USING ASSESSMENT FEEDBACK FOR MOTIVATION AMONG EARLY ADOLESCENTS: A GROUNDED THEORY STUDY

by

Nichole L. Griffin

Liberty University

A Dissertation Presented in Partial Fulfillment
Of the Requirements for the Degree
Doctor of Education

Liberty University
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APPROVED BY:

Gail Collins, Ed.D., Committee Chair

Martha Plumlee, Ed.D., Committee Member

Carolyn Lewis, Ph.D., Committee Member
ABSTRACT

The purpose of this grounded theory study was to develop a general theory explaining how verbal or written teacher feedback on formative assessments may influence early adolescent motivation for academic achievement, along the SDT continuum. I based this study on Deci and Ryan’s (2000) self-determination theory (SDT), and to a lesser degree expectancy-value theory (Wigfield & Eccles, 2000) and self-efficacy theory (Bandura, 1993). I also used Tunstall and Gipps’ (1996) typology research as a framework for describing and classifying feedback in the data. Related literature and research findings are presented to lay a foundation for the study and identify the gap in the literature. Philosophical assumptions and interpretive framework are identified, as they guide how the problem is delineated, the purpose of the study and its significance in adding to existing knowledge. Four northeast Ohio public school teachers and four to 12 students selected from each of their respective fifth or sixth-grade classes participated in this study via self-determination theory questionnaires for students, teacher demographic surveys, and interviews, student focus groups and classroom observations. This data was analyzed to determine codes and their link to one another in relation to a core theme. Corbin and Strauss’ (2015) grounded theory methodology was utilized, to answer the question of how feedback from a teacher on formative assessments influences student motivation for academic achievement. The study revealed that teacher feedback that is descriptive impacts students’ sense of competence and relatedness and, thus, improves students’ controlled motivation. Similarly, though to a lesser degree, evaluative feedback impacts students’ sense of competence too, but it can also lead to amotivation.

Keywords: formative assessment, self-determination theory, motivation, feedback typology
Dedication

I dedicate this work to my maternal and paternal grandparents, all of whom died before I was able to accomplish this goal in life successfully. Nevertheless, they instilled in their children and grandchildren an appreciation for reading, studying, and education. My accomplishments today are because of God’s grace as well as providence in giving me grandparents who valued knowledge and learning despite not always having their own educational opportunities. To Grandma DeWeaver in particular, despite passing a month before I started my studies, I cherish that you knew of my acceptance into this doctoral program and that you continued to encourage me. Your words ring in my ears continually. I am grateful, humbled, and proud to be your progeny. All the glory belongs to the Lord.
Acknowledgments

Of course, I must thank the Lord God for extending to me this opportunity and then also providing the provisions necessary, in myriad forms. The provision has been in the form of constant encouragement and support from my mom and dad, Elaine and Martin Griffin, Sr., my big brother, Martin, my sister Monique and her husband, my brother Paul. I laughed every time you all, Martin and Monique, told me that you told someone your sister was getting her Ph.D. Never mind I always corrected you, I appreciate that you believed in what God was (and is) doing in me. I love you all. J.C. Commander, partnering with you has made me a better teacher and person. Thanks for your support. Kesha, Natalie, and Princess, thank you for your prayers, and sisterhood. Clarence, thank you for the celebratory cards and text messages as I moved through this process. Besides my family, those friends and “friends-like-family” at work, at Calvary COGIC, and elsewhere, that called, asked me how things were going, prayed for me (with or without my knowledge), and said to keep going because I could do it, have been an immeasurable help. I am afraid if I name more names, I will forget someone so, thanks to you all. Likewise, I thank Jesus Christ for the provision of correction and guidance supernaturally as well as naturally. Naturally, it often came in the form of Dr. Collins, Dr. Lewis, and Dr. Plumlee. By God’s providence, I got just the committee I needed. I am grateful and pray God’s richest blessings for you all. Dr. Lewis, when I began this journey, you said, “Bit by bit, bird by bird.” When the task before me seemed insurmountable, your admonition resonated in my heart. I know you were tired that Saturday, but you completed the task regardless. From OU to LU and beyond, thank you.

The Lord provided perseverance in part through my students, especially from the 2016-2017 year, who asked, “Can we call you ‘doctor’ now?” Thank you. May how God has shaped
me through this experience be a benefit to you all both now and in the future. I thank God for His Holy Spirit dwelling in me. When I felt like quitting, I would open the Holy Scriptures and read a word that spoke to my heart and spirit, or someone would call, or someone would preach a timely message. There is nothing of real worth that anyone can accomplish apart from Jesus Christ and the Holy Spirit.

Of course, I thank the wonderful teachers, students and by proxy, parents, who participated in my study. On more than one occasion, I would speak to a parent who wanted more information about the research and come away from the conversation amazed at the genuine support and kindness of strangers. They expressed their perspective of me as an example to their children when I had only seen myself through the lens of researcher/student. That blessed and humbled me to be reminded that the Lord’s blessings in our lives are for us as well as others. You all allowed me to be a part of your community for the sake of advancing education and ultimately student success. My time with you was a palpable reminder of why I love teaching, as well as an affirmation that this is what God has called me to do. There are not sufficient words to express my gratitude and appreciation for you all but, I will say again, thank you very much!

Lastly, I thank God for working through Vitor. Since my first year of teaching junior high social studies, you have always cared to keep in touch, shared the events of your life and given me encouragement that the work of education is not in vain, nor an overnight manifestation of what is invested. I remember the Friday you came back to visit me during your senior year because you were so excited when you learned about this Christian university with a music program. I had never heard of it, but you insisted that you show me their website. I was happy for you and proud to see you blossom from seventh to 12th grade, so I stopped packing
my bag and looked. Unbeknownst to you, I was looking at doctoral programs but found none that fit my life with full-time teaching; then I noticed your university had an Ed.D program. The rest is history. As you now embark on your career as an educator, may the Lord use you to impart into lives even more than you already have, for His glory.
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List of Abbreviations

Academic Self-Realization Questionnaire (SRQ-A)
Expectancy-value theory (EVT)
External Perceived Locus of Control (EPLOC)
Extrinsic motivation (EM)
Formative Assessment (FA)
Internal Perceived Locus of Control (IPLOC)
Intrinsic motivation (IM)
Perceived Competence Scales (PCS)
Self-Determination Theory (SDT)
Self-Efficacy (SE)
CHAPTER ONE: INTRODUCTION

Overview

This chapter presents a summary of the historical, social, and theoretical background for this study. Next, a discussion ensues about why conduct this study, including the underlying philosophical assumptions, followed by a statement of the problem, the purpose of the research, and the significance of the study. Additionally, I provide the research questions and definitions of terms found throughout the study.

High school dropouts usually do not wake up senior year and decide to call it quits. The research suggested they have done so years prior (Niehaus, Rudasill, & Adelson, 2012; Swanson, 2009). Middle school is when students’ disengagement can become entrenched (Balfanz, Herzog, & Mac Iver, 2007). At some point in early adolescence, young people begin to recognize (or perhaps feel incapable of overcoming) their deficiencies and weaknesses. As a result, by middle school, many students tend to have significantly lower perceptions of their academic abilities when compared to their perceptions in early elementary school (Bong, Cho, Ahn, & Kim, 2012; Eccles, Wigfield, Harold, & Blumenfeld, 1993). Self-efficacy (SE) is the perception of one’s academic abilities. Bandura (1993) defined SE as “people’s beliefs about their capabilities to exercise control over their own level of functioning and events that affect their lives” (p. 118). People’s perceptions of their abilities are a factor in either positively or negatively motivating them in academic task completion (Bandura, 1993; Ricco, Pierce, & Medinilla, 2010). Disengagement, lack of motivation, or amotivation can even manifest as apathy towards assessments, particularly state assessments (Thompson, 2008). Assessments have been a fixture on the education landscape since at least the time of Horace Mann and the Common School Movement (Gutek, 2011). I found no research on how educators can use...
formative assessments that are not self-assessments, to influence motivation. The purpose of this
grounded theory study was to develop a general theory explaining how verbal or written teacher
feedback on formative assessments may influence early adolescent motivation for academic
achievement, along the SDT continuum. In general, assessment is an evaluation of a
performance or task and is often further categorized as formative or summative (McLaren, 2012;
Sadler, 1989; Van der Kleij, Vermeulen, Schildkamp, & Eggen, 2015). Attempts to create a
common definition of assessment have resulted in various definitions with varying degrees of
specificity. Despite these delineations, when one considers the purpose of the assessment,
essentially only two types of assessment exist: formative and summative (Natriello, 1987; Van
der Kleij et al., 2015). Formative assessment, or evaluation, is information about student
achievement used by students and teachers to improve student learning and may be accompanied
by changes in instruction (Black & Wiliam, 2009; Wiliam, 2011). The summative assessment,
administered at the conclusion of instruction, determines the level of mastery achieved (Parkay,
Haas, & Anctil, 2010). Succinctly stated, formative assessments measure students’
understanding of content to guide future instruction, and summative assessments measure student
learning after providing instruction (Parkay et al., 2010; Wiliam, 2011). Discussions of these
types are in terms of assessment for learning and assessment of learning, respectively.
Assessments can be further delineated as written, verbal, formal, informal, norm-referenced,
criterion-referenced, teacher made, standardized, and high-stakes for example (Kubiszyn &
Borich, 2013; Tomlinson, 2010).

**Historical Background**

Understanding or describing motivation is an endeavor behaviorists and psychologists
like Skinner (1953), Maslow (1943), Lewin (1936), Tolman (1932), Hull (1943; as cited in Deci
& Ryan, 2000), and others (Criss, 2011), have attempted for decades, as evidenced by their various theories and research. Each of these theorists offers some provocative and pragmatic ideas about human motivation. Nevertheless, despite those ideas, these theorists did not explain how a student’s motivation to learn may be bolstered or impacted by teacher feedback. The context or environment events or phenomena occur in, aid in developing a theory. In grounded theory, evaluating the context present in data leads to a better understanding of why people say, do, think, and feel the way they do (Corbin & Strauss, 2015). However, motivation theories generally do not address the context for motivation from feedback. In this study I sought to present a theory that explains how teacher feedback creates or impacts context in an assessment situation, and thereby possibly leading students to take a particular course of action to control or achieve a desired result; student action or interaction, in this case, is the type and degree of motivation. Subsequent research has added to the body of knowledge about motivation in an academic milieu (Bandura, 1993; Deci & Ryan, 2000, 2008; Deci, Vallerand, Pelletier, & Ryan, 1991; Wigfield & Eccles, 2000; Wiliam, 2011). There remains more to explore and explain because results on the influence of assessment on motivation are conflicting (Pacharn, Bay, & Felton, 2013; Pedersen & Williams, 2004).

Social Background

As pragmatic as SDT may be, educators and community stakeholders still grapple with how to motivate students to succeed in the 21st century. How can educators use existing curriculum, tools, strategies, or programs to motivate students to achieve academically, in light of SDT or any other motivation theory? Research exists on using the curriculum (Little, 2012; MacMath, Roberts, Wallace, & Chi, 2009; Ponder, Veldt, & Lewis-Ferrell, 2011) and different types of teaching strategies (Schlechty, 2011) to motivate students to perform academically.
However, there is an absence of literature on formative or summative assessments in conjunction with motivation. Assessments are one of the most salient aspects of education. Given the prevalence of assessment tools, research is silent on how verbal or written assessment feedback on teacher created or textbook publisher’s supplemental assessments impact how students experience motivation and therefore how it can be used in every classroom to keep students engaged and motivated while also possibly precipitating a decline in dropout rates and achievement gaps.

**Theoretical Background**

Research suggests motivation can be a predictor of academic achievement (Gottfried et al., 2005; Niehaus, Rudaśil, & Adelson, 2012; Taylor et al., 2014). More intrinsic, and autonomous, orientations yield greater performance (Deci & Ryan, 2008). Theorists analyze the intersection of goals, ability beliefs, and values in fostering action (Deci & Ryan, 2000; Eccles & Wigfield, 2002), but emphasize one of these elements over the others. Deci and Ryan’s (2000) self-determination theory (SDT), for example, distinguishes between types of motivation, asserting that the type of motivation is predictive of psychological health, performance, as well as learning. Within this theory, motivation lies on a continuum (see Figure 1) ranging from amotivation to controlled motivation to autonomous motivation.
Type of Motivation | Amotivation | Extrinsic Motivation | Intrinsic Motivation
--- | --- | --- | ---
Type of Regulation | Non-Regulation | External Regulation | Introjected Regulation | Identified Regulation | Integrated Regulation | Intrinsic Regulation
Quality of Behavior | Non-self-determined | Self-determined

*Figure 1.* Self-Determination Continuum with types of motivation and regulation displays various types of extrinsic motivation, each more autonomous than the previous one, but is not intended to be a progression, only an organizational tool. Adapted from “Handbook of Self-Determination Research” (p. 16), by E. L. Deci and R. M. Ryan, 2002, Rochester, NY: The University of Rochester Press. Copyright 2002 by Edward L. Deci and Richard M. Ryan. Reprinted with permission.

Therefore, people strive to achieve goals to the degree that the goals satiate psychological needs or orientations. Ability beliefs coincide with a need for competence, while values link to autonomy. SDT, couched in social contexts, suggests social environments affect people’s needs satisfaction, goal attainment, and motivation. This context is where the theory presents the relatedness concept; relatedness is a desire to connect with others (Deci & Ryan, 2000). This characterization seems to lend itself to the application of this theory in an education context because Deci and Ryan (2000) contended that intrinsic and extrinsic motivation (EM) are not contrary to one another, but based on a given task, are present to varying degrees. They defined intrinsic motivation as “behaviors freely engaged in out of interest without the necessity of separable consequences” (Deci & Ryan, 2000, p. 233), whereas EM is when “people’s behavior is controlled by specific external contingencies” (Deci & Ryan, 2000, p. 236). Furthermore, the
motivation to achieve a goal, to ascribe positive beliefs about one’s ability, or to pursue a task because of its perceived value-elements of EVT (Wigfield & Eccles, 2000) and Bandura’s (1993) self-efficacy-are in relation to the innate needs that humans possess (Deci & Ryan, 2000). So, the SDT framework presents a more dynamic way to understand the process of student motivation. Students do not necessarily complete a task solely on the strength of one factor; they may do homework because they want points and because they want to be able to participate in the class discussion the next day to feel connected to their peers or teacher.

Assessments are a part of learning. Students interact with formative and summative assessments on various levels throughout their school day, let alone their educational career. I found no theories that explain how assessment feedback from teachers can be used to influence student motivation to achieve academically.

In light of the motivation continuum suggested in SDT (Deci & Ryan, 2000) no theories explain how teacher feedback on formative assessments may influence early adolescent student motivation along that continuum. Title I and VI of the No Child Left Behind legislation (NCLB, 2002) mandates assessments to chart progress and measure achievement over time. Of all reforms in education, including the reauthorization of the Elementary and Secondary Education Act, assessments seem to have great staying power. A need exists for research on how to harness that power as a means of bolstering student motivation and achievement. An explanatory theory matters for educators, students, and communities alike.

**Situation to Self**

As a student, I spent Grades 2 through 12 in gifted classes. One of the things I noticed early on was how different my gifted peers and I were from one another, despite wearing the same “gifted” label. Some peers, whom I believed were exceptional students and thinkers,
surprisingly seemed uninterested in school at times. They had the ability, but no apparent desire to do the work. It seemed to me that the issue was not one of intelligence but rather drive, or motivation. Although we all shared a learning environment, perhaps their needs for relatedness, competence, or autonomy (Deci & Ryan, 2000) were not met. I often thought of the issue as somehow unique to gifted learners.

Fast forward to my years teaching junior high, and I saw those same issues of drive, or motivation, emerge. Only this time, I began to think of it in terms of intrinsic motivation versus lack thereof. Although I had a brief stint working with kindergarten through high school as a substitute teacher, my formal teaching career has been as an upper elementary and junior high public-school teacher. Teaching junior high is when I first noticed that students in seventh and eighth grade began to demonstrate signs of apathy and fluctuating degrees and types of motivation. Now, after several years teaching fifth grade, I see those same plagues infect students at an earlier age.

Numerous factors influence motivation. A few years ago, I reviewed assessment data with students and included some teacher-created goals as well as skills and concepts for students to focus on to improve understanding and scores. To my surprise, many students seemed more motivated than previously to demonstrate improvement once armed with the feedback. I began to wonder what the process of motivating students with assessment feedback might be. I did not find literature on this topic, particularly among early adolescents; thus, the focus of this study was to fill that gap in the research.

My interpretive framework, or paradigm, was post-positivist as well as social constructivism (Creswell, 2013). Creswell (2013) opined a post-positivist framework is, “exemplified in the systematic procedures of grounded theory” (p. 24). This framework does not
purport a strict cause and effect of events, but it does employ a scientific approach in logically related steps. On the other hand, social constructivism develops a theory through generalized inferences derived from specific instances (Creswell, 2013). I employed Strauss and Corbin’s (1998) systematic grounded theory, also known as constant comparative analysis. Moreover, this paradigm is methodical, sequential, invites multiple perspectives from participants, uses multiple data analyses, and presents findings in a structured format. Not only that, grounded theory shows relationships between concepts, in part by explaining a possible context for action-interaction. The conditions under which events occur were analyzed to fully explore and understand concepts (Corbin & Strauss, 2015).

I approached this study with several philosophical assumptions. Ontologically, I realized teachers and parents hold a perspective of students that the students may not entirely share with those adults or their peers. For students and adults, their own perspectives are something of a reality. Therefore, on the issue of assessment feedback influencing motivation, I considered that there would likely be differing perspectives about that process that would ultimately help generate a theory. All perspectives, especially those of students, needed to be captured in the research. Epistemologically, it was imperative to gather evidence from students (and teachers) to deeply understand the possible influence of teacher feedback on student motivation. Although I have sometimes been guilty of not giving credence to students’ voices because there did not seem to be enough time, I value and see the importance of each voice. I believe everyone can succeed and make academic gains; however, the extent of those gains is dependent on the learner and the degree to which they value a task and are motivated. In other words, learners should have an internal perceived locus of causality (Deci & Ryan, 2000). Thus, my axiological
assumption was that the participants’ values, in tandem with my own, would aid in interpreting the motivation process in the context of assessment feedback.

**Problem Statement**

Academic achievement gaps persist across various group configurations in the following areas: state and national assessments, education placement (i.e., gifted education), performance measures, and more (NEA, 2015). Even with recent declines in dropout rates, one in five students in the United States drop out of school (Rosales, 2015; Swanson, 2009). The remedies are as multifaceted as the dilemma because all community stakeholders have a vested interest. For educators, in particular, efforts have included revising curriculum and teaching strategies (Parkay et al., 2010; Petre, 2014; Taylor et al., 2014). These reform efforts take aim at building motivation through the curriculum, teaching methods, or other vehicles as evidenced by research over several decades. However, these modifications are based on findings when researchers investigated motivation from the perspective of “what is it?” and, even then, focusing on one or two aspects of motivation (Deci & Ryan, 2000; Eccles & Wigfield, 2002; Gottfried et al., 2005). The problem is no studies “arrive at the complexity” (Creswell, 2013, p. 48) of understanding how, if at all, formative assessment (FA) feedback influences internalized motivation among elementary students. Assessment is a major component of any curriculum and mandated by NCLB (U.S. Department of Education, 2015). Whether formative, summative, informal, formal, written, or verbal, students engage in assessment throughout every level of their educational careers, but its full potential to influence motivation, and ultimately achievement, is apparently not being utilized (Wiliam, 2011). Hattie and Timperley (2007) stated, “when feedback is combined with correctional review, feedback and instruction become intertwined” to the point of new instruction (p. 82). Tunstall and Gipps (1996) said, “formative assessment is that process of
appraising, judging, or evaluating students’ work or performance and using this to shape and improve their competence” (p.389). Summative assessment feedback typically comes in the form of identifying correct or incorrect responses, in which case, inhibiting a new understanding. Therefore, formative assessment includes a feedback process that clarifies or builds the understanding that learners will apply again at some future point. Thus, a focus on FA was pragmatic, and potentially a more efficacious effective focus as educators, as well as local, state, and federal education authorities aim to use it to alter instruction along with improving student competence.

Admittedly, more research is needed on the overall process, to understand feedback fully (Price, Handley, Millar, & O’Donovan, 2010; Tunstall & Gipps, 1996). However, when one considers the types of feedback, certain characteristics continue to emerge in the research, such as immediate, timely, specific, and task-oriented. These characteristics are hallmarks of effective feedback, and they typically occur during the formative assessment stage (Hattie & Timperley, 2007; Price et al., 2010; Thurlings, Vermeulen, Bastiaens & Stijnen, 2013; Wiliam, 2011).

Furthermore, feedback closes gaps in present understanding and performance (Hattie & Timperley, 2007). The idea is that feedback helps support mastery by performing several possible functions that coincide with formative assessment. On the other hand, summative assessment evaluates mastery at the end of some time, unit, or topic and does not necessarily afford a student an opportunity to improve their competence. More research is needed to understand the intricacies of the feedback process, particularly with formative assessment. Currently, there are no theories that explain the process of how students use FA feedback from a teacher to alter their motivation type and level to eliminate deficiencies in their understanding or performance.
Purpose Statement

The purpose of this grounded theory study was to develop a general theory explaining how verbal or written teacher feedback on formative assessments may influence early adolescent motivation for academic achievement, along the SDT continuum. For the purpose of this research, assessment was generally defined as tools (whether teacher created or textbook supplemental, formative, and summative) used to evaluate the effectiveness of teaching on learning via a performance task (Sadler, 1989; Tomlinson, 2010; Wiliam, 2011). Internalized EM is the highest form of EM (Deci & Ryan, 2000). It is defined by people completely embracing regulations or certain behaviors; aligning them with their values and identity to the point that the behavior is performed more autonomously (Deci & Ryan, 2000). Researchers purport several constructs comprise motivation; therefore, providing the ability to reference more specific definitions (Bandura, 1993; Deci et al., 1991). For example, intrinsic motivation is an internal drive to achieve a goal or complete a task (Deci & Ryan, 2000; Wigfield & Eccles, 2000). On the other hand, responding to an external locus of causality in completing a task is EM (Deci & Ryan, 2000). Internalized EM and intrinsic motivation are similar in that the perceived locus of causality is internal. The paramount conceptual framework that guided this study was Deci and Ryan’s (2000) SDT because it suggested that the type of motivation a person used (external regulation to internalized regulation) was in relation to how well his or her psychological needs were satisfied: competence (self-efficacy), relatedness, and autonomy. The theorists posited that experiences could satiate each construct. I postulated that feedback could be a means of creating those experiences. The secondary conceptual frameworks that guided this study were expectancy-value theory (Eccles & Wigfield, 2002; Wigfield & Eccles, 2000) and self-efficacy (Bandura, 1993). These paradigms led to the ideation that research about the impact
of teacher feedback in the SDT context needed to study early adolescents’ experiences with teacher feedback because that is the age when their self-efficacy declines. Therefore, this study sought to explore how teacher feedback provided to students on FA might gratify the psychological needs in a classroom environment.

**Significance of the Study**

Pragmatically, this study can help practitioners build greater student engagement and motivation for learning by determining how the use of feedback with assessment tools may bolster motivation derived from an internal perceived locus of causality (IPLOC). Findings may also be useful for programs that aim to support underachievers or at-risk students who are identified prior to middle school and high school. Not only that, developing a theory that explains how assessment feedback influences internalization by satisfying a need for competence, relatedness, and autonomy may help in the creation of specific activities that target these psychological needs and, thereby, close or diminish the achievement gap that persists among various groups of students.

Empirically, the body of knowledge is limited, so this study will add to it. The studies that exist are largely quantitative and mostly analyze the impact of computer-based or peer assessment (Dela Rosa & Eskenazi, 2013; Hwang, Hung, & Chen, 2013; Petre, 2014). Some studies established a relationship between motivation and learning (Niehaus et al., 2012; Taylor et al., 2014) without explaining how they related regarding assessment. Thus far, I did not find a study that explained the process of how feedback from a teacher on an assessment influenced students’ motivation.

Theoretically, using assessment feedback (verbal or written communication about a task) is not novel, but examining how assessment feedback from a teacher may help students meet the
self-construct needs – autonomy, relatedness, and competence – in accordance with SDT is not explained in the literature. Some studies on assessment feedback focused on computer-based feedback or feedback about motivation, to build motivation (Cho & Heron, 2015; Dela Rosa & Eskenazi, 2013). Even research about assessment and motivation suggested using various forms of assessment without deeply analyzing the possible impact of the feedback element (Petre, 2014). Cauley and McMillan (2010) said that formative assessments increase student motivation and engagement without venturing to expound on how. Students seemed to be motivated or perhaps reported that they were, but there was no explanation about how formative assessment, let alone feedback, fostered motivation or engagement. Consequently, this study is significant because it explains whether a relationship is plausible, or exists (Corbin & Strauss, 2015) between teacher feedback on formative assessment and internalized student motivation. This study, in turn, provides educators with a deeper understanding of and strategies for motivating and engaging students by using feedback more effectively.

**Research Questions**

This study explores the phenomenon of motivation as students experience assessment feedback (Morse, 1998). As such it requires understanding the experience of the participants, to identify specific conditions and subsequent consequences (Corbin & Strauss, 2015). The research questions are articulated based on the SDT framework (Deci & Ryan, 2000), as well as in consideration of the research purpose. The central question for this study is:

How does written or verbal feedback from teachers on formative assessments influence early adolescent students’ motivation for academic achievement?

The question is borne out of the gap in motivation and assessment literature as well as of the lack of explanation concerning the intersection of formative assessment feedback and motivation.
For example, expectancy-value theory (EVT) analyzed how motivation influenced performance while this study seeks to explain how feedback influences motivation, which in turn influences performances and values (Eccles & Wigfield, 2002). It is the overarching idea under which the sub-questions nest. Each sub-question isolates a self-construct of self-determination theory (Deci & Ryan, 2000).

1. How does verbal and/or written teacher feedback on formative assessments influence early adolescent students’ development of a sense of competence?

SDT purports that pervasive support for experiencing competence needs to be in place. When they are present, “intrinsic motivation, integration of extrinsic regulations, and movement toward well-being are theorized to operate optimally” (Deci & Ryan, 2000, p. 236). In other words, environmental conditions can either satisfy or thwart these needs. Some of Deci and Ryan’s (2000) earlier work found that positive feedback had a causal effect on perception of competence. Again, we see the impact of environment as Gniewosz, Eccles, and Noack (2014), using EVT, found a correlation between feedback (in the form of grades), parent perceptions of student competence, and intrinsic task value among early adolescents.

2. How does verbal and/or written teacher feedback on formative assessments influence early adolescent students’ perceptions of relatedness?

Similarly, students who believed their teachers were caring experienced greater intrinsic motivation. Building on this idea, this question seeks to discover whether a sense of teacher investment, as noted by students during the process of receiving specific teacher feedback, is a catalyst for motivation.
3. How does verbal and/or written teacher feedback on formative assessments influence learning autonomy for early adolescent students?

Feeling self-determined, or autonomous, positively impacts intrinsic motivation (Deci & Ryan, 2000). Black and Wiliam (2009) suggested that feedback might help students learn and subsequently choose effective learning strategies. I theorize that assessment feedback can help students feel in control of their learning because with feedback they can make decisions about how to adjust behaviors for subsequent tasks. Hopefully, this question will initiate a discussion with students to unpack how they may use feedback to become autonomous learners.

**Definitions**

1. *Amotivation* – a lack of intention to behave or perform (Deci & Ryan, 2000).
2. *Assessment* – the process of evaluating how effective instruction is on learning (Wiliam, 2011).
4. *Competence* – understanding how to obtain different external and internal outcomes while efficiently performing a required action (Deci et al., 1991).
5. *External Perceived Locus of Control (EPLOC)* – activities performed under the control or regulation of an outside agent (Deci & Ryan, 2000).
6. *Extrinsic motivation* – behavior is response to certain external contingencies (Deci & Ryan, 2000); people completely embracing regulations or certain behaviors; aligning them with their own values and identity to the point that the behavior is performed more autonomously (Deci & Ryan, 2000).
7. *Feedback* – information given back to the learner and used to improve performance (Black & Wiliam, 2009).
8. *Internal Perceived Locus of Control (IPLOC)* – activities people do innately and spontaneously when allowed to follow their inner interests (Deci & Ryan, 2000).

9. *Intrinsic motivation* – acting out of interest without the influence of separate agents (Deci & Ryan, 2000).


12. *Self-efficacy* – an individual’s perception, or beliefs about his or her ability to control the outcome of a task (Bandura, 1993).

**Summary**

In this chapter, I presented the purpose and problem statements, research questions, and the significance of the study. I discussed my philosophical assumptions and the interpretive framework to explicate my choice of qualitative design given the biases or notions I may insert into the interpretation of the data. Furthermore, I offered the historical, social, and theoretical backgrounds of the issue to outline how this study could fill existing gaps in the literature. Lastly, I presented definitions of paramount terms.
CHAPTER TWO: LITERATURE REVIEW

Overview

This literature review is the result of surveying, analyzing, and synthesizing the extant literature on the phenomenon of motivation as well as assessment and feedback strategies used in the classroom. Additionally, presented is a definition of motivation and assessment based on the literature. Moreover, a theoretical framework is delineated that served as the structure for this research. Myriad theories of motivation exist and permeate conversations about how to improve student motivation across subject areas (Banda, Matuszny, & Therrien, 2009; Frey & Fisher, 2010; Williams & Williams, 2011). Many of these theories expound on or simply extract elements from Deci and Ryan’s (2000) SDT, perhaps because it is considered a “macrotheory of human motivation” (Deci & Ryan, 2008, p. 182). Thus, it is pragmatic to use SDT as the framework because it considers several impetuses of motivation, namely autonomy, competence, and relatedness.

However, when assessment is factored in (and, more specifically, assessment feedback) there seems to be no research, neither theory explaining the process of assessment feedback stimulating autonomous or internalized, motivation in early adolescent students. Assessment is a significant aspect of the education process for students in schools today, particularly American schools (Parkay et al., 2010). Lily E. Garcia, National Education Association president, said:

When students spend increasing amounts of class time preparing for and taking state and federally mandated standardized tests, we know the system is broken. As experts in educational practice, we know that the current system of standardized tests does not provide educators or students with the feedback or accountability any of us need to promote the success and learning of students. (neaToday, 2014, para. 3)
Whether or not standardized tests provide efficacious feedback, is not a focus of this research; the point is such assessments, paying particular attention to formative assessments, may alter motivation, when coupled with teacher feedback. Certainly, assessment is a significant part of the educational landscape. It has been used historically as a culminating activity to teaching units (Gutek, 2011; Tomlinson, 2010; Van der Kleij et al., 2015; Wiliam, 2011). Then the idea of assessment for learning emerged, whereby educators adjusted what they were teaching (or perhaps how) in response to a formative evaluation of how students understood the learning activities (Hattie & Timperley, 2007; Tomlinson, 2010; Van der Kleij et al., 2015). In addition to that, there are discrepancies about how to define feedback, resulting in discussions of how to close performance gaps using feedback, but not how to create, or even modify, motivation from assessment and feedback (Hattie & Timperley, 2007; Ramaprasad, 1983; Wiliam, 2011).

Nevertheless, educators need to better understand assessments as impactful tools, as they pertain to generating more autonomous motivation in students. Subsequently, this literature review will demonstrate the need for additional research that ultimately leads to a theory explaining whether or not assessment feedback from a teacher influences the process of student motivation. I posit that assessment feedback from a teacher, in whatever mode, may satiate the needs mentioned above that lead to goal pursuits, or autonomous motivation. Consequently, this assertion requires a discussion of the theoretical underpinnings that are a catalyst for it.

**Theoretical Framework**

Creating a theory is not a haphazard endeavor. While theory development supposes a gap in existing knowledge, as substantiated in literature, it also draws from the existing scholarship. Studying current literature and research, as well as seminal works, can provide a skeleton or framework to guide the creation of a new theory. In fact, understanding the
theoretical framework of proposed research provides context for the new theory. Therefore, analyzing the existing research and theories on motivation and development primarily through the lens of SDT, but also self-efficacy (SE) and expectancy-value theory (EVT), help to frame this grounded study.

**Motivation**

What compels someone to take a certain course of action? Is it the promise of reward or the satisfaction of achieving a goal that he or she believed they could reach successfully? Perhaps both. Etymologically, motivation means to move (Eccles & Wigfield, 2002). Motivation, defined another way, is being compelled to attempt a task (Ryan & Deci, 2000). Previous researchers proposed that motivation arose out of an expectation, or belief, that the behavior would lead to a set outcome (Eccles & Wigfield, 2000, 2002). Others surmised that human need was the impetus of motivation; that is, there are instinctive drives that lead people to act to remain healthy. Over time, a goal-oriented perspective of motivation emerged to understand how goals are determined and why they are pursued (Deci & Ryan, 2000; Eccles & Wigfield, 2002). As definitions and perspectives of motivation have varied, researchers paid attention to types of motivation.

**Intrinsic and extrinsic motivation.** The literature on motivation ultimately presents two orientations of motivation: intrinsic and extrinsic. Ryan and Deci (2000) asserted that motivation is not a singular phenomenon due to the amount of consideration given as well as the form, or orientation, of the motivation. So, one can say that there are two channels of motivation, albeit with their own nuances.

The categorization as intrinsic or extrinsic is ascribed by the source of that motivation (Moldovan, 2014). As the name suggests, intrinsic motivation could be described as being born
of one’s inner desire to do well, accomplish a goal or meet a challenge for the sake of doing so – “the thrill of the ride,” one might say. Deci and Ryan’s (2000) SDT provides a more concise explanation: “intrinsically motivated behaviours are those that are freely engaged out of interest without the necessity of separable consequences” (Deci & Ryan, 2000, p. 233).

Conversely, extrinsic motivation is a desire to accomplish a goal, that is driven by being recognized or receiving some external perceived benefit (Bong et al., 2012; Ryan & Deci, 2000). While the research asserts that motivation in either form can be beneficial, it also suggests that concerns surround the long-term benefits of sustained extrinsic motivation (Criss, 2011; Ryan & Deci, 2000). EM stimulated by stickers, money, bonus points, or even grades, is only beneficial for a short period; it does not lead to greater intrinsic motivation necessarily (Wigfield & Eccles, 2000; Williams & Williams, 2011). This information seems to make sense given that what satiates one’s desires at one point in time, may not hold true consistently over sustained periods of time. At some point, incentives presented fail to entice the student.

**Motivation in context.** Researchers have largely studied motivation as a psychological and behavioral phenomenon (Bong et al., 2012; Deci & Ryan, 2000; Kluger & DeNisi, 1996; Ryan & Deci, 2000). It is worth noting that to a lesser degree, social cognitive theory presents a viable perspective of motivation and motivation development. However, some of the concepts in that framework coincide with the theories mentioned earlier without the same depth or delineations of motivation. For example, while the social cognitive framework posits that SE and self-concept are different components of self-construct (Bong et al., 2012), it does not directly address intrinsic versus extrinsic motivation in any great depth.

As aforementioned, a multitude of theories exist, yet the most compelling in an educational milieu is the psychological perspective of SDT and, also, EVT. Essentially, these
are more viable vehicles for navigating the waters of motivation because they seem to
deconstruct intrinsic and extrinsic motivation in light of behaviors that either occur or could
occur in academic settings. My main focus was on SDT. However, EVT and SE undergirded
my ideas about what development age participants should be and why their perceptions about
their abilities mattered in connection with altering their motivation.

**Self-Determination Theory (SDT)**

Self-determination theory (SDT) is a psychological macrotheory of motivation with two
prevailing prongs aimed at more fully explaining behaviors that lead to goals, or are goal-
directed (Deci & Ryan, 2008). The two primary prongs of SDT distinguish it from other theories
of motivation because Deci and Ryan (2000) analyzed and described the “what” and “why” of
goals, at work in human motivation. First, they argued that when discussing motivation,
researchers must consider the “content of goal-directed behavior” (p. 228) or the “what” of the
behavior. Second, researchers should also give attention to the regulatory processes of pursuing
certain outcomes, or goals. Similarly, pursuing and achieving a goal is based on the level of
meeting basic psychological needs.

Deci and Ryan (2000) offered three basic necessary psychological needs that promote
growth, integrity, and well-being. These needs are innate and universal, they argued, thus they
are common across cultures and are a natural aspect of human development (Deci & Ryan,
2008). The need for relatedness, competence, and autonomy coexist and must be satisfied to
experience maximum development and well-being. In fact, Deci and Ryan (2000) theorized that
pervasive supports are needed to nourish the three needs. When the social conditions around
people are favorable (the nourishment or what they called “nutriments” p. 229) intrinsically or
internalized, extrinsically motivated behavior occurs. Conversely, not meeting all three needs
has adverse consequences for people (Deci & Ryan, 2000, 2008). Unfavorable conditions lead to a kind of self-preservation and may lead to decreased effort or ultimately amotivation. Black and Wiliam (2009) spoke of this type of response in terms of well-being; threats to well-being may lead to negative actions like avoidance.

Nourishing these needs is relevant in education and learning because Deci and Ryan (2000) proposed that the psychological needs satiation may explain human learning. Furthermore, Deci and Ryan (2000) supposed that people naturally act on internal and external environments as well as perform activities that are interesting to them. This supposition may offer a framework for how educators can use feedback to help create more favorable conditions in which students are motivated to act on that environment even to the point of finding activities interesting or at least worthwhile. Beyond that, they assumed that there are differences in the degree of people’s needs. So, they considered the impact of varying social contexts, or environments on needs satiation because needs are interactive (Deci & Ryan, 2000, 2008). Not only that, because supports are needed to experience competence, this framework presents a way to couch an investigation of whether teacher feedback can serve as a form of such support in a social context (Deci & Ryan, 2000).

According to SDT (Deci & Ryan, 2000), intrinsic motivation effectively regulates learning because students attend to the process of learning. The literature suggests a positive relationship between achievement and intrinsic motivation (Deci & Ryan, 2000; Garn & Jolly, 2013; Liao, Ferdenzi, & Edlin, 2012). IM is the highest form of self-determination and requires that all three needs be met (Deci & Ryan, 2000). Although autonomy and competence satisfaction are the most paramount influences on intrinsic motivation, Deci and Ryan’s research coupled with their review of existing literature, found that relatedness plays a role (albeit distant).
and likely fosters growth of intrinsic motivation in a milieu where people experience a strong sense of relatedness. However, based on the research they cited, it is not known if relatedness in an education setting influences greater intrinsic or integrated extrinsic motivation when coupled with teacher feedback.

Self-determination theory (SDT) contends that motivation lies on a continuum; on one end is intrinsic motivation and on the other, amotivation. Another way to view the continuum is autonomous versus controlled motivation (Deci & Ryan, 2008). Behaviors that are engaged in volitionally out of interest are said to be intrinsic. Again, satisfying autonomy and competence needs seem to sustain intrinsic motivation (Deci & Ryan, 2000). IM alludes to a perception of internal perceived locus of causality (IPLOC); essentially, when given a choice and past experiences (or feelings) are acknowledged people perceive that they have more control over the outcome. This sense of autonomy enhances intrinsic motivation (Deci & Ryan, 2000). It seems that events (social context) may affect IM because an individual’s perception of the cause agent in events connects to feelings of autonomy (Deci & Ryan, 2000). Perceived autonomy is imperative for IM; too a perception of competence is needed for any motivation (Deci & Ryan, 2000). In citing research indicating positive feedback enhanced IM, Deci and Ryan (2000) linked the relationship to a need for competence. Perhaps then, well-constructed teacher feedback on assessments could, at the very least, create a positive perception of competence in learners and at best help develop a sense of autonomy and relatedness, whether actualized as intrinsic or extrinsic motivation. Since sustained EM is not believed to be beneficial in the long-term (Criss, 2011; Ryan & Deci, 2000), SDT piques my interest by deconstructing EM in relation to causality orientations, therefore, making it a viable framework for this research.
Deci and Ryan (2000) purported that extrinsic motivation varies in degree of self-determination versus control. As such, they offer a dynamic analysis of EM based on the notion of internalization. Internalization, or integration, is a natural process whereby people try to convert socially sanctioned rules or requests into values that they support. A type of assimilation happens as an individual views external rules as more self-determined rules; a person sees the value in the social regulations and adopts it fully into their own values (Deci & Ryan, 2000). This adoption is integration, the highest form of internalization. Another way of conveying the idea is, in an integrated regulation of EM, a person sees the value in a required task; he or she has accepted the societal value of the task and will self-regulate to accomplish it (much like intrinsic motivation). The dynamic analysis of motivation that evaluates what it is – intrinsic, extrinsic integrated to extrinsic external, and amotivation – coupled with why an individual chooses a type of regulation (locus of causality) potentially poises educators to understand how to work to motivate students in various ways that will lead to achievement, especially considering not every student will be intrinsically motivated in every instance. Internalization introduces that variety.

Regarding internalization and needs, Deci and Ryan (2000) cited a study where children showed a change from external to internal regulation as they got older, but their findings indicated internalization does not happen automatically, nor without being fostered, though it is a natural human process. Repeatedly, in their research, they found the right atmosphere or social context must be in place to satisfy the needs as behavior regulations are adopted (Deci & Ryan, 2000). People usually internalize values and regulations of their social group when feelings of relatedness and competence are present. People are ready to internalize surrounding values when they understand the importance of the behavior then marry that importance with their own values (Deci & Ryan, 2000). Behaviors are the outward manifestation of the values. At the integrated
or intrinsic level of behavior regulation, people, particularly students, perceive more autonomy. Autonomy is a predictor of achievement performance along with attitude (Deci & Ryan, 2000).

The second stage is identification regulation of EM. In this state, people see and accept the value in a particular behavior; thus, the behavior is a part of their identity, yet the behavior is not performed merely out of interest or enjoyment (Deci & Ryan, 2000, 2008). At the third level, a person only adopts some of the social regulations of a behavior. Therefore, it is likely that some of the values are still external to the person, which means introjected regulation of external motivation is present. At this level, guilt, pride, shame, or a public self-consciousness motivate a person (Deci & Ryan, 2000, 2008). Seemingly, motivation comes from external perceptions of themselves. Autonomous motivation encompasses intrinsic and some types of extrinsic regulation. Controlled motivation includes introjection and external regulation (Deci & Ryan, 2008). As the levels continue to decrease the lowest stage is amotivation, at which point a person has not accepted the value of the regulations for a task on a personal level so, he or she may, or may not complete the task (Deci & Ryan, 2000). At the amotivation level, the locus of causality is not internal or external, but impersonal (Deci & Ryan, 2000). There is no sense of SE or control of the outcome, and a complete lack of self-determination exists at the amotivation level. Feedback can provide detailed information about student work and skill development (Hattie & Timperley, 2007; Thurlings et al., 2013; Van der Kleij et al., 2015). Regardless of the causality orientation level a student operates on at a given time, assessment feedback from a teacher may help build internalized value of social regulations (e.g., learning targets or standards, effort, etc.). Since Deci and Ryan (2008) said everyone has some level of each orientation present, such feedback could provide the support or nutriment of needs to move students to more
autonomous regulations to enhance motivation as well as achievement. Deci and Ryan (2000) briefly addressed the influence of feedback on IM:

Other early experiments showed that positive feedback enhanced intrinsic motivation relative to no feedback and that negative feedback decreased intrinsic motivation relative to no feedback . . . suggesting that events such as positive feedback that signify effectance provide satisfaction of the need for competence, thus enhancing intrinsic motivation. (p. 234)

If achievement, effort, commitment, or motivation were genetic dispositions, feedback would perhaps have no importance, beyond identifying correct and incorrect responses. However, observations about the influence of feedback on intrinsic motivation suggest that people’s actions are also couched in social context (Deci & Ryan, 2000); apparently, people’s motivation is, in part, a response to their environment. There is no empirical or theoretical evidence that establishes that connection of influential feedback on motivation in the context of assessment. So, while SDT is a guide, the theory is insufficient in addressing the issue; namely, explaining how using assessment feedback from a teacher influences early adolescent students’ internalized motivation for academic achievement. As a matter of fact, none of the theories that preceded SDT or its contemporaries offers an explanation of how teacher feedback from assessments can impact student motivation. Consequently, this study will add to the body of knowledge and theory on motivation.

**Expectancy-Value Theory**

Expectancy-value theory (Wigfield & Eccles, 2000) is encapsulated within the autonomy and competence self-constructs of SDT. However, it is worth describing EVT to better illuminate the congruence and its importance in motivation literature. EVT proposes that a
person’s beliefs about his or her ability and how much he or she values a task, will determine choice, persistence, and performance on a task (Wigfield & Eccles, 2000).

Beliefs specific to a task influence performance expectations and values. More specifically, an individual’s ability beliefs, or perception of current competence at a given activity, how difficult they think different tasks are, individual goals, and memories impact performance expectancies (Wigfield & Eccles, 2000). All of these social cognitive ideas are fed by what an individual thought of his or her early experiences coupled with some social influences. So, social influences sway thoughts of early work, which in turn shape ability beliefs, and ultimately, guides expectation of performance as well as task value (Wigfield & Eccles, 2000).

Compared to other theories, EVT measured ability beliefs and expectancies by domain instead of specific activity. In the research, people were asked to compare or judge their abilities across subject areas, providing more general information. On the other hand, researchers fractured achievement values into several components; those components parallel constructs in other theories such as SDT. For example, the intrinsic value orientation presented in EVT parallels the description of intrinsic motivation in SDT (Wigfield & Eccles, 2000). Not only that, utility value in EVT parallels EM in SDT. There are certainly overlaps in the constructs of EVT and SDT.

Similar to the water evaporation cycle, EVT suggests expectancies and values are both causes and effects. Ability beliefs are one’s observations about current competence compared to expectancies of future competence. Wigfield and Eccles (2000) compare the EVT definition of these constructs against a backdrop of social cognitive theory and SDT, going so far as to note that the need for competence aspect of SDT correlates with the constructs of expectancy value.
The value in the theory is achievement value. Essentially, achievement value has several orientations. Achievement values help to identify why students initiate a task because it centers on the importance they assign to doing an activity.

Furthermore, EVT is interesting because it considers motivation and development. This theory specifically explores how adolescents and children choose and perform a task based on the development of their expectancy and task value (Wigfield & Eccles, 2000). Expectancies, ability beliefs and values change across school years. Wigfield and Eccles (2000) posited that early elementary students have distinct beliefs about what they do well (abilities) versus what is important in achievement (subjective value). Meanwhile, the importance and interest in school subjects assigned by children decreased during the transition to junior high. Likewise, ability beliefs decline across elementary school years continuing into junior high (Wigfield & Eccles, 2000). Though still guided preponderantly by SDT in light of EVT research, my study aims to focus on early adolescent students, when an ostensible ability beliefs and subjective task value decrease occurs. A grounded theory can be beneficial because an explanation is needed to understand the way in which the social experience of feedback on formative assessments can influence how students perceive their ability to successfully complete a task and build task value in relation to satisfying their need for competence as defined by SDT.

Wigfield and Eccles (2000) proposed that the decline in ability beliefs and values seen in students might be the result of students interpreting evaluative feedback more accurately. Alternatively, they opined that the school environment makes evaluation more important and noticeable causing children to decrease their achievement beliefs. Both suppositions indicate a need for additional research.
In an ontological twist, it seems perceptions become achievement reality. Students perceived that they learned more during an activity and could perform better on future activities when they received support in the form of peer or teacher assessment feedback (Hwang et al., 2014; Kenny, Walsh-Blair, Blustein, Bempechat & Seltzer, 2010). A meaningful task, coupled with the ability to choose or give input on the task, seemingly acts as a catalyst for student motivation (Banda et al., 2008; Eccles & Wigfield, 2002; Frey & Fisher, 2010; Kenny et al., 2010). Not only can student choice and the perception of better future performance be considered components of the psychological needs in SDT, but they are also elements woven into Bandura’s (1993) SE theory. SE is the degree to which someone believes that they can complete a task successfully (Bandura, 1993). In my experience, reluctant students are that way partly because they have often deemed their abilities insufficient to address a task. Subsequently, when presented with a challenge, they will refuse to complete it or require significant assistance to initiate the task. It is as though they have an engine but are either unaware of how to get it started or are suspicious of how it will function when put to the test. Now, considering the literature, it seems like a plausible induction, to theorize that teacher feedback on FA may satisfy the three self-constructs of SDT that influence internalized motivation and move students beyond a reluctance to achievement.

**Self-Efficacy**

“[N]ow we see through a mirror dimly. . .” (1 Corinthians 13:12, NKJV). For people with low SE, their view of their abilities is perpetually dim. Conversely, those with high SE believe they have the capabilities to meet a task so much so that they tend to find opportunities to succeed even where challenges exist. As aforementioned, a person’s view of their abilities
attributes to their type of motivation. Bandura’s theory of SE (1993) suggests that it also predicts academic achievement and so discussion should ensue in light of this research.

Bandura (1993) asserted that most motivation generates cognitively, and his research presented ways in which SE views impacted cognitive development, including motivation. “Students’ beliefs in their efficacy to regulate their own learning and to master academic activities determine their aspirations, motivation levels and academic accomplishments” (Bandura, 1993, p. 117). The most important part of agency is people’s belief in their ability to control their own level of functioning in addition to the events affecting their lives. The idea of controlling level of function and events is similar to autonomy and competence needs in SDT (Deci & Ryan, 2000). People need to know that they can complete tasks (competence) with some level of control in the strategy chosen or the environment in which the task is done (autonomy).

High or low efficacy, however, is not just the outcome of how someone perceives that they control their abilities but also one’s perception of the nature of abilities. Bandura (1993) said that ability is not a fixed attribute. Those who perceived a fixed ability did not create or take advantage of opportunities in the environment, to change. On the other hand, those who perceived that ability was acquirable demonstrated persistent effort and creative use of available resources and skills. Recognizing that ability is not a fixed attribute also means recognizing that one can manage negative emotional reactions that might disrupt quality thinking and response. Is it possible that feedback from teachers could help students redirect negative perceptions of themselves or a task? Is it possible to do so by helping them to develop their skill of managing emotional reactions to challenges using analytical thinking and persist at using various effective strategies to complete activities?
Bandura (1993) proclaimed, “most activities do not provide objective standards for assessing ability” (p. 121). As a result, people evaluate their capabilities compared to other’s achievement. Initially, he was generally speaking; however, he went on to purport that teacher evaluation of student work and also grading practices were largely comparative and influenced SE. Bandura (1993) went on to suggest that feedback should focus on achievement to underscore abilities because the method for socially evaluating progress can strongly affect a person’s type of SE. I do not suggest that his statements are entirely accurate regarding the content of teachers’ evaluations and grading practices. Nevertheless, the literature indicates that feedback should be task-specific, and help students evaluate their work in light of the learning standards (Hattie & Timperley, 2007; Thurlings et al., 2013). When meeting those conditions, it would seem that high SE would be the expected result because such teacher feedback could mitigate reliance on comparisons to others.

Furthermore, Bandura (1993) stated that beliefs about ability as an acquirable skill versus an inherent capacity, affect cognitive functioning in thought processes as well as performance attainment. Feedback may reinforce or alter people’s belief in ability as an acquirable skill. This research could help to explain how teacher feedback influences motivation in light of its possible impact on SE.

In a nod to Bandura’s (1993) SE research, Butz and Usher (2015) investigated the sources from which adolescents build their SE particularly in the areas of math and reading. Like Bandura, they iterated that SE is predictive of the degree of student engagement, achievement, and motivation (Butz & Usher, 2015). While their research substantiated the belief that mastery experience is the paramount influence on students’ SE, teacher instruction, and type
of feedback were also found to be impactful (Butz & Usher, 2015). In fact, early adolescents who participated in their research believed that feedback about their abilities was a source of SE.

Despite that, their research found that students with low SE could not delineate the source of their confidence (or lack thereof). Consequently, by early adolescence, such students readily find confirmation of their perceived inefficacy (Butz & Usher, 2015). Furthermore, influences on those students’ perceived efficacy varied from one domain to another and included a multitude of sources.

So, much of the description of SE can coalesce into the phrase, the power of perception. The main sources of SE are mastery experience, vicarious experience, and social persuasions (Bandura, 1993; van Dinther, Dochy, Segers, & Braeken, 2014). Social persuasions include evaluative feedback provided by a valued source, and student perception of that feedback has a positive impact on student learning (van Dinther et al., 2014). Again, in an SDT context, social persuasions, such as feedback seem to be in line with the self-construct of relatedness. However, the van Dinther et al. (2014) definition of feedback is unspecific and yet narrow; it seems reticent of what could be considered less effective feedback, according to Tunstall and Gipp’s (1996) feedback typology. Furthermore, feedback that gives information about the outcome of assessment appears to point to an assessment that was more evaluative and thus summative. Nevertheless, as it relates to student perception, van Dinther et al. found that students’ perceptions of feedback did predict SE. More specifically, despite the vague definition of feedback they offer, the perceived quality of the feedback was a protuberant predictor of SE among the undergrad participants (van Dinther et al., 2014). Not only that, feedback quality showed the greatest indirect effect on competency evaluation. These research results, taken in tandem with the other literature presented here, show a strong connection between feedback and
SE. In SDT, competence satisfaction presented here in the SE framework is one of the most paramount influences on IM. Still, what is lacking is a clear connection between teacher feedback on formative assessment, SE, and ultimately, more internalized motivation from an SDT framework. This lack of connection then certainly demands further study of early adolescent motivation based on the influences of teacher feedback on formative assessments.

Related Literature

Undoubtedly, motivation is a key component in this proposed study. However, because the research will explore the factors that influence it, it is imperative that elements that act upon motivation be studied. Therefore, I included a survey of the literature on interrelated topics, such as assessment, feedback, and child development.

Assessment

Of course, there can be no discourse about motivation, without turning some attention to assessment. Historically, assessment has been the last summative leg of an educational journey. With it, educators have gleaned how well students ascertained and mastered critical concepts and skills in a content area, or even a particular unit of study (Kluger & DeNisi, 1996; Natriello, 1987; Parkay et al., 2010). On the other hand, there is literature on formative assessment. In it, the impact of feedback is not considered separately, because it is often considered a component of formative assessment (Cauley & McMillan, 2010; Hattie & Timperley, 2007; Wiliam, 2011). As often as educators can and perhaps should perform assessment, there appears to be no literature decisively explaining how assessment tools with feedback improve or change student achievement motivation.

The literature on assessment and motivation is, on the one hand, encouraging because it exists but, on the other hand, narrow in scope and application. In fact, the literature on
assessment in tandem with motivation largely looks at assessing motivation in students in some form or another. That is to say, researchers measure students’ motivation levels before engaging in an activity as well as at the conclusion of the activity (Schoor, Kownatzki, Narciss, & Korndle, 2013). This data may be helpful to some degree for some educators, but it does nothing for informing teachers whether feedback derived from assessments, whatever that may look like, is likely to impact motivation.

Then, there is the research that deals with assessment or feedback but relegates the discussion to technology or computer-based feedback from a learning program (Chadli, Bendella, & Tranvouez, 2015; Cho & Heron, 2015; Schroff, Vogel, & Coombes, 2008; Zoghi & Malmeer, 2013). This treatment of assessment and feedback indicates that researchers have not established consensus regarding a universal definition, theory, or application of assessment and feedback relating to motivation (Hattie & Timperley, 2007; Kluger & DeNisi, 1996; Ramaprasad, 1983; Wiliam, 2011). Presently, there does not appear to be a commonly accepted definition of assessment either, especially formative assessment, though researchers have made efforts toward that end (Black & Wiliam, 2009; Van der Kleij et al., 2015; Wiliam, 2011). This lack of a common definition may be in part because different learning theories seem to lend themselves to particular assessment methods better, and different assessment types can overlap in purpose (Thurlings et al., 2013; Van der Kleij et al., 2015). As a result, there is a need for research that presents a theory on assessment and motivation while connecting it concisely to a particular framework.

Nevertheless, even in online learning environments, across content areas, feedback helped to create a sense of connection between students and their teachers (Shroff et al., 2008). Additionally, assessments predicted student achievement and gave students some level of
autonomy, as they negotiated final scores based on previous assessments (Chadli et al., 2015; Pereira & Tienken, 2012). SDT relishes autonomy as one of the vehicles that lead to internalized motivation. Although the feedback was not from an assessment, somehow, feedback made students feel connected or satisfied their need for relatedness in the SDT framework. Not only that, the assessment process left students interested in the task coupled with a feeling of autonomy. Common elements of effective feedback have been noted in the research (Burkšaitienė, 2012; Cauley & McMillan, 2010; Thurlings et al., 2013) but not always with a discussion of how it influences motivation, let alone any discussion of how it affects autonomous motivation within the SDT framework. Perhaps the marriage of formative assessment and teacher feedback can satisfy human needs for competence, relatedness, and autonomy according to Deci and Ryan’s (2000) SDT.

It seems that motivation theory evolves every 30 years or so. Practically speaking, a grounded theory study on the interplay between motivation and assessment feedback is due. At present, there is a lack of literature on the influence of teacher feedback in formative assessment on internal motivation among early adolescent students. Certainly, there is not only space in the body of literature for this type of study, but a need. Researchers’ attempts at a feedback intervention theory, a definition for feedback, or a definition for assessment, seem to suggest that feedback induces motivation because motivation is a type of affective response (Hattie & Timperley, 2007; Kluger & DeNisi, 1996). The language of assessment is not precise – assessment, evaluation, assessment for learning, assessment of learning – and certainly the impact of feedback on achievement is at times inconsistent in the research (McLaren, 2012; Natriello, 1987; Sadler, 1989; Wiliam, 2011; Van der Kleij et al., 2015); again, all these indicate a need for research that can provide conceptual density. Combating high school drop-out rates
and ever-present achievement gaps among various groups is imperative. The solution is to target high school students, in tandem with those students who, in fifth, sixth, or seventh grade, begin to show signs of more external loci of causality, as exhibited in amotivation. Education has functioned best when the cultivated partnership between teacher and student compelled the student to take the onus for their learning. Perhaps this study will help keep that tradition moving.

**Feedback on formative assessments.** It is helpful to present a definition of feedback that applies to this research. Ramaprasad (1983) offered this definition: information that closes a gap in a system. Feedback should focus on the input, process, or output in a system (Ramaprasad, 1983). Still, a caveat is that Ramaprasad sought to address the absence of a central definition for feedback in the management theory milieu. In an educational context, the teacher response to student work should help the student eradicate or minimize any discrepancies between their input, process, or output, and the standards or learning targets. Hattie and Timperley (2007) contended that feedback is information regarding elements of one’s product or comprehension in a particular learning context. When provided with feedback in the process of instruction and learning, to close the learning gaps, and instruction is modified to meet the learner’s needs, that feedback is likely occurring in the context of formative assessment.

In a synopsis of feedback definitions, Sadler (1989) interpolated feedback as an element of formative assessment that can provide information about the performance of a task. However, the information must lead to students developing expertise at understanding the learning standard(s), objectively comparing their performance to that standard and then identifying the appropriate strategies to correct the quality of their performance in light of the standard(s). Sadler lauds Ramaprasad’s (1983) definition but offers a theory that serves as an addendum on
what it looks like to “close the gap.” Wiliam (2011) went further and surmised that feedback has to be domain specific and do more than simply present data. In this way, Wiliam (2011) accepted Ramaprasad and Sadler’s position that feedback is information generated in a system for a particular reason – improving future performance. Wiliam’s (2011) denotation was applied in this research because it encompassed feedback provided summatively or formatively to further direct instruction and learning. In both these instances, feedback gives information within a specific system.

**Effective feedback.** After ascertaining an appropriate definition of feedback, it is important to discuss what comprises effective feedback. Although at one time, identifying students’ correct or incorrect responses was deemed feedback, later research has cast a shadow on the benefits of this type of feedback (Hattie & Timperley, 2007; Sadler, 1989; Schartel, 2012; Wiliam, 2011). Thurlings et al. (2013) conducted a meta-analysis of research on effective feedback in light of particular learning theories. Despite a focus on feedback to teachers, their research revealed several commonalities among the various theories they analyzed, which occurs in other research. Namely, effective feedback should focus on the task – preferably with great detail, or specificity, and should be goal oriented, timely and stimulate self-monitoring (Hattie & Timperley, 2007; Sadler, 1989; Thurlings et al., 2013; Wiliam, 2011). From the perspective of EVT (Wigfield & Eccles, 2000), such feedback could help to establish more positive subjective value. Burkšaitienė (2012) suggested that effective feedback, as a part of assessment ought to be aimed at strengths as well as weaknesses and provide a student with direction on how to overcome the weaknesses without issuing a grade or mark. Burkšaitienė even went on to suggest that feedback (not just assessment feedback) may make a positive impact on student self-esteem when it is task oriented. The researcher focused on the deficiency in the task instead of the
student, similar to Bandura’s (1993) and Deci and Ryan’s (2000) suggestion that positive feedback impacts competence perceptions.

There are nuances in the research regarding what is effective feedback (Burkšaitienė, 2012; Thurlings et al., 2013). Not only that, there are conflicting perspectives regarding whether feedback can improve learning (Kluger & DeNisi, 1996; Price et al., 2010; Wiliam, 2011). Part of this conundrum appears to stem from minimal research on feedback in a classroom context in addition to an absence of research on the feedback on performance process beyond the knowledge of results, or correct versus incorrect (Kluger & DeNisi, 1996; Tunstall & Gipps, 1996). Research that does address feedback and performance, only noted that feedback from peers, parents, and teachers played a role in students’ SE perceptions (Butz & Usher, 2015; van Dinther et al., 2014). However, the question remains as to whether the feedback was in the process of formative assessment or if the formative assessment described, was in fact summative. Furthermore, even given their findings that feedback can influence SE, SE is an element that lends itself to motivation (in the SDT framework). It was not clear if the feedback mentioned in their study was, in fact, a means of developing mastery experience but the students did not realize it. In a study of college students, Price et al. (2010) determined that at least in the collegiate context, it was difficult to measure the effectiveness of feedback because students may not read it and they are, perhaps, the best ones to determine its effectiveness. Also, they continued to put the onus on students as the gauge of feedback effectiveness when they asserted that feedback is only effective when the learner understands it and is willing to act on it. On the other hand, Price et al. did note that there is a relational dimension to feedback; students may reject or accept the feedback contingent upon their relationship to the source of the feedback. Here we see a possible link between feedback and the relatedness self-construct presented in
Again, more research is warranted, particularly with consideration for the types of feedback.

**Types of assessment feedback.** Tunstall and Gipps (1996) offered a typology of teacher feedback that categorizes feedback as evaluative or descriptive. Reticent of SDT, they assert that feedback is typically not provided in succinct stages so much as along a continuum. Mastery-oriented and constructivist, or learning-oriented feedback are subcategories of descriptive feedback. In other words, descriptive feedback is task-related, has a cognitive emphasis and correlates to establishing competence. The highest level of effective descriptive feedback is type D1, constructing achievement. At this tier of feedback, the onus is largely on the students to evaluate their work. Students explain their own work thereby developing a sense of self-assessment. Students also compare their current work product to past work or achievement. They see their work as an ongoing process instead of compartmentalized tasks or single events. The teacher role at this tier is rooted in having more one-on-one conversations with students, encouraging them to extend their thinking about their achievement beyond a specific task or class. The D2 feedback calls for the teacher to suggest to students how to improve, instead of telling them, students are offered a choice in how to improve their work and understanding (Tunstall & Gipps, 1996).

The second highest tier is type C. It is distinguished further as Type C1 or C2 – specify attainment. Type C1 is positive; it identifies for students, various ways they can achieve competence at a task or in a content area. Furthermore, it can help students master the smaller steps in learning, focus on what students did well on a task, and gives models of acceptable of work and behavior. Next, is C2 which focuses on how to correct what students learn and where mistakes exist in the work but has the added power of guiding students in self-checking their
own work. C2 is negative because the attention is on identifying the mistakes and correcting them. Teachers direct students to do corrective work – usually independently. The most apparent central difference between type C and D is the degree of specificity teachers use in correcting or improving student work.

Implied or stated norms for the classroom, school, or society serves as the basis for evaluative feedback. There is an emphasis on voluntary action. The lowest form of feedback is evaluative rewards, type A, such as stickers, stamps, points, or treats. Next, approving feedback can be positive (A1) or negative (A2). This feedback acknowledges when student work exceeds the teacher’s expectations, or it gives approval of work or behaviors considered necessary for learning (i.e., focus, being on task, being engaged, quiet, etc.). Conversely, negative approval is essentially disapproving as demonstrated by the loss of privileges such as recess, choice, fun activities, and so forth (Tunstall & Gipps, 1996).

In their study, they noticed that to some degree, teachers in preschool classrooms used evaluative feedback that lent itself to performance goals as well as descriptive feedback (Tunstall & Gipps, 1996). This information is significant in the discussion of assessment feedback for motivation because it seems that both types of feedback may impact one of the self-constructs in SDT.

More specifically, positive evaluative feedback may influence a student’s sense of relatedness because it is rewarding and approving (Tunstall & Gipps, 1996; Deci & Ryan, 2000). Not only that, descriptive feedback, since it is mastery-oriented, offers students specific standards and criteria they need to meet for their work to be deemed acceptable or of high quality. Students may also learn strategies to help them develop their work (Tunstall & Gipps, 1996). It is possible that learning these strategies to self-monitor their own work and the final
product, could help students strengthen their sense of autonomy and competence within the SDT framework (Deci & Ryan, 2000).

Furthermore, the feedback typology developed by Tunstall and Gipps (1996) seems to have a natural connection to Sadler’s (1989), and by extension Williams’ (2011), notions of effective feedback and even cognitive development models. Sadler proposed that effective feedback is a function of formative assessment with three elements to meet for students to improve. First, they have to develop the ability to monitor the quality of their own work while they are creating it. Second, they need to know what quality work is; and finally, they need to objectively compare their work to the stated criteria or standards while creating strategies to help them change their own work to meet that standard. Researchers described descriptive feedback that was either constructing achievement or constructing the way forward as having allowed study participants to compare their work achievement at various points in time. Participants extended their thinking about achievement, articulated standards represented in their work, and prompted them to examine their own work, along with discussing strategies that would help them in developing their work (Tunstall & Gipps, 1996). The ability to make logical conclusions about one’s self – or in this context, one’s work – and adopting strategies to evaluate and change one’s work as a means of correcting a disturbance in understanding (of the world) was a benchmark of the concrete operational, or middle childhood stage of Piaget’s cognitive development model (Vasta, Miller, & Ellis, 2004). For these reasons, Tunstall and Gipps (1996) typology of teacher feedback in formative assessment served as a guide for this research, during data collection and analysis as types of teacher feedback were categorized and dissected.
Early Adolescent Development

In North America, the term early adolescence is consistently used interchangeably with middle childhood. Furthermore, in some cases, the school grade level is used as a benchmark for identifying developmental stages among children (Ricco et al., 2010; Simmons, Burgeson, Carlton-Ford, & Blyth, 1987). This identification may explain the names given to grade bands, such as middle school or junior high and the varied groupings of grade bands by local school districts. Some districts may house grades K-8 in one building. Still, others cluster sixth through eighth grade in a single building. Nevertheless, in development models presented by psychologists Erik Erikson and Jean Piaget, 6-12-year-old children are designated as being in the same cohort. These psychologists’ stages are the focal point of this review because Piaget’s work has tremendously influenced education practices and ideas (Vasta et al., 2004) while presenting Erikson’s work in the context of school and education (Batra, 2013). Ages 6-12 years old are considered to fall within the middle childhood or early adolescent group according to some researchers (Vasta et al., 2004; Weisner, 1984). On the other hand, others bracket early adolescence at about 10 or 12-14 years old (Gniewosz et al., 2014; Jayalekshmi & Raja, 2011). For this reason, this study will focus on fifth and sixth-grade students, individuals categorized as early adolescent by various psychologists’ designations.

It is important to discuss the cohort classification requirements because that fuels the dialogue concerning the characteristics of the development of cognition and self-knowledge at each level. Not only that, how assessment feedback and motivation may interact with the characteristics of each stage will be analyzed. This literature review examines middle childhood and early adolescent stages.
The cognitive development approach, of which Piaget was an adherent, is a theory that purports that changes in behavior and abilities come mainly from changes in knowledge and skills (Vasta et al., 2004). Development occurs in linear stages that Piaget called periods; everyone moves through the stages in the same order. From about age six to 12, children exhibit concrete operations. At this stage, they can perform mental operations based on what they know. They can solve problems logically, realize that objects’ measurable properties do not change, understand distinctions within and across classes, and can perform mental (internal) actions (Miller, 2011; Vasta et al., 2004). Similarly, Erikson delineated 6-12 years old as the industry versus inferiority: school-age stage. Erikson explains it in part like this:

The child’s danger, at this stage, lies in a sense of inadequacy and inferiority. If he despairs of his tools and skills or of his status among his tool partners, he may be discouraged from identification with them and with a section of the tool world.

(Erikson, as cited in Batra, 2013, p. 264)

At this stage, children demonstrate more abstract thinking; they gain knowledge through methodical steps. They are imaginative, and their sense of competence is rooted in their ability to use various tools or strategies to navigate the world. School is a significant place for relationships at this stage (Batra, 2013). Notice, Piaget and Erikson posit that more logical thinking emerges at this stage evidenced by children using what they know to attempt to answer what they do not, employing mental strategies. Also, children’s success at completing a task as they interact with information determines how they make internal adjustments (Batra, 2013; Miller, 2011; Vasta et al., 2004). Erikson (as cited in Batra, 2013) believed that children who lacked the tools or skills to make the adjustments successfully would deem themselves inferior or
inadequate, particularly relating to their peers. So then, as cognition develops, a sense of self also seems to be blossoming.

Psychologists identify the middle and later childhood (about ages six to 12) as a stage when children comprehend their more concrete abilities as well as intangible traits, like feelings. According to Vasta et al. (2004), children can group single traits they possess into categories (i.e., I can sing, draw, and dance, therefore, I am a good artist). By later childhood, they compare themselves to others and evaluate relative abilities to describe themselves. Think of the student who can articulate that he is the best soccer player in his homeroom or the fastest in fifth grade at reciting multiplication facts. Interestingly, whether accurate or not, children also tend to have a more negative evaluation of themselves during this time, which can result in feelings of low self-worth (Eccles et al., 1993; Vasta et al., 2004; Wigfield, Lutz, & Wagner, 2005). On the other hand, they can describe themselves using relative opposites. For example, a student may identify that they are great at spelling but weak in science.

As mentioned earlier, SDT posits three psychological needs that humans seek to satiate: competence, relatedness, and autonomy (Deci & Ryan, 2000). During the middle childhood or early adolescent stage, the neighborhood and school are significant domains of relationships (Batra, 2013). Children are beginning to compare themselves to their peers at school and in the neighborhood, and they may be motivated to preserve their sense of competence, relatedness (to their school peers) and autonomy, in ways counter to academic achievement (Juvonen & Murdock, 1995). Because the school is a tremendously influential environment, it may be possible to use formative assessment feedback from teachers to help students use their academic skills more effectively, to the point of motivating them to achieve academically.
To further understand achievement motivation situated within SDT, it is important to continue the discussion of cognitive and self-development for early adolescents and adolescents.

In Piaget’s model, this is the fourth and final stage, while it is stage five in Erikson’s model (Batra, 2013; Vasta et al., 2004). The former interprets this stage to include age 12 through adult without a definitive endpoint. The latter defines the age cohort for this stage as 10 to about 24 years old.

Piaget’s model maintains a focus on how to develop knowledge. In the formal operational period, people can make conjectures about possible future events. Logic is still a bedrock at this stage as deductive reasoning is a cornerstone in problem-solving (Vasta et al., 2004; Wigfield et al., 2005). Miller (2011) interpreted Piaget’s theory in the formal operational period, to encompass about age 11-15, and notes that kids can reflect on their own thinking as well as that of others. Formative assessment feedback from a teacher could be both meaningful and impactful to students who are trying to reflect and adjust their thinking and therefore competence, in a particular task or content area.

Conversely, Erikson’s identity versus role confusion stage is not about how people learn but rather the need to develop an identity in many areas of their life. The aim is to glean where one belongs in a social context (Batra, 2013; Wigfield et al., 2005; Vasta et al., 2004). This quest may mean renegotiating external forces that seem to conflict with the evolving self as people seek their purpose (Batra, 2013).

If a student uses quantitative measures such as scores and letter grades to determine their academic ability, and if at the middle childhood stage, perceptions of low self-worth were never challenged or countered, it seems plausible to deduce that as they build upon that foundation
(whether from a Piagetian or Eriksonian perspective) in the succeeding stage, there will be dissonance that may manifest as low academic achievement.

Research indicates that competence perceptions are a major factor in motivation to achieve (Deci & Ryan, 2000; Eccles, Wigfield, Harold, & Blumenfeld, 1993). Related to that, students’ beliefs about learning, knowledge, and ability are associated with achievement, GPA, and task value such that those with more of a fixed mindset do not achieve as highly as those who possess more of a growth mindset (Ricco et al., 2010). Self-perceptions and constructs are so pivotal that even students, who had erroneous work, were willing to make corrections with greater precision, than students of equal aptitude with self-doubt (Bandura, 1993). Teacher feedback, especially on assessments, may provide early adolescent students with factual information that outlines what steps they can take, to correct their misunderstandings and perceived shortcomings at a stage of development when they appear predisposed to assume a more negative view of their abilities. Initial identification of decreases in self-perceptions occurs in early adolescents. Piaget and Erikson do not agree on the starting age of development stages, but the margin of difference is a minor two years. Therefore, I will focus on 10-12 year olds, which coincides with fifth and sixth grade, for my study.

If feedback can meet the psychological needs by helping students gauge their abilities accurately, recognize and act on opportunities to control their learning and achievement, and provide a social environment that helps them feel a sense of belonging, it makes sense to analyze the influence of feedback during early adolescence. Discovering how feedback influences students’ internalized motivation at the age when their self-perceptions decrease, would be a critical step in closing the achievement gap and helping more students see, and internalize, the value in academic tasks.
The Science of Feedback and Development

Often child development is analyzed from a psychological standpoint. Certainly, the psychology of child development has been discussed here, in light of student perceptions and motivation. Development may be studied from the perspective of brain development too. But the neurological response to feedback in learning demands review in light of child to adolescent development.

Feedback-related negativity (FRN) is an index of how much a student used external feedback to improve their performance and learning. Activity in the frontal region of the brain was noted after feedback was introduced (Arbel & Wu, 2016). Though the connection is unclear, FRN connects to learning (Arbel & Wu, 2016). The participants in Arbel and Wu’s (2016) study were adults (18-35). Nevertheless, negative feedback, feedback in the process of learning that informed a student when their response was incorrect, leads to faster learning. Other researchers (Thurlings et al., 2013; Tunstall & Gipps, 1996) would probably classify this type of feedback differently, but the point remains that the feedback exerted some type of influence on learning as indicated by brain activity (Arbel & Wu, 2016).

In a study of the development of feedback learning on children, early adolescents, and adults, researchers determined that the frontoparietal network became even more engaged with age when provided with feedback during learning (Peters, Braams, Raijmakers, Koolschijn, & Crone, 2014). Various regions of the brain responded to negative feedback more as the brain developed, thus suggesting people react more to negative feedback as they age. In childhood and early adolescence (ages 8-13/14) in particular, after negative feedback, not only where several regions of the brain more active, but children then developed into faster learners (Peters et al., 2014). Ultimately, their results were in line with other literature that posited, “cognitive
development reaches adult levels in early to mid-adolescence” such that positive feedback has less impact than negative feedback (Peters et al., 2014, p. 1718).

Again, as found in the Peters et al. (2014) study, the definition of feedback in a neuroscience context is different from educational or psychological contexts in the literature. Regardless, what the findings in the related literature allude to is that by early adolescence students start to view their academic abilities more adversely (Bandura, 1993; Batra, 2013; Butz & Usher, 2015; Vasta et al., 2004; Wigfield & Eccles, 2000). This occurs around the same time that various regions of their brains are increasingly more activated in response to feedback that indicated their responses are incorrect (Arbel & Wu, 2016; Peters et al., 2014). I cannot contend from a neuroscience perspective that feedback is critical. I can, however, assert a need for more research and theories that better explain the influence of feedback on student achievement via internalized motivation. It would seem that early adolescent brains are already predisposed to react to information about wrong answers. So then, research like this, about teacher feedback couched in formative assessments may not only help better explain how feedback can influence motivation by satisfying self-constructs but may also provide insight into how to build high SE from feedback, or how to help students develop greater task value and expectancy.

Summary

Currently, schools and communities are seeking help from multiple community stakeholders to diminish high school drop-out rates further and close the achievement gap. The approaches focus largely on motivating students; motivating students is a key factor (Balfanz et al., 2007). To that end, educators and theorists have looked at ways to motivate students to achieve. One of those theories most situated in an education context is Deci and Ryan’s (2000)
SDT. Second to that is Eccles and Wigfield’s (2002) EVT. EVT ideas are substantially complementary to SDT to the point of making an analysis of SDT sufficient.

SDT posits that meeting three psychological needs: competence, relatedness, and autonomy results in achieving human well-being and health (Deci & Ryan, 2000, 2008). Satisfying these needs impacts motivation. Positive feedback was found to impact competence in Deci and Ryan’s (2000) research. However, there is no literature from an SDT framework or otherwise, that explains the process by which students may utilize assessment feedback from teachers to influence motivation in early adolescents. Ostensibly, there is a gap in the existing literature that my proposed study could satiate.
CHAPTER THREE: METHODS

Overview

Chapter three provides a systematic look at the methods employed in this research study designed to determine how teacher feedback on formative assessments might influence early adolescent student motivation. First, the research design is discussed, including why a grounded theory qualitative design is more efficacious at explaining the phenomenon of assessment feedback influence on motivation. Then the research questions are presented, followed by details about the research setting. Next, the chapter continues with a description of the participants coupled with evidential support for choosing the sample, size, and procedures in the context of a grounded theory study. In this chapter, I also discussed my role in the research from the lens of my experiences and, thus, potential biases. From there, I presented how data collection and analysis were performed using memoing, constant comparisons, and open coding to name a few. Outlining this information lends itself to substantiating the trustworthiness of the study in accordance with grounded theory methods and methodologies. Finally, I addressed ethical considerations for the study.

Design

A qualitative study is suitable for explaining a process like operating at the level of internalized motivation (Deci & Ryan, 2000) after receiving assessment feedback. Also, in a qualitative method, the writing can be in literary style (Creswell, 2013), which can lend itself to sharing the voices of the participants. Beyond that, a qualitative design allows for the study of participants in their natural environment (Creswell, 2013). A qualitative design is more meaningful for future application of the research findings because it allows for a more holistic study of early adolescent student motivation in the school context (Corbin & Strauss, 2015).
Furthermore, the research often is situated in a framework designed for adults by adults without always improving students’ education experience; this study allowed students a chance to articulate their experience. Thus, the data from the participants drove the concepts that drove the themes that led to the core category of the new theory (Corbin & Strauss, 2015). Beyond that, grounded theory attempts to understand a phenomenon under particular conditions, including setting, where interactions and patterns can reveal more information than instruments alone might; thereby providing conceptual density on the topic (Strauss & Corbin, 1998).

More specifically, in this systematic grounded theory study, I endeavored to describe the process of influencing motivation with formative assessment feedback from teachers, in a methodical manner. Seemingly, no theories address or explain how students experience motivation in light of assessment feedback. The purpose of a grounded theory was to create an explanation of a process based on the perceptions of participants (Corbin & Strauss, 2015; Creswell, 2013). This research type and design give weight and value to the experiences of participants where previous research has failed to do so with great depth. Additionally, grounded theory is considered a method that can lead researchers in producing a conceptually dense theory that can serve as a foundation for improvements in an area of focus – in this case, motivation (Corbin & Strauss, 2015; Strauss & Corbin, 1998). The research approach is explanatory since I aim to explain a process based on the data gathered from study participants.

**Research Questions**

There are no theories that explain how teacher feedback on formative assessments may influence early adolescent student motivation along the SDT continuum. The purpose of this grounded theory study was to develop a theory that explained how teacher feedback might
impact internalized extrinsic or intrinsic motivation for early adolescents regarding academic achievement. The central research question guiding this study was as follows:

How does written or verbal feedback from teachers on formative assessments influence early adolescent student motivation?

Relatedness, competence, and autonomy are the three self-constructs articulated in SDT (Deci & Ryan, 2000). Although the central research question aimed to address this generally, these sub-questions were presented to address the three social constructs in SDT specifically:

1. How does verbal and/or written teacher feedback on formative assessments influence early adolescent students’ development of a sense of competence?

2. How does verbal and/or written teacher feedback on formative assessments influence early adolescent students’ perceptions of relatedness?

3. How does verbal and/or written teacher feedback on formative assessments influence learning autonomy for early adolescent students?

Setting

The research sites were public intermediate or middle schools in Northeast Ohio. Several different fifth and sixth-grade teachers’ classrooms within each building were the sites for observations and interviews. The districts and schools have staff and student diversity regarding ethnicity, economic levels, and education programs (e.g., special education population versus general education population, gifted and talented). One school is in a small suburban district; two schools are in a large urban district, while the fourth school is in an inner ring suburban district. My rationale for choosing diverse types of schools was to have a maximum variation sampling of a heterogeneous group with the shared experience of receiving assessment feedback
(Morse, 1998). The building administrators reflected a broad swath of professional experience and personal backgrounds.

**Participants**

I began with purposeful sampling and then used theoretical sampling. Teacher participants who consistently employ various types of formative assessment feedback – written, verbal, formal, or informal – in at least three out of five assessment occurrences a week were selected, based on recommendations by building principals and completion of a demographic survey. A purposeful sample, allowed me to choose participants whom I believed would contribute to building the theory. The initial step in the process of purposeful sampling entails examining a homogenous group, like students from a particular teacher’s class (Creswell, 2013). However, principals only recommended participants whom they believed fit my research criteria, and the demographic survey was then used to better describe participants as opposed to being used to select participants.

I sought six to eight teachers who employed assessment feedback, because “they can purposefully inform an understanding of the phenomenon” of student motivation (Creswell, 2013, p. 156). Four teachers who employed FA feedback opted to participate in the study. Similarly, the entire class (anywhere from seven to 23) of students of those four teachers was invited to undergo observation, complete SDT questionnaires, and participate in a focus group in class. These participants helped elucidate concepts and categories during analysis (Corbin & Strauss, 2015). There are no recommendations for a set number of participants for focus group interviews, however I sought 10 to 15 participants per teacher initially, believing that amount would be a viable start towards achieving saturation (Corbin & Strauss, 2015). Actually, as few
as four and as many as 11 students, from each participating teacher’s class, participated in the study.

Teacher Participants

The teachers’ years of experience ranged from two years to 23 years, including the current school year. Racially, there were two White, non-Hispanic participants, one Black participant, and one multi-racial participant. Two teachers taught fifth grade, one teacher taught sixth grade and a teacher taught sixth and seventh grade. As a self-contained teacher, one of the fifth-grade teachers taught all core subjects. All other participants taught math and science or ELA and science. As it were, three of the observations were during math periods. All teachers indicated using a variety of feedback to students, on the demographic survey. When asked to select the type of feedback they used from among a list of seven types (Tunstall & Gipps, 1996), all of the participants selected verbal feedback as among the types used. Interestingly, the least selected was “focus on finished product.”

Figure 2. Self-selected Teacher Feedback Usage. Teachers were asked to identify the types of feedback they used most frequently from a multiple-choice list. Their responses are tabulated in this chart.
**Student Participants**

There were more fifth grade participants than sixth-grade participants for this study. There were also more boys who participated even though the gender composition in all the targeted classes was fairly equal (see Table 1). In one fifth-grade class, there was an identified gifted student, who had her learning needs met by accelerating her into a higher math class. On the other hand, the other fifth-grade class had four students identified as learning disabled, as indicated with Individual Education Plans (IEPs). However, the teacher, Ms. Holly, believed several other students could benefit from services but were not identified for special education services at the time of the study; there were four other students referred for services at the time of the research. Similarly, the sixth-grade classes demonstrated diversity of learners as well. In Mr. Ice’s class, he indicated several students had IEPs. For the sake of protecting student privacy, I did not have information as to which specific students in the study had one, only that a few of the nine participants from his class were special education students and some were not yet identified but were suspected to be. The other sixth-grade class touted a contingency of gifted or high achieving students, though the class itself was small, at least one of the participants from that class was identified gifted. The state education board uses IQ scores to determine giftedness.

Table 1

**Student Participant Demographics**

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Age</th>
<th>Grade</th>
<th>Gender</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>9</td>
<td>10</td>
<td>11</td>
</tr>
<tr>
<td>Boys</td>
<td>0</td>
<td>7</td>
<td>10</td>
</tr>
<tr>
<td>Girls</td>
<td>1</td>
<td>2</td>
<td>2</td>
</tr>
</tbody>
</table>

*Note. Description of student participants by age, gender and school grade.*
Procedures

Before beginning this study, I mailed letters to the superintendents of districts who are in close proximity to my location to seek their permission to conduct this research in their district. I also sent follow-up e-mail requests for permission to conduct the study. Additionally, I called superintendents about participating in the study. Three superintendents, or their designee, gave consent for their district to participate in the study.

Also, before initiating this study, I contacted two content experts with expertise in the area of assessments, which reviewed the teacher interview and student focus group questions. Both have doctorates in education. One worked as an administrator in public education and completed qualitative research on how middle school teachers implemented formative assessments. The other reviewer studied student achievement and motivation in light of self-assessment. One of the reviewers suggested that I rewrite the student questions to reflect a lower reading level; some questions were at a third grade, fifth-month reading level while others were at a sixth grade, fifth-month level. The other reviewer reminded me to be sure that my questions correlate to the key tenets of the theoretical framework guiding this study. As stated, I based the research questions on the ideas of SDT.

I conducted the pilot study, after IRB approval (see Appendix A), with a teacher’s class who was not among the cohort of participating students; the students were seventh graders. I selected the pilot study teacher from among the list of teachers whom the principal perceived fit the criteria of the study instead of utilizing the demographic survey. Nevertheless, the teacher did complete the demographic survey. The researcher-created teacher demographic survey was not a data collection tool. Still, the survey had to have content validity. To that end, evidence of the survey’s content validity was the inclusion of questions based on other demographic surveys
for teachers (Alter, Walker, & Landers, 2013) with attention to federal categories for race. Additionally, I posed questions specific to formative assessment feedback to aid in theoretical sampling and to ensure that the questions measured what they were intended to measure based on the central research question in the study (Kubiszyn & Borich, 2013). During the pilot study, I observed the teacher and administered the SDT questionnaires to her students. Corbin and Strauss (2015) noted that “pilot projects” can “refine a problem area” to aid the researcher in where to best focus (p. 34). So, while the pilot study was not for the purpose of creating a rigid set of interview questions or procedures, it proved insightful regarding using the observation protocol to take field notes and revealed a lacking element in the form; there was no way to match teaching feedback practices with the feedback typology. The pilot study also helped me to effectively administer (and score) questionnaires to the participants in the primary study as I noticed an error in the scoring rubric that I was able to get clarification on from Dr. Deci.

Electronic letters were sent to building principals to solicit their help in recruiting teacher participants for the study (see Appendix B). The teacher participants had to be current educators in core subjects (i.e., math, social studies, science, and English/language arts) who consistently used formative assessments with verbal or written feedback to students. Ideally, that feedback should have been task-oriented and timely as opposed to merely a letter grade, socialization, or judgmental (Tunstall & Gipps, 1996; Wiliam, 2011). Once principals committed and submitted teacher participant recommendations, I followed up all recommendations by emailing the principles’ recruitment letters (see Appendix B) and the teachers’ recruitment letters (see Appendix C) and the demographic surveys. I sent the demographic surveys as a Google form, so responses could immediately be collected and compared. Teachers’ completion of the demographic survey (see Appendix D) was intended to help with purposeful sampling. Teachers
were asked to return the survey within one week. Next, identified teachers received an informed consent form also to be returned within one week (see Appendix E). Since teachers did not complete the electronic version of the survey, I collected them with consent forms, which was not always within the one-week window. Participating teachers were asked to recommend 10-15 of their students who were conversant and could offer thorough, clear, age-appropriate responses to participate in the study, while maintaining an equal dispersion between grade, gender, ethnicity, aptitude, and social background. Primarily, teachers endorsed whoever returned the requisite forms. Two teachers expressed reservations about one of their students who had returned the forms; one student was identified emotionally disturbed (ED), and the other apparently was not very conversant. The latter was proven to be true, while the first student contributed many insights during the study without any problems or concerns. Meanwhile, I gave a brief introduction to the study (see Appendix F), inviting each teacher’s class to ask any questions they may have had about what I would be doing in their class. At the conclusion of that introductory meeting, every student received a copy of the Parent Consent Form (see Appendix G) as well as a Student Assent Form (see Appendix H) with a one-week deadline. Those who agreed to have their child participate in the study returned Consent and Assent forms to teachers, in a large manila envelope.

The student participants had to be early adolescent students (Grade 5 and Grade 6) enrolled in the selected teacher participants’ classes and willing to discuss with the researcher some information about formative assessment feedback received from their teacher. I had to provide multiple copies of the consent and assent forms to students in each class when the minimum number of participants did not return forms. After making several visits to two schools, I instituted a candy reward as a thank you; students were offered a full-size bar or bag of
candy for returning their consent forms. The candy incentive seemed a sufficient motivator for students, so I continued using it in the other classes.

From that point, the data collection began. First, I observed each teacher’s class for at least one class period. This observation afforded a chance to see nuances in classroom dynamics otherwise not revealed during the interviews; it helped me to refine the interview questions in light of what I observed. Perhaps of more paramount importance, during the observations, I maintained a log (see Appendix I) of descriptive field notes. While I had hoped to note each teacher’s feedback typology in the field notes to determine what types of feedback are regularly utilized (Tunstall & Gipps, 1996), as aforementioned, I realized during the pilot study that a separate chart was needed for that (see Appendix J). So, I created a chart based on feedback typology that identified key characteristics of each type of feedback, thus allowing me to quickly categorize what I was observing. Next, I conducted a semi-structured audio-recorded interview with each teacher. I asked teachers one set of questions pertaining to why they give feedback, how they dispense assessment feedback and other questions that evolve from the process. Then I transcribed the interviews using Inqscribe and NVivo software. After each interview, I began analyzing data to identify any concepts that emerged, followed by more data collection, as needed in line with those concepts.

Meanwhile, students completed the Academic Self-Regulation Questionnaire (SRQ-A; see Appendix L) followed by the Perceived Competence Scales (PCS; see Appendix M). Deci and Ryan (2016) asserted that these two instruments are often used together because while the SRQ-A measures the type of motivation in a particular domain, the PCS measures a person’s sense of competence. Not only that, the SRQ-A was developed for elementary and middle school students; it asks questions about school work (Deci & Ryan, 2016). Next, students
participated in an audio-recorded focus group at the school during the school day; at which time I employed the semi-structured interview questions. Time constraints at a site dictated that I conduct the focus group over two consecutive days. Similarly, at a site, I conducted a one-on-one interview with a student because they were absent the day of the focus group.

Lastly, I re-administered the SRQ-A and PCS after the teacher had provided some FA feedback to the students. I surmised that about one to two weeks after the initial administration of the SDT questionnaires would allow teachers sufficient time to have provided some feedback on FA. For some participants, the re-administration was beyond the one to two-week window, due to changes in the teacher’s schedule. At one of the sites, a student participant became quite disruptive, so I made the determination to remove him from the study at that point. He did not complete the second administration of the questionnaires so I excluded his data from the class results.

The Researcher’s Role

My role was that of the “human instrument” (Lincoln & Guba, 1985). Essentially, there are cues that I can discern that another type of instrument cannot. Besides that, since the aim of this study was to create a theory explaining a process, there are no instruments that exist for that purpose. I reflected on the experiences of the participants by memoing the data gathered during the observations, interviews, and focus groups. I presumed, my experience as an educator with this grade band could influence the way in which I analyzed the data. I also have to be careful not to conform data to my previous experiences and expectations of positive student response to using formative assessment feedback. So, though not a data collection tool, I memoed about each experience to aid in the constant comparison process. Memoing also allowed me to guard against any biases, note reactions to comments during interviews and focus groups, and even to
list questions that I later asked about during follow-up meetings, the focus groups, and the data analysis (Corbin & Strauss, 2015). Constant comparison, selective coding, and saturation seemingly helped safeguard against missing categories that were otherwise foreign or unique to me.

**Data Collection**

One of the tenets of grounded theory is that data analysis begins not at the conclusion of data collection but at its onset. To recognize themes or concepts, then study them further, collecting data – of course, analysis too – has to be ongoing. Because theoretical sampling calls for gathering additional data in light of the analysis of previous data, data collection builds a rich theory (Corbin & Strauss, 2015).

This research study utilized collection methods common to grounded theory. So, the first data collection was an observation of the teacher and their students in the context of the classroom. Next, I interviewed teachers one-on-one. Following teacher interviews, I administered the SDT questionnaires to students. After completion of the SDT questionnaires, the students engaged in the focus group. Lastly, I re-administered the SDT questionnaires to students following some formative assessment feedback, from their teacher.

**Observations**

I conducted the observations as a non-participant observer before conducting the teacher interviews and the student focus groups. The observations tended to last at least 45 minutes (typically one class period), during which time I took note of the behaviors and dispositions of student participants in response to receiving some formative assessment feedback from their teacher in conjunction with the dynamics of interaction in the class. Because feedback can be in many forms, like homework scores, verbal feedback during whole group or small group learning
or acknowledging effort on a previous task. After the first observation, I realized that I had to narrow my research gaze to focus on teachers and how they provided feedback, more than other events in the class, such as other teachers or students walking in, unprepared students, or what I perceived to be behavioral disruptions. To aid in the process more effectively, I took notes on the types of feedback the teacher utilized, using the observation protocol form (see Appendix I). This form, along with the feedback typology chart, helped me to “narrow my gaze” and in some ways to reframe what I observed from a different paradigm. Where I first thought, conversation about behavior was not pertinent, the constant visual of the typology chart, allowed me to consider how even teachers’ class management practices fit into feedback, and yes, even formative assessment feedback.

**Teacher Interviews**

Interviews can reveal a participant’s experiences in his or her voice. Conducting interviews gave me a somewhat intimate access to participant knowledge, feelings, values, and experiences by the types of questions asked (Corbin & Strauss, 2015). The more open-ended the questions, the more it could elicit depth. Open-ended questions can help participants to bring up topics that are important to them that are not specifically mentioned or addressed in the researcher’s list of interview questions (Corbin & Strauss, 2015). Although the teacher interview questions aimed to delve into teachers’ views and values of assessment, there was room to introduce ideas by the participants that were not considered by the researcher. In fact, at the conclusion of each interview, I asked participants to feel free to share any insight or information that they felt I had not captured or addressed in my questions. In this research, it was clear that interviews framed in light of the observations were the primary way to elicit depth of understanding. Time was a critical element for all teacher participants. So, merely presenting an
open-ended question, did not necessarily encourage them to share more information about their experience, values, or feelings because they were mindful of the time; but when I could direct their attention to some event, I noticed in the observation, that usually was the crux of greater insight.

I had intended to interview teacher participants once during the study. Similarly, I expected to achieve data saturation after interviewing the teacher participants; yet, had more interviews been needed for saturation, I anticipated I could arrange that with the teacher participants. Indeed, there was one occasion when I had to conduct a brief follow-up interview with the teacher because I realized during data analysis that I was unclear as to what was meant by one of the responses. So, while the follow-up was perhaps less about obtaining data saturation as much as data clarification, it was needed.

Open-ended interview questions for teachers

1. How often do you provide feedback to students?
2. How would you describe your feedback and its purpose(s)?
3. To whom do you provide feedback in your class?
4. Generally speaking, do you believe that you utilize a certain type of feedback more than other types?
5. How do you determine the amount, or frequency of feedback?
6. Who, if anyone, do you take into consideration when you give feedback?
7. What do you perceive to be some of the benefits of providing feedback to your students?
8. In what ways do you gauge the effectiveness of your feedback?
9. How do your students seem to receive your feedback?
Different learning theories posit different characteristics of feedback, yet researchers identified certain commonalities. Where there has been overlap, researchers noted characteristics of effective feedback (Thurlings et al., 2013). Consequently, these characteristics served as the framework for the semi-structured teacher interview questions. More specifically, questions one through five were derived from Thurlings et al. (2013) findings and Tunstall and Gipps’ (1996) system for categorizing feedback. Additionally, Hattie and Timperley’s (2007) seminal work on the impact of feedback established critical feedback characteristics that the researcher could note based on teachers’ responses to questions one through five. Findings about feedback within the context of particular learning theories found to be effective serve as the basis for questions seven through nine. This feedback should take into consideration the learner’s disposition and ensure they feel supported and respected, feedback should be immediate, and feedback should help improve learning (Thurlings et al., 2013). After the second interview, I realized that I could not clearly ascertain teachers’ understanding of feedback, in light of how they answered question two. Therefore, I amended the questions to ask teachers: how do you define feedback? How do you define feedback on assessments? And, how do you define assessments? These questions revealed that teachers all had a fairly universal understanding of assessment, as supported by the literature (Sadler, 1989; Wiliam, 2011), but no common or universal language defining feedback.

**Questionnaires**

The SDT website, maintained by Deci and Ryan (2000), provides a variety of questionnaires that can be used for academic research when users register with the site. Nevertheless, I obtained written consent from Deci and Ryan to use both instruments specifically in this research (see Appendix K). Since this research sought to determine the influence of
teacher feedback on student motivation, I used two instruments: the SRQ-A (see Appendix L) and the PCS (see Appendix M). Deci and Ryan recommended that these instruments be used together, since competence and autonomy are believed to be the more influential elements of self-construct as it relates to motivation. The SRQ-A is specifically for children and evaluates the degree that individual’s motivation for a task or behavior is relatively autonomous versus controlled. There are two versions of the scale, standard and one for students with short attention spans. I planned to use the modified version for students based on teacher suggestion or if there were time constraints that emerged during the research process. As aforementioned, time was critical not just for teachers but obviously students as well. During observations, I began to surmise that the longer, standard version of the SRQ-A scale would not only take longer than one class period to administer but that the student participants seemed more accustomed to working in short cycles (15 to 20-minute rotations into small groups, stations or targeted activities). In light of that, I decided to use the SRQ-A (version for students with LD) for all student participants. This choice proved correct as students often commented upon initially seeing the questionnaire, “this is long,” not knowing that the standard version consisted of 32 instead of 17 questions. Though abbreviated, the modified SRQ-A still yielded scores for external, introjected, and identified regulations, as well as intrinsic motivation, which I then used in the prescribed formula to determine a score on the Relative Autonomy Index (RAI), suggesting a type of motivation based on the tenets of SDT.

The PCS is a four-question instrument that measures an individual’s self-perception of competence at a task. The students scored each statement on a seven-point scale, based on how true the statement was to them. The points were averaged to find their overall competence score. During the pilot study, I read the statements to the students, but they moved through them
quickly. I still went over them, asking them if they had specific questions or needed the statements to be clarified or restated. They said, “no” and proceeded to complete the instrument. They were seventh graders. I observed with the fifth-grade classes that while some student participants were reading on grade level or beyond, they were less likely to refuse my offer of help or clarification. So, I made a practice of reading the first few statements, demonstrating how one might respond, clarifying terminology and then allowing those who seemed to understand, to move ahead. In this way, students could complete the questionnaire at their own pace. I also circulated the room to ensure that students were attentive, focused on their own papers (as opposed to trying to copy responses from someone else), and to offer guidance to students who had not raised their hand for help in front of their peers yet seemed to have difficulty understanding the questions. Walking around proved to be important in the classes with more than five participants.

The questionnaires initially administered after the scripted introduction to the study and then re-administered after the student focus group session. By having the students complete the questionnaires a second time, specifically after they had received feedback from the teacher on a particular task, I had a means of possibly measuring or connecting how the teacher feedback altered student motivation and self-constructs. I had planned to have the re-administrations coincide with a specific formative assessment. However, at one site, unanticipated changes, did not allow for that. Subsequently, the students completed the instruments the second time, on the same day that they had received their first semester report cards. For the other three sites, the second administration came after a formative and summative assessment (i.e., in-class review of homework, followed by an end-of-chapter or end-of-unit test).
Student Focus Group Interviews

A deviation of interviews is focus groups. Focus groups can be beneficial when individuals may be shy or hesitant to give information in one-to-one settings since group composition may influence responses or lack thereof (Creswell, 2013; Flick, 2014). Similarly, another reason to use focus groups is “when interviewees are similar and cooperative with each other” (Creswell, 2013, p. 167). Not only that, when used to address theory, focus groups may help shed light on observations or experiences (Flick, 2014). Though perhaps of secondary importance, focus groups are a suggested data collection method when time is limited (Creswell, 2013).

To generate a theory about students’ experiences as they process assessment feedback for motivation, interviewing proved to be one of the most insightful data collection approaches. I conducted the student focus groups at each site, either in the students’ regular classroom or a room near their classroom. At one site, the interview was in the library. To minimize disruptions in their learning, I offered to complete all student components of the research on student lunch breaks. For one school, the students were not permitted to engage in academic-related work during their lunch period. This rule meant I had to use class time. However, in three of the four schools, that class time was not instructional time; it was a type of study hall period when students could get additional help on assignments. A total of 29 students participated in the focus groups (one sixth grader was absent on the day of the focus group). The focus groups were audio-recorded. The semi-structured interview questions aligned with the research questions. Participants’ responses lead to additional questions and in-depth discussions in student focus groups, some more than others, at each research site. At this point in the data analysis, this contributed to saturation during the constant comparisons. Beyond that, semi-
structured interview questions with a focus group created opportunities for students to answer questions that they were most interested in or to elaborate on points discussed by their peers.

One participant was reticent to speak during the focus group, though she knew what participation entailed. When asked, she deferred to her peers on many questions, but if someone brought up a point she concurred with, she did either acknowledge her agreement or elaborated on the point further, based on her experience.

Standardized open-ended interview questions for student focus group

1. What are your hobbies or interests?
2. What activities are you good at doing? How do you know?
3. What things are you good at in school? How do you know?
4. Describe what motivates you to learn the information in this class?
5. How would you rate these ideas from most important to least: learning for fun, getting good grades in class, getting a compliment from your teacher about your work, the amount of time it takes to do an assignment.
6. Describe what makes you want to do or not do your schoolwork.
7. If you ranked all the students in this class based on grades (or how well they seem to understand the material), where would you place yourself? Why?
8. How well do you expect to do in this class the rest of this year? Why?
9. What type(s) of information does your teacher give you to help you correct your work?
10. What type(s) of information does your teacher give you to help you evaluate how well you are doing on a task?
11. In what ways do you value your teacher’s feedback, if at all?
12. How do your teacher’s comments to you about your work make you feel?
13. When your teacher gives you feedback about your assessments, how do you feel?
14. How would you describe your teacher’s feedback on assessments? (Possible examples: nonexistent, helps me plan for the next test, helps me understand my mistakes so I can improve, makes me feel like a poor student.)

I based the first eight questions on SDT and self-constructs (Deci & Ryan, 2000). My synthesis of Wigfield and Eccles (2000) expectancy-value theory also influenced how I constructed the focus group questions. I developed these questions in light of self-awareness or competence (in EVT that is described as ability beliefs), relatedness, intrinsic value (this is more of an expectancy-value idea, but it mirrors intrinsic motivation in the SDT framework), locus of causality, and expectancy beliefs (Deci & Ryan, 2000; Wigfield & Eccles, 2000). I adapted questions four and five from my interpretation of Wigfield and Eccles ability beliefs and subjective task values item assessment for children.

Questions nine through 14 were included to gauge relatedness, autonomy, and competence, primarily in keeping with the SDT model for the internalization of causality, or perceived locus of causality (Deci & Ryan, 2000). I based questions nine and 10 on Hattie and Timperley’s (2007) assertion that certain types of feedback are more powerful than others. Secondarily, I had opined that responses to question seven would provide some insight into students perceived ability beliefs (Wigfield & Eccles, 2000).

**Data Analysis**

Data analysis was ongoing. Constant comparison dictated that similarities and differences delineate the data. As I reviewed the transcripts, I open-coded each data set. In this way, I hoped to capture all the ideas presented in the data, even if it may have seemed minute or
trivial. As I continued to add transcripts to NVivo, I began analyzing the context of the focus groups for similarities with existing codes. Where there was congruence, I linked the data. When not apparently connected, I created a new code (see Appendix N). As similar codes in the data emerged, they were grouped using a hierarchy system to develop a sense of emerging concepts. Then, more data was collected to investigate if new concepts were present or provided greater depth to the existing concepts. When I identified several concepts and grouped them, themes started to emerge (Corbin & Strauss, 2015). As mentioned previously, data analysis is a process of looking for process among participants as they interact and function in certain situations. Therefore, I reviewed all transcripts several times, both by listening to the audio again, as well as re-reading the transcript. As I read or listened again, I continued memoing and annotating data on paper.

Corbin and Strauss (2015) suggested open coding to begin to develop concepts. This process can involve memoing or reflection on ideas and concepts identified from the initial data source, such as an interview. Although I conducted the observation first in this study, with field notes recorded on the observation protocol sheet, later, after the observation or data collecting experience, I recorded my thoughts in my research journal. After that, as I began analyzing the observations and interviews, I started thinking about what the data was “saying.” Furthermore, I used NVivo to determine codes from the data, as I reviewed transcripts line by line. Within the NVivo software, I memoed by noting questions or thoughts that the data evoked, noting similarities in participant responses as more data emerged. I compared electronic memos and annotations to the written memos and annotations for the same data sets. Particular concepts, like sources of student motivation, were identified for further data collection and analysis. Memoing was part of the constant comparison process. By continually reflecting on the data and
comparing the electronic to the written memos and annotations, I could identify data points that elicited the same reaction from me at different points in time, as well as ideas codes and concepts that I later determined were either redundant or not related to the research question. Ideally, I planned to develop a conditional matrix and use it to help diagram the process (and theory) identified in the research (Strauss & Corbin, 1998). The matrix or diagram evolved from the feedback typology chart that I developed to complement the field notes form.

Coding for Context

Open coding can give way to analyzing data for context. In analyzing context, the researcher should consider the historical, cultural, environmental, or social conditions that exist around a phenomenon (Corbin & Strauss, 2015). Motivation, particularly internalized motivation, could occur in a school setting with a history of curriculum designed to give students choice and create a learning partnership with the teacher; this historical condition would support autonomous motivation. Noting conditions, or context happens as a means to explain actions or show the link between certain actions and the condition. Initially, I did not think teachers were using any feedback in those moments when they, such as Ms. Holly did, reiterated the anti-bullying discussion from the previous day, or later on when she admonished a student for saying, “shut up.” ‘Please be quiet.’ ‘Can you stop talking?’ is a much better, kinder way to say the idea.” Even when Mr. Ice directed a student to, “say sorry,” I did not think of these incidents as context that impacted the data since they had not directly given feedback on a FA. However, after journaling and memoing during data analysis, the correlation started to emerge. It seemed as though the students’ response to FA feedback in the academic context, began in those earlier moments when feedback related to behavior was priming the environment. Additionally, when I considered context, I had to stop looking for compartmentalized examples of feedback on
formative assessment and give credence to the environment as a condition for determining student actions as it relates to motivation regulation.

**Analyzing Process**

Process is change in an action-interaction made in response to a change in conditions (Corbin & Strauss, 2015). Analyzing for process means looking at the data for instances when a participant changed his or her action, in light of changes in conditions, to meet a goal. In the SDT framework that may mean looking for a student who aims to protect his or her sense of competence by not completing the work, because the feedback conditions have become negative or punitive (e.g., a low score on a homework assignment means a loss of recess that day). As stated before, in reviewing the data multiple times, I began to realize elements of process were present, like the concepts, in instances where I had not first noticed them. It was in this way that I realized how student participants demonstrated a sort of amotivation at times. Then, I began to review the students’ explanation of classroom events, to better understand what precipitated the process for them. Next, the open-codes were reviewed then the concepts to better articulate the process or change in their action-reaction in light of condition changes.

**Integration**

The culmination of the data analysis process in a grounded theory study is to present a theory. Integration is the outcome of the preceding data analysis steps. Specifically, this stage calls for a reread of memos and study of the diagrams to group similar ideas or topics (Corbin & Strauss, 2015). I considered how I might reclassify existing codes and concepts identified from the data. The categories and themes then need to be refined into a core category. Once core concepts were determined, I drafted a summary memo comprised of written and visual ideas gleaned from the research findings (Corbin & Strauss, 2015).
Trustworthiness

The validity of research is quite important; it can speak to whether or not the data analysis was correct. In qualitative research, Lincoln and Guba (1985) used more natural terminology to address this issue. They presented the issue of trustworthiness as a question, “how can an inquirer persuade his or her audiences that the findings of an inquiry are work paying attention to, worth taking account of?” (Lincoln & Guba, 1985, p. 290). Corbin and Strauss (2015) recognized that qualitative research must attain a level of credibility.

Credibility

Using rich data, I established the credibility of the research. Triangulation involves gathering data from various sources and theories to provide supporting evidence (Creswell, 2013). The SDT Questionnaires, interviews, observations, and memos are examples of the triangulated data in this study. This triangulation offered a high level of detail and description such that readers would feel as though they were a part of the research process (Corbin & Strauss, 2015). Extensive time in the field, as indicated by conducting interviews and observations over several months from September through February, further established research credibility. Lastly, each participant was asked to complete a member check, to verify that their thoughts and ideas were captured correctly (Lincoln & Guba, 1985) based on the researcher’s transcribed interview notes. Each participant received digital copies of the transcript with a request that they return any comments or concerns to the researcher within one week. Three of the four teacher participants responded, indicating that the transcription of the interview accurately captured their thoughts and ideas. One participant suggested changes regarding the interview. However, those changes were tantamount to grammatical edits to add clarity to the participant’s thoughts and did not indicate errors or concern regarding the presentation of content.
and ideas from the interview. I disseminated the theory diagram back to teachers for them to confirm my conclusions (Morse, 1998) and ensure that they directed the course of the theory. Also included was the feedback typology chart so that teachers could analyze the diagram effectively, and notify if they thought the diagram accurately explained the feedback influence on motivation process. I received one response. The teacher shared her interpretation of the diagram I sent her.

**Dependability and Confirmability**

Lincoln and Guba (1985) suggested that demonstration of credibility was sufficient to establish dependability. However, they also admonish that this is not a strong argument. They suggested that reflexive journaling was a way to establish dependability and confirmability. I kept journals of the site visits. I noted, not only reflection about interactions with study participants but also my reactions to behaviors and procedures in each class. I also used the journal to note methodological decisions and rationales after I reviewed data memos, reflected on my biases, observations, and the settings. The journals allowed me to think through the theoretical framework, ask questions, and note suggestions or changes for future data collection. Excerpts of the entries are included (see Appendix O). Providing acceptable evidence about the data collection process is a criterion for establishing credibility Corbin (2015) suggested. It also lends itself to dependability. Reflexive journals are similar to open coding in grounded theory because they can be an exploratory way to ask questions about the data.

Lincoln and Guba’s (1985) seminal work noted that the type of naturalistic inquiry dictates establishing trustworthiness. Therefore, I turn attention to grounded theory considerations for establishing trustworthiness. A few criteria are offered, which I considered for this theory: does the theory fit the area from which it evolved and will be used? Is it readily
understandable by laymen and professionals? Is the theory general enough to be applied to
diverse situations and populations? And, can the theory give the user enough control to bring
about a change in a situation? (Corbin & Strauss, 2015, p. 345).

**Transferability**

The time invested in describing the participants and setting with depth will allow
someone else to replicate the study because of the thick descriptions. Though writing in such a
manner calls for cognizance of nuances that at first, I thought might have the potential to reveal
their real identities, thick description is a key method for creating transferability (Creswell,
2013). The theory that is grounded in the data from this study can be compared to extant studies
to determine if the conclusions drawn apply to other settings and people (Lincoln & Guba,
1985). As Lincoln and Guba (1985) suggested, maximum variation helps with transferability
because, if one can find a common process of experiences among a very heterogeneous group, it
suggests that the commonalities persist across situations, people, and environments. The
variation in student participants across ability, race, age, and gender in this study seems to
qualify as a form of maximum variation by Lincoln and Guba’s (1985) standards.

**Ethical Considerations**

The physical and mental safety and well-being of all participants are of the utmost
priority. As such, I made sure to take certain steps to ensure the protection of their privacy and
other such rights. First, I secured permission from appropriate parties – IRB, sites, participants,
including parental consent for students, as well as student assent forms. I also disclosed the
purpose of the study to all participants including the site administrators. I paid attention to
outline the process for handling and discussing assessment data with students and inform them
that I would remove real identities, even to the degree of allowing students to write down
appropriate pseudonyms that they wanted me to consider using. Similarly, to provide greater confidentiality, I provided pseudonyms to sites as well. Likewise, I maintained the confidentiality of questionnaire scores and personal information so that participants would feel secure about discussing and sharing such personal information. Sessions with students began with a verbal reminder that information shared during the focus groups (and even the administration of the questionnaires) was expected to stay within the group. I will store any physical data collected in password-protected files for three years after the conclusion of the research. Finally, I will shred the hard copy data and erase digital data.

**Summary**

In this chapter, I described the research method. I also presented the essential tenets of a systematic grounded theory, along with why that type of qualitative study was most advantageous for conducting the research. Next, I presented the research questions. Then, I outlined a detailed research process, with attention to the setting, participants, data collection, data analysis, and research ethics and trustworthiness.
CHAPTER FOUR: FINDINGS

Overview

The purpose of this grounded theory study was to develop a general theory explaining how verbal or written teacher feedback on formative assessments may influence early adolescent motivation for academic achievement, along the SDT continuum. In this chapter, I present the teacher and student participants in greater depth. I also present the findings of the study in addressing the research questions, sharing participant narratives, and revealing new insight along with tables derived from the data. Included is a discussion of how the themes were determined from the open coding of the data, leading to the research question answers.

Participants

Four teachers participated in this study. Their professional experience ranged from novice to veteran teacher. Two teachers served in the same district, though at different schools. The other two teachers were in separate schools and districts. The teacher participants represented a norm in education, namely, a preponderance of females to males. Only one teacher was male. He came highly recommended by his principal as a teacher who used feedback on FA regularly and was willing to participate. A total of 30 students participated in this study, from these four teachers’ classes. The smallest group of student participants was four students in a sixth-grade classroom. The largest contingency of students was 11 students in one of the fifth-grade classes.

Teacher Participants

Despite being at different points in their teaching careers, all the participants indicated on the demographic survey, that they used feedback frequently - especially verbal - when interacting with their students (see Figure 2). Revealed in this study, what the survey had no way of
capturing, was the similar ways in which all participants utilized feedback. Feedback on FA seemed to emanate from feedback related to behavior.

**Ms. Holly.** Ms. Holly was a fifth-grade teacher with less than ten years teaching experience at Charles Houston School (pseudonym). She had been in her district since the inception of her career. Her experience included working with multiple grade levels. During her observation and interview, I perceived that she was a “laid-back” person; she did not appear discombobulated by unforeseen events that disrupted the routine of instruction, for example the displacement from her classroom due to HVAC repairs. In reflecting on my time in her classroom and reviewing her interview transcription, her reflectiveness concerning her perceived shortcomings and challenges in providing enrichment for some of her students resonated with me. She suggested that part of the challenge was in having various behavior challenges in class. Her method for addressing that was providing immediate feedback about behaviors to facilitate an effective learning environment.

But like I said, overall, sometimes I will stop my lesson, if I see that, you know, I have too many scholars who are doing things – using unkind words maybe . . . I’ll stop the class and I’ll say, “hey, let’s talk about this.” It’s something that needs to be done; it’s something that needs to be taught so I try to do it when possible. (Ms. Holly, interview, September 22, 2017)

**Ms. Iverson.** There was a point when I thought being an objective researcher meant keeping a distance from participants, not becoming too familiar. However, that notion is somewhat counterintuitive to qualitative design. As I interacted with Ms. Iverson, she also demonstrated that she was a reflective practitioner. In the pace of teaching and learning, it can be quite easy to gloss over a student answer or question, to feel a pressure (whether stated or
implied) to be some sort of all-knowing wizard or sage. So, it is cause for pause when a teacher replies to a student question or reflection with, “I am not sure. What do you think?” Even with more than 20 years of experience in education, she repeatedly expressed a desire to improve her teaching and learn new best practices. She welcomed constructive feedback, professional development, and the introduction of new ideas that might alter – and ultimately, improve – her norms of teaching. Ms. Iverson spoke consistently of being flexible and “going with the flow.”

Ms. Iverson taught sixth and seventh grade at Shirley Chisholm School (pseudonym). She began her career at a day care, and then moved on to a charter school, followed by her public-school tenure. Ms. Iverson entered the profession with a master’s degree, so teaching theory and philosophy were more at the forefront of her thinking and practice as she entered the classroom.

“. . . [T]hat program because it was not the traditional program, very strict. It was almost like the theory of teaching. We did John Dewey and things like that. Two teachers in a room, and that was my experience” (Ms. Iverson, interview, January 24, 2018)

Ms. Mitchell. With over 21 years teaching experience, Ms. Mitchell has served for 20 of those years as a fifth-grade teacher at Septima Clark School (pseudonym). She taught first grade for one year. Ms. Mitchell shared that this year, though she started off with every intention to be stoic and firm, the type of feedback she provided changed in light of the class composition.

I started off this school year, ‘I am going to be tough. This is it. I am going to start off at the beginning. We are not going to have any nonsense this year because the last two years have been overflowing with nonsense. This is it.’ That lasted for about a week. Then I went, ‘these guys are pretty good.’ (Ms. Mitchell, interview, December 13, 2018)
Mr. Ice. Although Mr. Ice only had two years of experience, he served in several capacities at A. Philip Randolph School (pseudonym). The school was home to about 900 students. Mr. Ice was affable and seemed to have a rapport with students in the building regardless of whether they were enrolled in his class or not. During my visits, I observed him on several occasions conversing with students in passing, asking about an aspect of their lives – academic or personal – exchanging a smile and encouraging them to do well. His demeanor was apparently a byproduct of his student-teacher relational framework. From his perspective, what he deemed as feedback, especially positive feedback, was necessary for schools without a lot of financial resources. Feedback is the cornerstone of engagement for students, he shared, “. . . to have success, your kids have to want to be here – so the feedback, having positive feedback – and having a rapport with the students is definitely essential for a school that is lower income.” (Mr. Ice, interview, September 21, 2017)

Mr. Ice stressed positive feedback, throughout his interview, though it seemed as though his frame of reference for positive feedback was primarily within the context of behavior management. Again, Mr. Ice presented feedback as a relational tool.

If you get them to buy-in early, makes the whole year go well . . . and giving them five at the door . . . I’m at every sporting event so they are saying, ‘what’s up?’ And then I’m talking every Monday . . . my first time seeing them, ‘what did you do this weekend?’ Then I tell them what I did. So, they know about each [other] our lives; so, I think that’s huge. And then they trust you. If they trust you, it’s a lot easier in the tough situations.

(Mr. Ice, interview, September 21, 2017)

In our follow up interview, when asked to clarify what was easier, Mr. Ice expressed that behavior management was easier. He went on to convey his belief that when the behaviors are
appropriate, then everything else in class flows better, for example, work completion, focus, and effort.

  It’s almost like they don’t want to let you down, so they want to complete their work.
  Every kid wants to do well. As long as they give effort – especially in the inclusion room- if you’re giving your maximum effort, we’re not going to fail you. Making them understand that, that they can do it . . . we’ve done a pretty good job this year. (Mr. Ice, interview, September 21, 2017)

**Student Participants**

The student participants truly reflected several levels of diversity, regarding aptitude, personality, and gender. As seen in Table 1, there was a fairly even distribution of girls to boys and fifth graders to sixth graders. A few students were identified as gifted learners, while others had some type of learning disability, or as was the case in two participating classrooms, were in the process of being identified for special education services for the 2017-2018 school year. The heterogeneity of the student participants was welcomed, not only from a methodological perspective but also on a purely human level. Some students were quite gregarious – which proved very beneficial for the focus groups – and others, though knowing the requirements of participants, were more reserved sharing only glimpses of their reflections on the topic. Nevertheless, the student participants were pivotal in providing the data that helped me determine the context, or conditions that impacted externally regulated or integrated regulation motivation. A few students seemed to gravitate to me immediately, yet others took a few interactions before they were open enough to converse about topics beyond the research. Either way, they were willing or perhaps curious enough, to participate in and thus illuminate, this study with their perspectives. The student participants all expressed a common idea across, age,
gender, aptitude, and grade level: they want to succeed at school as a gateway to succeeding in life. Their perspectives truly give weight to this theory with regard to trustworthiness as well as insight from the people for whom this work is for: students.

**Results**

Like any research, I began this endeavor with a hypothesis of what I would find. I also engaged in the research with a mindfulness of the danger of letting my hypothesis color how I interpreted the participant narratives. Thus, the data analysis procedures were pivotal in assisting me in interpreting the data with a multidimensional approach. Memoing coupled with the open coding created objectivity in the human instrument that allowed the participants’ voices to truly be heard. Certain codes and themes emerged that served to answer the research questions and give substance to the theory.

**Developing Themes**

Using open coding, I endeavored to explore ideas as the study participants presented them. Some ideas seemed to fit rather seamlessly into the SDT framework, or they were closely aligned. For example, students shared how they gauged their abilities and their competence. Teacher participants described their feedback, and when it became clear that the objective of that feedback was to correct what students were learning by focusing on their errors, that correlated to Tunstall and Gipps (1996) typology of feedback (see Appendix J) as well as the competence in the SDT context. On the other hand, some ideas introduced by the participants led me to ask questions I had not initially considered for the interviews and focus groups or to take note of how many times various participants across the participating sites, referred to the same idea. In that way, I could review the forty codes for commonalities that indicated the presence of themes (see Appendix N). Consequently, I separated themes for teachers from codes and themes for students.
after reviewing all codes. In a few instances, data coded from students shed more light on codes and themes for teachers. In grounded theory terms (Corbin & Strauss, 2015), the teacher feedback was part of the conditions that explained student action in relation to motivation. Themes from teacher data are presented here first since teacher feedback underpins student action. The student themes follow those.

**Defining feedback.** None of the teacher participants presented a shared definition of feedback. As a matter of fact, after the first teacher interview, I included a question about the definition of feedback to the open-ended interview questions upon realizing that the definition of feedback I was working from, rooted in the literature and theory, was not articulated in the same way, even if the application was similar. They all could articulate their idea of what feedback was or how they used it – its functional purpose – yet there was not a concise explanation offered by anyone that was echoed in the other perspectives. This lack of a common explanation is not particularly surprising considering the research consistently indicates that there is no universal or shared “working” definition of the concept (Hattie & Timperley, 2007; Tunstall & Gipps, 1996; Wiliam, 2011) in part because certain learning theories characterize feedback differently. Though this finding only reiterates what the literature asserts, it is critical in helping to explain the impact of the teachers’ feedback on their students’ motivation, or regulation, types. One’s perception, or understanding of what feedback is, colors the how and the why of information dissemination to students. What a teacher understands feedback to be in general, affects how they provide feedback on formative assessments.

All teachers were asked during the interview, to describe feedback usage in their classroom along with its purpose. Some responses had connotations similar to the definitions asserted in the literature about feedback, and specifically the definition used in this study:
information given back to the learner and used to improve performance (Black & Wiliam, 2009). The context of improved performance – for this study – was academic learning. Nevertheless, there was no consensus in the same way that there might be concurrence about what is homework or what is disruptive behavior. Consider Mr. Ice’s response when asked to describe feedback usage and purpose. He begins by describing the school-wide strategy for giving students information about their behavior as a way to foster appropriate or acceptable behavior: “we have a positive feedback and . . . so before you can give a negative feedback we try to have three positives” (Mr. Ice, interview, September 19, 2017). When I scored his feedback typology chart from his observation, I witnessed him employ various types of feedback. Even during our follow-up interview when I sought clarification about his definition of feedback, he focused primarily on how he disseminates feedback without explaining what it was, at least in his classroom. Ms. Holly said,

I think feedback is any kind of information whether it's verbal, whether it's written communication, that you provide to your students to let them know how they can improve, where improvements are made, or if there is a certain skill that you're . . . or goal, that you're reaching for, whether or not that goal has been met. (Ms. Holly, interview, September 22, 2017)

Ms. Mitchell (interview, December 13, 2017) characterized feedback this way, “feedback can be anything from a thumbs up, a nod, a smile, to something written. It could be a high five. It could be a conversation. I think, basically, all of that would be considered feedback.” While Ms. Iverson opined,

feedback is teacher directed, but student motivated. Hopefully, it will - the intent is - to motivate students towards a state standard, to mastery of the state standard via verbal or
written. Just to let the student know how they're performing. (Ms. Iverson, interview, January 24, 2018)

Some participants shared what it would look like, a high five, a comment, but only two offered a concrete definition of the idea.

So, to begin to explain the potential impact of teacher feedback on FA on student motivation, the theme of defining feedback became critical. The definition suggests one’s understanding of the idea. The definition also seems to underscore the type of information teachers provide to students as well as how they expect students to use that information to bring about a change, but there is a stated definition and the one that is actually applied.

**Using feedback.** All teacher participants utilized feedback, as evidenced by the observation, the interview, and the student focus group. Similar to motivation in the SDT framework, Tunstall and Gipps (1996) suggested feedback is on a continuum (see Appendix J). Evaluative and descriptive feedback are the two overarching categories of typology. Implied or stated norms for the classroom, school, or society serve as the basis of evaluative feedback. There is an emphasis on voluntary action. The lowest form of feedback is evaluative rewards, type A, such as stickers, stamps, points, or treats. Next, approving feedback can be positive (A1) or negative (A2). This feedback acknowledges when student work exceeds the teacher’s expectations, or it gives approval of work or behaviors considered necessary for learning (i.e., focus, being on task, being engaged, quiet, etc.). Conversely, negative approval is essentially disapproving as demonstrated by the loss of privileges (e.g., recess, choice, fun activities, etc.).

On the other end of the continuum, descriptive feedback is task-related, has a cognitive emphasis and correlates to establishing competence. It is delineated further as Type C1 or C2 – specify attainment. The positive type, C1, identifies for students, various ways they can achieve
competence in a task or content area. Furthermore, it can help students master the smaller steps in learning, focus on what students did well on a task, and gives models of acceptable work and behavior. C2 focuses on how to correct what students learned, where mistakes exist in the work but has the added power of guiding students in self-checking their own work. C2 is negative because the attention is on identifying the mistakes and correcting them. Teachers direct students to do corrective work – usually independently. This process then transitions into Type D, constructing achievement, the highest level of effective feedback, and from the data, a bit more elusive for teacher participants and students. At this tier of feedback, the onus shifts largely to the students to evaluate their work. Students explain their own work thereby developing a sense of self-assessment. Students also compare their current work product to past work or achievement. They see their work as an ongoing process instead of compartmentalized tasks or single events. The teacher role at this tier is rooted in having more one-on-one conversations with students, encouraging them to extend their thinking about their achievement beyond a specific task or class. The D2 feedback calls for the teacher to suggest to students how to improve, instead of telling them; students are offered a choice in how to improve their work and understanding (Tunstall & Gipps, 1996). Seemingly, the central difference between type C and D is the degree of specificity teachers use in correcting or improving student work. Additionally, teachers suggest strategies students can adopt to facilitate their improvement. Again, there is an element of student responsibility in examining their work as a part of the feedback process.

While only fifth and sixth-grade teachers participated in this study, the analysis of the class observation field notes revealed that whether a novice or veteran teacher, all used various types of feedback, with varying degrees of regularity in their classes. At times, the teachers used
evaluative feedback (type A & B), and at others, they used descriptive feedback (type C & D). The data revealed that the veteran teachers used all types of feedback on the typology chart, A, B1, B2, C1, C2, D1, and D2 (see Appendix M). However, the use of descriptive constructing achievement feedback (D1 and D2) was sparse. Nevertheless, the two veteran teachers operated at that tier, followed closely by the descriptive specify attainment tier (C1 and C2), with some regularity. Interestingly, Ms. Mitchell used type C more than any other feedback type compared to the other teacher participants. Mr. Ice used type C, especially C2 more than Ms. Iverson (a veteran teacher), but he also used A and B more as well. Ironically, Ms. Holly presented a clear definition of feedback that suggested she would operate extensively at type C but in observing her and analyzing student insight, type B was the most prevalent feedback type she utilized. Still, some clarification is warranted. Ms. Holly’s verbal feedback yielded high markings on the typology chart. There was more evidence of her more descriptive feedback when her written feedback was factored in.

Educators tended to use verbal evaluative feedback to set routines in class and provide rewards for task completion as well. “The feedback is a lot of ‘this is how we do it.’ ‘Cause it just makes the year go so much better” (Mr. Ice, interview, Sept. 21, 2017). Not only that, all the teacher participants largely used verbal feedback as a means of managing classroom behavior. This included stated and implied behaviors considered to undergird academic success, such as: preparedness, effort, participation, and focus, as well as social behaviors deemed inappropriate for school (i.e., yelling out, not taking responsibility for one’s actions, not being on task, or disrupting the learning of others, etc.). “You need to just really focus. I don’t care who’s in front of you, what teacher, whatever. You have to focus because this is a lifelong skill, whatever job
you have” (Ms. Iverson, interview, Jan. 24, 2018). During the interview, Ms. Mitchell commented:

It’s the same thing, you have to reinforce what you want and feedback that way either tells them, ‘This is what we do in this room’, or ‘this is not what we do in this room.’ I’ve zero tolerance for being mean and nasty just for the sake of being mean and nasty. I won’t hesitate to call them out on it. (Ms. Mitchell, interview, December 13, 2017)

During the observation, Ms. Holly would display her disapproval by asking overly talkative students, “May I speak?” Or if the students’ comments veered too far from the instructional content, “Are you with me?” Framing her disapproval as a question was a passive way to correct behavior.

These types of evaluative (B1 and B2) feedback quite often precipitated more descriptive feedback and were at times interwoven in C1 and C2 feedback shifting in focus from social behavior to behaviors considered necessary for academic achievement.

That's also just feedback, letting them know, ‘Hey, I get that you’re upset, but make good choices. If the best choice for you is to go sit over there, then I can respect your choice, but now you got to respect the fact that I need you to do work.’ (Ms. Mitchell, interview, Dec. 13, 2017)

When considering descriptive feedback, educators used it to: affirm correct responses, offer a more effective strategy or problem-solving steps, keep students doing well when their work was correct, and to reach a level of mastery while developing a sense of self-awareness. Again, these myriad uses migrated across the typology chart at times just stopping short of the next highest tier of effective feedback. For example, after receiving reading results from a computer-based program the students were using, Ms. Iverson, had the students list their weaknesses, C2 (D1
would be letting the students identify their weaknesses first) to focus on improving those weaknesses with targeted instruction (C1).

We had it on the board. ‘I want you to write weakness one, weakness two, and strength.’ Because there’re three categories, it’s literature, info text, and vocabulary. ‘What is the lowest number out of your winter score? Okay, then put that as your weakness, and that’s what we’re going to target.’ They need to know this, so that it’s not just me. (Ms. Iverson, January 24, 2018)

In this instance, feedback on the formative assessment, although computer-based, was supplemented by the information that Ms. Iverson provided. Thus, she serves as a good example of the virtually transient use of feedback some educators employ and how that can impact students, particularly in the area of satiating the psychological need for competence, relatedness, and autonomy. One of Ms. Iverson’s students reflected on the benefit of the feedback from her teacher, on formative assessments, such as the computer-based programs or other classwork. The student, Crystal, noted the helpfulness of it: “when she tells you to ‘write down the definition of words, it might show up on another reading passage,’ and I use those strategies. I know the definition. I can read then I stop” (focus group, February 12, 2018). The impact of the feedback on the FA, for Crystal then, was creating an understanding of what she needed to do to achieve a goal and being effective in performing it (Deci et al., 1991). In SDT, this is competence. I discuss the impact of students in greater detail in the student themes section.

**Value of feedback.** As aforementioned, the teachers’ stated and applied definitions of feedback could be observed in their classroom practices. How they used various types of feedback with students not only impacted students as an indication of what teachers valued in the
class, but they also formed a connection to the value teachers ascribed to feedback itself. Next, we will look at the theme of the value teachers attribute to feedback.

There were three prominent values of feedback noted by teachers. This theme is similar to how teachers use feedback, but the difference is that establishing a value is more ideological as opposed to actual behavior though it may manifest in one’s behavior. One may espouse that he or she values creative thinking yet his or her behavior may show that the person does not, in fact, create conditions necessary to foster creative thinking. Teacher participants spoke to the purpose of feedback and in so doing the idea of feedback as a vehicle to incite inspiration or encouragement. Ms. Holly’s explanation of why she referred to students as scholars:

You know by me telling him every day, ‘You’re smart. You can do this.’ You know, those thoughts, you know, they become a part of who that student is essentially. So, if he’s like, ‘hey, I think I’m smart’ in turn, you will be able to do the work that I put in front of you because you believe in yourself. (Ms. Holly, interview, September 22, 2017)

While at first, I presumed this data to be inconsequential as it related to feedback, similar ideas articulated by other teachers gave it certain fervor. This articulation was especially true when taking into consideration how feedback about the person, be it in the form of student behavior or acknowledging student effort or focus, was woven into type C and D feedback. Teachers often viewed the hope of inspiring students, or encouraging them to believe in their ability as a gateway to academic achievement:

A lot of them, a lot of our students don’t want to be called on or whatever just because they don’t, they’re not positive if they’re right or wrong. So, assuring them that ‘yeah, you got it’ and giving them positive feedback is the best kind of feedback. (Mr. Ice, interview, Sept. 21, 2017)
Ms. Mitchell had this to say,

I think that just gives them more confidence to keep doing what they’re doing. Well, the positive feedback gives them more confidence to keep going in the path they’re going in. A lot of kids come in with preconceived notions about what they can and can’t do. It’s a lot of that learned behavior and learned helplessness of, ‘I’m not good in math.’ ‘Who told you that? Sit down let’s do this. I bet you’re good in math.’ (Ms. Mitchell, interview, December 13, 2017)

So, it is clear that among teachers’ perceived values of feedback is the idea that it can help students see themselves as capable learners (B1), an attitude many teachers consider critical for learning. “I think that if they get the immediate feedback, it keeps them going in that -whether it’s in a positive direction - it keeps them energized and wanting to. If they start to feel success, they want more success” (Ms. Mitchell, interview, Dec. 13, 2017). This is not to say that students share this value immediately or at all, or that students necessarily feel more competent because of this kind of verbal or written feedback. However, considering it tends to occur in tandem with the other feedback teachers offer students, researchers and teachers must contemplate its role in influencing student motivation. Furthermore, additional values of feedback are to establish rapport with students and convey the value or importance of work or a task, were illuminated. “Feedback is not just towards mastery of the standard. It could be a lifelong skill that I’m trying to impart or help them to be aware of” (Ms. Iverson, interview, Jan. 24, 2018).

**Evaluating the effectiveness of feedback.** Simply put, teachers gauge the effectiveness of their feedback by what students do. More specifically, teachers anticipate students will heed and apply the suggestions they have received to make their work better, or correct. “I gauge the
effectiveness of it when I pick up that journal next week. Did you go back and do what I suggested that you do, you know, a week ago or two or three days ago?” (Ms. Holly, interview, Sept. 22, 2017). Or, to show engagement with the task,

I mean, just to gauge, we can look at, just how the students are reacting to stuff said. I mean, you really, a lot of time, you gauge it by just watching them. Seeing their engagement, seeing what they care about. (Mr. Ice, interview, Sept. 21, 2017)

Interestingly, Ms. Mitchell framed the effectiveness of feedback in the context of deterring adverse behaviors as well as inciting a student to continue with the right behaviors, alluding to the idea that feedback cannot be approached from only one direction or perhaps the idea that feedback to students may have different outcomes. “If the good stuff keeps happening, then we’re on track. If the bad stuff stops, then we’re still doing okay. I mean, even math problems you can’t approach them all the same way” (Ms. Mitchell, interview, December 13, 2017).

Certainly, educators should be mindful of how they will gauge the effectiveness of their feedback, particularly on FA. To surmise if that feedback is influencing student motivation regulation, moving from more external to integrated or internalized regulation, as it satisfies students’ three psychological needs the evaluation of effectiveness has to be measured in more specific terms. Namely, are we seeing student behaviors and responses commensurate with type D feedback? Educators must ascertain if students are changing their behavior as well as why. For a better understanding of those changes and why, we will now look at student themes that surfaced from the open coding of the data.

Impact of feedback (student perspective). The theme evolved from several open codes. First, I analyzed students’ responses to the open-ended focus group questions, attempting to code them in light of the three needs asserted in the SDT framework. I uncovered ideas like
developing competence, or amotivation in light of feedback, or the impact of feedback from a student perspective. As I reviewed the data on these codes over time, in some cases a month after the initial coding, I also reviewed the key literature that served as the framework for this study. By doing that, I considered how comments from the participants seemed to be an example of the ideas presented in the literature, reconfiguring and combining some codes accordingly.

Codes that I initially thought were sufficiently supported and thus able to stand alone, I later saw were like strands of fiber that banded together to make a rope. The first such rope, or theme, from the student codes, was impact. Ms. Mitchell alluded to various approaches to feedback to address an issue in much the same way that math problems are not all solved the same way. People are more dynamic than math problems, so it is understandable that feedback impacts students in different ways, even if a teacher is using the same type.

Feedback is a catalyst for some feelings in students. Yet, conversely, the impact of the feedback is sometimes an effect of student feelings. A sixth grader in Mr. Ice’s class, Hannah, when asked how the feedback made her feel commented, “I feel mad at myself, because I know I probably didn't do my best. Or when I get a good grade, I feel happy. Then I’ll save it and tell my mom” (focus group, December 12, 2017). The context of the feedback was corrective, particularly receiving a grade or score. In terms of typology, letter grades based on so many correct or incorrect answers is connected to C1 and 2. For Hannah, the grade feedback caused a feeling. One of her classmates’ responses to this same question piqued my interest and the data analysis. Martin said that feedback made him feel “numb.” Of course, I inquired why. “Only sometimes. Why sometimes? I don't be in the mood for anything” (focus group, December 12, 2017). He went on to explain that whether positive or negative feedback, there were times when he simply did not want to hear feedback about his work. This was coded as amotivation because
it presented a lack of interest and intent to complete the task. Admittedly, he did not say he would not do the work, or refuse to complete work, but he seemed to have no intention to make corrections or do what the feedback suggested as follow-up. Another student response during the focus group was coded at relatedness as well as amotivation. Jamil acknowledged that what made him not want to do his work “is when I'm mad at my teacher” (focus group, December 12, 2017). It was an honest response that rather surprised me at first, until I contemplated the role of relatedness and the way Mr. Ice uses feedback to build rapport. Since Mr. Ice, places such tremendous significance on feedback to build relationships, it began to make sense that his use of feedback might influence how his students processed feedback in relation to the three psychological needs, especially when the feedback is type B. As mentioned, evaluative feedback, such as type B tends to focus more on the person because it embodies an element of socialization and judgment. There is no surprise then, that for Jamil, Hannah, and Martin, the feedback from their teacher impacted their intent to work and their sense of relatedness.

The other sixth-grade class was amotivated when they perceived an injustice in the way teachers disseminated feedback about behavior or when they felt as though a preponderance of feedback focused on behavior (A, B1, and B2). Kevin said, “when the teacher is always yelling” he does not want to do his work (focus group, Feb. 12, 2018). For the sake of clarity, I asked if the teacher was “yelling” about work being done, like, “do your work.” He responded, “I’d say, like 45% they do that and the other percent, they’re probably yelling about stuff that’s not really big or something” (focus group, Feb. 12, 2018). Again, I wanted clarity about what he deemed as not really big, to which he explained a student making a sound during instruction time. He perceived that as a small infraction, thus too much time spent addressing that, was a cause for amotivation. His classmate Antwoine shared a similar scenario, “what makes me not want to do
my work is because I’ll get in trouble, but she’ll tell me to [not] do something that another kid is doing” (focus group, Feb. 12, 2018). He elaborated his point that if he receives what he believes to be a greater penalty for a behavior someone else is doing or one he did not do in the first place, he is disinterested in completing work. Amotivation as an impact of feedback was not just related to classroom norms regarding negative behavior, feedback led to amotivation when teachers incorrectly minimized students’ efforts.

What makes me not want to work is if we do it the first time and then we get most of them wrong, she scream [sic] at us for like, “Oh, you could’ve been better. I know you could and you didn’t try your best.” When we actually did try our best. (Alicia, focus group, Feb. 12, 2018)

Notice here, the teacher is likely trying to encourage effort, persistence, and focus with their B2 feedback. However, what the student hears is a charge against her level of effort.

For some fifth-grade students, amotivation was not a result of feedback still it was interesting to note amotivation was a result of relationships in the class. Walter shared that he did not want to do work when “I’m aggravated. People mess with me. When people say mean things” (focus group, Oct. 13, 2017). His teacher, Ms. Holly, would at times, stop a lesson to address mean and unkind behavior among students when it occurred in class. I cannot say whether her feedback on behavior was a result of these such episodes or whether dislike for such behavior influenced a student like Walter to the point of not wanting to work when the conditions in class did not satisfy Ms. Holly’s, nor his need for relatedness. Whatever the case, once again we see a relationship in the data that seems to exist between the types of feedback used more frequently by teachers and the type of response by their students.
Fortunately, the impact of feedback on student motivation is not all adverse. For some young scholars, feedback is perhaps akin to a map, telling students how to get a better grade. I asked students if feedback was valuable to them. Was it helpful? “[Yes] because he tells you it, so you can get a better score or grade on your paper,” Derick said (focus group, Dec. 14, 2017). Martin chimed in, “right, like he’ll tell you that it’s wrong, so you can fix it and get a better grade on it.” Again, a very loquacious Martin opined, “Because it’s good to know that we are doing good” (focus group, Dec. 14, 2017). This commentary suggests that feedback provides a sense of validation that students are in fact on the right track knowing how to complete their tasks correctly and that the teacher likes their work (this also suggest relatedness). Likewise, feedback appears to impact competence and students’ perceptions of their abilities. One’s belief in his or her abilities to accomplish a task underpins self-efficacy (Bandura, 1993). Believing in one’s ability to complete a task, achieve a goal and meet challenges correlates to a sense of competence in SDT.

**Grades.** The impact of feedback diverges in many directions. However, no theme is as interfluent as grades. If the codes are strands, and these themes are the ropes, then grades are the cotton comprising both entities. In this research early on grades took a prominent place in the discussions about feedback on FA. Just as teachers wove feedback about behavior into their discussions, students wove grades into their conceptualizations of numerous topics central to this study. Grades were viewed by some students as the feedback, for still others, grades were the goal, to put it in SDT terms, the “what” of their motivation. For others, grades were the instrument to gauge their academic ability and competence, they impact student values and interests, thereby having some impact on student autonomy or so it could be argued, and grades influenced students’ expectation for achievement. Although I added the grades as a code later in
the analysis, further contemplation unveiled a pervasiveness about grades that merited it as a theme. Even educators, as they spoke about achievement, did so in the context of grades. When I inquired about giving students a choice in completing some tasks they do not like outside of formal class time, Ms. Mitchell described how she used the advisory period including this insight about grades:

They didn’t argue because they knew that if they came to see me it could clear things up, which meant their homework grade would be better, which meant that the next day would go better. They understood that, which doesn’t always happen, but they understood that. (Ms. Mitchell, interview, December 13, 2017).

So, even as she is discussing the success of the next day, she suggests that it hinged in part on students having obtained a better homework grade. Of course, it seems that upon further consideration, the better homework grade would be indicative of a better understanding, or at least a better application of the skills, required to complete the work. Later I asked her if students were starting to show more ownership of their work after receiving feedback. I explicitly focused on students indicating a sense of wanting to master the standard or meet the learning goal for the lesson. She replied,

I think so. Even with getting the feedback, because we grade the homework together, they know right away. Then they turn it in to me because there are still a couple kids that maybe take a nap from problem five through 10, and don’t check their entire paper. I look at all their homework when they turn it in; but at least when we check it together, they have the option of going over and getting a new one and redoing it. (Ms. Mitchell, interview, Dec. 13, 2017)
Unequivocally, I was impressed with Ms. Mitchell’s teaching methods and made note of some strategies I want to employ in my classroom. I am not suggesting grades are a bad idea. I do hope to assert with these examples that students and teachers often truncate complex ideas and concepts into a less specific, less descriptive representation of mastery, achievement, comprehension, and growth, by defaulting to grades. To further illustrate the point, when asked to rank what motivated students the most, from a list of four statements, getting good grades was ranked highest by about half of all the study participants. Andrew responded, “First reason is getting good grades,” (focus group, Oct. 11, 2017) and participants echoed a litany of the same response at each research site, across the two grade levels. In several cases where participants did not mention grades as the most motivating factor, they were second. The second highest motivator for early adolescents was getting a compliment from their teacher.

**Gauging ability.** At one point while memoing on the codes, I began to wonder if participants addressed competence in any of the insight they shared. It was as though ability stopped short of competence. As I vacillated between the two words, I decided to leave the codes as were, namely, sense of (developing) competence, student perception of competence, and perception of ability. Students proffered a sense of what they were good at yet, they could not concisely explain how they knew or how they measured it, apart from grades. On the other hand, another read of the literature to reinforce my understanding of competence in the SDT framework reminded me that competence is not competence because a person says so, there are characteristics to look for. Consequently, in analyzing the data yet again, some characteristics of competence were present along with ability. Since ability is the foundation of competence, I decided the theme: gauging competence, best encapsulated the data.
Ability can be defined as possessing or believing one possesses, the capability to achieve or complete a task. Whereas competence means understanding what is needed to succeed at a task and being able to complete those necessary actions (Deci et al., 1991; Deci & Ryan, 2000). Some students believed they had ability in a subject in light of personal enjoyment or grades. “I like to do math, and I’m good at it because all my grades that I have in my paper are A’s and B’s,” said sixth-grader Alicia (focus group, Feb. 12, 2018). Crystal piggy-backed off this ability assessment, telling us, “Yes, I like math too because it’s easy to do and it’s not hard for me” (focus group, Feb. 12, 2018). This conversation was an exchange about ability in science. Samantha stated, “I’m good at science.” So, I asked, “Okay. How do you determine that?” Samantha replied, “Because I'm getting B’s and A’s and B’s” (focus group, Oct. 11, 2017). Beyond grades, or performance, the data showed that some students gauged their ability by how they could apply certain skills in a new context or how much time they spent practicing. For Antwoine, his ranking as an indicator of his ability was linked to transferring the reading skills he acquired in ELA to the social class text.

“I would rank myself a number five out of the whole 16 [students in the class] because in social studies, most of the time we mostly power read . . . so I will rank myself number five in social studies because we read a lot in our ELA class. (Antwoine, focus group, Feb. 12, 2018)

Across other core content areas like math, Walter offered this, “I’m good at math because I study” (focus group, Oct. 11, 2017). Thomas said, “I’m good at reading because I read a lot of books” (focus group, Dec. 14, 2017). There was a matter-of-factness to this sixth grader’s estimation of his abilities, which again suggested that students’ sense of their abilities is formed by information in their environment, even if they do not clearly relay those ideas to others.
Whether in class or at home, it is feasible that someone in Thomas’ milieu created a condition that explains his sense of ability and even his motivation. Thomas is a student in Mr. Ice’s class; the research indicates that Mr. Ice created conditions in his classroom that emphasized effort as a means to success. Thus, for a student like Thomas, time and quantity of material read is equivalent to ability and perhaps even competence. The lesser cited evidence for gauging ability was interesting. If nothing else, it corroborates the idea in SDT that the needs operate at varying strengths in each person such that an individual’s regulation process can be varied for tasks (Deci & Ryan, 2000, 2008). Ironically, Hannah interpreted her challenges with a topic of study as a benchmark for her abilities. Out of 20 students, “I would rank myself at 18 because I need help on my division” (focus group, Dec. 14, 2017). As previously stated, here, even in gauging abilities there is a tendency for students to compartmentalize and overgeneralize. Hannah presumed that trouble with division meant she was very low in ability. Although division undergirds much of the math concepts in sixth grade, struggles in the first semester (which was the time of our collaboration) do not have to be tantamount to poor ability in math overall. Our needs and thus our reasons for being motivated are perhaps as unique as our fingerprints. “My older sister is in 10th grade. She helps me with something that I don’t really understand,” Abigail said (focus group, Jan. 11, 2018). Her assessment of her ability was rooted in a resource, particularly an older sister. Other participants cited siblings and parents as sources of motivation, but none spoke of them as a resource, like this fifth grader. The closest was Abigail’s classmate Calvin, who calculated his ability level based on studying his homework with his mom. “My mom studies with me. With math and everything else, she barely knows the math that we’re learn [sic] here” (focus group, Jan. 11, 2018). A hybrid evaluation of ability based on time spent and resources came from the sixth grader, Kamesha, “I’m good at reading
because I have my own library in my room” (focus group, Dec. 14, 2017). The final strand of interest in the rope of gauging ability was class placement. Of the four participating classes, one fifth-grade and one sixth-grade class had identified gifted students, some of who were participants in this study. In the sixth-grade class, neither of the gifted students cited their placement in a gifted class as an indicator of their ability. However, in the fifth-grade class, two students had different ideas. “I’m good at math because I skipped a grade in math,” Abigail opined (focus group, Dec. 11, 2017). In that same vain, Addison stated, “I’m good at reading because I am in a gifted language arts class” (focus group, Dec. 11, 2017). For both, their ability seemed compartmentalized to the class where they had advanced or accelerated placement with no mention of their abilities in subject areas outside those. Grounded theory dictates that changes in conditions can cause changes in action. As such, conditions can explain student actions.

**Expecting achievement.** Thus far, the themes above partly explain students’ actions or changes in action in response to conditions, but they also are interlinked, together tying the content of goals, or the “what” of goals to the “why” of goals, the regulation processes that are at work when people pursue goals. The last rope interlinked to the others is expecting achievement. The codes were straightforward here. Like many of the other codes, I extracted them from the questions developed in light of the theoretical framework for this study. There was room to broaden or modify the codes, but it was more pertinent at the theme level to collapse or condense.

At first, I could only hear hope or desire, in student responses as they spoke about their expectations for achievement. Once more, there were no concrete explanations, examples, or strategies they shared in support of their various expectations for achievement. So, hope was a
code. Jamil said, “I expect to do good because I want good grades. And, I want honor roll” (focus group, Dec. 14, 2017). I can see now that wanting honor roll would be the goal for Jamil and the expectation of doing well was a means of achieving the goal, but at the time, I simply heard hope in a somewhat directionless sense. For Marshall doing well was expected as an outcome of doing his work.

As I listened to focus groups again, other ideas germinated. “I want to pass the sixth grade and go to the seventh grade and then go to the eighth grade and then go to college,” said Marshall (focus group, Dec. 14, 2017). Martin followed suit, “I want to get good grades, so I can go to the seventh grade, then get good grades so I can go to eighth, then go to college and become a basketball player” (focus group, Dec. 14, 2017). These are expectation for achievement rooted in long-term goals or aspirations coupled with an understanding that achieving the content of the goals happens sequentially.

Similarly, some students expected achievement as a necessary step in a goal to receive a reward or incentive (type A) outside of school. Samantha said, “I expect to do good because if I do super good, my cousin, he’ going to give me my iPhone seven back” (focus group, Oct. 11, 2017). Then, Na’ima offered, “I expect to do well so that my mother can take me out of town” (focus group, Oct. 11, 2017). Although not in the school environment, these expectations speak to conditions that are set for students and to which they are motivated, albeit with external regulation, to meet them. However, one has to question if these incentives and rewards are impactful because they involve objects or positions of value and interest to the students.

Other conditions beyond school existed for other students. In paralleling them to the typology chart, these extracurricular conditions would fall in type B and C feedback. Expressed approval of work exists, and engagement (type B1) or a model of acceptable achievement has
been presented to the students (type C1) and serve to activate student motivation and expectation to achieve in school. Walter answered the query this way, “Good, because my mom expects me to get good grades, so I can pass” (focus group, Oct. 11, 2017). When asked if they expected to pass, to do well, to get good grades in class, a student replied, “All of them because I promised my mom that I will get good grades” (focus group, Oct. 11, 2017).

Ostensibly feedback and grades from teachers remained viable measures for students when anticipating future achievement. Francois verbalized his thoughts this way,

I feel like when she give me feedback, and then she be like, ‘you need to work on such and such of this, and such and such of that,’ and then I be like, ‘Okay, I need to do better on that.’ And then I get better at it and go ahead and do more. (focus group, Oct. 13, 2017)

Not only that, an awareness that as long as the student continued to understand the teacher, or study, they would achieve. Alternatively, the idea that if the current pace of class continued they would achieve and even shared expectations between students and parents, were all markers for anticipated achievement. Next, I discuss how these themes harbored the answers to the research questions.

**Answering the Research Questions**

The central research question guiding this study was, how does written or verbal feedback from teachers on formative assessments influence early adolescent student motivation? Research suggested that the influence of teacher feedback on formative assessments, such as homework, or activities performed in class that allow students to further practice a skill or concept, or to apply their understanding of the concept to similar tasks, is dependent upon a teacher’s working definition of feedback. It also depends on the type of feedback that he or she
utilizes with the greatest consistency or emphasis. By working definition of feedback, I mean the stated definition teachers can articulate for themselves, in tandem with the application of their understanding of what feedback is. Similarly, the influence or impact of a teacher’s feedback on students’ motivation is tempered by the way the feedback seems to create an implied value in ideological conceptualizations of school norms; like, effort, focus, and the role of grades. Sixth-grade teacher, Mr. Ice, said in his follow-up interview, “As long as they give effort – especially in the inclusion room – if you’re giving your maximum effort, we’re not going to fail you (Jan. 25, 2018).” An underlying or implied value is present. In his perception, whether other educators hold it or not, effort, giving maximum effort insulates a student from failure on some level. When the focus group from Mr. Ice’s class was asked, “Why do you expect to do well?” Marshall expressed himself this way, “to get . . . pass my work. Do the work.” To which I replied, “That’s why you expect to [do well], because you’re doing the work? Or are you saying you will do the work?” “Doing my work” (focus group, Dec. 14, 2017). He said it with an emphasis and succinctness that almost had an air of impatience with me for asking him to clarify. He was not rude in any way, but he seemed to respond to me in a way that indicated the ostensible logic of his answer; like, it needed no clarification.

In classrooms were teachers ventured into type C and D feedback, the influence on student motivation seemed to parallel the focus those types of feedback target. Ms. Iverson used descriptive feedback to offer strategies to students, so they could correct their mistakes (C2). “Then I can give that specific feedback, ‘go back to the text. You need more facts.’ For your answer, you need to RTQ your answer. RTQ is restate the question . . .” (Ms. Iverson, interview, Jan. 24, 2018).
When asked what type of feedback was most valuable or helpful, Ms. Iverson’s student Antwoine stated,

“That’ll help me [corrective feedback that points out mistakes] more like . . . sometimes teachers give us different strategies to use. I’m like, ‘Well this strategy is not helping me, how about I try this strategy that I used from a different class?’” (Focus group, Feb. 12, 2018)

The outcome of teachers providing C1 and C2 feedback in his classes, was motivation and an ability to recognize some other strategy that would be more efficacious in leading to success, as he defined it. This outcome is an example of competence as presented in the SDT framework. Antwoine was able to understand how to achieve a goal and perform the necessary actions, in this case, evaluating and then adjusting the strategy used to attain success (Deci et al., 1991).

How his teacher defined and used feedback created the conditions that helped to explain not only Antwoine’s actions but those of his peers as well (Corbin & Strauss, 2015). This idea leads to the sub-questions of this research related to the self-constructs or three psychological needs, that are purported to connect what goals people pursue and the regulation process they employ in achieving those goals in the SDT motivation theory.

The first sub-question was, how does verbal and/or written teacher feedback on FA influence early adolescent students’ development of a sense of competence? The research revealed that a degree of competence tended to correlate to the depth of feedback. When feedback is not very descriptive or task-oriented, students do not demonstrate they possess motivation born of a depth of understanding regarding how to identify and then choose the most advantageous strategies to achieve goals. When teacher feedback is resigned to identifying errors or even focusing on what students did well, students do not likely have an opportunity to
deeply learn from reflecting on the experience of creating the work or completing the task and applying that understanding to future experiences. Especially without a more complex conversation about why the work product was incorrect or correct. This is not to say corrective feedback does not motivate them, but the regulation process is not integrated. At best it is an identified regulation because the student accepts the value placed on grades as an indicator of success, but they do not work to obtain the goal of correct work/good grades solely out of personal interest. I asked,

what types of information does your teacher give you, to help you evaluate how well you are doing? So, you know ‘Oh I know how to do this’ or ‘Oh, I’m doing better at this than I was at the beginning of the year?’ (Griffin, focus group, Dec. 14, 2017)

Sixth graders in Mr. Ice’s class responded, “He shows us our grades.” Martin said, “Sometimes, we'll do work on that [topic], and he’ll check it. Then he’ll say ‘good, flip it over.’ If no answers are wrong, he’ll say, ‘flip it over’” (focus group, Dec. 14, 2017). In the quick paced nature of FA during instructional time, showing a student a grade or verbally communicating to them with “good, flip it over,” is understandably pragmatic. As I mentioned before, time is a precious commodity in education. However, if at some point the quick feedback is not more specific, outlining how students have improved and what they are doing to receive a “good, flip it over,” it stymies the impact of the feedback on competence.

Nevertheless, in all four classes, the data suggested the positive influence that teacher feedback had on students’ sense of competence. Teachers sometimes used feedback to affirm reluctant learners or to change behaviors deemed subversive to learning. Even in those contexts, students had motivation, armed with some degree of understanding what they needed to do, if not how explicitly. How did students in Ms. Holly’s class respond to feedback on a quiz with a
low score and directions to watch out for certain mistakes next time? For Geron, “I think I need to stop goofing around and stuff . . . that’s what I did. I changed” (focus group, Oct. 13, 2017).

On the PCS scale, in the first and second administrations of the questionnaire, of the 30 total participants, 23 had an average score of 5.5 or higher on the instrument. This score meant that the average perception of competence for these 23 students was at 79%. After the second administration of the instrument, some of these 23 students did show a decrease in their perception of competence. However, the difference was equivalent to about a 4% change, still indicating moderate to high perception levels.

The second sub-question in this study was how does verbal and/or written teacher feedback on FA influence early adolescent students’ perceptions of relatedness? I was surprised at what I uncovered in the data concerning feedback, relatedness, and amotivation. Comparable to how teachers married feedback about behavior with feedback about academic tasks, some early adolescents married their type of motivation to the degree of relatedness in the feedback. It was almost as though the feedback, over time, played a part in the relational dynamic between student and teacher. Ms. Iverson’s class presented an interesting dichotomy of feeling appreciated and sometimes antagonized given the type of feedback they received. When asked how they felt when they got written feedback on their work, Kevin replied, “I like it when she does that because, because you know, it tells you what she was feeling on the dot” (focus group, Feb. 12, 2018). He liked knowing how Ms. Iverson felt about the work he created. Samantha added her perspective, “when it says great work, it encourages me to do better. I know that she knows that I’m doing good” (focus group, Feb. 12, 2018). These are just two examples, but when the feedback was on the descriptive end of the feedback typology continuum, students expressed happiness, pride, or joy in knowing what their teachers thought of their work. This
example seems to hold true even when the feedback is negative, in the sense that it focuses on a mistake. Addison in Ms. Mitchell’s class said,

When I get a good comment from my teacher, when they’re like “great job” or something, I feel good that my teacher thinks I’m doing good. But when they give me a comment and they tell me, “Hey, you’re not doing so good in this one, you should try this” it doesn’t make me upset, it just makes me feel better that they’re seeing that I’m struggling with something and they want to help me. (Focus group, Jan. 11, 2018)

This kind of feedback motivated students to continue on the path they were on. Yet, when the feedback was more evaluative, or when the student perception was that feedback centered on behavior, in Ms. Iverson’s class, they became disenchanted. Notice this exchange, “Can you all describe for me what makes you want to, or not want to do class work?” Kevin noted, “Definitely. The teacher is always yelling” (focus group, Feb. 12, 2018). Antwoine chimed in, “I’ll say that what motivates me the most in this class is not getting yelled at for nothing” (focus group, Feb. 12, 2018). The antithesis of this statement is that being yelled at, perhaps unjustly, was either not motivating or a source of amotivation. I am sensitive, as an educator, that sometimes teachers and students have different and opposing perceptions of an event. What a teacher could mean as encouragement, a student can interpret as chastisement. Kevin shared what motivated him to learn information in class was “Because our teacher will get mad at you if we don’t do it” (focus group, Feb. 12, 2018). He did not see her wanting and expecting her students to learn as encouragement or evidence of her belief in their abilities; he interpreted it as a point of dissonance. So overall, teacher feedback, when tending to be descriptive in type, seemingly fosters a positive perception of relatedness in early adolescent students.
How does verbal and/or written teacher feedback on FA influence learning autonomy for early adolescent students? I looked at several articles by Deci and Ryan (2000, 2008) and Deci et al. (1991) for some connection to autonomy and what the data presented in this research. There were glimmers and traces of autonomy, that is, students acting out of their own will, interests, and values; taking advantage of or creating opportunities for self-direction. However, I did not uncover consistent examples of autonomy. Yes, in the veteran teachers’ classes, students had choice in correcting work, order of work completion, and even some choice in the learning product, but it was not ongoing.

Teacher’s definition of feedback, their use of feedback, their ascribed value of feedback, not even their evaluation of feedback created much space for student autonomy. Feedback was effective if the targeted behaviors ceded or continued according to teacher expectation or maybe school norms. There was no apparent evidence that teachers measured the effectiveness of feedback by students’ ability to fully internalize the value of the work to start it on their own. The internalization of the value of a task to the point of students incorporating that value into their perspective and ultimately their behavior signifies an integrated regulation process, a more self-determined motivation.

Too, I considered the impact of feedback from the students’ perspective. I looked at a memo about a comment made by Antwoine, a sixth grader in Ms. Iverson’s class. I referenced it in the first research question section; he discussed how lack of success with one strategy made him resort to other strategies that have worked. I pondered whether this was competence or autonomy. Addison, a fifth grader, mentioned that feedback helps her know how to do things better in the future. Again, I pondered, is this an example of autonomy? I surmised that these are not examples of autonomy. In many cases, the feedback was not descriptive enough to help
students know what exact steps to take to achieve greater competence, to assess their own work, and to compare current and past work. Acknowledging students’ feelings or previous experiences is a part of the definition of autonomy (Deci & Ryan, 2000), which was not evident in the data when feedback was meted out. Furthermore, in analyzing the SRQ-A questionnaires (see Figure 3), a clear change in relative autonomy after receiving feedback was not present from that data.

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*Figure 3.* Changes in Student Relative Autonomy After Teacher Feedback. This data reflects changes in relative Autonomy Index (RAI) scores derived from analysis of students’ first and second SRQ-A scores. The data does not distinguish students who scored in a particular regulation range and stayed in that range even after feedback.

Across grades, gender and teacher, there was a nearly even split among students who increased or decreased in autonomy type (e.g., moving from controlled to autonomous regulation).

**Summary**

In summary, this chapter provides a richer description of the teacher participants, including the conditions they set in their classrooms. Attention is given to explain how I extracted themes from open coding during the data analysis, supported by insights from the
participants. I presented themes in two stages: those about teachers, namely, defining feedback, using feedback, the value of feedback, and evaluating the effectiveness of feedback, followed by those related to the student data: the impact of feedback, grades, gauging ability and expecting achievement. Finally, I provided a discussion of how the data answered the central and sub-research questions.
CHAPTER FIVE: CONCLUSION

Overview

The purpose of this grounded theory study was to develop a general theory explaining how verbal or written teacher feedback on formative assessments influences early adolescent motivation for academic achievement along the SDT continuum. The study focused on fifth and sixth-grade students and measured their motivation in the context of SDT. In this chapter, I present a summary of the research findings, in light of the research questions. Next, there is some discussion of the theoretical literature that undergirded this grounded theory study and how these findings are in line with and go beyond current research. Followed by that, I explored theoretical and practitioner implications given the findings. Considerations of delimitations and limitations in research design are presented, concluding with future research recommendations.

Summary of Findings

In attempting to develop a grounded theory that explained how written and verbal feedback from teachers on formative assessments influences early adolescent students’ motivation for academic achievement, I made several findings. First, regarding the central question, how does written or verbal feedback from teachers on FA influence early adolescent students’ motivation for academic achievement? The research revealed that in general teacher feedback on FA can and does influence aspects of early adolescents’ motivation. The themes, impact of feedback, gauging ability, grades, and expecting achievement illuminated this. I found in the impact of feedback and grades themes that, in relation to the first sub-question, verbal and written teacher feedback on formative assessments helps students develop a sense of competence. This confidence occurs when the feedback is descriptive according to Tunstall and Gipps (1996) feedback typology. The type of feedback suggests the type of motivation students
experience. Next, in answering how does verbal and/or written feedback on FA influence students’ perception of relatedness, it was determined from the impact of feedback theme that teacher feedback on FA can positively or negatively affect students’ perceptions of relatedness. In some instances, feedback that is perceived to focus almost disproportionately on behavior can lead to amotivation (though it is not the only cause of amotivation). Meanwhile, task-oriented feedback tends to support more positive perceptions of relatedness. Finally, it was determined, that teacher feedback on FA does not seem to influence learning autonomy, which was the third sub-question. The gauging ability, grades, and expecting achievement themes were paramount in answering this question.

I represented these findings in Figure 4. The diagram serves as a visual depiction of this theory. The impact of teacher formative assessment feedback on early adolescents’ achievement starts with teacher goals. Those goals are academic, such as a learning standard but often also include a behavior component, like focus or effort. The goal is the driving force on the type of task assigned to students. The way students engage in or perform the task then dictates the type of feedback a teacher offers, which in turn influences how students’ self-constructs or needs are met and thus their motivation.
Figure 4. Theory of Teacher Feedback Influence on Motivation Diagram. The diagram shows the impact of teacher feedback on the three self-constructs of Self-determination theory (SDT) of motivation. Since the impact on autonomy is unclear, though suggested with type D feedback, it is disaggregated from the other constructs. Amotivation is a lack or absence of motivation. It is impacted by feedback though not a construct, so it is slightly separate from the constructs.
Discussion

The findings of this study are significant, but the reader must consider them in relationship to extant theoretical and empirical literature. It would minimize the value of this theory if I merely reiterated existing theories. Instead, what follows is a discussion of how these findings align with previous research as well as well it provides new scholarship. Too, I address the implications of these findings theoretically along with the implications for practitioners. Finally, delimitations and limitations of the research procedures are discussed and lead into considerations for future research.

Theoretical Literature

The primary theoretical framework for this study was Deci and Ryan’s self-determination theory. It is a macrotheory that gave particular attention to how motivation might look in an education context. This macrotheory was appealing to me as a practitioner but also considering the very nature of my grounded theory study involved teaching and learning directly. This study mostly corroborates Deci and Ryan’s (2000) supposition that when people have consistent and overarching supports that allow them to experience competence, relatedness, and autonomy, they tend to grow and seek opportunities to grow. Therefore, their natural regulation processes operate best when they have immediately available supports. It seemed to me that feedback was one of the most immediately available supports employed by teachers to guide students in their learning. With the exception of influencing learning autonomy in decisive ways, the findings in this study align with their theory in that regard. Furthermore, Deci and Ryan (2000) theorized that autonomy and competence were the greatest influences on intrinsic motivation going on to suggest that relatedness, played a distal role. They had not determined whether relatedness in an educational setting influenced intrinsic or integrated motivation. My findings suggest that
relatedness can emanate from teacher feedback and influence motivation regulation on some level.

Moreover, their research has not dealt so specifically with feedback on formative assessments, nor targeted the early adolescent student population. This study targeted that population because the work of Piaget, Erikson and successive literature found that at that age, perceptions of ability declined, and students made more comparisons to peers were made in defining one’s self. Research in neuroscience determined that the brain responded to negative information or feedback in positive ways (Arbel & Wu, 2016; Vasta et al., 2004; Wigfield et al., 2005). I also corroborated these findings in this study. In three of the four classrooms, students verbalized using quantifiable measures, such as Lexile scores, percentages, and grades – especially grades – to not only rank themselves but also, to validate their self-assessment of their class ranking in comparison to their peers. Being transparent, the question did expressly allow students to use grades or how well they seemed to understand the material taught in class. Student participants’ primarily used grades to measure how well they understood the material. Not only that, among these early adolescents, what neuroscience classified as negative information, did indeed have a positive impact as some students indicated that receiving negative feedback was helpful in giving guidance of what to avoid or where to improve on subsequent similar tasks.

Secondary theoretical literature, on expectancy-value theory, was important to this study because EVT looked at the autonomy and competence needs of SDT in an educational milieu. Again, that was important since the focus was on the impact of teacher practices on student learning experiences. While the findings in this study, relative to autonomy are not conclusive, like in EVT, having students judge their abilities across subject areas demonstrated how
Impactful teacher feedback could be on establishing student values and perceptions of ability (Wigfield & Eccles, 2000) that lead to a sense of competence. Wigfield and Eccles (2000) even proffered that students might interpret evaluative feedback more accurately, resulting in a decline in their ability beliefs. I communicated with them to clarify how they meant the term “evaluative feedback.” In the exchange, Wigfield explained, “I think in the W and E (2000) article and other places we take a pretty broad perspective of what counts as ‘evaluative feedback’: grades, test scores, ability group placement, teacher comments/praise/criticism, and so on” (email correspondence, April 12, 2018). Too, it should be noted because the findings indicated that descriptive feedback (types C and D) bolsters student perceptions of competence in the SDT framework, by extension the study substantiated self-efficacy theory (Bandura, 1993) concerning how feedback impacts perceptions of ability.

Tunstall and Gipps (1996) typology, though not a theory, proved to be a vital part of this study and subsequent findings. Their research developing rich categorizations for feedback provides a useful guide that could serve to create a universal framework for categorizing feedback. The typology they created incorporated an understanding of effective feedback based on the literature juxtaposed with the concept of feedback particular to assessment. Although I created the feedback chart presented in this study, I used Tunstall and Gipps’ typology as a reference to assist me in how I organized the feedback that was observed during the course of this research.

**Empirical Literature**

There are myriad studies on motivation, studies on assessment, literature on feedback and even literature on feedback and assessments. Nonetheless, I found no empirical literature that cut across all these research swaths. In that way, this study stands alone, to my knowledge. This
study further deviated from extant empirical literature because I found no grounded theories endeavoring to explain the intersection of teacher feedback on FA and motivation in early adolescent academic achievement.

Consequently, this study adds a new theory to the field of education. By creating a new theory, the door is open to better understand and the implement FA feedback as a vehicle for enhancing student achievement, critical thinking, self-awareness, and value of learning.

Additionally, my research perhaps has the unique position of being the work of a current educator who labored to understand the literature of feedback, motivation, and assessment to then marry the application of that existing literature, these research findings and the current needs of teachers and students to move teaching and learning forward.

**Implications**

**Theoretical Implications**

Just as theories evolve, I anticipate that this theory too will evolve. The study creates a doorway to more studies that analyze the practices of teachers, not for the sake of criticizing them, but to gain a “real-time” understanding of the demands of the job and how that causes the execution of some research-based practices to fall short of their best versions or intentions. Also, these findings suggest that theories that consider the role of social context on education and learning, like SDT and EVT, may be more informative than ever before, given the evolving role of school in student lives. Schools now provide mental health resources, medical resources, and other social services within the building. So new or existing theories may need to consider how they can address dynamic conditions present in schools as opposed to more compartmentalized treatment of issues. SDT posits that all three self-constructs are operational in people, to varying degrees at one point or another, given the task. The findings of this study endorse that
supposition and indicate that just as the theme of grades ebbed and flowed across the other themes and codes, our theoretical work and applications should likewise be as fluid. Finally, there needs to be a common definition of feedback, derived from theories. It is a disservice to the field of education to have myriad definitions of feedback that may serve to make our research standout but do little for assisting educators in efficiently moving towards providing deep, task-oriented, timely, specific feedback. Teachers need to be working from a common framework concerning feedback if they are going to help students know what mastery of a topic is and be able to employ strategies to support students in gaining that mastery.

**Empirical Implications**

Just as there was a gap in the empirical literature that addressed teacher feedback on formative assessments and its impact on early adolescent motivation, there is an obvious gap in the research. The findings of this study in some instances verified existing research pertaining to aspects of these ideas, but for what this theory found, this work needs to be confirmed. The achievement gap was one of the problems that spurned this study; now researchers need to understand how this theory and future variations of it, lead to closing the achievement gap. Similarly, there is a lack of research on whether descriptive teacher feedback presented to early adolescents can, in fact, alter the course of those students who might be most likely to drop out of high school due in part to low perceptions of ability, or minimal to no value for academic achievement. Finally, I believe future research needs to be a collaborative effort between researchers, educators, and students because I wonder if research in academia can keep up with the rapidly evolving nature of education effectively, without such an ongoing partnership.
Practical Implications

When teachers or perhaps the larger school context, directed attention and focus to grades as the outcome or end game of success, the feedback manifested a tendency to target correcting student work. Corrective feedback can be effective, but it is not as effective as feedback that speaks to specific challenging goals (Hattie & Timperley, 2007). Though likely to be time-consuming initially – and difficult given people’s tendencies to resist change – education has to find a way to alter the prevalent perceptions of grades as the only or best means of evaluating what students know and can do. No, I am not joining the fray on whether or not we should eliminate grades in education; grades have a certain merit, in my experience on both sides of the desk. However, I do think the findings in this study could reinvigorate the conversation among administrators, teacher, students, and parents regarding not letting grades be the penultimate expression of success. After all, if we are truly serious about greater student engagement, deeper student thinking and analysis, stronger problem-solving skills, closing achievement gaps and other ideas for improving achievement, we have to remember that just as we realized no one teaching strategy suits all learners, one evaluation method does not either. It is time to discuss what resources schools and teachers need to create systems that foster self-evaluation of work in students, critical thinking through examining and editing one’s own work and that of one’s peers, and an appreciation for the idea that abilities are not necessarily fixed. This last point may mean a more philosophical alignment with a growth mindset, but even discussion with those who do not share that philosophy is still warranted, as a means to shift the focus from grades as the dominant form of feedback, to more self-evaluative practices.

Pertaining to feedback, it is evident that it can be a vehicle to convey the value in a task or behavior (i.e., greater effort equals achievement) to students. It is equally evident that as
teachers and administrators we often fall short of giving enough information to our scholars at the onset of the unit or the school year, to help them fully understand and apply the steps that lead to content mastery. We need to clearly define what mastery is and how it is or will be measured. In many instances, common core state standards (CCSS) are the learning goals. Teachers may post the learning standards in their classroom as “I Can” statements or learning targets, but it needs to be very clear to students that those standards point to an example of mastery of a topic. Likewise, educators need to operate from a common conceptualization of feedback to better assist students in their understanding and pursuit of academic mastery. When our language is more universal, akin to how the order of operations dictates how to solve multi-operation problems, then we can perhaps use feedback to help students learn how to evaluate and correct their own work. When students take the initiative in small incremental ways, we may find that we are helping them be more autonomously regulated. The teacher participants and students in this study all had some keen insight to share, but I did not encapsulate all of it here. That kind of insight is worth mining, but it does take time. Administrators may need to set aside professional development time for teachers to develop a crib sheet of descriptive feedback statements or forms for students to complete after they finish a task. Doing so will assist them through the self-evaluation process until everyone becomes more familiar with what descriptive feedback, especially type D sounds and looks like in a classroom and can take the initiative.

Speaking of autonomy, I was at first surprised that the study findings showed FA feedback had no significant influence on autonomy. When we think about the education milieu, this is not a surprising finding. Students sit in classrooms where teachers present to them the learning standards that are deemed important to know and master. Some teachers do not even feel autonomous at that stage, let alone their students. Then, the educational system has
historically relied on an external goal, like getting certain grades, scores, or marks as proof of learning and mastery, perhaps to the exclusion or minimization of allowing all stakeholders to define the learning goals. It may not be feasible on a school district level but these findings, I think, challenge teachers to find ways to work with students to define learning goals. Yes, educators must cover standards, and in a real sense, many teachers feel corralled regarding what standards they teach and when. However, what about at least giving students time to decide what their learning product will be for a unit of study or working together to agree on an evaluation method. Again, these are not easy solutions, but if practitioners are committed and take some time, we can continue to help students move forward in their learning. Start with committing to use type C and D feedback at least three times a week for a month and see what happens.

Lastly, in continuing to think about why our students may not be as autonomously regulated as is beneficial for optimal learning, there are no silver bullets. However, there may be mile markers to help educators evaluate the effectiveness of their feedback more succinctly. We may be able to identify autonomy when teachers and students no longer report the effectiveness or impact of feedback, respectively, regarding affirmation and validation. When students no longer feel the need to have to ask the teacher if the problems are correct after completing a set number of tasks in a set, but have systems in place to evaluate and verify the accuracy of their work, then seeking feedback from the teacher on the thought process behind the work, we may be able to say feedback on FA has a positive influence on student autonomy in the SDT context.
**Delimitations and Limitations**

McCaslin and Scott (2003) compared delimitations in a qualitative study to “a fence around the study” (p.457). Delimitations are the parameters within the control of the researcher, set for the study with regard to research elements such as participants, setting, or processes.

The study was delimited to fifth and sixth graders and their teachers because these grades fall within the early adolescent stage of development – ages 9-12. This delimitation is significant because early adolescence is when student perceptions of their abilities begin to decline (Bong et al., 2012; Deci & Ryan, 2000; Gottfried et al., 2005; Wigfield & Eccles, 2000). Teacher participants had to be current educators in core subjects (i.e., math, English/language arts, science, and social studies) because they typically see students more often than encore teachers, and thus were likely to have more opportunities to formatively assess students with feedback. Teacher selected in this study had to use textbook publisher’s supplemental assessments or teacher-created, formative and summative assessment with their students regularly.

On the other hand, limitations are those variables that are beyond the control of the researcher but may influence the study. Again, McCaslin and Scott (2003) define limitations uniquely, as the disadvantages and advantages of a study because some of those variables may prove to be assets while others create obstacles or difficulties.

Potential limitations of this study are related to the participants. The goal was to employ maximum variety sampling at the district level – that is intentionally selecting a heterogeneous group to determine what is the same about their experience (Morse, 1998). By only selecting students among participating teachers’ classes, I may have ignored certain student groups’ voices not present in those classes despite the diversity of the district or school; even those who were invited but chose not to participate had experiences not presented in this study. Similarly, while
I sought to have diverse sites, participant selection was subject to the responses I received and the people or districts I could make connections with. The transferability of the study may be limited to early adolescents, or students in public schools, or students who may experience assessment and subsequent feedback in the same way as the study participants. For example, students at a Montessori school or schools with a different philosophy of education, who interact with feedback differently, may demonstrate a unique level or type of response to feedback.

**Recommendations for Future Research**

A longitudinal phenomenological study of the impact of teacher feedback on motivation among early adolescents may provide greater insight into the phenomenon of changing motivation. From my research experience, the time I spent in a classroom totaled approximately one month, each. In actuality, however, that time was spread out, in some cases, over a two or three-month period. So, for those sites where I spent time with the teachers and students over that length of time, there was a sense of growing comfort and familiarity with my role as an observer and researcher in the classroom. Additionally, I became more knowledgeable of the participants. These factors seemed to lend themselves to more open dialogue and sharing between the participants and myself. Consequently, a longitudinal study of the phenomenon – centered on a small contingency of student participants – might allow a stronger rapport to develop between participant and researcher so they feel even more comfortable to discuss their perspectives, which may help further illuminate how and why students’ reaction to feedback changes their motivation regulation. Not only that, a longitudinal study that follows several teacher participants over two or three school years would provide more opportunities to observe for the types of feedback a teacher employs in response to the composition of his or her classes and how that may impact student achievement. As a teacher, I know firsthand how one’s
teaching style and approach varies in direct relation to who is sitting in your class. It must; there is no monolithic student archetype. So, one way does not work for all and what worked last year, may seem obsolete next year because they come to school bringing with them their whole lives, not just their academic lives, and that reality often colors what a class looks like, how it functions and what the collective accomplishes. Thus, exploring how teachers use evaluative and descriptive feedback over time as a condition that effects student motivation would be insightful. Even a longitudinal study that monitors teachers’ use of feedback after having received appropriate training on effective feedback as it relates to the typology could inform future professional development, not to mention, substantiate the impact of feedback on long term student growth and achievement.

Additionally, a study of how students feel connected to teachers, from the beginning of the year and at various points throughout the year would be interesting. To better understand relatedness, researchers need to give attention to how relationships might impact students’ sense of relatedness. It is unclear whether feedback is a cause of students’ sense of relatedness, or whether the initial connectedness between students and teachers impacts how students receive feedback and thus, the impact it has on students’ sense of relatedness.

Unfortunately, it seems that our conversations about education reform and improving student achievement often dedicate little time to the role of parents in the educational process. Without indulging in that conversation too extensively here, it resonated with me repeatedly, when student participants mentioned the role of their parents in how they processed or received some teacher feedback as well as the role of their parents in motivating them to achieve academic goals. There seems to be no research explaining how parents may help students respond to feedback from teachers, in light of the SDT continuum, by internalizing the value of
the feedback marrying it with their own values (integrated regulation). Also missing is research on identifying the value of feedback and accepting it (leading to identified regulation), or at least using the feedback to help them adopt some of the values and behave accordingly (introjected regulation).

**Summary**

This grounded theory study found that teacher formative assessment feedback influences early adolescent students’ motivation to achieve academically. Using the self-determination theory of motivation as a framework, I discovered that certain types of teacher feedback affects how students view their work, their abilities, and even their connection to teachers. Feedback that is descriptive helps students develop a sense of competence and relatedness while feedback that is more evaluative, especially when students perceive that it focuses disproportionately on behavior, leads to a lack of interest to complete task. Researchers describe this lack of interest in SDT as amotivation. However, some evaluative feedback, if it positively focuses on general work principles, does also foster a sense of competence in students, albeit not as deeply as descriptive feedback does. Beyond that, the study has several implications for practitioners. The first one is the need to train teachers on what effective descriptive feedback is and how to utilize it consistently in their classes, so students can learn to self-assess their work. Related to that is the need to develop more autonomous learners, in part by explicitly conveying to them what content mastery looks like, but also modeling for them how to evaluate their own work and learning to gauge if they are in fact operating at greater levels of mastery with guidance from feedback.
REFERENCES


https://doi.org/10.1016/j.neuropsychologia.2016.10.001

https://doi.org/10.1080/00461520701621079


https://doi.org/10.1177/0973184913485014

https://doi.org/10.4135/9781446250808.n13


https://doi.org/10.1177/0027432110393022

https://doi.org/10.1207/s15327965pli1104_01

https://doi.org/10.1037/a0012801

http://selfdeterminationtheory.org/perceived-competence-scales/

https://doi.org/10.1207/s15326985ep2603&4_6


Hwang, G-J., Hung, C-M., & Chen, N-S. (2014). Improving learning achievements,
motivations and problem-solving skills through a peer assessment-based game

https://doi.org/10.1007/s11423-013-9320-7


http://www.academia.edu/6943206/Behavioural_Development_Of_Early_Adolescents_By_Dint_Of_Positive_School_Climate


https://doi.org/10.1016/j.jvb.2010.02.005


https://doi.org/10.1177/0739986311424275


thinking beyond the four walls of the classroom: Linking the academic content with service learning. Teacher Education Quarterly, fall, 45-66. Available from http://www.teqjournal.org/

https://doi.org/10.1080/02602930903541007

https://doi.org/10.1002/bs.3830280103

https://doi.org/10.1177/0272431609333299


https://doi.org/10.1006/ceps.1999.1020


Schlechty, P. C. (2011). Working on the work: An action plan for teachers, principals, and


APPENDICES

Appendix A: Permission to Conduct Research

July 3, 2017

Nichole Griffin
IRB Approval 2797.070317: Using Assessment Feedback for Motivation among Early Adolescents: A Grounded Theory Study

Dear Nichole Griffin,

We are pleased to inform you that your study has been approved by the Liberty University IRB. This approval is extended to you for one year from the date provided above with your protocol number. If data collection proceeds past one year, or if you make changes in the methodology as it pertains to human subjects, you must submit an appropriate update form to the IRB. The forms for these cases were attached to your approval email.

Thank you for your cooperation with the IRB, and we wish you well with your research project.

Sincerely,

[Signature]

Administrative Chair of Institutional Research
The Graduate School

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Appendix B: Principal Invitation

August 8, 2016

[Name here]
Principal
[Organization]
[Address 1]
[Address 2]

Dear [Name here]:

As a graduate student in the School of Education at Liberty University, I am conducting research as part of the requirements for a Doctor of Education in Curriculum and Instruction degree. The purpose of my research is to develop a theory that explains how feedback from teachers on formative assessments influences early adolescent students’ motivation for academic achievement, and I am writing to invite your school to participate in my study.

The principals of intermediate, elementary or middle schools in your district will be asked to assist in identifying fifth and sixth grade core subject teachers who consistently use formative assessment with verbal or written feedback to students. Teachers who are willing to participate will be asked to complete a demographic survey, disseminate recruitment letters with parent consent and student assent forms to their class, from those students who return the forms assist in selecting students to participate in a focus group, allow the researcher to observe their classes for at least 45 minutes, and participate in one interview with the researcher. It should take approximately 1.5 hours for you to complete the procedures listed. Your school, teacher and student participants will be given pseudonyms to ensure complete confidentiality, and no personal, identifying information will be will be used in any report of this study.

To participate please submit a letter of consent to conduct this study, on district letterhead. The letter can be mailed to me or a PDF version of the letter can be emailed to ngriffin6@liberty.edu.

If teachers and students choose to participate, they will not be compensated.

Sincerely,

Nichole L. Griffin
Doctoral Candidate
Appendix C: Teacher Invitation

September 26, 2016

[Name here]
Teacher
[Organization]
[Address 1]
[Address 2]

Dear [Name here]:

As a graduate student in the School of Education at Liberty University, I am conducting research as part of the requirements for a Doctor of Education in Curriculum and Instruction degree. The purpose of my research is to develop a theory that explains how feedback from teachers on formative assessments influences early adolescent students’ motivation for academic achievement, and I am writing to invite your school to participate in my study.

Participating teachers of early adolescents, who consistently use formative assessment with verbal or written feedback to students, will be asked to assist in identifying fifth and/or sixth grade students to participate in the study by disseminating recruitment letters with parent consent and student assent forms to their class, and assist in selecting student participants from those who return the forms to complete two questionnaires and engage in a focus group. Additionally, recruited teachers will be asked to allow the researcher to observe their classes as well as participate in one interview with the researcher. It should take approximately 1.5 hours for you to complete the procedures listed. Your name and/or other identifying information will be requested as part of your participation, but the information will remain confidential.

To participate, complete and return the consent document to the researcher within one week. To schedule the class observation and an interview you can email ngriffin6@liberty.edu.

A consent document is attached to this letter. The consent document contains additional information about my research, please sign the consent document and return it to me at the time of the observation. If teachers and students choose to participate, they will not be compensated.

Sincerely,

Nichole L. Griffin
Doctoral Candidate
Appendix D: Teacher Demographic Survey

Teacher Demographic Survey

1. Name:

2. Gender: Female or Male

3. Race: American Indian or Alaska Native,

   Asian,

   Black or African American,

   Native Hawaiian or Other Pacific Islander,

   White

4. Grade level currently teaching:

5. Years of teaching experience:

6. Subject area currently taught:

7. Types of feedback used most frequently:

   (a) verbal, (b) written, (c) task-specific, (d) immediate (within one or two days),

   (e) corrective (right vs. wrong), (f) focus on finished product, (g) focus on process
Appendix E: Teacher Consent

The Liberty University Institutional Review Board has approved this document for use from 7/3/2017 to 7/2/2018
Protocol # 2797.070317

CONSENT FORM
Using Assessment Feedback for Motivation among Early Adolescents: A Grounded Theory Study
Nichole L. Griffin
Liberty University
School of Education

You are invited to be in a research study of the impact of teacher feedback on formative assessments on student motivation. You were selected as a possible participant because you are an educator that teaches early adolescents, you were recommended by your principal for this study, and you qualify based on your responses on the demographic survey. I ask that you read this form and ask any questions you may have before agreeing to be in the study.

Nichole Griffin, a doctoral candidate in the School of Education at Liberty University, is conducting this study.

Background Information: The purpose of this study is to determine how written or verbal feedback from teachers on formative assessments influence early adolescent student motivation.

Procedures: If you agree to be in this study, I would ask you to do the following things:
1. Assist me in identifying students from your classes to participate in this study. This will take about 15 minutes.
2. Assist me in disseminating student (and parent) invitations and ultimately consent/assent forms. This will take about 20 minutes.
3. Allow me to observe one of your classes and take field notes. This may last about 45 minutes.
4. Participate in a one-on-one audio-recorded interview regarding how you use feedback with formative assessments. The interview will be confidential with duration of about one hour.
5. Provide some written or verbal feedback on a formative assessment given to students at least one week after student participants initially complete the SDT questionnaires.

Risks and Benefits of being in the Study: The risks involved in this study are minimal, no more than you would encounter in everyday life.

There are no direct benefits to participating in this study. However, this study may benefit educators and school districts that are seeking ways to maximize formative assessments to improve student motivation and ultimately academic achievement. Additionally, this study may reveal information that could aid in creating programs that close achievement gaps among less motivated students.

Compensation: Participants will not be compensated for participating in this study.

Confidentiality: The records of this study will be kept private. In any sort of report I might publish, I will not include any information that will make it possible to identify a subject.
Pseudonyms will be used in lieu of participants’ names. Research records will be stored securely and only the researcher will have access to the records.

- All data collected during class observations and interviews (audio) will be maintained in a password protected digital format that only the researcher has access to for protection of participants’ confidentiality.
- Any non-digital data will be stored in a locked file cabinet. Per federal regulations, all data will be retained for three years and then erased from the memory device and/or destroyed.
- Every effort will be made to maintain participant confidentiality. However, because you were recommended I couldn’t assure that others will not realize your participation in the study.

Voluntary Nature of the Study: Participation in this study is voluntary. Your decision whether or not to participate will not affect your current or future relations with Liberty University or your school district. If you decide to participate, you are free to not answer any question or withdraw at any time without affecting those relationships.

How to Withdraw from the Study:
If you choose to withdraw from the study, please contact the researcher at the email address/phone number included in the next paragraph. Should you choose to withdraw, data collected from you will be destroyed immediately and will not be included in this study.

Contacts and Questions: The researcher conducting this study is Nichole Griffin. You may ask any questions you have now. If you have questions later, you are encouraged to contact her at ngriffin6@liberty.edu. You may also contact the researcher’s faculty advisor, Dr. Gail Collins, at gcollins2@liberty.edu.

If you have any questions or concerns regarding this study and would like to talk to someone other than the researcher, you are encouraged to contact the Institutional Review Board, 1971 University Blvd, Green Hall 1887, Lynchburg, VA 24515 or email at irb@liberty.edu.

Please notify the researcher if you would like a copy of this information for your records.

Statement of Consent: I have read and understood the above information. I have asked questions and have received answers. I consent to participate in the study.

☐ The researcher has my permission to audio-record me as part of my participation in this study.

____________________________  __________________________
Signature of Participant Date

____________________________  __________________________
Signature of Investigator Date
Appendix F: Scripted Introduction

Good Morning. My name is Nichole Griffin and I am a fifth-grade math and social studies teacher. I have been teaching for over 11 years, but I am also a student at Liberty University. I am working on my doctorate degree. Have any of you ever heard of a doctorate degree or a Ph.D.? Do you know anyone who has one? Well, just like you have assignments and projects in class, I do too.

For my final project, I am conducting research. The purpose of my research is to find out if the feedback you get from your teacher about your work, motivates you to do well in school. For my research project, I’ll be spending some time observing you and your teacher. I will also need some help from you all, if you and your parents give permission. In a small group, I would like to ask some of you questions about school, your work, and your motivation to do well in school. My research may take a few weeks in your school and then I’ll go to another school. While I am here, I will mostly observe but if I can help your class in any way I will try. Do you have any questions for me?
Appendix G: Parent Consent

The Liberty University Institutional Review Board has approved this document for use from 7/3/2017 to 7/2/2018. Protocol # 2797.070317

PARENT/GUARDIAN CONSENT FORM

USING ASSESSMENT FEEDBACK FOR MOTIVATION AMONG EARLY ADOLESCENTS: A GROUNDED THEORY STUDY

Nichole Griffin
Liberty University
School of Education

Your child/student is invited to be in a research study of how teacher feedback on assessments may influence student motivation. He or she was selected as a possible participant because his or her teacher is also participating in the study. I ask that you read this form and ask any questions you may have before agreeing to allow him or her to be in the study.

Nichole Griffin, a doctoral candidate in the School of Education at Liberty University, is conducting this study.

Background Information: The purpose of this study is to develop a theory that explains how feedback impacts academic motivation.

Procedures: If you agree to allow your child/student to be in this study, I would ask him or her to do the following things:

- Complete the Perceived Competence Scale (PCS) and the Academic Self-Realization Questionnaire (SRQ-A) concerning the perceptions of his/her abilities at a task and their degree of individual motivation for a task (respectively). The questionnaires are confidential (45-60 minutes).
- Participate in one audio-recorded focus group (about one hour) about his/her experiences with teacher feedback at school.
- Complete the same two questionnaires one to two weeks after receiving feedback, to gauge any change in perceptions or motivations (45-60 minutes).

Risks and Benefits of being in the Study: The risks involved in this study are minimal, no more than you would encounter in everyday life.

There are no direct benefits to participating in this study but there may be a benefit to society. Information identified from this research may be used to improve teaching and learning for other students, particularly in the area of motivation.

Compensation: Your child/student will not be compensated for participating in this study.

Confidentiality: The records of this study will be kept private. In any sort of report I might publish, I will not include any information that will make it possible to identify a subject. Participants will be assigned a pseudonym that will be used in the study. Research records will be stored securely and only the researcher will have access to the records.

- The privacy and confidentiality of every participant is important. Data collected will be stored in a secure manner.
- Data will be stored in a locked or password protected electronic file. Once the study is concluded and submitted, no future use of the data will occur.
Per federal regulations, all data will be retained for three years and then erased from the memory device (digital content) and/or shredded (hard copy content).

All reasonable measures will be taken to maintain confidentiality and privacy. However, the researcher cannot assure participants that other students in the focus group will maintain the confidentiality of their responses.

Voluntary Nature of the Study: Participation in this study is voluntary. Your decision whether or not to allow your child/student to participate will not affect his or her current or future relations with Liberty University or his or her current school. If you decide to allow your child/student to participate, he or she is free to not answer any question or withdraw at any time without affecting those relationships.

How to Withdraw from the Study:
If your child/student chooses to withdraw from the study, you or your child/student should contact the researcher at the email address/phone number included in the next paragraph. Should your child/student choose to withdraw, data collected from him or her, apart from focus group data, will be destroyed immediately and will not be included in this study. Focus group data will not be destroyed, but his or her contributions to the focus group will not be included in the study if he or she chooses to withdraw.

Contacts and Questions: The researcher conducting this study is Nichole Griffin. You may ask any questions you have now. If you have questions later, you are encouraged to contact her at ngriffin6@liberty.edu. You may also contact the researcher’s faculty advisor, Dr. Collins, at gcollins2@liberty.edu.

If you have any questions or concerns regarding this study and would like to talk to someone other than the researcher, you are encouraged to contact the Institutional Review Board, 1971 University Blvd, Green Hall 1887, Lynchburg, VA 24515 or email at irb@liberty.edu.

Please notify the researcher if you would like a copy of this information to keep for your records.

Statement of Consent: I have read and understood the above information. I have asked questions and have received answers. I consent to allow my child/student to participate in the study.

☐ The researcher has my permission to audio-record my child/student as part of his or her participation in this study.

_____________________________  _______________________
Signature of Parent                   Date

_____________________________  _______________________
Signature of Investigator             Date
Appendix H: Assent

The Liberty University Institutional Review Board has approved this document for use from 7/3/2017 to 7/2/2018
Protocol # 2797.070317

ASSENT OF CHILD TO PARTICIPATE IN A RESEARCH STUDY

What is the name of the study and who is doing the study?
Using feedback for motivation. Nichole Griffin is doing the study.

Why are we doing this study?
We are interested in studying how teacher feedback may motivate you at school.

Why are we asking you to be in this study?
You are being asked to be in this research study because your teacher’s class is being asked to participate.

If you agree, what will happen?
If you are in this study you will be asked to complete two questionnaires at the beginning of the research and again at the end (each set takes about 40 minutes). You will also be interviewed with a group of your peers, at school, by the researcher.

Do you have to be in this study?
No, you do not have to be in this study. If you want to be in this study, then tell the researcher. If you don’t want to, it’s OK to say no. The researcher will not be angry. You can say yes now and change your mind later. It’s up to you.

Do you have any questions?
You can ask questions any time. You can ask now. You can ask later. You can talk to the researcher. If you do not understand something, please ask the researcher to explain it to you again.

Signing your name below means that you want to be in the study.

________________________________________  __________________________
Signature of Child                                  Date

Nichole Griffin  ngriffin6@liberty.edu
Dr. Gail Collins  glcollins2@liberty.edu
Liberty University Institutional Review Board,
1971 University Blvd. Green Hall 1887, Lynchburg, VA 24515
or email at rnb@liberty.edu
### Observation Protocol and Field Notes Example

**Appendix I: Observation Protocol and Field Notes Example**

<table>
<thead>
<tr>
<th>Date &amp; Time</th>
<th>Location</th>
<th>Descriptive Notes</th>
<th>Reflection Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>9/14/17</td>
<td>Rm 315</td>
<td>-Came in on “Giant Steps” math facts review game that requires selected kids to shout out facts with accuracy. Students get immediate feedback on correct answers. -Students with outburst quickly redirected. -Students not responding are selected at least once to participate.</td>
<td>Elmo @ back of room, quick transition to front to keep attention on teacher and work up front.</td>
</tr>
<tr>
<td>12:40pm</td>
<td></td>
<td>-Winner in round gets some kind of class “bucks” -2nd round new students are selected from room. -Close answers are acknowledged (effort); moves around room so all participants can see. At point of shot being taken, nearly all students sit up. -Corrected behavior: “say sorry.”</td>
<td>-What are class demographics? -Who is IS? I get the sense that she follows teacher lead with regard to feedback &amp; class management. Is that correct? Is there a school-wide procedure? Did they coordinate?</td>
</tr>
<tr>
<td></td>
<td></td>
<td>-“You guys are good, that’s impressive. 12s are getting better already.” -“Tracking me in front in 3, 2, 1…” is apparent code for getting students attention back on teacher. -“Good job front group.” “Good job David’s group.” as students transition to next activity.</td>
<td>-How are class (behavior) points used?</td>
</tr>
<tr>
<td></td>
<td></td>
<td>-Constant reminder of opportunity to resume “fun games” after more work done. “1st one done I’ll drop bucks off back here.” “Very nice job getting started, I’ll give you another 100 [pts] if you stay there.” -Calls out names of students working hard (acknowledge effort)</td>
<td>-Nearly everyone (18 kids) appears on task.</td>
</tr>
</tbody>
</table>
## Appendix J: Feedback Typology Chart

<table>
<thead>
<tr>
<th>Type A (1 = +; 2 = -)</th>
<th>Type B (1 = +; 2 = -)</th>
<th>Type C (1 = +; 2 = -)</th>
<th>Type D (1 = +; 2 = -)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Evaluative</strong> = judgemental; based on implied or stated norms (classroom, school, society, etc); conative (or voluntary action) emphasis</td>
<td><strong>Descriptive</strong> = task-related; related to competence; cognitive emphasis</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Rewards</strong></td>
<td><strong>Approving</strong></td>
<td><strong>Specify attainment</strong></td>
<td><strong>Constructing achievement</strong></td>
</tr>
<tr>
<td>- student work/behavior surpasses expectation</td>
<td>- linked to mastering sm. steps in learning</td>
<td>- focus on what students did well</td>
<td>- tends to happen during 1 on 1 convo w/student</td>
</tr>
<tr>
<td>- approval of work/engagement</td>
<td>- feedback given in relation to model of acceptable work/behavior</td>
<td>- C2 – how to correct what is being learned; focuses on where mistake is; (student) Self-checking is evidenced</td>
<td>- work viewed as in progress v compartmentalized</td>
</tr>
<tr>
<td>- general praise (for behaviors considered necessary for learning)</td>
<td></td>
<td></td>
<td>- Student explains own work; build on sense of self-assessment</td>
</tr>
<tr>
<td>- B2 is negative; disapproval</td>
<td></td>
<td></td>
<td>- feedback lets student compare present and past work/achvmt</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- praise points to future achvmt</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- feedback that encourages extending thinking about achvmt</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- D2 – suggest to students how to improve (vs. telling); gives student choice in how to improve</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- offer strategies the adopt to improve work; assess own work</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- prompt kids to examine own work</td>
</tr>
</tbody>
</table>

Note: This diagram is the sole creation of Nichole L. Griffin (2018). It is based on the Tunstall and Gipps (1996) typology research.
Appendix K: Permission to use SDT Instruments

Deci, Edward <deci@psych.rochester.edu>
Fri 10/28, 8:56 AM Griffin, Nichole

You have our permission to use the Self-Regulation Questionnaire-Academic and the Perceived Competence Scale for your personal research. And it is fine to use the continuum figure in your dissertation. If you publish the dissertation in a journal, you will need to check with the publisher of that journal because they hold the copyright.

Ed Deci
--
Edward L. Deci
Professor of Psychology and
Helen F. & Fred H. Gowen Professor in the Social Sciences
University of Rochester
P.O. Box 270266 (for US Mail)
355 Meliora Hall (for Couriers)
Rochester, NY 14627
Office Phone: 585-275-2461
Office Fax: 585-273-1100
Email: deci@psych.rochester.edu
Web site: selfdeterminationtheory.org

FW: Permission to use instruments
Shannon Hoefen <shannon@immersyve.com>
Fri 10/28/2016, 3:45 PM Griffin, Nichole

Action Items
Dear Nichole,

Thank you for your interest in Self-Determination Theory.

We gladly make the SDT scales and metrics available via our website (http://selfdeterminationtheory.org/questionnaires/) solely for academic purposes and use (e.g., dissertation/thesis studies or research related directly to academic work and possible journal publication, and not directly or indirectly related to any commercial application or for-profit use). These scales are proprietary and individuals have taken a lot of time and resources to develop them, which is why we do not grant commercial use (directly or indirectly) without specific written permission.

If you intend to use the scales for commercial purposes (directly or indirectly), please reply to this email and provide a brief scope of your work.
If your intended use is for academic purposes only (which it sounds like it is), then you have our permission to use the “SRQ-A & PCS” scales. We just ask that you follow these guidelines:

· When administering the scale, please include the following credit line: Copyright © 1982-2016 by Self-Determination Theory. Reproduced [or Adapted] with permission. Please note that the use of Self-Determination Theory information and materials does not imply endorsement by Self-Determination Theory.
· When citing the scale in publication, please include one of the references to the scale which can be found on the website at: http://selfdeterminationtheory.org/self-regulation-questionnaires/ & http://selfdeterminationtheory.org/perceived-competence-scales/
· Should your work/research be published, please email us and let us know. We try to keep track of the latest SDT publications.

You also have our permission to use the motivation continuum for your doctorate studies.

If you have any further questions, please feel free to reach out to us.

Best wishes with your research,
Shannon
Appendix L: SRQ-A Questionnaire

The Scale (standard version)

WHY I DO THINGS

Name: ___________________________ Age: __________
Grade: __________ ( ) Boy or Girl ( ) Teacher: __________

A. Why do I do my homework?

1. Because I want the teacher to think I’m a good student.
   Very true    Sort of true    Not very true    Not at all true
2. Because I’ll get in trouble if I don’t.
   Very true    Sort of true    Not very true    Not at all true
3. Because it’s fun.
   Very true    Sort of true    Not very true    Not at all true
4. Because I will feel bad about myself if I don’t do it.
   Very true    Sort of true    Not very true    Not at all true
5. Because I want to understand the subject.
   Very true    Sort of true    Not very true    Not at all true
6. Because that’s what I’m supposed to do.
   Very true    Sort of true    Not very true    Not at all true
7. Because I enjoy doing my homework.
   Very true    Sort of true    Not very true    Not at all true
8. Because it’s important to me to do my homework.
   Very true    Sort of true    Not very true    Not at all true
B. Why do I work on my classwork?

9. So that the teacher won’t yell at me.
   Very true Sort of true Not very true Not at all true

10. Because I want the teacher to think I’m a good student.
    Very true Sort of true Not very true Not at all true

11. Because I want to learn new things.
    Very true Sort of true Not very true Not at all true

12. Because I’ll be ashamed of myself if it didn’t get done.
    Very true Sort of true Not very true Not at all true

13. Because it’s fun.
    Very true Sort of true Not very true Not at all true

14. Because that’s the rule.
    Very true Sort of true Not very true Not at all true

15. Because I enjoy doing my classwork.
    Very true Sort of true Not very true Not at all true

16. Because it’s important to me to work on my classwork.
    Very true Sort of true Not very true Not at all true

C. Why do I try to answer hard questions in class?

17. Because I want the other students to think I’m smart.
    Very true Sort of true Not very true Not at all true

18. Because I feel ashamed of myself when I don’t try.
Very true  Sort of true  Not very true  Not at all true


20. Because that’s what I’m supposed to do.

21. To find out if I’m right or wrong.

22. Because it’s fun to answer hard questions.

23. Because it’s important to me to try to answer hard questions in class.

24. Because I want the teacher to say nice things about me.

D. Why do I try to do well in school?

25. Because that’s what I’m supposed to do.

26. So my teachers will think I’m a good student.

27. Because I enjoy doing my school work well.

28. Because I will get in trouble if I don’t do well.

29. Because I’ll feel really bad about myself if I don’t do well.
Scoring the SRQ-A (standard version). First, you calculate the subscale score for each of the four subscales by averaging the items that make up that subscale. Very true is scored 4; Sort of true is scored 3; Not very true is scored 2; and Not at all true is scored 1. The four subscales are: external regulation, introjected regulation, identified regulation, and intrinsic motivation. Listed below are the item numbers associated with each of the four subscales.

- External Regulation: 2, 6, 9, 14, 20, 24, 25, 28, 32
- Introjected Regulation: 1, 4, 10, 12, 17, 18, 26, 29, 31
- Identified Regulation: 5, 8, 11, 16, 21, 23, 30
- Intrinsic Motivation: 3, 7, 13, 15, 19, 22, 27

You can use the individual subscale scores in your analyses, and you can also use the Relative Autonomy Index (RAI). To form the RAI for this scale, use the following formula to combine the subscale scores:

\[2 \times \text{Intrinsic} + \text{Identified} - \text{Introjected} - 2 \times \text{External}\]

* * * * * * *
The Scale (version for students with LD)

Why I Do Things

Name___________________________  Age________
Boy or Girl (circle one)  ________________  Teacher_______________________

1. I do my classwork so that the teacher won’t yell at me.
   Always  Most of the time  Sometimes  Never

2. I do my classwork because I want the teacher to think I’m a good student.
   Always  Most of the time  Sometimes  Never

3. I do my classwork because I want to learn new things.
   Always  Most of the time  Sometimes  Never

4. I do my classwork because I’ll feel bad about myself if it doesn’t get done.
   Always  Most of the time  Sometimes  Never

5. I do my classwork because it’s fun.
   Always  Most of the time  Sometimes  Never

6. I do my classwork because that’s the rule.
   Always  Most of the time  Sometimes  Never

7. I enjoy doing my classwork.
   Always  Most of the time  Sometimes  Never

8. I try to answer hard questions in class because I want the other kids to think I’m smart.
   Always  Most of the time  Sometimes  Never

9. I try to answer hard questions because I’ll feel bad about myself if I don’t try.
   Always  Most of the time  Sometimes  Never
10. I try to answer hard questions because it’s fun to answer hard questions.

<table>
<thead>
<tr>
<th>Always</th>
<th>Most of the time</th>
<th>Sometimes</th>
<th>Never</th>
</tr>
</thead>
</table>

11. I try to answer hard questions because that’s what I am supposed to do.

<table>
<thead>
<tr>
<th>Always</th>
<th>Most of the time</th>
<th>Sometimes</th>
<th>Never</th>
</tr>
</thead>
</table>

12. I try to answer hard questions to find out if I’m right or wrong.

<table>
<thead>
<tr>
<th>Always</th>
<th>Most of the time</th>
<th>Sometimes</th>
<th>Never</th>
</tr>
</thead>
</table>

13. I try to do well in school because that’s what I am supposed to do.

<table>
<thead>
<tr>
<th>Always</th>
<th>Most of the time</th>
<th>Sometimes</th>
<th>Never</th>
</tr>
</thead>
</table>

14. I try to do well in school so my teachers will think I’m a good student.

<table>
<thead>
<tr>
<th>Always</th>
<th>Most of the time</th>
<th>Sometimes</th>
<th>Never</th>
</tr>
</thead>
</table>

15. I try to do well in school because I like doing a good job on my school work.

<table>
<thead>
<tr>
<th>Always</th>
<th>Most of the time</th>
<th>Sometimes</th>
<th>Never</th>
</tr>
</thead>
</table>

16. I try to do well in school because I will get in trouble if I don’t.

<table>
<thead>
<tr>
<th>Always</th>
<th>Most of the time</th>
<th>Sometimes</th>
<th>Never</th>
</tr>
</thead>
</table>

17. I try to do well in school because I’ll fell really bad about myself if I don’t do well.

<table>
<thead>
<tr>
<th>Always</th>
<th>Most of the time</th>
<th>Sometimes</th>
<th>Never</th>
</tr>
</thead>
</table>
Appendix M: Perceived Competence Scale

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>not at all true</td>
<td>somewhat true</td>
<td>very true</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1. I feel confident in my ability to manage my diabetes.
2. I am capable of handling my diabetes now.
3. I am able to do my own routine diabetic care now.
4. I feel able to meet the challenge of controlling my diabetes.

************************

Perceived Competence for Learning

Please respond to each of the following items in terms of how true it is for you with respect to your learning in this course. Use the scale:

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>not at all true</td>
<td>somewhat true</td>
<td>very true</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1. I feel confident in my ability to learn this material.
2. I am capable of learning the material in this course.
3. I am able to achieve my goals in this course.
4. I feel able to meet the challenge of performing well in this course.

************************

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## Appendix N: Codes and Themes

<table>
<thead>
<tr>
<th>Open-code</th>
<th>Themes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Impact of feedback (student perspective)</td>
<td></td>
</tr>
<tr>
<td>Measuring impact of feedback</td>
<td></td>
</tr>
<tr>
<td>Sense of (developing) competence</td>
<td></td>
</tr>
<tr>
<td>Relatedness</td>
<td></td>
</tr>
<tr>
<td>Validation from feedback</td>
<td></td>
</tr>
<tr>
<td>Amotivation factors - lack of intent to perform</td>
<td></td>
</tr>
<tr>
<td>Negative rapport with teacher (relatedness)</td>
<td></td>
</tr>
<tr>
<td>No value of task or no interest</td>
<td></td>
</tr>
<tr>
<td>Using feedback for change or improvement</td>
<td></td>
</tr>
<tr>
<td>What most motivates students to work</td>
<td></td>
</tr>
<tr>
<td>Good grades (external)*</td>
<td></td>
</tr>
<tr>
<td>Learning for fun</td>
<td></td>
</tr>
<tr>
<td>Teacher compliment (relatedness)</td>
<td></td>
</tr>
<tr>
<td>Ease of the work; review, familiarity</td>
<td></td>
</tr>
<tr>
<td>Amount of time</td>
<td></td>
</tr>
<tr>
<td>Sources of student motivation</td>
<td></td>
</tr>
<tr>
<td>Goals or plans (short or long term)</td>
<td></td>
</tr>
<tr>
<td>Gauging ability</td>
<td></td>
</tr>
<tr>
<td>Perception of ability</td>
<td></td>
</tr>
<tr>
<td>Student perception of competence</td>
<td></td>
</tr>
<tr>
<td>Met set criteria (i.e. grades, score, points, votes etc.) *</td>
<td></td>
</tr>
<tr>
<td>Amount of time on task</td>
<td></td>
</tr>
<tr>
<td>Positive response or feedback from others</td>
<td></td>
</tr>
<tr>
<td>Possess materials or resources</td>
<td></td>
</tr>
<tr>
<td>Able to perform all parts of task or complete multi parts</td>
<td></td>
</tr>
<tr>
<td>Apply the skill or concept in another context</td>
<td></td>
</tr>
<tr>
<td>Perception of ability</td>
<td></td>
</tr>
<tr>
<td>Good grades (external)*</td>
<td></td>
</tr>
<tr>
<td>Met set criteria (i.e. grades, score, points, votes etc.) *</td>
<td></td>
</tr>
<tr>
<td>Grades as feedback (student thoughts)</td>
<td></td>
</tr>
<tr>
<td>Impact on autonomy</td>
<td></td>
</tr>
<tr>
<td>Source of motivation</td>
<td></td>
</tr>
<tr>
<td>Expectation for achievement</td>
<td></td>
</tr>
<tr>
<td>Student effort</td>
<td></td>
</tr>
<tr>
<td>Self-reflection on teacher feedback based on behavior</td>
<td></td>
</tr>
<tr>
<td>Amount of time on task*</td>
<td>Expectation for achievement</td>
</tr>
<tr>
<td>-------------------------</td>
<td>----------------------------</td>
</tr>
<tr>
<td>Emulate people they look up to or admire</td>
<td></td>
</tr>
</tbody>
</table>

**Teachers**

- **How teachers use feedback**
  - **Purpose of feedback to students***
    - **Target behavior**
    - **Evaluative feedback**
    - **Descriptive feedback**
    - **Direction of feedback**
    - **Feedback to enforce or introduce procedure**

**Types of feedback (student perception)**

<table>
<thead>
<tr>
<th>Purpose of feedback to students***</th>
<th>Value of feedback</th>
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</thead>
<tbody>
<tr>
<td>Frequency of feedback</td>
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<tr>
<td>Teachers evaluate effectiveness of feedback</td>
<td>Evaluating effectiveness</td>
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<tr>
<td>What teachers define feedback as</td>
<td>Defining Feedback</td>
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Appendix O: Reflexive Journal Excerpts

Reflexive Journal Entry

January 17th: so yesterday (1/17) I met with Ms. Iverson and conducted an observation of her. I'm discussing the second observation in the research process, the first one was with her seventh grade class; the second one was with her sixth grade class. There was a point where I felt like the behaviors got in the way but at the same time I think that's a part of her approach to her management strategy. But more than that, I did notice or pay attention to her feedback styles and she very much does try to give them descriptive feedback regarding their task, if not necessarily the process. So I'll continue to analyze both her interview in light of the typology of feedback from the Tunstall and Gipps article. I also analyzed the data in light of her interview and the student questionnaires.

Reflexive Journal Entry

1/25/18: Today I followed up with Ice on an interview; had a couple questions based off of the transcription of his initial interview. I tried to ask more pointed questions. And by pointed I mean questions related to the topic of feedback on formative assessments. I also asked questions to clarify some of his responses in the initial interview that were to me, unclear. What I found, even the second time around is, and I hope this doesn't sound arrogant, he just seems to have a very limited per view, which is what I thought initially, about what feedback is. Or, his way of conveying and articulating what feedback is, is not at a place where... I'm not at a place where I can understand it fully- understand him fully. Which ultimately leads me back to one of my initial points: there just seems to be no universal understanding or working definition of feedback that teachers use as a way to guide what they would consider or apply as feedback. Which leads me to further believe that this is something that not only needs to be addressed in terms of
teacher training but also another area of further research and study; how teachers create working
definitions for concepts and what does that look like when they begin to apply their working
definition to a task at hand. That puts me in the mind of what we talked about in my public
admin classes, regarding the difference between the intention of a policy and its actual
implementation.