she put it, "they're not the youngest kids in the school, and they're not the big dogs, either." She feels that at this grade level she will be able to teach important and interesting subjects and that the students will be less dependent than the kindergarteners but more enthusiastic about learning than the fifth graders.

She described herself as a generally motivated student because she had always done well in school. She cited her family's expectations that she get good grades as a major influence on her motivation. Nicole's responses to the questionnaires in Study 2 indicated that her view of motivation became less incremental by the end of the course (M_{pre} = 5.33; M_{post} = 3.67).

Erin

Erin worked as a camp counselor in the summer of 2008, and had initially planned to major in elementary education. In the interview, she explained that she loves working with little kids, but also loves to be active and spend a lot of time outdoors. When she realized that she could combine the two and become a camp director, she decided to change her major to recreation and leisure studies. In fact, she had just changed her major the day before the interview. Even though I am studying pre-service teachers, I decided to keep Erin in the study as she is still planning to work with young children in a structured, educational setting.

Erin said she was a motivated student, even though she might not always get straight As. She explained that she is always motivated to do her best, even if her best is not "perfect." Her responses to the questionnaires in Study 2 indicated that her beliefs about motivation shifted slightly towards an entity view of motivation by the end of the course (M_{pre} = 4.33; M_{post} = 3.67).

Amanda

Amanda is technically a fifth-year student but still an undergraduate, and was the only student in this study who described ever having difficulty in school before college. She was also the only interview participant who did not take honors or AP courses in high school. She had transferred into UGA a year earlier, after spending three years in a pre-nursing program at another college. She said that she had always liked children but wanted to teach the older elementary grades, third grade and up, because she does not want to "deal with the babies."

She said that she has not been very motivated in her courses at UGA, with the exception of her education courses. She attributes this mostly to the fact that she is repeating some courses that did not transfer from her previous college, but also to a perception that her professors do not enjoy teaching. Amanda said that she is motivated in her education classes because she is actually going to need to know the information for her career. Her responses to the questionnaires in Study 2 indicated that her view of motivation shifted closer towards an entity view ($M_{pre} = 5.67$; $M_{post} = 4.33$) and her beliefs about the subject as a source of motivation decreased over the semester ($M_{pre} = 5.00$; $M_{post} = 3.00$).

RESULTS

During the interviews, participants were asked to describe both their own motivation as a student and their perceptions of their peers' motivation in the grades they intend to teach. They were also asked to define motivation and to describe how their definition related to what they learned in EPSY 2130. The analysis of the interviews revealed patterns and themes regarding their beliefs about motivation that I will discuss in terms of the expectancy-value model (Eccles & Wigfield, 2000) that has served as a framework through this dissertation, as well as a pattern

of mixed attributions that does not fit into the model. Themes regarding the impact of the educational psychology course are discussed separately.

Themes and Patterns Related to Expectancy

The participants discussed the role of expectancy in student motivation in terms of the impact of students' and teachers' beliefs. Based on their own experiences, they spoke of how students' self-efficacy beliefs influence their motivation in a course. Additionally, they discussed how a teacher's expectations and a teacher's own efficacy for motivating students can impact students' self-efficacy beliefs and motivation.

Students' Self-Efficacy

In the interviews, two participants talked about students' self-efficacy as a necessary element in students' motivation. Both Meghan and Michelle defined motivation as a "mind-set", a belief that you can and will succeed at the task. Michelle emphasized the importance of staying positive: "If you're willing to wake up and say, 'I can do it' then you can." Meghan, on the other hand, described the impact of low self-efficacy. "[Motivation is] a mind-set you have to have. If you don't think you can get an A, then you're probably not going to try."

Michelle reflected on her own experiences as a student to explain how she came to this definition. As a student her family was always encouraging her in the morning before school, telling her she was smart and capable of doing well on every test. Now that she is in college she has had to find a new way to maintain her self-efficacy.

> *I have two tests today, and I woke up and said 'I can do this, I'm going to make an A.' And I turned on this song, Mary-Mary's "Can't Give up Now," and one of the verses is "come too far to give up now." I mean, sometimes there are tests where you go in and its not what you expect and you do bad, but you have to take the bad with the good and realize that in the end it'll work out.*

Teachers' Self-Efficacy

Four participants talked about the impact that a teachers' efficacy for impacting student motivation can have on their classroom behaviors. Two of the four, Myoung and Michelle, spoke of teachers who seemed to give up on teaching and motivating students. They attributed this to the amount of student misbehavior in the classroom. Because the teachers were focused mainly on controlling the behavior of some of the students, they seemed to stop believing that they could motivate any of their students. As Myoung explained:

> *It got to the point where she just wrote the due date on the board, and you just had to do it, and you couldn't ask questions because she was dealing with the behavior problems. Most of the students just stopped doing their work.*

Michelle noted that her teacher's attempts to discipline students were undermined by the principal.

> *The teacher would send students to the office but the principal would just send them back to the class with no punishment; sometimes he didn't even talk to them – just sent them back.*

She surmised that without support from the principal, the teacher began to feel helpless about controlling the situation. However, when a new principal took over leadership of the school the following year and began to address student misconduct, her former teacher began to improve and started implementing more interesting lessons and activities.

These participants described how a teacher's beliefs can negatively impact their behavior in the classroom. They felt that when teachers do not feel confident that they can improve a situation, they are likely to give up. While both Michelle and Myoung described teachers with a low efficacy for classroom management, Lindsey empathized with teachers who develop low efficacy for motivating specific students. She mentioned that she had never, personally, had a

teacher who had given up on a student, but that she has known about teachers who have. She does not believe that teachers start out believing they cannot motivate students, but begin to give up on their students when they fail to see progress.

> *They're people too. They're trying to help someone, [thinking] "I can do it, I can do it" and there's a wall there – I can see myself there. I can see myself in those teachers, struggling and thinking, "maybe she's a lost cause". Most of the teachers I've had have had a big heart and have made it a mission to get the student to do their hardest and believe they can do the hardest and just keep pushing.*

Like her teachers, Lindsey is confident that she would never stop trying to motivate her students, but said that she is not confident in her *present ability* to do so. She and Nicole expressed a nervous certainty that they would be prepared after teacher education.

> *I hope I have creativity and stuff, so I think it'll work out. I still have a lot to learn, but I think it'll all come together.*
>
> *I'm not [confident] right now, but I'm counting on learning more! I really want to motivate my kids.*

Only Libby said that she is not confident in her eventual ability to motivate students:

> *Not at all! Not at all! I'm kind of scared!*

The rest of the participants expressed an anticipation that they would be able to motivate their students. In explaining her confidence, Meghan described the reciprocal effect of the amount of effort a teacher gives to motivating students.

> *I think it's easier to say students can't be motivated than to actually try to motivate them. But when a teacher really believes that they can, when they put in the effort then the students will notice and they'll be motivated. I'm going to put in 100%. You have to give to the students what you want the students to give you back.*

Teachers' Expectations

Another way that four of these participants saw teachers impacting students' expectancy for success is through teachers' expectations of the students. Teachers with high expectations for their students' success can motivate those students to meet their expectations. On the other hand, when teachers do not set high expectations, participants thought students become less motivated.

Amanda described her high-school chemistry teacher as a successful motivator. He expressed high expectations of his students, which she said made a big impact on the students.

> *He was very helpful … always talking to us, motivating all of us - he was just, you know, telling us that he knows were smart and we are capable of passing and he was like you are very capable of getting an A in this class.*

Nicole attributed her and her peers' poor motivation to really master the material in elementary school to their teachers' low expectations. She blamed the fact that the classes covered a lot of material, but only superficially, in her view. Because the students were never expected to go "beyond the minimum," they were not motivated to do so.

> *I think the teachers partly caused it, doing the bare minimum, because we were able to get good grades without doing any deeper work, but they also never made us go deep, we just skimmed stuff and never really went into it. They never pushed us to go beyond the minimum.*

Meghan talked for quite a long time about teachers' different expectations for students based on her experiences in AP and Honors courses and those of some of her friends who took a combination of Honors and "on-level" courses. She hypothesized that teachers of "on-level students" have a lower expectation of their ability *and* motivation and therefore do not put in the effort necessary to motivate these students. This creates a negative classroom environment where neither the teacher, nor the students are motivated.

I noticed that AP teachers were putting more into those classes than the on-level classes. The on-level students can sense that the on-level teacher is not putting 100% and the students won't give 100% back because the teacher isn't. The [AP or honors] teachers think they can challenge their students and their students will rise to meet it, but they might not challenge their students in on-level because they don't think their students will rise to meet it, so they're not giving 100% and they're not enjoying it and the students can tell that.

Erin brought up a similar point:

I think that there are students who are harder *to motivate than others, but you have to be motivated to motivate them. It's easier to say they can't be motivated than it is to really put in the effort to do it.*

Teachers' Active Support and Demonstration of Caring

These participants seem to suggest that teachers' expectations of students and their efficacy for motivating them are intertwined. When teachers are not confident, they lower their expectations for students. Similarly, when they hold low expectations for students, they become less confident that there is anything they can do to motivate them. Thus, when both are low, the teachers are more likely to give up. However, when both are high, the teacher exhibits more *supportive* and *caring* behaviors. Three participants talked about how this support, or lack of it, can impact students' expectancy for success.

Lindsey specifically related a teachers' efficacy for motivating students to their ability to verbally encourage young students. In her view, a teacher has to believe that she can help the students in order for the student to truly feel supported.

I think that teachers at this age have to think that what they do can motivate students so that you can tell them, "I know you can do it, and I believe in you." It definitely helps when people feel encouraged.

Frustration was clearly in Amanda's voice when she talked about a time she developed some learned helplessness in a class because her teacher did not provide the help or guidance she

needed. She already had a low self-efficacy in the subject, but only stopped trying when she realized that the teacher would not help her understand and improve.

> *We had a book that was like, self explained and she [the teacher] was like, 'if you need help, come to me and ask' and I would come to her and ask for help and she would tell me what page of the book I needed to look on to learn the problem. She didn't like, sit down and help me. I was clueless … I'm not good at math anyway so when the teacher didn't help me it was hard to get motivated to care … I was like, 'I'm not going to be able to pass and she's not helping me, so I just gave up.'*

However, Amanda also talked about a third-grade teacher who was able to motivate all of her students because she helped every students and treated "everyone individually."

Michelle talked very positively about her 12th grade calculus teacher, a teacher who had an obvious impact on Michelle's decision to teach high school math. She mentioned that when she was a freshman in high school, this teacher approached her in the hall and told Michelle that she would be teaching her calculus in a few years. From Michelle's description, this teacher did not just have high expectations of her students; she was also committed to putting in the time and effort to make sure her sure her students *met* those expectations.

> *She motivated all of her students … she was really good with that. She gave all she could to her students, every one. If you needed it, she would stay after, 5, 6 o'clock and a lot of us stayed after everyday and she never seemed to mind.*

These descriptions of teachers reveal participants' beliefs that teachers can positively impact students' expectancy for success, and therefore their motivation, not only but also acting to provide the emotional and academic support students need to meet those expectations. In the same vein, these pre-service teachers believed that when teachers do not set these high expectations and do not provide support or demonstrate care, teachers can have a negative impact on student motivation. Interestingly, behavior problems were seen as a cause, rather than

a result of poor student motivation. Neither Myoung nor Michelle suggested that the students that misbehaved did so because they had a low self-efficacy or because they did not feel supported, rather they saw such misbehavior as impacting the other students' motivation through lowering the teachers' efficacy and expectations of the whole class.

Themes and Patterns Related to Task Value

The participants talked the impact the various types of value can have on students' motivation. They spoke of value in terms of the *attainment value* students' families influence students to develop, *intrinsic motivation*, or personal interest, and *utility value*, including goals. Their discussions of value were based on their own definitions and experiences as students as well as perceptions of why some other students are not motivated in school.

Attainment Value

All eight participants spoke of their families as a factor in their own motivation. They all referred to the emphasis their parents and family members put on education when they were growing up. Doing well in school held a lot of importance in their families. As Nicole stated:

> *Doing well in school has to be … instilled as something important to a 3rd grader. If not, what's important? Play, having fun, recess … my parents had to instill it in me.*

Only Michelle, however, noted that the absence of this emphasis can make it difficult to motivate students at school.

> *If [students] are not motivated when they leave the house in the morning, they're not going to be motivated throughout the day, so I think it comes from home. I think that's why it's so hard, because some parents might not motivate them as much as others to want to do well… and if they come to school and they're not motivated, it's hard because there's not much to work with.*

Only one participant talked about the attainment value of learning information that is relevant to students' lives. When asked to describe her own motivation, Libby gave detailed descriptions of her motivation in the different courses she has or was currently taking and what had motivated her to initially register for them. Most of her classes held utility value or intrinsic interest, but although she was taking a foreign language to fulfill a college requirement, she chose to take Korean because of the personal importance it had to her identity as a Korean-American.

> *I was motivated to learn Korean because, well, I'm Korean and I didn't learn to speak it growing up, but I think it is important. It's not that I can't communicate with my family or anything, but I just think it is important to be able to speak my own language.*

Intrinsic Value

When speaking of interest, or intrinsic value, the interview participants talked about their own personal interests in subjects and also how situational interest can impact students' motivation. For most of them, a lack of interest does not necessarily mean that they are not motivated to do well in the class, but it does seem to affect their behaviors, especially the amount of time and effort they spend studying for those classes.

Personal Interest

When the participants discussed their personal interests in specific classes, this was usually followed by a contrast with their desire to just "get the grade" in other subjects. Meghan talked about her motivation in her education and literature classes as being very high, but admitted that she often skips her other courses. Erin contrasted her motivation in EPSY 2130 with the literature class she took in the fall.

> *Educational psychology was my favorite class last semester and I would do everything in that class because I loved it and I ended up making a very high grade in that class. But some of my other classes, like British literature, I didn't really like the subject or the books we read, so I wasn't motivated in that class. I did the work, but I wasn't motivated to spend a lot of time on it.*

Nicole discussed a time in third grade when her intrinsic motivation in reading was negatively affected by the rules of the Accelerated Reader program. In this program, students read books according to their "reading level," and when a student reads a certain number of books on a level and earns a certain number of points by taking a test on each book, they are moved to a higher reading level. Nicole explained that students in her school were only allowed to read books at their current reading level.

> *I got on a higher level one time and I quit reading, and I had loved reading. I had been one of the top readers, but I just didn't want to…. What I liked to read wasn't on my level. I loved the Hardy Boys, but when I was put on a higher level in AR, I wasn't allowed to read those books anymore… you had to get a book on your level. I didn't get to choose the books I wanted to read so I stopped reading.*

Nicole explained that her teacher noticed she had stopped reading and told her parents, who then "sat down to talk to me about it," and she started to read again. Still, Nicole's story is an example of how externally imposed rules can negatively affect students' intrinsic motivation in a subject (Deci & Ryan, 1995). After telling the story, Nicole laughed and said she is not a "big reader" now, but does still enjoy her mystery novels, indicating that she still has a personal interest in this genre.

Situational Interest

Myoung and Libby explained that some teachers struggle to motivate students because they fail to create situational interest in the class. Myoung spoke about an English teacher in high school whose teaching style did not resonate with the students. Myoung hypothesized that the teacher either did not try to create situational interest or did not know how.

> *My English teacher, we hated the way he taught but he liked his own way of teaching and I guess teachers believe that what they like is what students like. Maybe he could have tried something different – teachers can figure out what the students really like.*

Libby spoke specifically about ways teachers impact situational interest. She gave examples of teaching methods that do and do not create interest in history classes. Lecturing is sometimes useful, according to Libby, but when that is all a teacher does, student motivation suffers.

> *Well, when some teachers do lectures and stuff, like, I'm interested, but I know that other students, they tend to fall asleep. I guess that most teachers understand that the majority of the material isn't going to be exciting 100% of the time so some of my teachers instead of always doing lecture, they do group work, debates and other forms of learning and projects.*

Utility Value

Throughout the interviews, a pattern emerged around the importance of grades. All eight participants talked about achieving a high grade as their main goal in a class and the utility value of these grades to achieve the goal of college acceptance (only Amanda spoke of ever having had a goal to *pass* a class). Indeed the role of college in students' motivation also emerged as a prominent theme

Goal Orientation

From their descriptions of their own motivation as a student in K-12, it is difficult to separate the goal of college from their goals to get good grades. Every participant, except for Amanda, experienced a great deal of success in school and earned very high grade point averages. None of them described a "classic" performance avoidance orientation to avoid failure in a class.

While Libby expressed personal interest in some of her classes at UGA, and a desire to learn the material, her motivation in high school was mainly oriented to performance.

In high school I guess I was more focused on grades because I was motivated to get a high GPA, to get good grades and get into college. Like, in my science and math classes I just did it so I could get a good grade, not because, I really wanted to know the theorems or whatever.

Nicole also expressed a primary motivation to get good grades, rather than learn the material, in high school.

If I could get an A studying for 5 minutes, that's all I did. I guess you could say I was mostly motivated by grades.

Lindsey touched on the extrinsic motivation offered by grades, and was the only one who implied that grades were a tangible reward, rather than simply a means to an end. She contrasted this to the less tangible reward of learning that she is getting from college, hinting that she may be more mastery oriented now than she was in high school.

In high school, I was in a lot of AP classes, but in my on-level classes I just slipped by. Towards the end of high school, it was all about college, how it was going to look on the transcripts. You could see the grades' rewardment [sic], but now you can see how the knowledge rewards you.

Meghan felt that she had been able to "coast by" in high school because she was really smart and never really had to try. She received early admission to UGA and described her last semester in high school as a "break."

I took, like, two choirs … I had horrible motivation, because I didn't need it. I had already been accepted. I'm not an above and beyond person, unless its something I'm interested in. But I want a good grade. I'm not satisfied with a B. But I'm not going to do anything more than I need to do to get the A. If I have to put in more work to get a 100 rather than a 95, forget it, the 95 is fine.

Erin also drew a distinction between her motivation in college and her motivation in high school. She finds herself less motivated in general, in college, because of the large class sizes.

Speaking to the tendency of students who are performance-approach orientated to seek the approval and recognition of their success, Erin says she is more motivated in smaller classes because they allow her to be recognized.

> *[The teachers] know my name and know whether I'm doing well. I can impress them. I'm not that inspired in a class of 300 people, where they can't go "[Erin], great job on that last test!" Well, maybe they could, but they wouldn't know which student to talk to!*

Mixed Attributions

Most of the participants' beliefs about student motivation were categorized into themes corresponding to the expectancy-value model (J. S. Eccles & Wigfield, 2002). However, two described obviously mixed and even contradictory attributions for student motivation. For instance, Myoung, whose responses to the questionnaires in Study 2 indicate that his beliefs about motivation more strongly incremental view of motivation by the end of the course, initially stated that motivating students is difficult because most are "generally not motivated" and "hate school", reflecting this view. However, he then on to discuss how this is probably because teachers do not take students' interests into account, or do not know how to incorporate them into the lesson, thus indicating a belief that teachers *can* motivate students.

> *I guess students are generally not motivated. I mean, they hate school and stuff. I guess teachers … maybe they don't understand students … I guess they think the students like what they like. I see some of them trying, but maybe not the right way ….*

Libby mentioned multiple reasons why students may not be motivated in school before she seemed to settle on the lack of relevance, which was discussed under *attainment value*. At first she seemed to suggest, like Myoung, that students are generally not motivated in school,

then that only certain students are not motivated, suggesting an entity view of motivation. But then she went on to attribute motivation to the teacher and situational aspects of a class.

> *I think ... it's because students are generally just not interested or they really just don't care about learning in general because they might be going to a vocational path or something so sometimes teachers can't relate to the students, either, so that could be a problem. [pause] I guess, sometimes it's just hard to capture their interest or they can't understand it either and that's really, you really have to relate the material to their lives.*

These mixed attributions seem to suggest that Myoung and Libby are unsure about what really causes student motivation. Their initial reactions seem to imply an entity view of motivation, almost suggesting that a lack of motivation is a trait of most students. However, as they continued to talk, it began to appear less likely that they truly believed this. It is also possible that their mixed attributions reflect a struggle to comprehend the complexity of student motivation and of being overwhelmed.

Impact of the Educational Psychology Course

None of the participants referred specifically to the EPSY 2130 course, or theories of motivation covered in the course, in their definitions and discussions of motivation. When I specifically asked how their definitions of motivation related to what they had learned about motivation in EPSY 2130, there were some definite struggles. Myoung had a difficult time even recalling the lessons:

> *I, yeah, I missed a couple of classes, but I do remember [the TA] talking about motivation … I remember vaguely talking about it … it was a short lesson. But I think everybody knows what motivation is, and he just put in an ed psych perspective what is everyone's motivation definition. Maybe I just didn't try to remember it since I knew it already. But, I don't know … I have no excuse, so forget it!*

Lindsey fared even worse:

> *I remember … was peer nominations something we covered in motivation?*

Other students related their definitions of motivation to concepts covered in the course that may certainly affect student motivation, but were not specifically taught during the lessons on motivation. Nicole seemed to make a connection to the importance of designing lessons in students' zone of proximal development, a concept that is related to expectancy for success, but not derived from any motivation theories.

> *I gotta think back to what we did. I think … the level of work has to be hard enough that it doesn't bore them but something they're capable of doing and that's very important. I remember the concept, but not the term. When it's too easy, it's boring. When it's too hard, you can't do it, and then, who wants to spend all the energy … try, try, try, and you know you can't do it?*

Erin related her definition to concepts covered in behaviorism.

> *A lot of the stuff I got out of [EPSY 2130] was the history of behaviorism and how they used positive and negative reinforcement to get people to do stuff, and I used that at camp this summer. But it didn't teach me a whole bunch about motivation. I thought that reciprocal determinism was important, how the environment works together to create a good environment, so I think that all those factors work together to motivate students: other students being interested and the teachers being interested and doing well on your work and seeing that you're improving and all of that working together.*

Like Erin, Meghan also referenced reciprocal determinism when she spoke of the importance of teachers' expectations.

> *We talked about teachers' expectations of their students and how that affects the atmosphere of the classroom. There's this cyclical idea that "I don't think you can do more challenging work, so I'm going to give you the easy work that I find boring." And the students pick up on that, on the teacher's low expectation and low motivation in the class and responds with the same, confirming the teacher's low expectations.*

Only Michelle seemed to reference a concept covered in the motivation lessons: expectancy for success.

> *We talked about how important it is to believe that you can do it. You have to believe you can do it and be successful before you're willing to try.*

While it may seem, at first glance that the course did not have much influence on their understanding of motivation, most of the things they mentioned do, in fact, influence students' motivation in school. Rather than focusing on the "motivation lessons" (with the exception of Myoung and Lindsey), the participants seem to have incorporated ideas throughout the entire course into their beliefs about motivation.

Discussion

Overall, the interviews revealed that these pre-service teachers' understood the importance of expectancy beliefs and having value for school tasks, either because of personal interest or a desire to get good grades and go to college. Their beliefs seem to be drawn primarily from their own experiences as students. They could easily identify what had motivated them in K-12, but were less sure of why other students might not be motivated.

Only two hinted at an entity view of motivation and a belief that motivation is a trait of some students during the interviews. Of these two, only one, Myoung, had reported an increased entity view of motivation on the questionnaires in Study 2. The other, Libby, reported no change in her beliefs on the questionnaire.

All of the participants spoke of the influences teachers can have on students' motivation, both positively and negatively. They spoke of these positive influences as arising from high expectations of students and a high efficacy for motivating students. Teachers that have both, they suggest, are more likely to offer their assistance and encouragement to students, factors that will increase students' own self-efficacy. On the other hand, when teachers have both low expectations and low efficacy, they are more likely to give up. Research has shown that teachers with high teacher efficacy do, in fact, persist and put more effort into motivating their struggling

students (Woolfolk, Rosoff, & Hoy, 1990 1990). Additionally, teacher's expectations are also related to their students' achievement and motivation (Brophy, Rohrkemper, Rashid, & Goldberger, 1983).

The participants primarily talked about task value in terms of grades and the importance their families placed on doing well in school. Their descriptions of their own motivation were primarily performance oriented, towards getting the best grades, getting recognized, and getting into a good college. In the interviews, most of the participants reported having a performance orientation in high school, and an increased mastery orientation in college. A mastery orientation appears to have only been taken in subjects they have personal interests in, or that have a high attainment value, such as their education classes. None of them mentioned social goals that might compete the motivation to do well, or the potential cost or risk of doing well in schools. There were no discussions of negative peer influences, presumably because, based on their interview, they spent most of their high school career in Honors or AP courses, with other students who were highly motivated to get good grades and go to college. This may also explain why none of the participants discussed that many of their future students might not be motivated by grades. They may have never personally known a student who was not striving for a high GPA. As Meghan explained:

> *I don't know many unmotivated students. I went to North [Suburban] high school, and we've won the SAT award, like 3 years in a row and we have this biased, perfect little school district. So, A) I have this type of school, B) I was in all Honors and AP classes were you have to be motivated to do the work to be in those classes. So, I wasn't personally in any classes where teachers had difficulty motivating students.*

The interviews revealed a theme regarding the positive impact of teacher *caring* on students' motivation, specifically their expectancy for success. While the participants tended to

associate this caring with providing active support, they also associated it with treating students "as individuals." Although the expectancy-value model does not include the role of teacher caring, it has been shown to be related to student motivation (Wentzel, 1997). Noddings (1992) suggested caring teachers exhibit specific behaviors, and Wentzel found that students characterize caring teachers along Nodding's dimensions. Teacher who care are those who "model a high value for the class," by making a special effort and making class interesting, who have "democratic interactions with students," who make "expectations based on individuality," meaning they treat students as individuals and recognize student difficulty, and provide "nurturance," primarily in the form of encouragement and praise. Wentzel found that perceived caring from teachers predicted students' motivation to achieve. The participants in Study 3 described many of these same characteristics and behaviors in teachers when they described how teachers can positively influence student motivation. Thus, according to these pre-service teachers, motivation theorists may want to pay more attention to the role of teacher caring and how it can influence students' expectancy and value in school. Another way to talk about this is that when teachers are perceived as caring, students are more likely to develop a social goal to please them.

Overall, participants' beliefs about student motivation seem to have been influenced more by their own experiences than what they learned about motivation in EPSY 2130. Myoung offered his own explanation for this, when he said that, "everyone knows what motivation is." If the pre-service teachers entered the course with these beliefs already in tact, then the course did not have much influence. However, we cannot know for sure whether their analyses of their own experiences were actually influenced by the ideas they learned in the course. EPSY 2130 frequently encourages students to reflect on their own experiences and to relate them to the

course content. Yet one cannot overlook the fact that the participants had a very difficult time even remembering the lessons on motivation, which had occurred in the last weeks of the previous semester. Even after students had been talking about motivation for 30 to 45 minutes in the interviews, they did not seem to be able to discuss specific things they had learned about motivation in the class.

CHAPTER 7

CROSS-STUDY DISCUSSION

The previous three chapters included discussions of the results of the individual studies. When these results are considered together, some interesting patterns and themes begin to emerge. In this chapter, I discuss the results found consistently throughout the studies, the inconsistent results, and important themes that emerged.

CONSISTENT RESULTS

Many pre-service teachers in this sample were clearly oriented towards performance goals in school before college. Study 2 found high means for all goal orientations, with means for both performance goals at 3.58 (avoidance) and 3.78 (approach). In the interviews conducted for Study 3, the participants expressed mainly performance-approach goals for their classes, especially in high school. This may appear to be internally contradictory, but the results confirm what I have seen in my experience teaching this population: they do not distinguish between performance-approach and performance-avoidance. Additionally, failure and performance-avoidance looks very different for them than for more typical students, because here at UGA we admit, with few exceptions, a population of students that have always been successful in school. When these students feared failure in school (i.e. getting a "B" rather than an "A"), they did not exhibit the typical performance-avoidance behaviors, which include not studying or completely disengaging from school in an effort to blame failure on an external attribution instead of an internal one (such as ability). Rather, they tended to respond with increased effort, based on their past experiences that effort would lead to success. While their responses to the

questionnaire in Study 2 indicated that they were highly oriented towards both mastery and performance in K-12, the interviewees in Study 3 clarified that there were many classes in K-12 in which they were only motivated to get a good grade, classes for which they could not care less about actually learning the material. Thus, it appears that they had both orientations for some classes or subjects and primarily performance-approach orientations for others.

Additionally, the results of all three studies indicate that these pre-service teachers have a largely incremental view of motivation. In the first study, they suggested causes that were mainly teacher-related for the motivation problems in the scenario, attributing student motivation problems mainly to the teacher's ineffective methods of instruction, discipline, or communication with students. In Study 2, over the course of the semester, respondents on average increased their already high scores on the subscale for teacher-related sources of motivation, and most started and ended the course with high means on the incremental/entity sub-scale, showing a strongly incremental view of student motivation. The interviewees in Study 3 clarified the specific role they saw teachers as playing in student motivation by talking about the characteristics of "caring" teachers (Noddings, 1992). Similar to the responses in Study 1, Study 3 interviewees said that a teacher can positively influence student motivation through demonstrating high expectations of students and putting forth the effort to ensure students meet those expectations. Teachers who do not demonstrate these characteristics, according to the participants in Study 3, have a negative influence on students' motivation.

The participants in Studies 2 and 3 reported that they anticipate having high efficacy for engaging students. Although in Study 2 average anticipated efficacy for engagement decreased slightly over the Fall 2008 semester, it remained high, and five of the eight participants in Study 3 expressed confidence that they would be able to motivate their students, while two others

clarified that they were not confident in their *present* abilities but were sure that they would be able to learn how to motivate students in the future. Only one interviewee said that she was not confident that she would be able to motivate all of her future students.

The high anticipated efficacy found across the studies is not surprising, as pre-service teachers are often very confident that they will be good teachers as they begin their teacher education courses. This is probably a reflection both of their past efficacy in school and naïveté, which would explain the slight decrease in anticipated efficacy found in Study 2.

Inconsistent or Inconclusive Results

One area which seemed to show inconsistent results across the three studies was participants' endorsement of or intention to use specific motivational strategies. In Study 1, 29% of all suggested strategies were related to behaviorism, which is more than all of the strategies suggested to increase expectancy for success. Yet, in Study 2, participants indicated that they would be just as likely to use strategies that would promote mastery goals as those that would promote performance goals (which included behaviorist strategies).

Additionally, the results of Study 2 showed an increase in "helpless" strategies over the course of the semester, but no participant in Study 1 suggested that there was nothing the teacher could do to address the problems. It may be that pre-service teachers did not express helplessness in Study 1 because they were giving advice, and would not recommend that teachers *should* give up, but considered the likihood in Study 2 that they themselves might do so when confronted with a difficult to motivate student. Likewise, none of the participants in Study 3 expressed a sense of teacher helplessness in addressing student motivation and all but one expressed confidence that they would be able to motivate their students. However, they did discuss reasons

why other teachers may feel helpless and give up. The interviewees suggested that when teachers have low expectations of students and a low efficacy for motivating students, they actually create a self-fulfilling prophecy, wherein students' motivation decreases.

16 causal thematic units and 14 strategic thematic units in Study 1 specifically discussed the role students' respect for authority plays in their motivation. This was not addressed in Study 2, but the interviews in Study 3 do suggest a possible connection. When they talked of teachers who did not demonstrate "caring" behaviors (Noddings, 1992), they did not speak of them with much respect, and often rolled their eyes or called their classes "a joke." This could suggest that students do not respect the authority of teachers who do not demonstrate respect and caring for students. However, I am wary of drawing any conclusions on this, as the participants in Study 1 did not define respect or why students did not have respect for the teacher in the scenario.

Emergent Themes

Three themes in students' responses were woven throughout the three studies. The middle-class norm of attending college appeared to influence participants' responses and beliefs about motivation. A related theme, concerning the role of parents in student motivation also emerged. Additionally, there was little consideration given to the cost or risk of engaging in school throughout the three studies.

Participants in Study 1 suggested that one cause of the problems presented in the scenario was that the students did not plan to go to college, and thus the class, or school in general, did not hold utility value. Likewise, the responses to the open-ended question in Section B (regarding past goal orientations) of the questionnaire in Study 2, which asked participants to write about any other factors that influenced their goals in school, indicated that acceptance to

college was an important goal. This was repeated by the participants in Study 3, who emphasized the importance of getting good grades and taking difficult classes to achieving this goal and also suggested that students who do not plan to go to college may be more difficult to motivate. For this population, it was clear that the utility value of school was entirely related to grades needed to get into college; none spoke or seemed to think of a high school diploma as something valuable in itself, or considered either the diploma or the learning it represented as useful in their future lives, beyond getting them into college. This is not surprising, but it is also interesting that they spoke of the decision to go to college as an issue of value, rather than expectancy, or a product of both. Again, this seems to be influenced by their experiences as successful students, not only in school, but in Honors and AP courses. They never questioned whether or not they would *attend* college, but were more concerned with *which* college. Based on participants' own experiences, then, they seemed to assume that students who do not plan to go to college do not *want* to attend, rather than recognizing that some, at least, do not expect to be *able* to go.

On a related note, the role participants assigned to parents in student motivation seemed to be similar throughout the three studies. From the responses to Study 1, parents and their economic background were more responsible for the attainment value of education than many other aspects of motivation, and many of the interviewees in Study 3 described how their own parents had *instilled* in them a value for school. This was one area that participants did not feel they had much control over; they placed responsibility for instilling the "value of education" pretty squarely on parents. Their responses do not indicate that a teacher is likely to instill this attainment value, but that he or she can create other types of value in the classroom.

Participants in all three studies also gave little consideration given to the cost or risk of engaging in school, particularly to any social goal to avoid success. This is, again, likely influenced by the types of students the participants were in high school. These participants identify very strongly with being "good students" and, based on the responses of the interviewees and the students I have taught in EPSY 2130 for the last three years, they spent most of their high school years in classes with other "good students." Therefore, their social goals were likely oriented towards achievement and, thus, acceptance from other "good students." Another important consideration is that the majority of the sample identified themselves as White and therefore never had to contend with the risks African American students face associated with "acting White" by succeeding in school (Ogbu & Fordham, 1986). Indeed, my own students in EPSY 2130 often struggle to think of circumstances for which engaging in school could pose a risk or cost to students.

Together, the results of all three studies suggest that the pre-service teachers largely view student motivation as something that the teacher can influence. Based on their responses in Study 1, it appears that they believe that task value plays a greater role in motivation than expectancy for success. On the other hand, their responses in Study 1 and Study 3 seem to indicate that they believe that students' expectancy for success is primarily influenced by the teachers' awareness of student difficulty and their emotional and instructional responses to this difficulty.

CHAPTER 8

CONCLUSIONS AND IMPLICATIONS

This dissertation was designed to address four main research questions regarding pre-service teachers' beliefs about student motivation, the sources of these beliefs, the strategies they believe will be effective in motivating students, and the relationship between their initial and final theories and strategies over the course of taking EPSY 2130, an introductory educational psychology course. The results so far reported provide some answers to these questions, but also point to areas that future research should consider, especially in light of some important limitations of these studies.

CONCLUSIONS

Overall, study results suggest that almost all of the pre-service teachers in this sample view student motivation largely as something the teacher can influence. This was not necessarily expected, as a previous study with an earlier cohort of students in this class (Harper, 2006) found that many pre-service teachers in that group tended to have an entity view of motivation, a belief that motivation is a stable trait over which the teacher does not have much influence.

Given the reliability issues with the questionnaire discussed previously, future research should focus on developing more robust items to measure an incremental/entity view of motivation. The questions used in Study 2 were based on Dweck's (1995) measures of views of intelligence and morality. Based on her use of a 3-item measure, the present study used four items to measure view of motivation. Three items presented an entity view while one presented an incremental view. The incremental item was reverse scored and combined with the first three

to create an average score for the scale; still, four items may not have been adequate to properly measure this concept. Additionally, this was the first known attempt to measure incremental/entity views of motivation, and future research needs to refine the measures used in order to determine how prominent this view is in the general population as well as in pre-service teachers.

These pre-service teachers also tend to believe that student motivation is influenced more by the value a class, or school in general, has for them, rather than their expectancy of success. This contrasts somewhat with Brophy's (1999) finding that in-service teachers tend to rely on statements of positive expectancy rather than addressing value in their communications with unmotivated students. A possible explanation for this difference is that the population from which the current participants were drawn were typically very successful in school and therefore may have little experience with low expectancy of success in school. In this case, teacher education courses may need to place greater emphasis on the fact that students' expectancy for success is as equally important to student motivation as the perceived value of the task. Another possibility is that pre-service and in-service teachers actually see these matters quite differently. A final option is that in-service teachers may recognize the influence of value on student motivation, but may feel less able to address value, and so fall back on trying to increase student expectancy of success.

Future research should seek to answer these questions. Comparing pre-service and in-service teachers' beliefs about motivation and investigating how in-service teachers' beliefs develop may provide important implications for the way motivation is taught in teacher education courses. If it is found that in-service teachers do not feel they can address value so

much as expectancy, this would tell us that teacher education needs to provide more explicit strategies for increasing value.

The pre-service teachers in this study also believed that parents can influence student motivation by *instilling* an inherent attainment value for education and providing students with a social goal for success in school. Students are motivated, according to the participants, because parents have taught them to value education and because they also want to please their parents by doing well and bringing home good grades. This was one area in which an entity view of motivation could be seen, as this was an area over which these pre-service teachers felt they would have little control. As Michelle explained in her interview in Study 3, if parents do not teach their students the value of education, "it's hard [to motivate students] because there's not much to work with." While parents do have a great influence on their children's attitudes towards school, perhaps teacher educators can encourage pre-service teachers to consider how their own interactions with students can "instill" an attainment value or social goal for success in school.

These pre-service teachers also felt that a teacher can have either a positive or a negative influence on student motivation. Responses in Studies 1 and 3 seem to suggest that teachers' negative influences, including their low expectations or lack of support, primarily impact students' expectancy for success, while a teacher's "caring" behavior (Noddings, 1992), especially as enacted through modeling value for the subject and verbally praising students, can positively impact students' value for learning in the class, as well as their expectancy of success.

By the end of the course, participants' beliefs about motivation were moderately to strongly related to their anticipated teaching efficacy and their intention to use motivating strategies in the classroom. Those who felt they would be able to motivate and instruct their

students, and those with a stronger incremental view of motivation were more likely to indicate that they would use strategies that would promote both mastery and performance goals, and less likely to choose strategies indicating the teacher is basically "helpless" to change student motivation. These findings suggest that participants who believe they can influence student motivation think strategies that would promote mastery and performance goals are both useful and they intend to use them in their classes. On the other hand, those who are not as confident that they can influence motivation were more likely to agree with the "helpless" strategies. This has obvious implications for teacher education, as pre-service teachers learn many useful strategies in their education courses, such as educational psychology, but may not have the opportunity to "try them out" until student teaching. Courses such as EPSY 2130 have required service-learning components for which one intention is to provide an opportunity to do so. However, pre-service teachers may benefit from a greater effort to incorporate their early service-learning experiences into the course. One suggestion, would be to have students discuss the specific issues and difficult situations, including but not necessarily limited to motivation issues, they encounter in their experiences and work together in groups to identify potential causes and solutions to try out. This may help increase retention and application of the theories being taught as well as increase students' anticipated efficacy for engagement, especially if the strategies they attempt actually improve the situation.

One barrier to doing this in EPSY 2130 is the varied nature of the Outreach Projects students choose; some merely observe over the course of two or three days, while others tutor or work with kids regularly through the semester. Another barrier is that about one-third of students in the class are not intended education majors, and therefore might be doing Outreach Projects in non-educational settings. Despite these significant barriers, some way of helping

students work through issues they encounter in their Outreach Projects would be worth trying to find. Additional research should also be done to identify whether it is those students who actively work with children or those who merely observe who are more likely to suffer a loss in anticipated efficacy. A study done comparing two previous cohorts of this class found results indicating that it may be the latter (Knapp, 2005); if this is the case, then perhaps the nature of activities acceptable for the Outreach Project should be re-thought.

LIMITATIONS

There are a couple of important limitations to these studies. First, the reliability coefficients of some questions used to measure participants' beliefs about motivation in Study 2. were lower than the recommended levels, specifically on the pre-measure for the questions related to incremental/entity view of motivation and beliefs about student-related sources. Although both were acceptable for the post-measure, this does indicate that these results should be carefully considered. While it might be possible that some participants could have had stronger entity views of motivation than the results suggest, the results of Study 1 and Study 3 do seem to validate the results of Study 2. Another limitation to the results of Study 2 is the small sample size. While a power analysis indicted that 30 participants would be adequate to achieve moderate effect sizes, the sample size was still smaller than I would have liked.

The specific characteristics of the sample from which the participants in all three studies were drawn limits any generalizations of the results that could be made to all current pre-service teachers. While the sample was largely White and female, this in and of itself is not so much a limitation as the general population of pre-service teachers is also largely White and female. What does threaten generalizability is the average level of academic success of this sample.

While nationally, students who took the SAT in 2005 who planned to major in education averaged a combined score of 974, students admitted to the College of Education at UGA in 2005 averaged 1170 with an average high-school GPA of 3.35. Based on the interviews, it appears that the high average level of school success of these pre-service teachers strongly influenced their beliefs about student motivation, and it seems very likely that a sample of pre-service teachers who were not as successful in their K-12 school careers might have produced very different results. Thus, future research should also investigate the beliefs of less academically successful pre-service teachers.

Additional Implications

Additionally, since the results indicated that the pre-service teachers' implicit beliefs about motivation, for the most part, did not change by the end of the course, a greater effort to promote conceptual change may be needed. Conceptual change literature suggests that in order for deeply held beliefs to change, they must be challenged and shown to be inadequate explanations for phenomenon (Pintrich, Marx, & Boyle, 1993; Posner, Strike, Hewson, & Gertzog, 1982). Salisbury-Glennen and Steven (1999) were successful in creating conceptual change in pre-service teachers' beliefs about motivation in an educational psychology class. Following an initial pre-test of their beliefs regarding the usefulness of various motivation strategies focused on intrinsic and extrinsic motivation, half of the of participants received a refutational text detailing the advantages of intrinsic motivation over extrinsic motivation while the other half read a non-refutational text, which simply outlined the main points of each theory. The results of the post-test suggest that the participants who read the refutational test were more likely to choose intrinsic motivation strategies as more useful than those who received the non-

refutational text. This study suggests that pre-service teachers' beliefs about motivation and motivation strategies can be changed, but in order to do so, they must be specifically addressed and disturbed.

The schedule in EPSY 2130, which presents behaviorist theories of learning first, makes sense from an historical perspective, but since it may also reinforce beliefs about the greater usefulness of extrinsic motivators, it may prove beneficial to teach behaviorism after motivation in order to create more change in beliefs about motivation and the usefulness of non-behaviorist motivation strategies. Specifically, educational psychology courses may wish to present various theories of motivation, first, discussing the potentially negative impact extrinsic motivators may have on intrinsic motivation and mastery goals, and then discuss behaviorist theories of learning and motivation.

Additional Suggestions For Future Research

It would also be useful to retest participants, those studied in this dissertation and any future samples, at critical stages in their future teacher education and beginning years of teaching. Doing so would help discover whether pre-service teachers' beliefs may change substantially over the course of their teacher education and/or during their first years of teaching and what, specifically, creates any changes observed. Similarly, interviews could also be conducted with samples of in-service teachers who express helplessness in motivating students, to further understand what has led them to these beliefs. Doing so would give us greater insight into the development of these beliefs and suggest further implications for the teaching of motivation in educational psychology classes addressed to pre-service teachers.

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APPENDIX A

Relationships Among Research Questions and Studies

Study	Research Question	Data Collection Method	Journal Questions/ Survey Items/ Major Interview Questions	Sample
Study 1	RQ1:What implicit theories of motivation do PST entering an introductory educational psychology course hold?	Journal Assignment	a) Explain three different things you think could be causing one or more of the problems in the teacher's class(es); and b) What advice you would give to the teacher (in the scenario).	PST enrolled in EPSY 2130
	RQ3: What strategies to motivate students do preservice teachers anticipate using at the beginning and the end of the course?			
Study 2	RQ1:What implicit theories of motivation do PST entering an introductory educational psychology course hold? What are some of the sources of these beliefs?	Survey Questionnaire	Section D: Beliefs about Motivation * Implicit Theories of Motivation * View of Motivation	Sample of PST Enrolled in EPSY 2130
	RQ2: Do these beliefs change by the end of the course in educational psychology?		Section C: Anticipated Teacher Efficacy	
	RQ3: What strategies to motivate students do preservice teachers anticipate using at the startand the end of the course?		Section B: Goal Orientation as K-12 Student	
	RQ4: What are the relationships between PST's initial and final theories and strategies?		Section E: Motivational Strategies	
Study 3	RQ1a: What are some of the sources of these beliefs?	Semi-Structured Interview	* You mentioned that you would like to teach ___ grade. As a student in that grade, what motivated you to engage in school? *What difficulties did your teacher(s) in ____ grade have in motivating students? *Did the teacher(s) ever talk about student motivation? What kinds of things would they say about student motivation? *Motivating students is a challenge for many teacher, even those with many years of experience. Why do you think this is? *How would you define motivation? How did you come to define it this way? In what way(s) did your educational psychology course influence this?	Purposeful Sample of Participants in Study 2

APPENDIX B

Journal Assignment

Journal 1

Part I:

Ms. Hopkins is a first year teacher at a school in a small city (30,000 pop.) in middle Georgia that serves a representative cross-section of the city's population. She teaches the grade level (and subject area, if applicable) that you are thinking of teaching. At the beginning of the year, she was surprised to find that a number of her students really struggled with the class work, but at least most of them did participate in class discussions and activities and did most of their assignments, although not always very completely or very well. In the last month or two, however, many of these students have turned in fewer and fewer assignments, what they do seems to show very little effort, and they are also participating less and less in class. Then there are the students who never did do much work. Some are enthusiastic talkers, especially on out-of-class topics, but are so easily distracted from anything academic that they get very little done. A few are openly and vocally negative, talking or moving around when she is talking, frowning when asked to start their work, and even making remarks like, "This is boring!" or "Why do we have to learn this stupid stuff!"

Ms. Hopkins wants to encourage her struggling students. She tries to stay upbeat and have high expectations; she even made a special point of talking individually with every student who did poorly on their nine-weeks' progress report, explaining to them how important it was that they try harder to do their best in class if they wanted to pass. She can't think of what else to do, and is beginning to feel like a failure as a teacher. You are Ms. Hopkins's supervising teaching from last year and she has come to you for advice.

Please tell me what grade level (and subject area, if applicable), Ms. Hopkins is teaching, and then

a) explain three different things you think could be causing one or more of the problems in Ms. Hopkins class(es); and

b) What advice you would give to Ms. Hopkins.

Appendix C: Questionnaire Form A
(with Means and Standard Deviation for Each Question on the Pre- and Post-Measures)

Code _____

Please tell me a little bit about yourself by answering the following questions.

What subject(s) and grade level(s) are you interested in teaching?

How long do you plan to teach? Check the one that BEST describes you.

____ A few years.
____ At least 10 years.
____ More than 10 years.

In what setting(s) do you wish to teach (check all that apply)?

____ suburban
____ rural
____ urban

Will you be seeking certification in any of the following areas? Check any that apply.

____ Special Education
____ English for Speakers of Other Languages (ESOL)
____ Gifted Education

What is your gender?

____ Male
____ Female

How would you classify yourself (check all that apply)?

____ American Indian
____ Asian-American/Oriental/Pacific Islander
____ Asian East Indian
____ Black/African-American
____ Mexican-America/Chicano
____ Puerto-Rican
____ Other Hispanic
____ White/Caucasian
____ Other (Please specify) _____

What is your year in college?

____ First year
____ Second year
____ Third year
____ Fourth year
____ Fifth year
____ Graduate Student

Appendix C: Questionnaire Form A
(with Means and Standard Deviation for Each Question on the Pre- and Post-Measures)

Section 2

Directions: Read each statement below and indicate how true it is of who you were in the grade level you intend to teach.

"When I was in _____ grade …

1. it was important to me that I learn a lot of new concepts that year."

1	2	3	4	5
Not at all true		Somewhat true		Very true

M(*SD*) = 3.64 (1.06)

2. one of my goals was to show others that I was good at my class work."

1	2	3	4	5
Not at all true		Somewhat true		Very true

M(*SD*) = 4.39 (.93)

3. one of my goals in school was to learn as much as I could."

1	2	3	4	5
Not at all true		Somewhat true		Very true

M(*SD*) = 3.82 (1.05)

4. it was important to me that my teacher didn't think that I knew less than others in class."

1	2	3	4	5
Not at all true		Somewhat true		Very true

M(*SD*) = 3.97 (1.05)

5. one of my goals was to look smart in comparison to the other students in my class."

1	2	3	4	5
Not at all true		Somewhat true		Very true

M(*SD*) = 3.73 (1.15)

6. one of my goals in class was to avoid looking like I have trouble doing the work."

1	2	3	4	5
Not at all true		Somewhat true		Very true

M(*SD*) = 3.24 (1.06)

7. one of my goals was to master a lot of new skills that year."

1	2	3	4	5
Not at all true		Somewhat true		Very true

M(*SD*) = 3.55 (.97)

8. it was important to me that I look smart compared to others in my class."

1	2	3	4	5
Not at all true		Somewhat true		Very true

M(*SD*) = 3.88 (1.02)

9. it was important to me that I improve my skills that year."

1	2	3	4	5
Not at all true		Somewhat true		Very true

M(*SD*) = 3.82 (.99)

10. one of my goals was to keep others from thinking I was not smart in class."

1	2	3	4	5
Not at all true		Somewhat true		Very true

M(*SD*) = 3.09 (1.35)

11. it was important to me that other students in my class thought I was good at my class work."

1	2	3	4	5
Not at all true		Somewhat true		Very true

M(*SD*) = 3.91 (1.07)

12. it was important to me that I thoroughly understand my class work."

1	2	3	4	5
Not at all true		Somewhat true		Very true

M(*SD*) = 3.97 (.92)

13. one of my goals was to show others that class work was easy for me."

1	2	3	4	5
Not at all true		Somewhat true		Very true

M(*SD*) = 3.00 (1.09)

14. it was important to me that I didn't look stupid in class."

1	2	3	4	5
Not at all true		Somewhat true		Very true

M(*SD*) = 4.03 (1.02)

15. Were there others factors that influenced your goals at this time in your schooling? If so, please write them in the space below.

(Questionnaire continues on next page.)

Appendix C: Questionnaire Form A
(with Means and Standard Deviation for Each Question on the Pre- and Post-Measures)

Section 3

Directions: Please circle the number that best describes how you feel about each statement (1=Nothing, 6= A Great Deal).

When you are a teacher, how much do you expect to be able to …

16. to motivate students who show low interest in school work?

1	2	3	4	5	6
Nothing					A great deal

M_{pre} (*SD)* = 4.85 (.76) M_{post} *(SD)* = 4.49 (.94)

17. to adjust your lessons to the proper level for individual students?

1	2	3	4	5	6
Nothing					A great deal

M_{pre} (*SD)* = 4.97 (.73) M_{post} *(SD)* = 4.67 (1.02)

18. to implement alternative strategies in your classroom?

1	2	3	4	5	6
Nothing					A great deal

M_{pre} (*SD)* = 5.15 (.71) M_{post} *(SD)* = 4.97 (.92)

19. do to assist families in helping their children do well in school?

1	2	3	4	5	6
Nothing					A great deal

M_{pre} (*SD)* = 4.82 (.92) M_{post} *(SD)* = 4.58 (.92)

20. to use a variety of assessment strategies?

1	2	3	4	5	6
Nothing					A great deal

M_{pre} (*SD)* = 4.73 (1.04) M_{post} *(SD)* = 4.76 (1.20)

21. to get struggling students to believe they can do well in their school work?

1	2	3	4	5	6
Nothing					A great deal

M_{pre} (*SD)* = 5.33 (.96) M_{post} *(SD)* = 5.12 (.82)

22. to help your students value learning?

1	2	3	4	5	6
Nothing					A great deal

M_{pre} (*SD)* = 5.21 (.82) M_{post} *(SD)* = 4.88 (.74)

23. to provide an alternative explanation or example when students are confused?

1	2	3	4	5	6
Nothing					A great deal

M_{pre} (*SD)* = 5.12 (.89) M_{post} *(SD)* = 4.88 (.74)

(Questionnaire continues on next page.)

Appendix C: Questionnaire Form A
(with Means and Standard Deviation for Each Question on the Pre- and Post-Measures)

Section 4

Directions: Please indicate your agreement with each of the following statements by circling the number that best describes how you feel.

24. Often, when students are not motivated to do well in school, it is because their family does not value education very highly.

1	2	3	4	5	6
Strongly Agree					Strongly Disagree

M_{pre} (*SD*) = 3.67 (1.16) M_{post} (*SD*) = 3.61 (1.09)

25. When students do not complete assignments on time, it is often because they are just being lazy.

1	2	3	4	5	6
Strongly Agree					Strongly Disagree

M_{pre} (*SD*) = 3.40 (1.14) M_{post} (*SD*) = 3.45 (1.15)

26. When students are not working in a class, it is often because the teacher has not tried to relate the subject to students' interests.

1	2	3	4	5	6
Strongly Agree					Strongly Disagree

M_{pre} (*SD*) = 3.55 (1.01) M_{post} (*SD*) = 4.06 (1.22)

27. A student's level of motivation is something very basic about them, and it can't be changed very much.

1	2	3	4	5	6
Strongly Agree					Strongly Disagree

M_{pre} (*SD*) = 4.81 (1.26) M_{post} (*SD*) = 4.75 (1.03)

28. When students are motivated to learn, it is often because the teacher has given them work at their own ability levels.

1	2	3	4	5	6
Strongly Agree					Strongly Disagree

M_{pre} (*SD*) = 3.79 (1.22) M_{post} (*SD*) = 4.52 (.80)

29. When students are not motivated to learn, it is often because the teacher has given them work that is too difficult or too easy for them.

1	2	3	4	5	6
Strongly Agree					Strongly Disagree

M_{pre} (*SD*) = 4.12 (.99) M_{post} (*SD*) = 4.52 (.80)

30. When students are not motivated to learn in a class, it is often because they don't care about their grades.

1	2	3	4	5	6
Strongly Agree					Strongly Disagree

M_{pre} (*SD*) = 3.40 (1.09) M_{post} (*SD*) = 3.61 (1.20)

31. When most students complete a homework assignment the teacher makes, it is primarily because the teacher was very clear in explaining the assignment.

1	2	3	4	5	6
Strongly Agree					Strongly Disagree

M_{pre} (*SD*) = 3.76 (1.25) M_{post} (*SD*) = 4.03 (.88)

32. If students are not motivated to learn in a class, it is often because they are dealing with major problems in their lives outside of school.

1	2	3	4	5	6
Strongly Agree					Strongly Disagree

M_{pre} (*SD*) = 3.97 (.88) M_{post} (*SD*) = 4.00 (1.03)

33. Whether a student is motivated to learn or not cannot be changed very much.

1	2	3	4	5	6
Strongly Agree					Strongly Disagree

M_{pre} (*SD*) = 4.70 (1.53) M_{post} (*SD*) = 4.76 (1.20)

34. When a teacher is having a hard time getting students interested in a lesson, it is often because they are the kind of students who are hard to motivate.

1	2	3	4	5	6
Strongly Agree					Strongly Disagree

M_{pre} (*SD*) = 2.85 (.87) M_{post} (*SD*) = 3.00 (1.03)

35. When students seem engaged in a lesson right from its beginning, it is often because the students want to learn something new.

1	2	3	4	5	6
Strongly Agree					Strongly Disagree

M_{pre} (*SD)* = 3.67 (1.16) M_{post} *(SD)* = 3.61 (1.09)

36. When students are motivated to learn in a class, it is often because the teacher communicates high expectations of all students.

1	2	3	4	5	6
Strongly Agree					Strongly Disagree

M_{pre} (*SD)* = 4.70 (.70) M_{post} *(SD)* = 4.55 (.87)

37. Students come to a class with a certain amount of motivation to learn, and the teacher really can't do much to change it.

1	2	3	4	5	6
Strongly Agree					Strongly Disagree

M_{pre} (*SD)* = 4.85 (.94) M_{post} *(SD)* = 4.67 (1.08)

38. Often, when students are not motivated to do well in a class, it is because the lessons are not relevant to their lives.

1	2	3	4	5	6
Strongly Agree					Strongly Disagree

M_{pre} (*SD)* = 3.67 (1.30) M_{post} *(SD)* = 4.27 (1.18)

39. When students are not motivated in a class it is often because the <u>subject</u> is one that students generally do not find interesting.

1	2	3	4	5	6
Strongly Agree					Strongly Disagree

M_{pre} (*SD)* = 4.30 (1.07) M_{post} *(SD)* = 4.30 (1.07)

40. Often, when students are not motivated learn, it is because they do not have personal goals that they are working to achieve, such as attending college.

1	2	3	4	5	6
Strongly Agree					Strongly Disagree

M_{pre} (*SD)* = 3.91 (1.15) M_{post} *(SD)* = 3.88 (1.34)

41. When students are not motivated to learn, it is often because of peer pressure to devalue school.

1	2	3	4	5	6
Strongly Agree					Strongly Disagree

M_{pre} (*SD)* = 3.53 (.97) M_{post} *(SD)* = 3.18 (1.10)

42. A student's level of motivation in a class is something that the teacher can change with good teaching.

1	2	3	4	5	6
Strongly Agree					Strongly Disagree

M_{pre} (*SD)* = 2.12 (.69) M_{post} *(SD)* = 2.21 (.89)

43. When students are motivated to learn in a class, it is often because they want to get good grades.

1	2	3	4	5	6
Strongly Agree					Strongly Disagree

M_{pre} (*SD)* = 4.64 (.93) M_{post} *(SD)* = 4.45 (.90)

44. If a teacher is having a hard time getting students engaged in a class, it is often because the students don't feel capable enough to do the work.

1	2	3	4	5	6
Strongly Agree					Strongly Disagree

M_{pre} (*SD)* = 3.79 (.78) M_{post} *(SD)* = 3.36 (1.17)

45. When students complete a homework assignment the teacher makes, it is often because they are just naturally motivated people.

1	2	3	4	5	6
Strongly Agree					Strongly Disagree

M_{pre} (*SD)* = 3.42 (1.09) M_{post} *(SD)* = 3.45 (1.09)

46. When a teacher is having a hard time getting students to finish a class assignment, it is often because the directions were not very clear.

1	2	3	4	5	6
Strongly Agree					Strongly Disagree

M_{pre} (*SD)* = 3.55 (1.00) M_{post} *(SD)* = 3.42 (1.06)

47. When students seem engaged in a lesson right from its beginning, it is often because the topic is one that is inherently interesting to most students.

1	2	3	4	5	6
Strongly Agree					Strongly Disagree

M_{pre} (*SD)* = 4.58 (.90) M_{post} *(SD)* = 4.79 (1.08)

48. When students do not complete assignments, it is often because they are afraid of doing poorly.

1	2	3	4	5	6
Strongly Agree					Strongly Disagree

M_{pre} (*SD)* = 3.18 (1.04) M_{post} *(SD)* = 3.24 (.97)

49. Often, when students are not motivated to learn in a class, it is because the teacher does not expect the students to do well.

1	2	3	4	5	6
Strongly Agree					Strongly Disagree

M_{pre} (*SD)* = 3.55 (1.00) M_{post} *(SD)* = 4.09 (.80)

(Questionnaire continues on next page.)

Appendix C: Questionnaire Form A
(with Means and Standard Deviation for Each Question on the Pre- and Post-Measures)

Section 5

Directions: As a teacher, how likely would you be to use the following strategies to motivate your students?

50. Keep them in from recess or after school to complete work.

1	2	3
not likely	possibly	very likely

M_{pre} (*SD*) = 1.88 (.48) M_{post} (*SD*) = 2.60 (1.03)

51. Make lessons more colorful or fun.

1	2	3
not likely	possibly	very likely

M_{pre} (*SD*) = 2.94 (.35) M_{post} (*SD*) = 2.70 (.63)

52. Give them a reward, like candy.

1	2	3
not likely	possibly	very likely

M_{pre} (*SD*) = 2.42 (.66) M_{post} (*SD*) = 2.45 (.71)

53. Tell students that not everything can be enjoyable, but they have to do it anyway.

1	2	3
not likely	possibly	very likely

M_{pre} (*SD*) = 1.85 (.62) M_{post} (*SD*) = 1.94 (.70)

54. Tie lessons to students' personal interests.

1	2	3
not likely	possibly	very likely

M_{pre} (*SD*) = 2.94 (.24) M_{post} (*SD*) = 2.79 (.55)

55. Remind them that the work will be graded/tested.

1	2	3
not likely	possibly	very likely

M_{pre} (*SD*) = 2.42 (.56) M_{post} (*SD*) = 2.64 (.55)

56. Offer to sit down before or after school with struggling students, telling them "I know you can do it".

1	2	3
not likely	possibly	very likely

M_{pre} (*SD*) = 2.79 (.48) M_{post} (*SD*) = 2.61 (.61)

57. Give students easy work so they can feel successful.

1	2	3
not likely	possibly	very likely

M_{pre} (*SD)* = 1.42 (.56) M_{post} *(SD)* = 1.58 (.61)

58. Create lessons that students can engage at different ability levels.

1	2	3
not likely	possibly	very likely

M_{pre} (*SD)* = 2.73 (.45) M_{post} *(SD)* = 2.82 (.53)

59. Provide students with all the materials they need to do the work.

1	2	3
not likely	possibly	very likely

M_{pre} (*SD)* =2.82 (.46) M_{post} *(SD)* = 2.58 (.61)

60. Focus your efforts on the students who want to learn and don't waste your time on those who don't.

1	2	3
not likely	possibly	very likely

M_{pre} (*SD)* = 1.06 (.24) M_{post} *(SD)* = 1.30 (.53)

61. Spend your time mostly on instructional strategies because students' motivation cannot be changed.

1	2	3
not likely	possibly	very likely

M_{pre} (*SD)* = 1.15 (.36) M_{post} *(SD)* = 1.45 (.66)

62. Give some assignments that are not graded "right or wrong", but just require students to give thoughtful answers.

1	2	3
not likely	possibly	very likely

M_{pre} (*SD)* = 2.55 (.51) M_{post} *(SD)* = 2.61 (.61)

63. Let them work with others in the class.

1	2	3
not likely	possibly	very likely

M_{pre} (*SD)* = 2.91 (.29) M_{post} *(SD)* = 2.76 (.56)

64. When students do well, point out how smart they are.

1	2	3
not likely	possibly	very likely

M_{pre} (*SD)* = 2.45 (.71) M_{post} *(SD)* = 2.33 (.74)

65. Focus your efforts on the students who want to learn and don't waste your time on those who don't.

1	2	3
not likely	possibly	very likely

M_{pre} (*SD)* = 1.12 (.33) M_{post} *(SD)* = 1.45 (.67)

66. On important assignments, give students the chance to correct mistakes to earn a better grade.

1	2	3
not likely	possibly	very likely

M_{pre} (*SD)* = 2.51 (.51) M_{post} *(SD)* = 2.36 (.60)

67. Call students' parent when they do particularly well on something.

1	2	3
not likely	possibly	very likely

M_{pre} (*SD)* = 2.18 (.73) M_{post} *(SD)* = 2.15 (.71)

68. Praise them for doing their work.

1	2	3
not likely	possibly	very likely

M_{pre} (*SD)* = 2.78 (.42) M_{post} *(SD)* = 2.33 (.81)

69. Post student grades to encourage competition.

1	2	3
not likely	possibly	very likely

M_{pre} (*SD)* = 1.45 (.56) M_{post} *(SD)* = 1.52 (.67)

70. Tell students you will have to call their parents if they don't start doing their work.

1	2	3
not likely	possibly	very likely

M_{pre} (*SD)* = 2.03 (.58) M_{post} *(SD)* = 2.06 (.74)

71. Design activities that challenge students to think in new ways.

1	2	3
not likely	possibly	very likely

M_{pre} (*SD)* = 2.91 (.29) M_{post} *(SD)* = 2.84 (.36)

72. Give students more choices in their work.

1	2	3
not likely	possibly	very likely

M_{pre} (*SD)* = 2.42 (.56) M_{post} *(SD)* = 2.58 (.61)

(End of questionnaire. Thank you for participating!)

APPENDIX D

Interview Guide

First of all, I want to thank you for coming. Last semester, you signed a consent form which explained the purpose and procedures of participating in this study. Before we begin, I'd like to remind you that the purpose of this interview is to learn about your beliefs about motivation. The interview is expected to last about an hour, but you have the right to end it or withdraw your participation altogether at any time. If you understand and still agree to be interviewed, please say "Yes".

(IRB requires that I gain verbal consent at the start of the interview)

- You were invited to participate in this study because you planned to become a teacher. Is teaching still your intended career?
    - What do you hope to teach?
    - *If this is different than indicated on questionnaire*: What influenced this change?
    - How did you come to choose this career?

- How would you describe your motivation to learn this past semester, Fall 2008?
    - What influenced this?
    - Is this different than how you would have described your motivation to learn before? (Such as in high school)
        - Why?

- You mentioned that you would like to teach ____ grade. As a student in that grade, what motivated you to engage in school?
    - Who motivated you and how did that happen?
    - Why do you think that was?

- What difficulties did your teacher(s) in _____ grade have in motivating students?
    - What do you think caused the difficulty?
        - What made that student difficult to motivate?
        - Why do you think the teacher had such a hard time?
            - What could they have done different?
    - What do you think this/these teacher/s thought about the students' motivation?
        - Did s/he ever talk about their students' motivation?
            - What did you think about that, back then?
            - What do you think about that, now?
    - What kinds of things did your other teachers say about student motivation?
        - What do you think about those comments?

APPENDIX D

Interview Guide

- Motivating students is a challenge for many teachers, even those with many years of experience. Why do you think this is?
    - Probes will be developed based on responses.

- Given these challenges, how confident do you feel that you could motivate *your* students? What makes you feel this way?
    - Probes will be developed based on responses.

- How would you define motivation?
    - How did you come to define it this way?
    - How does this definition relate to what you learned about motivation in EPSY 2130?
        - Or, what did you learned in EPSY 2130 that can affect student motivation?