

STRATEGIES TO ELICIT AND SUSTAIN INTRINSIC MOTIVATION

by

Maude Candes Chimere Hackney

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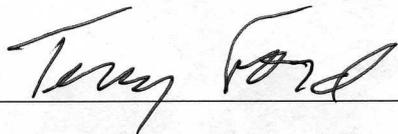
by

Maude Candes Chimere Hackney

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The Evergreen State College

by

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Terry Ford, Ph.D, Member of the Faculty

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## ABSTRACT

This paper defines and explores intrinsic motivation and its impact on students' learning and academic success. Three strategies are said to elicit and sustain students' intrinsic motivation: autonomy support, positive feedback, and relatedness/relevant teaching practices. This paper examines professional research regarding the previous strategies and explains how these strategies can be used in the classroom setting. A connection is made between students' intrinsic motivation and student-centered constructivist teaching philosophy. This paper also suggests that intrinsic motivation may play a part in the pursuit of closing or narrowing the Achievement Gap.

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## CHAPTER 1: INTRODUCTION

As an after-school educator and coordinator of a program in east Oakland, I practiced using extrinsic rewards. In my class, students had the opportunity to earn points for “good” behavior throughout the week, which they could then use to purchase prizes (pencils, stickers, posters etc.). During my time of employment, a colleague who believed that extrinsic rewards devalued or worked against encouraging students to be self motivated approached me. She believed that I was hindering students’ natural drive to achieve, both academically and socially. I grew defensive; for my goal was to encourage students’ to reach and exceed their academic and social skill goals. At the time, I was moved to defend the qualities that I saw in using extrinsic rewards. The use of extrinsic rewards was a main component to my classroom behavior management plan, a plan the students bought into and seemingly appreciated. I had learned how to use extrinsic rewards from education professionals whose work proved to be useful in schools that were exclusively designed for students with behavior challenges.

After reflecting further, I began to think about the function of motivation. Could one person actually motivate another? Was motivation something that could only truly be defined by the individual? Was I conditioning students to behave in ways that only I deemed appropriate and thus taking a totally teacher-centered approach toward teaching? At heart I knew that I did not want to be the type of teacher that controlled students’ minds. I wanted to recognize students for their individuality and for what their individualities contributed to the learning community. I was left wondering if my classroom management plan supported the kind of student-centered teacher that I wanted to be.

In order to gain insight about the issue, I had to start with the question of why motivation was a factor at all. From my encounters with other educators, I gathered that many believed

students should do what their teachers told them to do, and be interested in what we (teachers) felt was most important. From my experience, I knew when students were not into activities or assignments. I knew this because they simply told me. “Hey Mrs. Chimere, we don’t want to do this.” Sometimes students did everything they could to avoid the assignment. The truth was that there was no prize I could give them that would cause them to spark a sudden interest or that would create the desire to think critically about lessons or social situations. Desire and interest were things that would come from within the student. This sparked me to explore intrinsic motivation in depth. *Is it the key in encouraging students to make academic and social skill achievements?*

In his book *Punished by Rewards*, Kohn (1999) discussed how humans “dangle goodies” in front of each others’ faces in order to encourage action. He believed that our culture’s methods for motivating were no different than bribing. He went as far as to say that we do more damage than good when we give incentives to people as a means to encourage action and production. He pointed out that this was no different from manipulation and that it was not an effective way to motivate people for the long term. Kohn’s work was grounded in research that showed how individuals show poorer work ethics when they are being bribed by things like money, grades, and other rewards (Kohn, 1999).

Skinner (1971) informed me of the true nature of punishment and rewards. Their functions were to control behavior. They were the “technology of behavior” As mentioned above; I did not want to be a teacher who controlled students. I wanted students to behave appropriately because they naturally felt the importance of social responsibility. I wanted students to learn because they wanted to satisfy their curiosity, and because they embraced the idea that knowledge would help them live the lives they wanted to live. Many educators believe that

intrinsic motivation is largely responsible for effective teaching and learning. These educators, theorists, and researchers will be highlighted throughout the following pages of this paper.

Because I share this belief, I have grown the desire to find the most effective ways to elicit and sustain students' intrinsic motivation.

The previous describes my initial grappling and curiosity regarding intrinsic motivation, but my future as an English Language Arts teacher depends on me turning this curiosity and struggle into strategy and expertise. I understand that some students will show up to class simply because the law requires them to, not because they are interested, not because they see the class as relevant to their lives, and not because they love writing, reading, and critically thinking. So when these students show up I want to be ready.

I am realistic about the challenges that I might face as an English Language Arts teacher. I know that some students will show up to class jaded and reluctant to learn. I know that some students will come with previously bruised egos and spirits when it comes to their academic identities (whether it is their writer or reader identity). The truth is that some of these students will have previously experienced an education that has made them feel less than capable or competent. Some of these students will have experienced schooling that has shamed them for their mistakes and thus have caused them to stop trying or valuing their writing and reading education. The questions from here are: How does a teacher work with this and what can a teacher do to reach these students, so that they might see reading, writing and critical thinking as essential practices not only for their academic careers, but for their lives as well? These questions lead to a more solid set of questions: What is motivation and can we as teachers play a part in eliciting and sustaining students' intrinsic motivations to value and participate in their learning? If so, what are the best practices and strategies for engaging students' intrinsic

motivations? In the next few paragraphs I will review the three strategies (feedback, autonomy supportiveness, and relevant/relatedness tasks and assignments) that are said to elicit and sustain intrinsic motivation.

Paulus, Horvitz, and Shi (2006) revealed that when students rewrote drafts on their own, the majority of revisions students made were surface-level revisions, however after students were given teacher or peer feedback, the changes that students made was more often meaning-level changes. This is one of the purposes for writing, to communicate intended meaning and part of my job as an English teacher will be to teach this skill. As an English teacher, I will be put in the position of grading and commenting on students' writing and reading abilities. With this, comes the risk of giving a harmful response which could result in turning students off from the very things I want them to be motivated to do like refining and revising their written work. The task for me then is to understand and practice giving the kind of feedback that will elicit and sustain students' intrinsic motivation so that they will see and reach for their growing opportunities.

Who wants to be told what to do all of the time? I know I don't. When someone expects me to do something, just because they tell me to, I feel burdened and often lack the motivation for carrying on with the task. This usually results in me wanting to avoid the task. If that task is just a hoop I must jump through to get to what I want, I might do just enough to get through without *really* participating—the loss being a missed opportunity to really think critically and creatively.

My responsibilities as a teacher do not stop at teaching the subject of English Language Arts. As a secondary education teacher, I also have the responsibility of exposing students to experiences that allow them to practice being individuals who make important decisions for

their lives. High school students, especially those who are approaching the end of their adolescence, will find that they have more and more power and responsibility for making decisions that not only affect them, but their communities, as well as the global society as a whole. Students do not simply graduate from high school, flip the tassel, and instantly obtain important decision making skills. Students learn these things from experience.

Dewey (1997) reminded us that experiential learning is a method of learning and meaning making that is the result of having direct experience. "For the things we have to learn before we can do them, we learn by doing them"-Aristotle. This brilliant quote by Aristotle supports my belief that I must take responsibility for providing students with opportunities to experience autonomy and decision making.

One strategy I can use to encourage students to practice and value their decision making skills is to set up a classroom and a curriculum that is supportive of their autonomy. Because students will have to be autonomous throughout their adult lives, autonomy is an important thing for students to experience. This however, is not the only reason why it is important for teachers to be supportive of student's autonomy. Studies have shown that autonomy support is in favor of students' ability and desire to do an activity because they have internalized the values and meaning of it. Deci, Nezlek, and Sheinman (1981) found that students who attended classes taught by autonomy supportive teachers tended to have more self-esteem as well as more intrinsic motivation when compared to students who attended classes taught by controlling teachers. In autonomy supportive classrooms, students will participate in activities because they value the lesson and therefore choose to engage with it without external

interferences. This is the type of active learning that I want in the classroom--the kind that students are intrinsically motivated to do.

There are a few different ways to look at the word relevance. When I speak of relevance in the context of educational practices, I am talking about teaching curricula that serves the purpose of providing opportunities for students to gain skills and tools that will serve them throughout their lives beyond the school doors. These skills can be both social and academic. In order to be considered relevant education, the lessons and curricula taught must relate to student's lives and needs and when this is so, students will be more intrinsically motivated to perform the tasks and assignments within. It is important to remember that relevance is goal-dependent and a valuable question to ask is: What are our goals as educators? Is it to transmit a dominate culture or is it to provide students with opportunities to gain knowledge that will help them function in their home cultures as well as well as in the dominate culture? Also, culturally relevant education works to call on students cultural funds of knowledge which gives them a sense of competence which in turn sustains their intrinsic motivation for stretching their learning. Eric Jensen (2005) believed that relevance was one of the simplest forms of learning. He said that relevant teaching worked because neurons are able to connect themselves with nearby neurons. He also believed that some learning environments were void of the kind of personal relevance that students require to meaning make. He asserted that what might be relevant to one may not be relevant to another. He suggested that students needed the time and space to connect concepts to their prior knowledge. Finally, he believed that teachers could achieve this by inviting students to share their whole selves in the classroom setting.

Lipman and Gusein (2001) drew attention to the idea that culturally relevant pedagogy could perhaps transform students to be agents of their own education. This is important to student-centered education theory. When students are agents of their own education, they are experiencing the benefits of autonomy and under this circumstance are likely to get by on their intrinsic motivation instead of only being prompted by external forces.

Sorkenes, and Kelting-Gibson (2007) suggested that there are effective teaching strategies for engaging Native American students. According to the National Center for Education Statistics website (2007), the status drop-out rate for African Americans is 13.1 percent and the status drop-out rate for Hispanic (Latino Latina Americans) is 27.8 percent while the status drop-out rate for European Americans is 6.9 percent. Much of the most recent educational motivation research is directed towards motivating these and other minority students. Lipman and Gusein (2001) asserted that engaging Native American students' intrinsic motivation might work to reduce the drop-out rate. If engaging students' intrinsic motivation is an effective way to reduce the drop-out rates of minority students, then it might also prove to be an answer to the achievement gap conundrum.

Ginsberg and Wlodkowski (1995) believed that, motivation was the inherent ability to put forth effort toward any given goal. If the goal in an educational environment is to learn and motivation is a driving force, teachers need to understand effective ways to encourage students' intrinsic motivation. This highlights the relevance of the discussion surrounding intrinsic motivation, and it is especially relevant for those members of the education community who value a constructivist-student centered approach to teaching and learning.

Much is said about the implications of a culturally responsive curriculum. It is an important concept in the world of education theory. In order to fully explore the claims regarding

culturally responsive curricula, educators must first understand the reasons why this type of curriculum would benefit both teachers and learners. What is it about a culturally responsive curriculum that might make students more motivated to participate? Some say that this motivation comes from the fact that lessons and assignments found within the realm of culturally responsiveness are relevant to students' lives. Consequently relevance, in regards to teaching and learning and its effect on intrinsic motivation, must be carefully examined in order to carry on with this professional conversation. This paper will describe the different understandings of relevance (in regard to teaching and learning), and discuss the connections between relevance and intrinsic motivation.

### Controversies

Some theorists and teachers believe that extrinsic rewards undermine or devalue the importance of intrinsic motivation. As mentioned above, Alfie Kohn is one of the current leaders in this particular school of thought. He believed that students are "punished by rewards." Those who share his belief think that extrinsic rewards encourage students to achieve in order to get the "prize," and when students achieve for the sake of getting the prize, they are missing out on the opportunities to think critically and perform creatively (Kohn, 1999).

Other educators believe that extrinsic rewards do not necessarily devalue intrinsic rewards. Pierce and Cameron (1996) stated, "A behavioral view suggests that it is only when rewards function as discriminative stimuli that one might expect to observe a decline in intrinsic motivation." Pierce and Cameron also discussed the idea that extrinsic rewards vary in definition. Some theorists believe that teacher feedback is an extrinsic reward, while others

believe that it is an extrinsic method of engaging and encouraging students' intrinsic motivation (Pierce and Cameron, 1996).

Within the studies researched, there are those who lean towards a more behaviorist approach who are inclined to believe that a teacher centered approach is best; one where the teacher controls the learning environment and decides what lessons are important without the opinion of students. These theorists will be more concerned with discipline and obedience than students' levels and demonstrations of intrinsic motivation.

There will also be some theorists who have internalized a constructivist approach towards teaching and learning. The findings of these theorists will highlight their student-centered philosophies. Within these studies there is data that is in favor of getting students to proceed and engage with activities by engaging their prior knowledge and interests, and that sheds light on the importance of supporting students' sense of self and choice.

### Limitations

This research is to find solid definitions of intrinsic motivation. Its aim is to also find and describe the ways in which intrinsic motivation affects students' academic and social achievements. Most importantly, through this research will provide the knowledge and tools necessary for engaging, eliciting, and sustaining students' intrinsic motivation. This research is not designed to prove that intrinsic motivation is more effective than extrinsic motivation. The effective ways to motivate students are not limited to specific races, ethnicities or classes. Culturally responsive teaching is a way to motivate students, but there are other strategies to explore as well. This research will guide toward some of the other strategies that teachers can use in order to encourage and engage students' intrinsic motivation.

## CHAPTER 2: HISTORICAL BACKGROUND

### Introduction

Educators have been increasingly curious about the relationship between intrinsic motivation and students' academic success. Educators have wanted to know the effective methods for encouraging and engaging students' intrinsic motivation since the dawn of student-centered teaching. The forefathers of student-centered teaching were: Vygostky, Piaget, and Dewey. But Carl Rogers took this teaching practice even further with his focus on the formation of the individual. These questions stemmed from thoughts and discussions regarding the environment as well as basic physical human responses such as needs, arousal, and self-determination. Self determination is the free choice of one's own acts without external influences (Deci and Ryan, 2000). It is important to notice the educators who are asking these questions. It is safe to say that not every educator is interested in the discussions about intrinsic motivation. Those who are asking these questions tend to believe in and teach in ways that reflect a student-centered approach towards education.

### Early Thinkers of Motivation

Who are some of the early documented thinkers of intrinsic motivation in regards to education? What are their backgrounds? In order to get into the history of intrinsic motivation, we first need to look at the history of motivation. It is important to note that the subject of motivation is first a matter of psychology. One of the first motivation theorists was Sigmund Freud. His theory was not yet called motivation theory, instead it was known as drive or instinct theory. Freud believed that there were two driving forces that led humans to act; sex and aggression (John et. al., 2008) Hull, another early motivation theorist, shared Freud's ideas. Hull, like Freud, believed that there was a limited amount of driving forces that

led people to action. These driving forces were hunger, thirst, avoidance of pain, and sex (Hull, 1943). If these are the only motivators, then one might be moved to ask, “What happens when all of these needs are satisfied? Does one just sit around and not act?” Under the ideal occurrence of total satisfaction, in terms of Hull and Freud’s identified motivators, how would one explain behavior?

The above questions fueled the search for a more in-depth explanation of behavior and motivation. Here marks the beginning of effectance motivation theory. Effectance motivation theory worked to explain other human behaviors like play and exploration. This new theory pointed out that people also act and behave in order to effectively deal with their environments. This means that humans not only act in response to survival needs, but they also act in response to their environment. Wanting and choosing to respond well to the environment in a competent and effective manner, even when survival does not depend on it, can be a simplistic way to begin the description of intrinsic motivation.

Humans play and explore as previously noted. Since these behaviors are not necessary for survival, a new question emerges. Why do people demonstrate playful and exploratory behavior? According to Deci and Ryan (1985) theorists like Fowler believed that humans explore and play in order to achieve optimal arousal. By bridging this idea over into the world of education, we could reflect on our desires to learn things, not because our physical life depended on it, but simply because we were curious. From this, one can gather that learning can be seen as something that one is intrinsically motivated to do. In other words, humans sometimes learn because it arouses them, not because their lives depend on it.

Traditional schooling and the teacher centered approach to educating go hand in hand. In this type of school setting, the teacher was the controller of knowledge and whatever they wanted students to know, they would simply transfer it to them. Historically, this is how most schools approached education, and this is how many schools still operate today. However, some theorists have raised questions regarding the effectiveness of traditional or teacher-centered educational approaches.

Jean Piaget is credited as being one of the forefathers of constructivism. John Dewey, Jean Piaget and Lev Vygotsky all worked to help progress traditional approaches towards education. They believed in a more constructivist method for teaching (Dewey, 1997; Singer, 1996; Wells, 2001). They believed that it was purposeful for students to take part in the construction of their own learning. This idea lends itself to the student-centered constructivist teaching approach. Carl Rogers added his wisdom and ideas about the formation of the individual, which touched on development and self-determination (Kirschenbaum and Henderson, 1989). Development and self-determination are things that require individuals to take action and also suggest the need for learners to participate in the construction of what they do and mean. By focusing on the learner, educators could encourage the idea that teachers should make the move from being behavior controllers and knowledge dictators to more capable persons who invite students to participate in and construct their learning (Wells, 2000). Thus the shifting began.

#### Teacher-centered Education to Progressive Student-centered Education

The shift from traditional teacher-centered educational approaches to student-centered approaches required educators to learn and know about their students. Educators had to (have to) be aware of what students already knew, how students developed, and why students

behaved in certain ways. An awareness of these things supported educators' efforts to then find out what students needed to know as well as what the most effective methods were for teaching. Jensen (1998) believed that teaching and learning would come more naturally when students had the opportunity to connect new information to their already existing knowledge. Educators wanted to know how to teach in a manner that motivated students to really learn, versus just requiring students to memorize and regurgitate information. One could argue that rewards and punishments were effective methods that teachers used to successfully motivate students to learn. However, from a student-centered teacher's point of view, this method would not do, because student-centered educators may believe that rewards and punishments control behavior and with this controlled behavior, critical thinking goes out the window taking with it true learning and understanding. Rewards and punishments in the classroom would come from the teacher, thus reinforcing the teacher's role as the boss. Educators instead, wanted students to be naturally engaged in their learning without such overpowering external influences. This encouraged the discussions that began to link intrinsic motivation to education. Being intrinsically motivated to act and behave is inherent in human nature. Ryan and Deci (2000) devoted much of their time studying this. Through their studies and analysis, they found that humans possessed three psychological needs: The need for competence, autonomy, and relatedness. They believed that when these were in place, individuals were more likely to be intrinsically motivated. When these needs are not met they found that levels of intrinsic motivation diminish. (Deci and Ryan, 2000). Naturally, Deci and Ryan began connecting the relevance and importance of intrinsic motivation to domains that would most benefit from such data and one of these domains was teaching.

Deci and Ryan (2000) stated that humans show the natural inclination to be curious and self-motivated. They believed that that people inherently desired to learn and master new skills and that people also delight in opportunities to share and apply their talents. This description sounds like the characteristics of an ideal student, and once educators recognized this they could then see the connections between intrinsic motivation and educational endeavors.

Many educators have observed students who are reluctant learners and who showed little to no interest or willingness to participate and engage with assignments. Historically, this has been an issue in the world of education—one that educators wished to remedy. What can we do to ensure that students will actively participate and value educational opportunities? This has been a question that teachers (especially student-centered teachers) have been asking for a while. This question points toward the necessary study of motivation and its link to teaching and learning. This idea is also reflected in the following quote from Deci and Ryan (2000), “...motivation is highly valued because of its consequences: Motivation produces. It is therefore of preeminent concern to those in roles such as manager teacher, religious leader, coach, health care provider, and parent that involve mobilizing others to act.” *Mobilizing others to act*—this had been the educator’s job throughout history and therefore finding effective ways that, *mobilize others to act* has been an educational question from the very beginning (Deci and Ryan, 2000).

According to Haycock (2001), historically, some thought that students’ learning success depended on their socio-economic status and parent education. Though there is some truth to this, people were not holding the school system responsible for what it did and did not do. The questions and concerns regarding the achievement gap caused people to take a second

look at who was benefitting from the public school system, and who was not, and more importantly, why.

Deci and Ryan (2000) stated that “The fact that human nature, phenotypically expressed, can be either active or passive, constructive or indolent, suggests more than mere dispositional differences, and is a function of more than just biological endowments” (p.68). They continued to say that this deserved to be scientifically studied. As a result, teachers could be more informed in their construction of the social environment that, if well constructed, would work to... “optimize people’s development, performance, and well-being” (p.68). This was an important thing to consider and study, especially in light of the achievement gap, which was partially upheld by people’s false assumptions regarding meritocracy. These assumptions carried with them the belief that those who did not succeed in the public school system were flawed, and simply didn’t apply themselves, and therefore failed. Deci and Ryan’s studies and theories suggested that something could be done systemically—something that would depend on the reconstruction of the social environment, so that it might work to “optimize people’s development, performance, and well-being” (p.68).

Through their studies, Amabile, Grolnick, Ryan, and Utman (1997) found that the most effective way to think about intrinsic motivation was not to look at what causes intrinsic motivation, but to ask how we as educators could elicit and sustain it versus subdue and diminish, this innate propensity (Deci and Ryan, 2000). These researchers also found that students both lost initiative and learned less when they were taught by a more controlling method.

Educators and community members who were not fooled by the assumption that academic success relied only on meritocracy, began asking the question, what makes some

students do well and others not? These people were questioning the system or social setting (schooling) rather than assuming that faults were in the students' lack of ability or values. Understanding that people act or behave according to their interests, values, and social pressures lead to the value of studying the factors that elicit and sustain intrinsic motivation as well as things that undermined it.

#### Progressive Education: From Rote Memorization to Active Participation

As part of progressive education, teachers sought to move away from using rote memorization and recitation because this type of teaching and learning, Beyer and Haberman (as cited in (Adler and McKelvy 2007, p.14) stated that "... limit student learning to basic recall and comprehension levels of thinking" Instead, educators wanted to focus on trying to get students to engage in deeper thought. Educators and researchers found that teaching by way of rote memorization and recitation was not an effective method for ensuring that students were able to practice higher order thinking. Beyer and Haberman continued to assert that, "students need practice in higher order thinking if the ability to reason is to be fully developed" (Adler and McKelvy, 2007, p.14). In order to reach the level of higher order thinking, it seems that one would need to be intrinsically motivated to engage in the lesson.

Public schools are becoming more and more diverse, so we must pay attention to the multiple ways that students learn, thus we must understand what motivates one student may not motivate all students. That said, paying attention to the things that students are intrinsically motivated to do might inform our pedagogy.

There is a shift in attitude occurring in the world of education, once many educators could be heard saying things like, "These students just can't do this, and there is something wrong with them." Now, there are more and more comments being made along the lines of,

“How can I better my approach in order to make a positive impact on student learning?”

Student-centered teaching leans heavily on the idea that students want to experience self-efficacy-- the belief that one is capable of performing in a certain manner to attain certain goals. In other words, students want to know that they are capable of setting up and accomplishing meaningful learning goals. When students experience self-efficacy, they are more likely to want to achieve more mastery skills because they realize that through learning they are able to act in ways that get them closer to achieving their goals. It is important to note that this is an actual experience that did not require anyone to reward or punish the student. Some educators such as Bandura and Erick Erickson noticed and appreciated this.

According to Brandt (1995) and Chance (1992), curiosity, action, initiation of thought and behavior, meaning making, and a need to feel effective in our values are all part of human nature. Since these are natural urges, teachers might use these to construct learning environments and curricula. By doing so, teachers might be setting up the type of instruction that would be conducive to engaging and encouraging students' intrinsic motivation. This is in support of Brant (1995) and Chance's (1992) beliefs that educators are not responsible for or capable of motivating students, but that they are instead responsible for and capable of setting up teaching and learning opportunities that can evoke students' motivation. Brant and Chance explained some of the methods that could be used to help students in creating their intrinsic motivation. They believed that intrinsic motivation was created when: learners felt that rewards and goals were meaningful, when learners saw and felt the importance of the lesson, when the lesson connected to students desired accomplishments, when the learner felt that the lesson connected them with others, and when the learner felt that the lesson promoted their self-awareness.

## Summary

The point of this research is to discover how intrinsic motivation impacts students learning. In addition, this research is to find the best strategies that will elicit and sustain students' intrinsic motivation. Before fully understanding intrinsic motivation and its implications on teaching and learning, one needs to understand the origins of motivation theory and how it was bridged over to the education world. Chapter three contains a critical review of the professional research regarding intrinsic motivation and the strategies that are believed to elicit and sustain it. Chapter four then bridges the research findings over to the classroom.

## CHAPTER 3: REVIEW OF THE LITERATURE

### Introduction

It is inevitable that teachers will come face to face with students who have experienced schooling that has caused them to stop trying or valuing their writing and reading education. The questions from here are: How does a teacher work with this and what can a teacher do to reach these students, so that they might see reading, writing and critical thinking as essential practices not only for their academic careers, but for their lives as well? These questions lead to a more solid set of questions that are the focus of this paper: What is motivation and can we as teachers play a part in eliciting and sustaining students' intrinsic motivations to value and participate in their learning? If so, what are the best practices and strategies for engaging students' intrinsic motivations? The critical review of the research revealed that feedback, autonomy supportiveness, and relevant/relatedness tasks and assignments were the key components to eliciting and sustaining intrinsic motivation.

As mentioned in chapter two, John Dewey, Jean Piaget and Lev Vygotsky all worked to help develop the best approaches towards educating. They believed in a constructivist method for teaching. They believed that it was purposeful for students to take part in the construction of their own learning. This idea lends itself to the student-centered constructivist teaching approach. Carl Rogers added his wisdom and ideas about the formation of the individual, which touched on development and self-determination. Development and self-determination are things that require individuals to take action and also suggest the need for learners to participate in the construction of what they do and mean. By focusing on the learner, educators could encourage the idea that teachers should make the move from being behavior controllers and knowledge dictators to more capable persons who invite students to participate in and

construct their learning (Wells, 2000). Participating and constructing will not happen unless one is intrinsically motivated to do so and this required educators to study and apply strategies that would elicit and sustain students' intrinsic motivation.

Being intrinsically motivated to act and behave is inherent in human nature. Ryan and Deci (2000) devoted much of their time to studying this. Through their studies and analysis, they found that humans possessed three psychological needs: The need for competence, autonomy, and relatedness. The following research found that teacher feedback supported students' positive perceived self-competence, which was also seen as a strategy to elicit and sustain students' intrinsic motivation. The following research also suggested that autonomy supportiveness and relatedness were strategies for eliciting and sustaining students' intrinsic motivations. The trends of this research suggest that when the needs that Deci and Ryan described are met, the level of one's intrinsic motivation is enhanced.

### Feedback

Wilste (2001) conducted a study that examined the effects of motivation and anxiety on students' use of instructor feedback. In this study he asked two questions regarding feedback: How does students' writing apprehension and self-efficacy beliefs affect their use of teacher comments on first drafts of stories and, what are the ways in which teachers can provide more effective, relevant feedback to their students?

For this study, Wislte worked with 181 university students participating in a mass media class. Of these participants, 104 were female and 77 were male. To examine the subject of student usage of instructor feedback, Wilste used a questionnaire. Students scored their use of local feedback (grammar etc.) and global feedback (meaning etc). Next, students were given a sample of writing with 10 types of teacher feedback (five local & five global). From this, a

questionnaire was developed and students rated the teacher feedback with the following: 1- definitely will use, 2-might use, 3-probably won't use, and 4-definitely would not use (Wislte, 2001).

For the Writing Apprehension examination Wilste used the Daly-Miller Writing Apprehension Test. Lastly, the Writing Self-Efficacy and Outcomes/Expectations were measured by three instruments. The first, Self-Efficacy was examined by having the students rate their own self-efficacy by choosing between 0-no chance and 100-complete confidence. After they rated themselves they were put into groups according to their ratings. The Writing Outcomes/Expectations was measure by a seven point Likert scale ranging from extremely important to extremely unimportant. High scores indicated high self-efficacy beliefs and writing outcomes/expectations. Students who scored above means were placed in high self-efficacy groups and high outcome/expectation groups.

From this study, Wilste (2001) revealed the following. The effect of apprehension on students' usage of teacher local feedback was  $p < .001$ . In other words, low writing apprehension students reported that they would use local teacher feedback more than high apprehension writing students. This finding did not support the researcher's hypotheses. Wislte found that lower writing-apprehension students reported that they would use global teacher feedback more than high writing apprehension students would ( $p < .01$ ). The next finding was that high self-efficacy students indicated that they would use global teacher feedback more than lower self-efficacy students would ( $p < .01$ ). High self-efficacy students reported that they would use more local teacher feedback than lower self-efficacy students would. This finding also did not support the researcher's hypotheses. Wilste also found that students who believed that they would yield high outcomes and expectations would use global

teacher feedback more than students with lower beliefs about outcomes and expectations ( $<.05$ ). Lastly, Wilste found that students who believed that they would yield high outcomes and expectations would use local teacher feedback more than students with lower beliefs about outcomes and expectations. This finding did not support the researcher's hypotheses.

From this study, students who believed they would get more from their work and who also believed themselves to be high-efficacy students, might utilize both global and local teacher feedback more than low efficacy students.

This study has a few weaknesses. There was no information given regarding socio-economic status or ethnic diversity in the population that was studied, however it may not have affected the overall findings because the strategies for giving feedback seem applicable across the board. A strength is that the researcher used questionnaires that he first tested in a pilot study in order to ensure validity.

In this study, Koka and Hein (2003) gave insight into the appropriate ways that teachers should give feedback to students. This study found that the nature of feedback should contain evaluations based on students' efforts and improvements rather than on their abilities. This manner of giving feedback ensures that teachers are able to work with students based on the student's individual and specific needs, which in turn helps them to make improvements.

The research design was carefully and mindfully designed. Students were given questionnaires to fill out and the answers were rated numerically: seven for strongly agree to one, strongly disagree. This numerical measurement provided students with room to mark their closest feelings of intrinsic motivation regarding their physical education class and thus made the data more trustworthy. The questionnaire on average took only 10 to 12 minutes and was administered by both the teachers and researchers. Again, remarkably

trustworthy, was the study's use of mathematical analyses including co-relational analyses and regression analyses. All of this worked to ensure an overall, but quite specific picture of the students' vision of physical education.

In order to record data regarding teacher feedback, the researchers designed a new instrument. The amount and types of feedback that the two teachers gave was recorded over the course of 22 physical education classes. The researchers then analyzed the data and placed the feedback into six categories. The categories were praise, instruction, during performance, encouragement, criticism, and confirmation/reinforcement.

Koka and Hein (2003) stated the purpose of this study was to, "investigate whether the perceptions of different domains of the learning environment in a physical education setting, such as the perceived teacher feedback, perceived competitiveness and perceived threat to sense of self, are related to intrinsic motivation." For the purposes of this chapter, the first purpose of the study teacher feedback and its relation to intrinsic motivation will be focused on.

Koka and Hein (2003) found that, "perceived challenge and perceived threat to sense of self were the best predictors of intrinsic motivation." However, the most striking and useful find was that, "The perceived positive general feedback was found to enhance the prediction of intrinsic motivation beyond that accounted for by perceived challenge and perceived threat to sense of self.

Though this study was conducted to find out ways that physical education teachers and coaches could engage students' intrinsic motivation, these findings would hold true in any teaching and learning environment. It is also important to note that though this study was done in another country, its findings are applicable here in the United States, because

intrinsic motivation and teacher/student relationships are important and somewhat universal.

Harper (2002) documented a study that sought to answer questions regarding digital oral feedback. The main questions that the researchers wanted to answer were: “What did the benefits of digital oral feedback look like?” and “How did digital oral feedback work to promote student achievement?” It is important to note that student achievement meant the enhancement of student activity and the promotion of student learning and motivation.

This article took the importance of teacher feedback a step further by examining and testing methods of giving students feedback. Educators are seeking to find the most effective practices of giving students feedback in ways that promote their learning by engaging students’ intrinsic motivation.

The strength of Harper’s study is that it was composed of a control and a treatment group and that there was a pilot study done before the experiment. The study participants were 37 sophomore college students with the mean age of 23. There were 23 females and 14 males and all were students in an educational psychology course at Cleveland University. The pilot study examined 11 students who were given digitized feedback on their writing. The researchers met with these 11 students and the students confirmed that clear feedback enhanced their intrinsic motivation and was useful for their writing and revising processes.

Now that Harper’s belief regarding feedback and its influence on student achievement was somewhat reinforced, he then began his in-depth study. The treatment group received digitized oral feedback and the control group received traditional written feedback. Key, and linkable to Koka and Hein’s (2003) study, was the nature of the feedback that was given to students. The feedback to the treatment group correlated to self-determination theory (the

statements were crafted to support students' needs to feel competent, autonomy, and relatedness). The control group was given written feedback regarding the strengths and weaknesses of their papers.

Following the administering of the treatment or control, the participants took the Post-Experimental Intrinsic Motivation inventory, the Perceived Competence for Learning Questionnaire, and the Perceived Autonomy Support: Learning Climate Questionnaire. The results revealed that the participants who received the self-determination digitized oral feedback showed greater gains of perceived competence, autonomy, intrinsic motivation, and more positive perceptions of the class climate than the members in the control group. The data revealed that the average student perceived self-confidence began at 5.78 and after the feedback (treatment condition) perceived self-confidence rose to 5.98. In regard to autonomous regulation, after receiving the treatment (digitized oral feedback) the student mean progressed from 6.10 to 6.20. Lastly, the data revealed that the students' levels of intrinsic motivation rose from 5.41 to 6.08 this is an outstanding positive difference of .67.

Weist, Wong, Cervantes, Craik, Kreil (2001) conducted a study that sought to answer the question of how students' perceptions of competence, control, parental autonomy support, teacher autonomy support, peer autonomy support, and academic coping affects student motivation. In their introduction, they discussed education and intrinsic motivation and noted the belief that competence and feedback from parents and teachers are linked. The researchers believed that positive feedback from others fosters the development of competence and that competence influences academic success. All of this is in favor of teacher feedback and for me reinforces the possibility that it has a positive effect on student achievement.

There were 252 participants in the study all from an ethnically diverse school in Southern California. One hundred and four of the students attended a regular education program and 93 were students that were in an alternative education program that catered to students with credit deficiencies. Finally, the last 52 students were in a special education program for students who were diagnosed with various learning disabilities.

The sampling was not random, the researchers sought to have a study group that represent the diversity of the school district. The Perceived Competence Scale for Children was used to measure competence and the subcategories that were added were: academic, social, and general. The scale was modified and answers were recorded on a Likert scale. The researchers also used the Multidimensional Measures of Children's Perceptions of Control, Children's Perceptions of Parents (which measured students' perceptions of autonomy supportiveness, Origin Climate Questionnaire (which assessed students perceptions of their teachers and learning environment), Peer Autonomy Scale (which measured students' perceptions of peer autonomy supportiveness), and Academic Coping Inventory.

The study found that there was a significant main effect of educational placement,  $F(2,245) = 70.31, p < .001$ . In other words, there was a correlation between students' educational placement--regular education, special education, or alternative education--and their academic achievement and perceptions of competence and autonomy. The data regarding perceived academic competence was  $F(2,248) = 3.17, p < .001$ . This revealed that regular education students' self-perception of academic competence was significantly higher than that of special education students. The regular education students rated themselves as higher in academic competence than did alternative education students, but the difference was not statistically significant.

The strength of this research was in its ability to test students from three different learning environments while testing for the same things. Because the researchers focused on more than one group, they were able to compare and contrast results which made their results even more believable.

The weakness of this study was in its measurement of academic success. The researchers only used students' grade point averages to define academic success. Academic grade point averages are cumulative and therefore there are many variables that could have influenced their grades other than simply the students' efforts.

Tang (1989) conducted his research to find out if students showed higher intrinsic motivation after receiving positive feedback versus receiving negative feedback. From this research, Tang also hoped to find out if high self-esteem increased students' task liking after positive feedback, and if students with low self-esteem showed a decrease in their task liking after receiving positive feedback.

The participants were composed of a group of 56 males and 64 females with the mean age of 23.14. First, students completed questionnaires that measured their self-esteem. These same students were then randomly assigned to anagram-solving tasks which were labeled easy or difficult. Each group had eight minute work periods for the task. Before actually working on the labeled anagrams, students completed a questionnaire which measured their self set goal. Following the task, each student was given bogus performance feedback (positive or negative) at random ex: "You have completed \_\_\_\_\_ (number of correctly solved) anagrams this is above (or below) the number of anagrams solved by the average college students. This is very good (or very poor)." After this, the students indicated their goal setting, efficacy, task perception, and task liking. Following this feedback the students were sent to

work on the second set of anagrams and were given knowledge of their results—no feedback was given. These students (the ones who did not receive feedback) were led to believe that the study was over and were left in a room with puzzles and anagrams. There was an observer behind a one-way mirror recording the students' actions and behaviors.

The students who worked with the anagrams that were task-labeled difficult, reported perceiving the task as indeed difficult and the students, who worked with the anagrams task-labeled easy, perceived them to be easy. This difference was not significant. The students who received positive feedback considered their performance to be more successful than the students who received negative feedback ( $p < .001$ .) For the goal setting portion of the experiment, students who worked with the anagrams that were task-labeled easy, reported significantly higher goals than those who worked with the anagrams task-labeled difficult.

There were many outcomes from the study that were not significant. Students' self-efficacy and their "certainty in completing the goal" yielded no significant results. Therefore, it's questionable whether goal setting in and of itself is responsible for student's perceived competence. Expectantly, the research found that students with high self-esteem also had high self-efficacy. Students who received positive feedback reported liking the task more than those who received negative feedback ( $p = .001$ ). This connects to what motivation theorists say about pleasure and behavior (if something is pleasurable then the probability of an individual wanting to continue engaging with it is more likely). Another important find was that students who were given positive feedback, spent more time on the task during the free choice period than those who received negative feedback.

Kenkel (1981) conducted a study that sought to examine the different types of negative feedback. She was aware that, "The consistent finding is that recipients rate positive feedback

as more credible than negative feedback.” She also believed that, “...teachers and trainers are not able use positive feedback exclusively because occasions often arise where they must correct learners’ mistakes.” Though she believed this, she also realized that negative feedback was often rejected and resisted by its recipients and she was interested in finding effective ways to give negative feedback because she assumed that information embedded in negative feedback had the power to improve individuals’ performances.

With this study, Kenkel (1981) examined the effects that different types of negative feedback had on participants’ ratings of the accuracy of the feedback in addition to their motivation to change their behavior.

The participant group was composed of 48 males and 48 female college students “...who signed up for an experiment involving counseling skills.” The students believed that they were learning some therapy skills and methods, but were not told that the methods consisted of the different types of feedback statements.

The participants were set up with roles. They were to play out a mock interview between a therapist and a client. While role playing the participants were observed by a clinical psychology graduate student who provided the participants with feedback with regard to their performances. The experimenter told the participant playing the therapist that his/her therapy skills would be evaluated and the participant playing the client was told that his/her performance would not be evaluated. With this, the participants reviewed the description of goals, methods, and role playing instructions.

The mock interviews lasted 10 minutes while the observer took notes behind a one-way mirror. Following the first role play, the experimenter gave the standardized feedback statements via long-hand writing. The therapist feedback was given to both the client and the

therapist. It is important to note that the same feedback was given to all participants in order to sustain experimental control. The nature of the feedback was bogus and included general and vague statements that could describe the performance of the majority of beginning therapists.

After reviewing the feedback, the participants, "... rated the accuracy, desirability, and helpfulness of each item of feedback." They also evaluated the competence of the person who provided the feedback, the value of the training program, and whether or not they were interested in participating in further trainings.

The three experimental variables were: feedback type, (negative or positive about observable behavior) negative feedback about unobservable behavior, feedback target (feedback regarding the therapist or feedback regarding the client); and feedback rater (both the client and therapist scored the accuracy of the feedback they received).

The participants rated the accuracy of the feedback (how much they perceived the feedback to be accurate) by marking a scale, 1 for accurate to 9 for inaccurate. From the data there was, "...no significant main or interaction effects were obtained for the feedback type; feedback target, or rater variables." There was also no significant main effect for the type of feedback and therefore the hypothesis that observable feedback would be rated as being more accurate than unobservable feedback was inaccurate. From the means, observable behavior feedback of the therapists was regarded as accurate and observable behaviors about the client was regarded as inaccurate. When the therapists rated the accuracy of their feedback they rated observable feedback as more accurate than unobservable feedback. When rating the feedback given about the client, the therapist rated unobservable behavior as more accurate than observable behavior. When the client rated the accuracy about him/herself they were more likely to rate observable behavior as more accurate. It is important to note that the numbers for

the latter were not significant. Kenkel also found that the participants regarded the feedback about the other participant to be more accurate than the feedback that was given to them. This did not support the initial hypothesis Kenkel, (1981)

The experimenter's claim that teachers have to give negative feedback in order to correct students' mistakes is questionable. If there were a control condition where participants were given positive feedback to compare, this claim may have more substance.

Schunk and Swartz, (1993) sought to find out how goal setting and progress feedback affect self-efficacy and writing achievement. The participants were 20 males and 20 females in the fourth grade, drawn from two classes within the same school and ranged between the ages of 9-11.8 years old. Three students ended up leaving the study and the researchers randomly excluded two other participants to equalize the group size.

To conduct the study, an outside tester administered a pre-test. The test measured self-reported strategy use, self-efficacy, and achievement along a scale that ranged from 0-not at all to 100-a whole lot. Upon taking the pre-test, students were to think about the times they wrote paragraphs so that they could mark how frequently they used each step. The scores were then averaged across the five judgments. The self-efficacy test worked to assess the participants' perceived capabilities for performing the following five tasks: generate ideas, decide on the main idea, plan the paragraph, write the topic sentence, and write the supporting sentences. The scale for this efficacy test ranged in 10-unit intervals 10-not sure to 100 really sure.

Following the pre-tests, students took part in a writing strategy instructional course and were also given writing strategy process goals, product goal of writing paragraphs, or a general goal of working productivity—the control condition. Half of the process goal participants were periodically given feedback on their progress of learning to use the strategy. For the

results MANCOVA was used and the results were that there was a significant covariance between the treatment and pre-test measures. ANCOVA yielded significant effects for self-efficacy.

All participants were given a posttest to measure progress or lack thereof.

The results revealed that the process goal plus feedback participants outperformed the others on the posttests (self-efficacy and skills, self-efficacy and for improvement and perceived progress in strategy learning). This same group (process goal plus feedback participants) also scored higher than the product goal participants on the skill and perceived progress posttest. The group also wrote more words per unit and judged posttest strategy use and strategy value higher than the product and general goal students. In addition, the group outperformed the general goal participants on the maintenance test.

Interestingly, the participants who received the process goal without progress feedback scored higher on the writing skill and also ended up writing more words per unit than the participants who received only the general goal condition.

That the process goal and progress feedback participants outperformed all of the other conditions showed using these strategies were effective methods for helping students to achieve writing goals, and improve their writing. Most importantly, since the participants who received feedback tested higher than the other control groups in regards to self-efficacy. This showed that providing feedback does positively impact students' perceived self-confidence which is said to be tied to teachers' abilities for eliciting and sustaining students' intrinsic motivation. This study is well-connected to the other research. However, providing the pre-test scores for each group would increase the validity of this claim.

In this next study, Swartz and Rice (1993) examined the effects of strategy fading (covertly verbalizing strategy use) and progress feedback (feedback that links improved performance with strategy use) on children's achievement outcomes. The 44 participants of this study were students from two schools who had been receiving remedial reading comprehension instruction. Participants were between the ages of 10- 11 1/2 years old and predominately from a low-middle class socio-economic status. The ethnic background was: 55% Hispanic American, 25% European American, 18% African American, and 2% Asian American.

First students completed a pretest that measured their self-efficacy, which "...assessed children's perceived capabilities for correctly answering different types of questions that tapped comprehension of main ideas." For this test, students rated efficacy on a 10-unit scale 10-not sure to 100-really sure. After completing the self-efficacy test, participants took the comprehension skill test (a test that was composed of eight passages with 20 related questions). The participants' self-reported strategy use was measured with an instrument that asked five questions (each had a 10-unit scale 0-not at all to 100-a whole lot). The questions in this section were in regards to reading strategies, for example: "Pay attention to keywords and detail?"

Following the pretests, participants were randomly assigned within gender, ethnic background, and school and were then placed into one of the four experimental conditions: Fading only (covert verbalization of strategy) feedback only, fading plus feedback, or no fading and feedback. For a total of 12 days, every participant received 35 minute instructional sessions-- this time was spent by working on packets. Participants from the same conditions

met in small groups with five to six members, there were two groups per condition and each condition had one teacher (who was unaware of the study).

All participants took part in the first of four sessions, where the teacher modeled and explained the strategy and its application. For the next three sessions, everything was the same except the teacher did not model the strategy but instead had the participants verbalized and performed the steps. The participants assigned to the feedback only and no feedback or feedback conditions received this same instructional procedure.

For the fading procedure, during the fifth session, students were told to no longer verbalize the strategies out loud, but instead to whisper the strategies to themselves. At the ninth session, the participants were asked to stop whispering and told to silently say the strategies to themselves.

For the progress feedback condition, participants who were assigned to the fading plus feedback and feedback only conditions, got progress feedback that connected their success at answering comprehension questions to their ability to properly apply the strategies. Each of these participants received individual feedback three to four times during each session. For example the teacher might have said, “You got it right because you followed the steps in the right order. Answering questions is easier when you follow these steps.” All participants received performance feedback (feedback about the accuracy of answers), but the participants who were assigned to the fading plus feedback or the feedback-only conditions got progressive feedback.

Two weeks after all of the participants finished the instructional courses; they completed the self-efficacy, strategy use, and comprehension posttests. From this study Schunk and Rice (1993) found that the fading plus feedback, fading only, and feedback only

conditions yielded higher scores than the no-fading or no feedback condition. Preliminary ANOVAS yielded no significant between-condition differences on pre-test measures. Posttests and maintenance tests self-efficacy, writing skill, and words per T-unit were analyzed with MANCOVA. The posttest revealed that the treatment conditions were significant and ANCOVA yielded significant effects for self-efficacy. Students who experienced the process goal plus feedback judged self-efficacy higher than general goal students. Those who experienced process goal and feedback out-performed those who experienced general and product goals on the writing tests. Those who experienced process goals and feedback wrote more words on the T-unit than those who experienced the general goal condition. Self-efficacy for improvement correlated with the posttest strategy use, self-efficacy, and skill  $p < .01$ .

Interestingly, the fading plus feedback condition did not judge self-efficacy higher than the fading-only and feedback only conditions. Because of this, it is hard to say which condition was most responsible for the elevation of self efficacy. Schunk and Rice also found that the fading plus feedback, fading only, and feedback only participants demonstrated higher skill than the no fading or feedback participants. The fading plus feedback participants yielded the higher skill than the feedback only, but not the fading only. Finally, the fading plus feedback participants reported using the strategies more than the other three conditions.

Perhaps the most noteworthy weakness of the study was that strategy instruction teachers were unaware so what if they skewed the lessons by performing in ways that went against the test? A pretest that measured academic abilities would have been helpful. How did the teachers know what kind of feedback to give if there was no model? The posttests were given two weeks after the participants received instruction. This gap in time lets us see that the strategies that the students learned stuck with them. However, the questions for the self-

efficacy and strategy tests were identical to the pretests. It seems noteworthy that the self-efficacy post test was identical to the pretest. Students might feel motivated to mark their self-efficacy higher due to the fact they feel like there should be some sort of progression from their previous (first answers). However, the comprehension test was changed a bit. This worked to ensure that students were did not score higher because they were familiar to the questions and answers. This added strength and made this portion of the study more believable. Because the fading plus feedback condition did not judge self-efficacy higher than the fading-only and feedback only conditions, it is hard to say which condition was mostly responsible for the elevation of self-efficacy.

#### Summary of Feedback

An amalgamation of the professional research suggested that feedback worked to support students' senses of competence and when students had a positive sense of competence they were more likely to be intrinsically motivated to utilize the feedback they received to improve their writing or other academic efforts. The integrated results from the research concluded that not all forms of feedback were beneficial to students and not all feedback elicited and sustained students' intrinsic motivation. The studies revealed that in order to enhance students' intrinsic motivations feedback needed to be elaborative and explanatory. The general consensus gleaned from the studies was that positive feedback conditions increased students' intrinsic motivation more than no feedback conditions, but that not all negative feedback proved to be detrimental to students' efforts and intrinsic motivation. In order for negative feedback to be useful, the studies showed that it needed to be of an observable nature and that observable negative feedback was commonly not rejected by

students. Lastly, the research revealed that feedback given to students about their progress elicited their intrinsic motivation to use what they learned.

### Autonomy

Autonomy is known as the quality or state of being self-governing and self-directing. When a person has autonomy, they are more likely to feel free and are able to practice being morally independent. Deci and Ryan (2002) believed that individuals possessed a need for autonomy; they also call this need self-determination. This need, for them, meant that individuals have the desire to behave according to their own internally driven choices without the interference of external influences.

There are a few different methods for building and maintaining an autonomy supportive learning environment. The next few studies should illustrate some of these methods in great detail.

When Apostoleris (1999) examined the intrinsic motivation factors for learning and psychological need fulfillment in the homeschool setting, he stumbled upon useful insight regarding autonomy supportiveness and its relation to intrinsic motivation.

The participants in this study came from 60 different families who home-schooled at least one student between the ages of six and sixteen. First, Apostoleris observed the families and students in their home setting and then he conducted structured interviews with both parent and students. The parents and students both completed questionnaires that measured a scale of intrinsic motivation vs. extrinsic orientation classroom. Subscales included: Preference for Challenge, Curiosity/Interest, Independent Mastery, Independent Judgment, and Internal Criteria for Success. Student Personality was assessed and placed into four categories: Agreeableness, Intellect, Extraversion, and Neuroticism. The Fulfillment of Psychological

Needs of Autonomy Competence and Relatedness was measured with questionnaires.

Perceived autonomy assessed how much students were intrinsically self-regulated in their functions. The perceived competence subscales were: self-esteem, perceived social competence, and perceived cognitive competence. Perceived Relatedness (perceived emotional security & perceived need for a closer relationship) was assessed by a questionnaire that asked students how often they felt: relaxed, ignored, happy, mad, bored, important or unhappy with mom/father/sibling/friends. Finally, perceived need for a closer relationship was assessed with an instrument that asked students to evaluate “I wish statements” for example, “I wish my mom would spend more time with me.”

Apostoleris found that, according to parent interviews, autonomy supportiveness was related to the student’s overall intrinsic motivation ( $r=.45$ ,  $p<.001$ ) and it was also positively correlated to student’s curiosity ( $r=.46$ ,  $p<.001$ ) and independent judgment ( $r=.34$ ,  $p<.001$ ). For Competence Supportiveness and Intrinsic Motivation for Learning, Apostoleris found that according to the parent interviews, competence supportiveness was not related to students’ overall intrinsic motivation or to any of the intrinsic motivation subscales. The Related Supportiveness and Intrinsic Motivation for Learning examination revealed that spousal involvement, family, functioning relatedness to community were unrelated to students’ overall intrinsic motivation and unrelated to intrinsic motivation subscales. Student’s personality and Intrinsic motivation for learning research found that intellect was significantly correlated with curiosity and independent judgment. Apostoleris found that a mother’s years of education was significantly related to independent judgment. The relevant and useful findings for Psychological Need Fulfillment were: parent autonomy supportiveness was positively

correlated to students' perceived autonomy, and parental competence supportiveness was negatively correlated.

It was surprising Apostoleris' research claimed to find that relatedness was not significantly correlated to intrinsic motivation. Other research has stated otherwise. The research in support of the claim that relatedness is positively correlated to intrinsic motivation can be found in the relatedness section of this chapter.

Oginsky (2003), sought to find answers to whether or not an autonomy supportive learning environment increased students' intrinsic motivation and learning success. Oginsky asked the following questions: Does a classroom that students perceive as safe and supportive of their autonomy and learning increase intrinsic motivation? When students are provided assignment choices, does this increase intrinsic motivation? Does sharing content standards and benchmarks with students work to increase intrinsic motivation? Does specific non-controlling feedback increase students' intrinsic motivation? Does specific non-controlling feedback increase students' perceptions of the classroom as a supportive learning environment? When students write out their bench mark goals is their intrinsic motivation increased? It is important to note that the answers to all of these questions are designed to point us toward strategies for building and maintaining an autonomy supportive learning community.

The participants were 20 6<sup>th</sup> graders in a math class at Webber Middle School in Saginaw, Michigan (urban environment). The student population was made up of European-Americans, African-Americans, Latino-Americans and it is important to note that all participants were predominantly English speakers.

For the question regarding teacher feedback, a middle school teacher (also the researcher) charted positive non-controlling teacher feedback (a reliable student teacher

tracked the number of positive non-controlling teacher feedback) and then looked for connections in student journal responses regarding their feelings about the classroom. Students were asked to write a short journal entry each day about their feelings of the classroom for that specific day and the students' voluntary responses during instruction were also tallied. Finally, a survey was given before the data collection and after data collection in order to measure changes in students' perceptions of the classroom environment.

Oginsky's (2003) study provided interesting results regarding teacher feedback. The first result was that more teacher positive feedback led to a small increase in the number of positive journal responses, but surprisingly, positive teacher feedback led to a decrease in student active involvement. This leads to wonderment about the full nature of the feedback. As mentioned, in the first section of this chapter, the ways in which educators give feedback can work to either encourage students to be intrinsically motivated to actively engage in tasks or it can do the opposite. In addition, Oginsky found that students' belief that the classroom was a safe learning environment rose 25% as did their belief that they could get help when they needed rose 10%. Finally, students' perceptions of the amount of positive teacher comments that they received decreased 10%. This suggests that the students felt as though they were not given enough feedback.

To explore/answer the question regarding student choice, students were given more choices for assignments. Students filled out a student inventory that gauged their feelings regarding assignment choices. The researcher also tallied the amount of completed assignments, completed extra credit assignments, and number of completed math portfolios. The researcher compared the percentage of missing assignments before and after the "institution of choice" was provided.

Oginsky (2003) found useful findings regarding how choice (another characteristic of an autonomy supportive learning environment) impacts students' intrinsic motivation. Oginsky found that, students' intrinsic motivation increased when they were given choices. The inventory regarding students' feelings about choice revealed that the majority (18 out of 22) students said that they liked and valued having choices. Seventeen out of 20 students said that they were more likely to complete assignments if they were given more choice. Also, more students completed more assignments during the time that choice was instituted and more students completed more extra credit assignments during the time that choice was instituted. Finally, the number of completed portfolios increased during the time that choice was instituted.

In order to understand how the exposure to content standards and benchmarks effected students' intrinsic motivation , the researcher made sure that the content standards and benchmarks were shared with students prior to instruction. Students were then asked to write out their own standards and benchmark goals (note a very autonomy supportive task). Data regarding the number of goals that students wrote and the number of goals students perceived that they achieved was tallied. This tallied data was then compared to pre and post test scores for that time period in order to see if students' perceptions of goal achievement were accurate. Finally, these test scores were compared with prior test scores (the tests that were taken without information of standards).

The results of sharing benchmarks with students (autonomy supportive in the sense that it encourages students to make autonomous goals) revealed the following: 42 student goals were set and 30 of those goals were achieved and every student except for one reported achieving at least one goal.

Though Oginsky's (2003) study sheds light on the different characteristics of an autonomy supportive learning environment as well as how these autonomy supportive strategies affect intrinsic motivation, the study does have some weaknesses. The question of whether or not a student- perceived safe classroom increased student motivation was not answered. In fact, the idea of safety was not defined or even tested. Non-controlling teacher feedback was one of the tools of this research, no solid idea of what non-controlling feedback is, according to the researcher was given. When the researcher was comparing the experiment driven test scores with the test scores from previous units (those prior to the experiment) it was unclear whether or not those tests were really comparable.

Though the study had its minor glitches it made up for them by demonstrating several strengths. Even though students perceived completion of written goals (regarding standards and benchmarks) alone spoke to the likelihood that sharing benchmarks and standards with students increased their learning and intrinsic motivation, the researcher still used test scores to make sure that students' perceptions of achieved goals was accurate. The results of the test scores only added to the likelihood that sharing standards and benchmarks and writing goals increased student's intrinsic motivation to accomplish goals because the test results pointed out that students underestimated their learning and in fact had accomplished more standard goals than they had perceived.

When researcher tested whether or not providing choice increased intrinsic motivation they used many testing tools. They used data that provided student perceptions, they measured a change in assignment completion by comparing data before and after experiment, they used completion of extra credit as another tool. By using multiple tools their finding seems more supported and thus more believable.

Ng, Guthrie, McCann, Dacey, Van Meter, and Aloa (1996) sought to answer the following question: Which motivations to get students to participate in literacy tasks prevail? As part of her quest to answer the previous question, Ng asked the following question as well: Does a learning environment that supports student autonomy arouse intrinsic motivation? Other questions were asked, but these two questions will be the focus here.

The participants of the study included eight 3rd graders, and eight 5<sup>th</sup> graders at a public elementary school in a metropolitan area in the eastern U.S. Students were from a range of abilities and ethnic backgrounds.

Ng carefully designed her research. Students were video taped in their classroom environments (students were placed in team groups and participated in normal classroom literacy activities and other teams participated in “investigator-designed activities”). After being video taped, these same students were interviewed to determine their motivations and their perceptions of the characteristics of the context. From questionnaires and student interviews the researcher observed that there were eight to ten different motivations that students seek to accomplish through literacy activities (involvement, curiosity, challenge, social interaction, emotional tuning, compliance, recognition, competitiveness, work avoidance, self efficacy). After this finding, the researchers decided to focus on the motivations of involvement (curiosity, challenge, and social interaction).

Students were also put in two heterogeneous groups made up of four but not more than six students per group. The groups were used by the classroom teacher in the natural classroom setting (all of the groups had worked together for two weeks prior to the experiment). Students were video taped for at least 30 minutes while engaging in natural activities during reading (both classes were taped this way and the taping lasted for 6 weeks). Students were given

packets of information, each student was responsible for becoming an “expert” on one of the subjects. The students were to work together to answer questions and to present a poster board they generated (this was done in both classes and this is what was video taped). Because students were in charge of exploring the questions and answers and were becoming experts without the teachers direct influence, this assignment was autonomy supportive.

After the previous, four random students from each class were pulled and interviewed. These students watched the video tapes with the researcher and answered questions about what they were doing in the film. The students were asked motivational questions, contextual questions based on autonomy, social and coherence,

Again, for the sake of focusing on autonomy support and its effect on students’ intrinsic motivation and success, only the findings that are relevant to these will be rated. Ng’s (1996) research found that the 5th grade participants reported an increase in intrinsic motivation when the content was perceived to be supportive of their autonomy. Surprisingly, the third grade participants did not report an increase in intrinsic motivation when they perceived the content to be in support of their autonomy. The autonomy support findings for the fifth grade class yielded the following: 24 out of the 32 students (75%) reported a substantial association between intrinsic motivation and perceived autonomy support for literacy activities.

This study was mostly without weaknesses. This research demonstrated a few strengths. When interviewing, the researcher gave students the freedom to interpret the contexts instead of naming it for them. Instead of asking the students, “Do you like it when the learning environment is autonomy supportive, the researcher asked the students about the characteristics of the context. This cut down on assumptions made by the researcher. The researcher also had the students watch themselves on the video tapes and asked the questions

regarding motivation, socially supportive contexts, autonomy, and coherence. This gave the students an opportunity to explain their involvement, and interpretations instead of leaving the researchers to assert their own assumptions.

In his study, Bergin (1992) asked if leisure activities and motivation predicted in-school achievement. Is student academic achievement related to intense participation in sports, academic leisure activities, and other leisure activities in different ways? Does school influence leisure activities by creating continuing motivation? Is continuing motivation positively related to achievement, intrinsic intellectual motivation leisure activities, and self-efficacy? This article touched on the subject of autonomy, because it examined leisure activities—activities that people choose to do for pleasure. Between the lines, this research seemed to ask the question if students have practice and are familiar engaging in chosen and pleasurable activities, will they be able to carry their autonomy over into the school setting.

In some ways the design was of convenience. The study was done in two South San Francisco high schools and the administrators wanted to use five social studies classes and the students who participated were the ones enrolled in the class. A random sample of 66 students was chosen for interviews. The participants were 159 students from two South San Francisco Bay Area high schools. Students were in grades 9-12 74 were males and 85 females. The ethnic backgrounds of the participants were: 19-Asian, 3-Black, 10-Filipino, 4-Native American 11-Latino, and 107-Euro-American. Sixty four of subjects said that their fathers had completed four or more years of college and 43% said the same for their mothers.

These interviewees were chosen from each class proportional to class size. These students indicated how much time per week they spent in each of the 43 leisure activities listed (the list also included jobs). A subset of leisure activities was selected that were academic in

nature. Students also answered surveys with questions regarding intrinsic intellectual motivation. They could mark answers that ranged from, strongly agree to strongly disagree. Students also answered surveys with questions regarding self-efficacy. Students were asked if they were planning to go to college. Students were interviewed in a private booth in the school library. The interviewer asked: “Has a class that you took ever started an interest that you then pursued outside of school? Lastly, students GPAs were computed because it was thought that competence in English and math may be related to leisure activities in different patterns.

The study found leisure activities were related to academic achievement, but the relationship was modest. Leisure activities are chosen for so many different reasons and are connected to academia in so many different ways it seems like there would be too many uncontrollable variables, making this study close to impossible to perform. Further, socio-economic class affects people’s ability and encouragement to engage in leisure activities. Nothing about this was referred to in the study. Also, the list of leisure activities was not chosen by students and therefore did not reflect the diverse possibilities of activities that one can engage in. A better question might have been, “What do you do outside of school?”  
6Sometimes what could have been the strongest question is the one that was not asked. Students are motivated to participate in leisure activities outside of school. Had this been inquired about specifically it might given important insight into how to motivate students in school.

Stoll (1970) observed a student-originated course entitled “Research and Its Relevance” at Hopkins University in order to examine its effect on students’ individual motivations to learn. With this case study Stoll was also trying to gain insight into relevant education and its

effect on students' engagement and achievements. The participants were an unspecified group of high achieving college students.

The course was constructed by students who then brought their curriculum plan to Stoll, the researcher and also the facilitator of the course. Stoll made only minor changes to the original plan. After all was said and done, the course was set up as follows: The course would consist of guest speakers as lecturers from the university. The facilitator (Stoll) mostly sat quietly in the back of the room. The class did not have mandatory reading, only a suggested reading list. Attendance was mandatory and counted as 40% of students' grades. The class had minimal grading, there were no exams, and the only assignments were two unconventional writing assignments. Also, the students were told that most of them would receive a B. Grading of the two writing assignments was based on a plus and minus system. ++ meant that, "You told me something original and presented your arguments with skill, + meant that, "Good points, but not as well developed or provocative as ++ papers, and – meant that, "I didn't get anything from this paper and neither did you. Students who received a – grade were encouraged to re-do the assignment for a better mark. It is important to note that there was no predetermined learning objective for the course, but students were to set up their own. After turning in their two writing assignments, students received individual written feedback. At the end of the course students filled out evaluation questionnaires and a group interview was also conducted.

As a result of this case study, Stoll (1970) observed that the class discussions continued at a remarkable pace and about one-fourth of the class was prepared to engage each guest speaker. These students also were able to link lecture information to previous ones. Only 15% of the class was disengaged. Stoll found that her expectations regarding students work were

exceeded. While she expected to give only one-fourth of the class ++ marks she ended up giving half of the class ++ marks. From the questionnaire, Stoll found that one-third of the class listed it as their favorite course of that semester and 5% reported that the class was their least favorite. Interestingly, a total of 1.67 of the suggested reading was done by students, (this seems like a weak measurement of intrinsic motivation).

From the questionnaire Stoll (1970) was also informed about the changes that the students wanted for the course. 36% of the class said that they were interested in group discussions, 20% said that they wanted the attendance requirement lifted, 20% said that they wanted the teacher to act as moderator, 24% wanted more structure and reading requirements, 24% wanted a course theme, only 5% disapproved of the two writing assignments, and finally 39% thought that the course should be on a pass-fail system. One of the most interesting findings was that almost every participant was unable to state what they had learned. When the participants were asked to express what they had learned, they wrote responses regarding emotions and attitudes. This showed that students perhaps did not spend a lot of time thinking about their thinking along the way, revealing a lack of meta-cognition. It appears that these students left this class with their ideal grade, but without understanding and this seems to say nothing about intrinsic motivation. Though the purpose of this study was to see how a course focused on relevance and student autonomy positively effected student engagement and success, the criteria was not properly set up and the findings were not carefully calculated.

Stoll (1970) claimed that the class discussions continued at a remarkable pace, this is a subjective measurement and does not give a clear idea of the nature of the discussions. Another weakness of the study was that even if this course model was retested as a treatment to engage students, the quality of the guest speakers could not be controlled. It is possible that the

students' engagement relied solely on the excellent performances of the guest speakers. Another weakness was the measurement of students work. Even though Stoll said that students' work exceeded her expectations her expectations, were not a definite measurement and since there was not a proper rubric enclosed in the study, there is no basis that would help understand the quality of the students' work.

If the class discussions did indeed continue at a remarkable pace, then this could mean that students were engaged, interested, and intrinsically motivated to participate in the course since their grade did not depend on class discussion or participation.

In order to conduct her study, Usuki (2001) first gave students questionnaires regarding motivation. The results indicated that the students in the class tended to be highly motivated to learn. Usuki then interviewed these students and found that the students' prior learning experiences were teacher oriented and competition driven.

The study group was composed of 34 first year English major students in Japan. The group consisted of 9 males and 25 females who were studied from April to July. These students were given the Learner Training twice a week for 12 weeks and each lesson was less than 60 minutes long. As part of the training, students read text that raised their awareness of autonomous learning. The students wrote in their journals weekly in their first language and received feedback from the instructor. Finally, the students took part in consultations with the teacher and were given suggestions.

To track the students' beliefs about their own learning, the results of the self-evaluation questionnaires were compared in both April and July.

For the study Usuki asked, how learner training was an effective method for increasing students' readiness to work autonomously. This method helped learners consider which factors

best affected their learning. Taking responsibility for one's own learning is another way of characterizing autonomy. Usuki found that students' motivations did not change much, the students maintained their diverse motivations, and integrative motivation was especially high. In regard to autonomy readiness, and as a result of the learner training, 15% of the students increased in their readiness to conduct independent work. Seventy five percent of the students increased their own average on strategy frequency.

The results showed that learner training might be an effective method for encouraging students to be aware of their own learning. However, 15% is a small raise in the percentage of students who increased their readiness to conduct independent work. Since 75% of the students experienced an increase on their strategy frequency average, it is more likely that the more autonomous students are the more likely they will apply the strategies that they have learned.

Chang and Shook (1989) asked three questions in their study: What is the dominate approach that students use when learning different academic subjects? What is the motive strategy consequence in learning these different subjects? What are the different learning approaches used by "weaker" and "stronger" students? The study group was composed of 495 8<sup>th</sup>, 10<sup>th</sup>, and 12<sup>th</sup> grade students in Singapore. Participants came from either the "normal" school or the "express" (academically stronger) schools. Male and female participants were roughly balanced. This study had the opportunity to unlock students' autonomous motives for learning different academic subjects.

To conduct this study, students were given the Learning Process Questionnaire. The three questionnaires were in regards to language, social studies, mathematics, and science. Within these questionnaires the participants marked their respective motive types (surface

motive, surface strategy, deep motive, deep motive, deep strategy, achieving motive, and achieving and achieving strategy).

Chang and Shook (1989) found that for the subject of English: 8<sup>th</sup> and 10<sup>th</sup> grade participants reported that surface motive approach was highest, and deep motive was lowest. Another result was that surface strategy scores were ranked lowest, and achieving strategy ranked highest. For the English 12<sup>th</sup> graders, the deep motive, deep strategy and deep approach were the highest and achieving modes were ranked lowest. Unfortunately, there was no significant correlation between achieving motive and surface strategy.

Perhaps one of the most useful findings was that for all levels, deep motive was strongly linked with deep and achieving strategies. For the 8<sup>th</sup> grade Chinese Language participants, surface approach was rated the top, and achieving strategy came close in second. For the 10<sup>th</sup> graders, achieving approach was at the top, but just barely. For the 12<sup>th</sup> graders, deep approach was favored the most and for the 8<sup>th</sup> graders, there was no significant correlation between surface motive and corresponding strategy. Deep and achieving motives correlated significantly with both deep and achieving strategies. Finally, 10<sup>th</sup> and 12<sup>th</sup> grade surface motive and strategy was congruous, and deep motive correlated strongly. Achieving was only significantly related to achieving strategy.

It is important to note that, for all three levels, the achieving approach ranked top and in second was deep approach. At all levels, both deep and achieving motives correlated with deep and achieving strategies. Surface motive did not show to be strongly matched with any strategies for 8<sup>th</sup> and 12<sup>th</sup>, but for 10<sup>th</sup> surface motive did show significant relation with surface and achieving strategies.

For the subject of science, the 8<sup>th</sup> and 10<sup>th</sup> grade participants reported that the achieving approach was favored most and deep approach was close in 2<sup>nd</sup> place. For 12<sup>th</sup> grade, the preference was deep approach. Finally, deep motive correlated with both deep and achieving strategies for all grades

There was usually a correlation between motives and strategies. Regardless of grade levels academically “stronger” participants showed preferences for deep and achieving strategies, and academically “weaker” students preferred the surface approach.

One of the strengths of this study was the researchers conducted their research on more than one academic subject which makes the research more believable because for the most part, the trends held true throughout the different subjects. The sample size was large, and contained students from both academically strong and academically weaker backgrounds. One of the weaknesses was that this study examined too many things all at once. The study did not say whether or not the participants were chosen randomly.

Hudley (1996) asked, what are the motivational consequences of a specific educational program for at-risk adolescents? What are the characteristics of a specific program and the teacher attitudes that affect student motivation and achievement? The teachers who were also subjects of the study varied in their views regarding student autonomy. One teacher seemed to be in favor of teacher centered approaches towards educating. This teacher was concerned with control and even lamented the removal of corporal punishment. His was a teaching style that nodded heavily toward behaviorism. The other teacher who was observed took a more student centered approach and believed that his role as a teacher was to guide students, not to control them. He believed that student interests and their perceptions of relevance mattered. He was also more autonomy supportive—the evidence being his belief that peer group work

was an effective way to promote academic success. His was a teaching style that trusted students' autonomy and leaned on student interest as a motivational resource.

For this study the researcher observed two courses and two instructors. The guidance class participants were adolescent students from two at risk programs in Southern California. They were all English speakers. In the guidance program, students were recommended into the class and chose the class as an elective (recommendation based on whether student at a cumulative grade point average of a C- or lower, enrolled in remedial classes, had adjustment issues, or lacked school engagement). It is important to note that this is an autonomy supportive way to begin. These students who participated in the study were randomly selected and consisted of 18 African Americans and 5 Latino Americans. The researcher did not state the sex and gender of the participants. The guidance teacher was a European American male and was credentialed as math teacher as well as a school counselor. It is important to note that he was also new to the program.

The remedial class participants were modified tracked students who were put into the program based on prior academic achievement level—not an autonomy supportive method. The students who participated in the study were randomly selected from a remedial 8<sup>th</sup> grade class and were composed of 20 African American students and 4 Latino American students. Again, the researcher did not state the sex or gender of these participants. The teacher for this class was an African American Male, 50 years old with 15 years of teaching experience.

To conduct this study, participants took the Children's Academic Intrinsic Motivation Inventory. This assessed intrinsic motivation for school learning. Participants also completed the Self Perception Profile for Learning Disabled Students. This measured participant's judgment of the importance of school subjects as well as how important these subjects were in

light of making them good people. The researchers also conducted semi-structured interviews with the teachers. The interviews consisted of 18 open-ended questions. The interview was designed to assess teacher's behavior control strategies, beliefs about classroom cooperation, typical evaluation practices, and beliefs concerning student competence abilities.

The results regarding Adolescents' Motivation and perceptions of competence in the Guidance classroom were as follows. Students rated writing as one of the most important subjects, but rated their competence low. Science motivation was rated higher than the norming sample. Reading and Social Studies did not significantly differ from norming sample. Math and general motivation was significantly lower than norming sample. Importance ratings were significantly higher than the comparable ratings of perceived competence for reading ability (What students thought was important was not necessarily what they felt most competent in). Reading was rated the most important subject. Appropriate behavior was rated the most important for non academic domain-again though this was rated as most important, students rated their competence low.

The results for Guidance Teacher Interview were as followed: This teacher's goal was to provide counseling, study skills, and career info (these are things that can be seen as relevant and supportive of student autonomy because to teach a skill, is to provide students with a tool that they can later use to help themselves with). This teacher also saw the program as a way to reduce drop-out rates by supporting students academically. He sought to bridge academics to students' future opportunities (a sign of relevant teaching). He attributed school failure to student inability to see the relevance of academics on their lives. He believed in giving students choice, (which is autonomy supportive) in order to gain interest. Finally, he believed in strong discipline and holding students responsible for their actions.

Scores on all subjects were lower than the norming sample. Importance ratings for general intellectual ability were marginally higher than competence ratings.

From interviewing the remedial teacher the researcher was informed of the following characteristics. This teacher believed that tracking was a good way to reduce competition and believed that putting students into ability groups promoted student positive self concepts because some students lacked the ability to compete. He believed that some students would improve, but for some students it was just too late. He also believed in whole class lectures and did not believe in cooperation work and believed in peer tutoring and individualized instruction. Lastly, he did not believe in giving students choice (not autonomy supportive).

The most important finding was that students' intrinsic motivation ratings in the remedial class were lower than those of the guidance class. The reason for this has to do with the instructor's lack of autonomy support and controlling teacher-centered nature. The guidance class students' motivation ratings exceeded the published norms for one subscale and did not differ for two other subscales. Students in remedial class perceived competence and importance were rated lower. Guidance class students saw themselves as fairly competent in subjects that are important perhaps this boost of confidence came from feeling autonomous and in control of their learning and behavior.

It is important to note that the age of the guidance group was not reported. If the age was different from the remedial group, then there might be some developmental components that one should pay attention to. The gender and sex of the guidance group was also not reported. There could be some gender issues that one would need to pay attention to. Re-testing would be useful. For example there could be a control group (regular class) and the treatment group (cooperative learning group) then the researchers could assess using the

student questionnaire. This could be done for the other teaching methods, behavior, tracking...etc.

The researchers approached their results by assessing both students and teachers. What students had to say was reported and could be held up to the teacher's philosophies. The study used a norming sample and tested two seemingly opposing conditions to measure off of one another this gave me a clear picture of cause and effect.

Blackwell, L., Trzeniewski, K., & Dweck, C. (2007) asked the following questions: Do students achieve more academically if they are incremental theorists? Are students who believe in the incremental theory more motivated, and do they have more positive ideas of effort and do they exhibit non-helpless attributes? How do the motivation variables help to explain why beliefs about intelligence influence academics? Does teaching the incremental theory positively effect academics achievements? This study is included in the autonomy supportive section because when students view intellect as something that is not set, but sought after and obtained, they will believe that they can be responsible for their own learning and growth and this is potentially supportive of their autonomy.

The treatment of this study was incremental theory instruction. The design of this study was (O1O2 xO1 O3). Researchers examined participants' math test scores, administered the motivation questionnaire, administered the treatment for the experimental group, and did not administer the treatment for the control group. Both groups participated in similar workshops without much difference other than the treatment.

For study one, researchers studied four waves of 7<sup>th</sup> grade students through their 8<sup>th</sup> grade year. At the beginning of the study, the students filled out motivational questionnaires that assessed their theories of intelligence, goals, beliefs about effort, and helpless versus mastery-

oriented responses to failure. Two trained research assistants gave the test during the students' regular class period. The researchers examined math test scores of all of the participants of the study (also collected test scores of the year previous to the study). All participants were taught by the same teacher and taught with the same curriculum. Students filled out a motivational questionnaire at the beginning. The questionnaire asked various questions regarding positive strategies, goals, and intelligence theory. The answers ranged on a Likert scale from 1 (strongly agree) to 6 (strongly disagree).

For study two, researchers studied math test scores prior to research. Researchers administered the same motivational questionnaire as in study one. Researchers applied the intervention or treatment in study two. For eight 25 minutes periods once a week at the beginning of spring term in 7<sup>th</sup> grade. Students were separated into two randomly assigned groups. The experimental group participated in a class where they received the treatment (lessons on the incremental theory). Group two was the control group.

The participants in study one were 373 students: 98 females and 175 males in four successive entering seventh-grade classes of 67 – 114 students each, at a public secondary school in New York City. Fifty five percent were African American, 27% South Asian, 15% Hispanic, and 3% East Asian and European American. They were moderately high-achieving, with average sixth-grade math test scores at the 75<sup>th</sup> percentile nationally; 53% of the participants were eligible for free lunch.

The participants for study two were 99 students 49 were females and 50 were males. They were 7<sup>th</sup> graders at a secondary school in NYC (this sample was drawn from a different school than Study 1). Fifty two percent were African American, 45% Latino, and 3% were European American and of Asian decent. These participants were considered low-achieving,

with sixth-grade math test scores at the 35th percentile nationally. Seventy-nine percent of the students were eligible for free lunch.

The findings for study one were that students who believed in the incremental theory had positive beliefs about effort, and goals. These students also had non-helpless attributions. Students who believed in the incremental theory at the beginning of junior high predicted higher math grades at the end of their second year of junior high (note that the difference in test scores from the 6<sup>th</sup> grade year did not differ much)

For study two, students who endorsed a more incremental theory framework increased in math grades relative to those who endorsed a more entity theory framework, showing that the impact of this initial framework remained predictive over time. In an experimental study, teaching a malleable theory of intelligence was successful in enhancing students' motivation in their mathematics class.

One of the strengths was that study two had a control group with a similar environment; the only difference between the groups was the treatment. Therefore we can clearly see that the differences are due to the treatment. There were adequate similarities between the control and experimental groups. Both groups were of the same ages and both groups were similar in academic achievements. The researchers first observed students without giving a treatment in study one. They then used what they learned from study one to construct study two. The researchers had an experimental group as well as a control group; both groups had similar environments and instruction.

One of the weaknesses of the study had to do with experimental mortality. Five students dropped out of the study, making the sample smaller. In study two, lower achieving students were the participants. Since these participants were low-achievers, it seems more

likely for their achievement to increase or to make progress. More of a variety of students with diverse academic achievements might have served better. However, since there was a control group researcher can tell whether the changes in achievement are due to the treatment.

### Summary of Autonomy

An amalgamation of the professional research suggested that when students perceived the learning environment and tasks to be autonomy supportive, their levels of intrinsic motivation were increased. The studies revealed that learning environments and tasks that provided students with opportunities to exercise choice proved to be autonomy supportive. In addition to this, when students had a say so over their learning, they were more engaged and reported feeling autonomy supported. The studies also showed that when students could participate in the construction of their learning, they were more likely to utilize what they were learning. Lastly, the studies showed that the students who experienced autonomy supportive learning environments tended to have higher levels of intrinsic motivation and academically out tested and out performed the students who did not experience autonomy supportive learning environments and tasks.

### Relevance

There are a few different methods for relevant teaching Hjørland and Christensen (2002) believed that when tasks were relevant, the likelihood of goal accomplishment is increased. Students' intrinsic drives to accomplish goals are our aim as teachers, so whenever and wherever possible we should be setting students up with relevant curricula.

Lipman and Gustin (2001) conducted a study that aimed to find out if pedagogy that is critical and culturally relevant was able to transform Latina/o students to become agents of their own education. The participants included a principal and four teachers. These teachers were selected because they exhibited aspects of culturally relevant critical pedagogy. The researchers conducted this research by interviewing the teachers and the principal. During the interviews, the researchers recorded the faculty's comments regarding critical pedagogy and culturally relevant pedagogy. The researchers also observed and interviewed students. The researchers spent a total of five years observing and recording the data of this learning community.

From their study, the researchers found that accountability measures in education led to devaluing students' home languages and identities. They found that the district's current policy was responsible for hindering the development of curriculum grounded in culture, language, and the social realities of the students. They also found that the district's current policy was responsible for encouraging students to blame themselves and each other for their academic failures.

This study did not answer the initial question of whether or not critical and culturally relevant pedagogy was able to transform students into agents of their own education (which embodies intrinsic motivation) but it did inform the climate of pedagogy and curriculum that is void of cultural relevance. The district's focus and methods of teaching was built on standardized instruction. As a result, students and teachers felt that student's cultural identities were not legitimized and that the lessons that they were to learn were not necessarily applicable or relevant to out of school selves. As a result, students blamed themselves and

their peers for academic failure and were not intrinsically motivated to become agents of their own education.

As previously mentioned, part of the definition of relevance in terms of its role in education means that tasks and assignments are connected to students' lives. Sorkenes and Kelting-Gibson (2007) conducted a study that asked the two following questions: What are effective strategies for engaging Native American students? And what aspects of Native American culture have significant impacts on classroom interactions.

The participants of this study included teachers from two schools located in South Dakota. Both schools had a high ratio of Native American students. The researchers also surveyed a group of k-12 teachers in Montana. First the researchers observed the students, and then constructed a survey based on these observations. Many questions were asked on the survey, but the ones that were relevant to the subject of relevance and its affect on intrinsic motivation are: "What teaching methods and means of interaction with students have worked for you?" "What strategies/activities in your particular subject areas have been especially positive or beneficial for your students?" "What and how have you learned from students that has helped you in teaching Native American students?" The teachers were also asked to comment on the cultural differences that affect education experiences.

From the observations and surveys, the researchers found an emerging trend. The data showed tapping students' prior knowledge and integrating Native American history and culture into the curriculum was a necessary method of engaging students' intrinsic motivation. This research displayed teachers' beliefs that connecting (making relevant) students' cultures and histories was an important step to ensuring student engagement.

Tran (2007) attempted to answer the following two questions: What are the issues of motivation and learners identity in EFL writing in Vietnam? And what are students' needs and motivations? For the purpose of concentrating on the subject of relevance and its affects on students' intrinsic motivation, the latter question will be the focus here.

The participants of this study included 30 four-year Bachelors of Arts English students in Vietnam. Participants were given questionnaires with open-ended questions so that participants' answers focused on classroom context, and their motivations in learning, writing, as well as their personal values in learning writing. Researchers gave participants the purpose of the research before administering the questionnaire. Participants were also told to reflect on how cultural factors might affect their writing and what kind of writing they were interested in and what kind of writing might they need in the future.

From the data, Tran found that students felt motivated when they knew that they would later be assessed on given skills, when they wanted to fulfill teacher expectations, and when they received and looked forward to teacher feedback. Students also felt motivated when they saw that improving their skills would benefit them in their future job, and when they would present their skills to an audience. Both of these findings point toward students' beliefs that they feel motivated when tasks and assignments were relevant. When students wrote with the relevant task of communicating to an audience they felt motivated, and when students were practicing and perfecting skills that they thought would be relevant for their future career success they also felt motivated.

In regard to teaching techniques: nine students said their preferred teachers to give examples or samples of work and then guide them into writing their own. Six students said that they wanted "lively" teachers.

One of the weaknesses was that questions that are open ended leave researchers to interpret. Also when participants know the purpose of the study, they might try to answer in ways that they believe would give the researcher desired results. Because questions were so open-ended the results lacked some uniformity. This research didn't answer the question of students' needs. If the needs expressed by students became a treatment and were then tested against a control group the findings would be more convincing.

Though this study had its weaknesses it also had some strength. Because of the open-ended questions, maybe this made for a more authentic scope of student motivations and preferred teaching approaches.

Carruthers (1990) explored what learning modes do this population of students lean towards? What teaching modes make for optimal learning in this sample population? This study is included in the relevance/relatedness section because learning styles are said to be linked to culture. If this is true then the stylistic approaches that we take towards educating can be related and relevant to the learning approaches within student's home cultures.

To conduct this study, 24 community college students completed the Computerized Assessment Styles of Learning. This measured what percentage of students learned through the following modes: auditory, visual, or kinesthetic. Twenty-seven students completed the Kolb/McCarthy Learning Style Inventory. Both of these were self-reporting instruments.

The Kolb test found that the majority of students were innovative learners or Dynamic learners which suggests that the majority of students perceived information best through concrete experience rather than abstract conceptualization. The computerized test found that 44% of students scored 66% in the visual mode, 40% in the auditory mode, and 52% in the kinesthetic mode. The researchers found 70% of students preferred studying alone or being

individually responsible for task completion. This last finding is interesting in comparison with many of the studies show findings in support of group work. These studies suggested that students preferred to work in groups as it was seen something that promoted social relatedness and was autonomy supportive to boot.

One of the strengths of this study was that the assessments were self reporting, so this cut down on reliance of other's interpretation. One of the most noteworthy weaknesses was that the researchers themselves warned that, "drawing any definite conclusions about Native American students in general would be ludicrous with this small sample." Also weak, is the finding that the researchers claimed about having found that 70% of students preferred to work alone. Nowhere in their assessments was data shown that would have come to this conclusion.

Relatedness and relevance also have to do with educations' responsibility to prepare students to be well functioning citizens of the diverse nation we call the United States. One of the methods educators can use to make sure students are prepared to function well within such a diverse environment is to provide multicultural education. Some say that multicultural education has the ability to work against racism. In this following study researchers explored the following question: Does reading multicultural literature change students' perceptions of race and gender.

Beach, Parks, Thein, and Lensmire's (2003) research design was varied. It included classroom observation, discourse analysis of student discussions, student interviews, analysis of student journal writing, teacher reflections, and ethnographic research of the school and community. The researchers observed student discussion and writing and also interviewed students twice.

The study group was composed of high school students in grades nine through twelve. They were 14 students from an urban high school in a large Midwestern city with a population of 1600 students.

From this study, the researchers found that students did change their values in regard to race, class, and gender. Students also showed an ability to comprehensively use their understanding of the construction of race, class, and gender to identify and discuss when they noticed it in texts and in their everyday lives.

The strengths of this study were that it was rich with detail. The study was a good documentation of young peoples' lives due to its detailed nature. Some of the main themes were: the influence of discourse of race, class, and gender on literary response, the role of the literature teacher in interrogating discourses, the community and school culture, classroom culture, and challenges from students of color in the class.

One of the weaknesses was that this was a small study with only 14 participants. It is difficult to make broad general statements with such a small test group. Given the strengths of the study, it is not enough to just give high school students multicultural texts in order to motivate them to change or examine their own value stances. The research talked of a delicate balance of resources, exposure and challenges from the teacher. "These changes in value stances are unlikely to occur from only responding to multicultural literature alone or only from discussion with diverse peers or only in responding to challenges from a teacher or peer, but rather from a combination of all three factors." (Beach et al, 2003, p. 2003)

A weakness of the study is that all of the findings are determined by researchers instead of being confirmed by the students. Also, their findings were inconsistent. Some students showed more initiative and had different needs regarding motivation. The research seemed

extremely biased in that it did not examine the motives for wanting multicultural literature. The researchers seemed to be more interested in possibly disguising their agenda to have the students come to adopt their value system than in protecting the study from the bias of their values. It is unclear how much this altered the study.

Culturally responsive pedagogy is directly connected to culturally relevant pedagogy. If educators seek to connect curricula to students' home cultures then they are likely to rely on teaching relevant lessons that are relevant and related to their students' diverse cultures.

Oldfather (1994) asked, how a responsive classroom contributed to or supported efforts to motivate students. Oldfather also asked why are some students motivated to complete tasks that they didn't want to do and why do some avoid the tasks? In addition to these questions, the research also examined the feelings attached to being motivated and unmotivated.

This was an ethnographic study of elementary students and their teacher in Southern California. The researcher observed and questioned students in a learning environment for 95 hours. The learning environments were in classrooms, on fieldtrips, and outdoors in the school environment. All participants were located in a school consisting of 30% minority students and the sample resembled a diverse socio-economic background and participants were situated in a student-centered experiential humanistic learning environment

To conduct the study, researchers interviewed students and asked them five questions regarding their willingness and feelings toward completing academic tasks. The researcher also recorded data by observing the participants in their classes over an 18-month period of time.

This study found that a collaborative relationship in inquiry increased students' senses of ownership and involvement. Students used a variety of approaches when attempting to

become more motivated for an activity. Students chose positive attitudes, maintained open-mindedness, searched for worthwhileness in the task, observed classmates interests, plunged into the activity and self-regulated attention to their work. Some students lacked motivation, did the activity and then became motivated, lacked motivation, did the activity, and did not become motivated, lacked motivation and avoided activity, and felt paralyzed, responded to lack of motivation by feeling anger and rebellion. Some students responded by desiring autonomy, by feeling anxious, and by feeling physically ill. It is important to note that the class/ learning environment (student-centered experiential humanistic learning environment) supported the motivational processes of those who were undergoing motivational struggles as well as those who were deeply engaged in literacy learning.

Handley (1998) asked if a wilderness experience could transform “at risk” teenager’s behavior. This study is included because wilderness experience courses are filled with some of the most relevant educational opportunities possible. Perhaps response to this experience can inform light on the influence of relevance on intrinsic motivation to learn and engage in tasks.

In this study, participants went through a pilot program that included these basic steps: sense of disequilibrium, a novel setting in which the perceived risks were high which created a sense of the unknown or unpredictability and drive to obtain knowledge, and a constructive level of stress that is important to intrinsic motivation to engage with the lesson. This program lasted for a total of ten days and was set in a cooperative group setting. A group of seven to twelve participants who shared common goals and responsibilities were observed as well as the leader whose role was to model desired behavior.

This study included a vocabulary analysis procedure based on the technique of content analysis. This was outlined by Vieny (1983) and grounded in the idea that perceptions and

attitude are all reflected in language. Thus a change in such attitudes could also be seen in a change in vocabulary and could be used as a quantitative tool for assessment.

In this case, the participants were taped in conversation before and after their wilderness experience. The conversations, which consisted of open-ended questions, were later broken into clauses such as positive, negative, rational, an irrational. At the end the percentage of pre and post for each clause was calculated to determine the change

The study observed “at risk” boys and girls. Before experience audio questionnaires and after-experience audio questionnaires were administered to the participants. The participants were located in Australia, and the majority had been on probation. It is unclear how these participants were selected and unclear whether or not their participation was voluntary. The questions asked traced positive, negative, rational, and irrational vocabulary.

Profound immediate results were in change of perception and attitude at a rate of 95%, a large success rate of 80% at the two-year follow up mark. Those who participated were still in school and in further education or at work. According to the NSW Department of School Education, 96% of schools surveyed said that the program was effective as a resource and that it was 84% effective for the students who participated in it. Prior to the wilderness experience 92% of participants had been suspended but after only 17% had received a one day suspension and 6% had less than 10 days, 77% had no suspension at all. Eighty-one percent of schools stated a positive to a very positive change in student’s behavior. Teachers noted a 37% improvement in violent behavior for pre to post wilderness experience.

Because researchers chose to use vocabulary coming from students they did not have to guess outcome to genuinely learned experiences of students quantitatively, marking vocabulary, was excellent way of assessing student perception. The results of vocabulary

findings matched the success rate found in other students which had feedback from parents, schools and other student narratives. One of the weaknesses was that the initial categories for vocabulary are subject to researchers' ideas of what is positive, negative, rational, and irrational.

Given the strengths of the study, an intensely relevant learning circumstance might give students the following: proper tension, an alternative environment, room to make mistakes, and metaphor thus resulting in students' reaction towards motivating themselves in regards to schooling and societal norms.

Given the weakness of the study, one should be cautious about making the previous inference. When applying vocabulary to multicultural groups, there can be differences in language and thus change the outcome of results. For example if you used the same line of questioning in another culture the researchers might choose to weigh the meaning of the vocabulary differently according to rational, irrational, positive, and negative. There is also no control group, which is concerning.

Semra and Tekkaya (2006) examined the effects of problem based learning and traditional instructional approaches on various facets of students' self-regulated learning, including motivation and learning strategies. This study is included in the relevance/relatedness section because problem based learning is an experiential and real life way of learning. Problem based learning presents students with real life problems that reach beyond the classroom and therefore is relevant and related to students' lives, which elicits students' intrinsic motivation.

The subjects were 61 randomly chosen 10<sup>th</sup> grade students--39 boys 22 girls in an urban district in Ankara, Turkey. Students were from ages 16-16.6 years of age and came from mid-

upper-class families. Students were split into two groups. One group was the control group (the class taught with traditional instructional and textbook practices), and the experimental group (the class taught with PBL instruction). The researchers used a quasi-experimental design. The independent variable was an instructional method (traditional/textbook instruction and problem based learning). The dependent variable was student scores on each of the subscales of the Motivated Strategies for Learning Questionnaire (used to assess students' self-reported motivation and self-reported learning strategies). The questionnaire was given to both groups as a pretest and a posttest. The teacher administered the test, told the students to finish the entire test, and told students not to share their answers with fellow students. Teachers also told students to be as sincere as possible. The researchers performed follow-up analyses and checked homogeneity. The researchers explained and acquainted teachers to problem based instruction and the teachers made students familiar with problem based learning. The researchers kept in close contact with the teachers and observed the classes in order to make sure that the treatment was being followed.

To conduct this study, all students were given the Motivated Strategies for Learning Questionnaire. The questionnaire has two sections, one measured motivation the other measured use of learning strategies. The motivation section included 31 items that assessed student goals and value beliefs, students' beliefs about their ability to succeed, and anxiety about tests. The motivation portion of the questionnaire tapped into the reasons why students engage in an academic task, which included intrinsic goal orientation, extrinsic goal orientation, and task value (judgments of how interesting and useful and important the course content is to student). All subscales were based on a seven point Likert scale from 1-- not at all true of me to 7= very true of me.

The experimental group (PBL students) revealed that they participated in a task in order to be challenged, to satisfy curiosity, to master subject. These students also perceived the subject as interesting, important, and useful. The researchers also found that PBL enhanced students' self-regulatory skills (a sign of intrinsic motivation). Results revealed that PBL students had higher levels of intrinsic goal orientation, task value, use of elaboration learning strategies, critical thinking, metacognitive self-regulation, effort regulation, and peer learning compared with the control group students. Again the control group was composed of students being taught with traditional instruction.

This study had both a control and an experimental group. Both groups were given pretests in order to make sure that there were no significant preexisting differences between the two groups' answers on the questionnaire prior to the experiment. This made it so that the post test could be read more reliable. It is also strength that the researchers observed the treatment, to make sure that the teacher was administering the treatment properly. MSLQ questions left room for sincere answers so students' didn't have to feel the pressure of giving answers that were not so black or white.

Though this study had much strength, it would be helpful to see this test performed again possibly with another course or subject matter. It was only used in a biology course. The researchers might have been able to assess what and how much the students learned in both the control and experimental group. This was not measured at all. The study could have used more interviewing approaches. Researchers could have asked students openly about their perceptions of traditional instruction and PBL and whether or not they would want to repeat these classes.

This study shows the student-centered quality of PBL might engage students' intrinsic motivation by making the students feel as though the content is useful and puzzling which engages their curiosity. PBL might also make the student feel like they have more ownership (autonomy) over what they are learning because they are the ones seeking solutions to problems (along with their peers) especially when compared to traditional instruction.

Since the students in the experimental group were new to PBL, the novelty could have affected the outcomes. Sometimes newness can breed motivation or curiosity. It remains to be seen if the feelings and trends resulting from PBL participation would hold if it became the norm.

#### Summary of Relevance

An amalgamation of the professional research suggested that relevant teaching methods allowed students to utilize their prior knowledge when learning new strategies and concepts. Moreover, when students were able to use their prior knowledge, they repeatedly became intrinsically motivated to engage and participate. The studies also revealed that when students felt that what they were learning would be beneficial/ relevant for their whole selves and out of school lives, they felt more intrinsically motivated to engage and complete assignments and other tasks. The research pointed out that relevant teaching called on teachers to adopt student centered approaches towards teaching in the sense that it made them aware of students' learning styles, which was largely influenced by their cultural upbringing. Lastly, the studies suggested that problem based and experiential learning were inherently relevant teaching strategies. When students experienced this type of learning, they reported and demonstrated being more intrinsically motivated to engage with assignments and tasks.

#### Summary

Chapter three was a critical review of recent research regarding intrinsic motivation. The research revealed that intrinsic motivation does positively impact students' academic success. The research concluded that feedback, autonomy supportiveness, and relevant/relatedness were strategies or teaching approaches that work to elicit and sustain students' intrinsic motivation.

The research studies on feedback supported students' senses of competence. The studies also revealed that positive self-perceived competence had a positive impact on students' levels of intrinsic motivation. In addition to the previous, when students had a positive sense of competence they were more likely to be intrinsically motivated to utilize the feedback they received to improve their writing or other academic efforts. The combined results from the research showed that not all forms of feedback were beneficial to students therefore not all types of feedback elicited and sustained students' intrinsic motivation. The studies revealed feedback that is explanatory and elaborative in nature enhanced students intrinsic motivations. The general consensus gleaned from the studies was that positive feedback conditions increased students' intrinsic motivation more than no feedback conditions, but that not all negative feedback proved to be detrimental to students' efforts and intrinsic motivation. The studies also reported that negative feedback in the form of an observational nature was commonly not rejected by students. Lastly, the research revealed that progress feedback given to students elicited their intrinsic motivation to use what they learned.

According to the research, students' perceptions of received autonomy supportiveness positively impacted their intrinsic motivation. The studies revealed that learning environments and tasks that provided students with opportunities to exercise choice proved to be autonomy supportive. The studies revealed that learning conditions that provided opportunities for students to exercise power over their learning, they were or became more engaged and reported

feeling autonomy supported. The studies also showed that when students participated in the construction of their learning environment, they were more likely to apply their knowledge. Lastly, the studies showed that the students who experienced autonomy supportive conditions also reported higher levels of intrinsic motivation and most importantly in regards to academic endeavors, out tested and out performed the students who did not experience autonomy supportive learning conditions.

Relevant teaching methods provided opportunities for students to utilize their prior knowledge while learning new strategies and concepts. The studies also revealed that when students used their prior knowledge, they became intrinsically motivated to engage and participate. In addition, when students they were learning things that would be beneficial and relevant for their whole selves and out of school lives, they felt more intrinsically motivated to engage and complete assignments and other tasks. The research pointed out that relevant teaching called on teachers to adopt student centered approaches towards teaching because it made them aware of students' learning styles, (which are influenced one's cultural upbringing). Lastly, the studies suggested that problem based and experiential learning were essentially relevant teaching strategies. When students experienced this type of learning, they reported and demonstrated being intrinsically motivated to engage with assignments and tasks.

Chapter four provides a brief overview of the main points and findings of this paper. It will also revisit the initial questions and their importance to the educational world. In addition to the previous, chapter four will connect the professional research explored to the classroom practices and will then point towards the path for further research that might shed even more light on the strategies that educators can use to elicit and sustain students' intrinsic motivation.

## CHAPTER FOUR: CONCLUSION

### Introduction

The purpose of this paper and research was to find strategies that elicit and sustain students' intrinsic motivation, and then to explore these strategies in order to see exactly why and how they impact intrinsic motivation. The research revealed feedback, relevance/relatedness, and autonomy support are all important strategies that teachers can use when trying to elicit and sustain students' intrinsic motivation. If we think about the diversity of motivational needs present in our classes, we will be less likely to leave anyone out, thus ensuring the opportunity for all students to succeed. If we work to utilize students' intrinsic motivations, we no longer need to rely on our own assumptions (which are guaranteed to be inaccurate from time to time) of what will actually motivate students.

Chapter one reminds those in the educational community that we will, at some point in our careers, be faced with students who are reluctant to learn. Our task is then to find out what we can do to restore or in some cases introduce students to the beauty and purposes of learning. As mentioned in chapter one, the reluctance to learn sometimes comes from students' previously negative experiences with school. Upon coming to this realization, educators must ask, how do we work with this and what can we as educators do to reach these students, so that they might see reading, writing and critical thinking as essential practices not only for their academic careers, but for their lives as well? One answer points toward motivation, but in order to really utilize and apply motivation in an educational domain, we must first understand what it is and whether or not we as educators can play a part in eliciting and sustaining students' intrinsic motivation. Chapter one reminds us that we cannot stop here. We must then search for the best practices and strategies for engaging students' intrinsic motivations. As previously

mentioned, the critical review of the research revealed that feedback, autonomy supportiveness, and relevant/relatedness tasks and assignments were the key components to eliciting and sustaining intrinsic motivation.

Chapter two reminded us that motivation is a subject first studied in psychology. History credits familiar names like Freud for making great contributions to the study of motivation. Freud believed that the driving forces that lead humans to act are sex and aggression (John et. al., 2008). History also credits Hull, another early motivation theorist who shared some of Freud's ideas. Hull, like Freud, believed that there were limited amounts of driving forces that direct humans towards action. These driving forces were, hunger, thirst, avoidance of pain, and sex (Hull, 1943). This research, though helpful, did not explain all of the reasons humans act.

As previously mentioned, Freud's and Hull's contributions to motivation left some questions unanswered and a more in-depth explanation of behavior and motivation was needed. Here marks the beginning of effectance motivation theory. Effectance motivation theory worked to explain other human behaviors like play and exploration. Effectance motivation revealed that people also act and behave in order to effectively live in their environments. From this one could gather that humans not only act in response to survival needs, but also act in response to their social environment (culture). Finally, chapter two reminded us that wanting and choosing to respond well to the social environment in a competent and effective manner, even when survival did not depend on it, was the beginning description of intrinsic motivation.

Chapter three was a critical review of recent research regarding intrinsic motivation. The research revealed that intrinsic motivation does positively impact students' academic success.

The research also revealed that feedback, autonomy supportiveness, and relevant/relatedness were all key components to eliciting and sustaining students' intrinsic motivation.

Chapter four is a summary of findings gleaned from the studies previously studies located in chapter three. In this chapter, I will explain the implications that these studies have for classroom practice and I will also list some possible areas for further research that might add to the ongoing conversation regarding the most effective methods for eliciting and sustaining students' intrinsic motivation.

### Summary of Findings

#### *Feedback*

The research revealed feedback, relevance/relatedness, and autonomy support are all important strategies that teachers can use when trying to elicit and sustain students' intrinsic motivation. This section of the paper gives a brief summary of the nature of the research findings.

Wilste (2001), Koka and Hein (2003), Weist et. Al. (2001), Tang (1989), Kenkel (1981), and Schunk and Swartz (1993), all explored how feedback impacted students intrinsic motivation. The following summarizes up their findings.

Wilste (2001) found that students who believed they would get more from their writing and who also perceived themselves as high-efficacy students, utilized both global and local feedback more than students who perceived themselves as low-efficacy students thus revealing that perceived self competence had positive impact on encouraging students to wholly use teacher feedback when revising their writing.

Koka and Hein (2003) found that general feedback that was positive in nature enhanced the prediction of intrinsic motivation. Harper found that students who received self-determination digitized oral feedback, showed greater gains of intrinsic motivation.

Weist et al. (2001) found that positive information received from teachers fostered students' development of competence. They also found that not all types of teacher feedback elicited and sustained students' intrinsic motivation, but that elaborative and explanatory feedback did.

Tang (1989) found that when students were given positive teacher feedback, they spent more time on the assignment and were more likely to choose to participate with the assignment during their free time, which is a strong measurement of being intrinsically motivated to act.

Kenkel's study (1981) set out to examine how negative feedback impacted students' motivation. Kenkel found that students did not reject all negative feedback, and that students viewed observable feedback as more accurate than other forms of negative feedback.

Schunk and Swartz, (1993) found that when students who received feedback on their progress out tested students who did not receive feedback on their progress on the following tests: self-efficacy and skills, self-efficacy and improvement, and perceived progress in strategy learning. Most importantly this study concluded that feedback positively impacted students' perceived self-confidence, which is connected to intrinsic motivation. In their second study, Schunk and Swartz (1993) found that when students were given feedback that linked improved performance with strategy use resulted in students demonstrating higher skill levels than students who were not given feedback. The research also concluded that when students were given feedback, they reported using the strategies that they were taught more than students who did not receive performance feedback.

### *Autonomy*

Apostoleris (1999), Oginsky (2003), Stoll (1970), Usuki (2001), Hudley (1996), Blackwell, Trzeniewski & Dweck (2007) all explored autonomy and how it impacts intrinsic motivation. The following summarizes their findings.

Apostoleris (1999) examined students' levels of intrinsic motivation in the homeschool setting. The study showed that autonomy supportiveness was related to students' intrinsic motivation and students' curiosity and independent judgment was directly connected to students' intrinsic motivation as well. In addition, the study revealed that competence supportiveness (which is sometimes seen as counter productive to autonomy supportiveness) was not related to students' overall intrinsic motivation.

Oginsky (2003) examined how students' intrinsic motivation was affected by a learning environment that the students perceived as safe, and autonomy supportive. The study showed that when students were given choice (a characteristic of an autonomy supportive learning environment) increased students' intrinsic motivation. The study also revealed that 18 out of the 22 students liked having choices and 17 out of 20 of the students were more likely to complete assignments when they were given more choice. Overall, students completed more assignments in the choice condition than in the no-choice condition and when given choice, students even took the initiative to do extra credit. The research also concluded that when educators shared benchmarks and standards with students, students began making autonomous learning goals. Under this condition, every student except for one, reported achieving at least one of their learning goals.

Ng (1996) found that fifth graders reported an increase in intrinsic motivation when academic content was perceived as autonomy supportive but that under this same condition,

third graders did not report an increase in intrinsic motivation. Overall, 75% of the study's participants reported a substantial association between intrinsic motivation and perceived autonomy for literacy activities.

Stoll (1970) conducted a study where she gave students the opportunity to exercise their autonomy by allowing the students a strikingly huge amount of choice in freedom in designing the course. Students did not have mandatory reading, and there were no learning objectives for the class because students were to use their autonomy to create their own learning objectives. The end result was that students were unable to articulate what they learned thus proving that when autonomy supportiveness is conducted in this manner, students might not have achieved a full understanding of concepts. It is important to note that participation was not graded but Stoll claimed that class discussions still continued at a remarkable pace and that students were engaged, interested, thus revealing that students were intrinsically motivated to participate.

Usuki (2001) found that students who were autonomous in the sense that they considered and evaluated the factors, which were most fitting and beneficial to their learning, were more likely to use the strategies that they were taught.

Chang and Shook (1989) found that when students were deep motives were linked to deep and achieving academic strategies and that stronger and older students tended to favor deep motive and also used deep and achieving academic strategies when learning or participating in academics.

Hudley (1996) Compared students' levels of motivation of two differing classroom environments. One class was facilitated by an autonomy supportive teacher who: taught study skills, engaged in relevant teaching, and spent time working with students on career paths. The other class was taught by a non-autonomy supportive teacher. The study showed that the

students in the autonomy supportive environment had higher levels of intrinsic motivation when compared to the students in the non-autonomy supportive condition.

Blackwell, Trzeniewski & Dweck (2007) found that when students internalized the incremental theory (the theory that intelligence is not fixed but that it moves and grows) possessed more positive beliefs about efforts and academic goals. It is important to realize that positive beliefs about efforts and goals make up intrinsic motivation. These students were also void of helpless attributions and tended to score better in academics than students who had not internalized the incremental theory. Also noteworthy was when students were taught the incremental theory, their levels of intrinsic motivation was increased.

### *Relevance*

Lipman and Gustein (2001), Sorkenes and Kelting-Gibson (2007), Tran (2007), Carruthers (1990), Oldfather (1994), Handly (1998), and Semra and Tekkaya (2006) all explored relevance. The following summarizes their findings.

Lipman and Gustein (2001) found that the lack of culturally relevant curricula was partially responsible for causing Students from Latino decent to blame themselves and each other for their academic failures. As a result of this, students lacked the intrinsic motivation necessary for becoming agents of their own education. The study also concluded that accountability measures were responsible for devaluing these students' home languages and identities.

Sorkenes and Kelting-Gibson (2007) found that by tapping into students' prior knowledge and integrating Native American history and culture into the curriculum they were able to increase students' levels of intrinsic motivation.

Tran (2007) found that students who were learning the English language felt motivated when they saw that the skills that they were learning would benefit them in their future job and when they would have to present their learned skills to an audience. Both of these findings point towards students' beliefs that they feel motivated when tasks and assignments were relevant to their out of school lives and selves.

Carruthers (1990) researched which learning styles students preferred and what modes of teaching made for optimal learning experiences. Learning preferences are inextricably linked to culture and therefore paying attention to learning styles is a culturally relevant form of teaching. The study showed that the majority of students were experiential learners versus abstract learners. It is also important to note that experiential learning is inherently a relevant form of teaching as it gives students the opportunity to practice what they are learning while encountering specific occurrences.

As previously mentioned, relatedness and relevance have to do with education's responsibility to prepare students to become functioning citizens of the diverse nation we call the United States, regardless of their cultural and racial heritages. Through multicultural education, educators attempt to teach skills and concepts that will benefit the diversity of students who participate in our schooling system. Amongst these beneficial skills is the ability to work against racism. Beach, Parks, Thain, and Lensmires (2003) kept this skill in mind as they attempted to answer the question: does reading multicultural literature change students' perceptions of race and gender? The study showed that reading multicultural literature in schools did change students' values in regard to race class in gender. The evidence of this change was that students were able to use their multicultural understanding to identify and

discuss issues pertaining to race, class, and gender as they showed up in: texts, discussions, as well as in every day life situations.

Oldfather (1994) found that the collaborative relationship in inquiry improved students' sense of ownership and involvement and thus increased their intrinsic motivation.

Handley (1998) set students up with a wilderness experiential learning opportunity; a condition filled with relevant teaching and learning possibilities. The task was to see how the relevant nature of the wilderness experience influenced students' intrinsic motivation for making academic and social progress in school. The results showed that 81% of schools said that participants showed a positive to very positive change in behavior and 95% of students had a positive change in their perceptions and attitudes regarding school.

Problem based learning is an experiential and real life relevant way of learning. Semra and Tekkaya (1999) examined how problem based learning affected students' motivation. The study showed that students in the problem based learning condition participated in tasks in order to be challenged, to satisfy curiosity, and to achieve mastery. These students also viewed the tasks as important, interesting, and useful. All of these findings indicate that these students were experiencing high levels of intrinsic motivation.

In this summary of findings section, the research regarding feedback, autonomy supportiveness, and relevance was revisited. Feedback, autonomy supportiveness, and relevance were found to have positive influences on students' intrinsic motivation.

### Classroom Implications

Teacher feedback proved to be one of the important components of effectively engaging students' intrinsic motivation for enhancing academic success. Before diving deeper into the mechanics of how and why teacher feedback promotes student intrinsic motivation, it

is important to note why teacher feedback is considered a component of engaging intrinsic motivation, vs. it being seen only as an extrinsic reward.

People are more likely to do something if they perceive themselves to be competent and capable of the task. Bring this idea over to the context of an English Language Arts classroom, where students are often asked to complete writing tasks, and you will find one of the valid uses and purposes for providing feedback.

Teacher feedback directly impacts students' self-perception of competence and triggers students' feelings of self-determination. It is important to note that self-determination and intrinsic motivation go hand in hand. Deci and Ryan (1985) believed that the amount of a person's intrinsic motivation towards a task depended on how competent they perceived themselves to be, as well as whether or not they were able to see themselves as self-determining regarding their efforts and conduct.

Teacher feedback can engage and enhance students' intrinsic motivation; it also can work in reverse, especially if teachers are not careful about the nature of feedback that they give to students. According to Deci and Ryan (1985, 1991) when the purpose of feedback was to point out failures, the feedback became counter productive and instead of encouraging intrinsic motivation, it undermined the individual's intrinsic motivation. However, if this feedback was informational and positive, it would work to increase the student's perceived self-competence and would therefore enhance the student's intrinsic motivation.

Deci and Ryan (2002) discussed an idea known as the "need for relatedness." This need refers to the human desire to care and to be cared for. As human beings, we are social animals who feel the need to participate in the social world around us. We need human interaction or in other words we need to respond and be responded to. As English teachers, we

ask students to respond to text or ideas through the medium of writing and discussion. When students respond to these prompts, we (teachers) have to do our part—we need to respond back. This is feedback and without it, students will be left without the satisfaction of knowing that someone has heard and interpreted a meaning that they have communicated. In other words, without feedback, students risk feeling as though they are talking to the wind instead of feeling like that they have a supportive sound board to bounce ideas and thoughts off of. Without an audience to relate to, what is the purpose of writing? If there is no purpose, how could one possibly find the motivation to carry on with the task? As a future teacher, I see no good excuse for leaving my students to sit alone in isolation with their written thoughts and meanings. I feel responsible for setting them up with opportunities to hear and see the feedback that is in response to their hard work—this way they can work off of the intrinsic motivation that comes from knowing that there will be a listener on the other side of what they produce.

Because of this, perhaps teachers should make all students aware of how writing tasks will be beneficial to their lives while also providing feedback that works to encourage a sense of competence for the student. Perhaps this also draws attention to the importance of assigning relevant activities. The research regarding feedback makes me think about how expectations and outcomes might increase students' motivations to put forth their greatest efforts because they may believe that the work they put into it will pay off. These studies showed that feedback works to increase students' self-efficacy beliefs about their writing abilities.

There are many forms of feedback that educators can give, but not all of these forms are effective in enhancing students' intrinsic motivations to write, or more importantly, to stretch in their writing and thinking skills. Below is a table that illustrates the most commonly used

types of feedback. Following the table I will discuss these types of feedback in depth along with the implications they have on students' writing and responses.

Confirmation	Your answer was incorrect.
Corrective	Your answer was incorrect. The correct answer was Jefferson.
Explanatory	Your answer was incorrect because Carter was from Georgia; only Jefferson called Virginia home.
Diagnostic	Your answer was incorrect. Your choice of Carter suggests some extra instruction on the home states of past presidents might be helpful.
Elaborative	Your answer, Jefferson, was correct. The University of Virginia, a campus rich with Jeffersonian architecture and writings, is sometimes referred to as Thomas Jefferson's school.

(Adapted from Flemming and Levie)

Let's consider the first type of feedback from the table—confirmation. This type of feedback informs the student that his or her answer is correct or incorrect. Let's say that this student gave an "incorrect" answer. With this feedback, the student has learned that their answer is wrong. Did they learn anything else? Some students might have internalized the need to search and try for the correct answer, but some students might have tapped out their prior knowledge, and all of the rest of the resources that might aid them in finding answers. What is this latter student supposed to do now that they don't know what is wrong about their answer, or whether or not they are even on the right track towards coming up with the correct

answer? My assumption is that this student will lack the intrinsic motivation to carry on with the task of trying to find or come up with the correct answer.

The next type of feedback from the table, corrective feedback, simply lets the student know that their answer is incorrect and then proceeds by giving them the correct answer. The problem with this is that the student does not have to do anymore thinking to find the correct answer. Since the student was given the correct answer, are they now supposed to memorize it? This brings up the issue of whether or not rote memorization is an effective way to get students to learn. Memorization does not lead to real learning—the kind that students have to do in order to internalize concepts, and apply and or explain their understandings. If we were to ask a corrected student why their answer is correct or incorrect, their answer would be something along the lines of, “because the teacher said so.” If students are to complete assignments for the sole purpose of hearing whether they are correct or incorrect and then given the correct answer anyway, what would be the purpose of truly engaging with the assignment? If there is no sufficient reason for engaging with an assignment, how could one possibly be intrinsically motivated to continue with the task? Some students might feel the satisfaction that comes from being correct, especially when their correct answers are held against their peer’s incorrect answers. This satisfaction has more to do with establishing a higher status—something that only matters if others notice, value, and participate in. These of course are external forces and therefore work against a student’s ability to act out of their intrinsic motivation.

With explanatory feedback, teachers are giving students information along the lines of why specific answers are correct or incorrect. While this is a step up from corrective and conformational feedback, most of the thinking is still being done by the teacher; not the

learner. Again, there seems to be no real purpose for engaging in an assignment that someone else will eventually give you the answers to—this does not enhance student's intrinsic motivation.

The last two styles of feedback are the most productive in terms of enhancing and engaging student's intrinsic motivation, which in turn will provide more opportunities for students to critically think and actively engage with assignments. Diagnostic feedback allows students to grapple with puzzling information, which increases students' curiosity, while communicating that they are competent enough to explore and experience until they reveal a more correct answer. However, this is not all. Diagnostic feedback does all of this while scaffolding and guiding students towards the right path. With this gentle guidance, heightened curiosity, and boost of perceived feelings of competence, students will internalize the importance of finding the correct answer and will therefore be intrinsically motivated to carry on with task.

Elaborative feedback lets students know why their answers are correct. With the why answered, students will be able to explain their answers later. With the ability to explain answers, comes true understanding and with true understanding, students are able to apply what they know. When students can apply what they know, they will feel that the lesson is relevant and will inherently be intrinsically motivated to carry on with the learning.

Kenkel (1981) found that students viewed observable behavior feedback as accurate and were therefore more likely to change their behavior in order to improve their performance. If this result is carried over into the English Language Arts classroom, I can see how it connects with the effectiveness of giving feedback that reveals what I as the reader (observes). In other words, this means that I should provide feedback about what I hear instead of what I

think. This might encourage students to change or modify what they have written if what they originally wrote was not effective in communicating what they meant to. The improvement changes will then come from their intrinsic desire to better communicate their meaning thus making their motivations for improving intrinsic. Finally, because the participants did not overwhelmingly reject every type of feedback, especially observable feedback, I will think more about the motivational effects of providing negative observable feedback.

In order to really understand the role of autonomy and its connections with intrinsic motivation, we have to first explore extrinsic or external controls. People behave and act for several reasons. Deci and Ryan (2002) speak of extrinsic motivation as something that can be measured along a continuum. They believed that individuals' motivations fall somewhere within this continuum. Some people act or behave in specific manners to gain rewards and or to avoid punishment. This type of "motivation" is known as external regulation. External regulation goes hand in hand with a teacher-centered behaviorist approach towards teaching. Some people act and behave according to the degree that they have internalized the external/extrinsic influences—this is known as interjected regulation. Individuals who behave and act because they identify with certain external values or ways of being are acting out of something that Deci and Ryan (2002) called identified regulation—and this type of motive is bringing us closer to a type of motivation that *is* autonomous. Integrated regulation is the most autonomous motive, and occurs when individuals have fully internalized the values and meanings of any given task and believe that the task is beneficial for their character. What better elicits and sustains one's intrinsic motivation than the personal belief that one's character will be benefitted? Without integrated regulation motivation, educators are likely to end up

teaching in outdated and controlling ways with which comes a forceful “transmission” of (usually) a dominate culture.

Because we understand that autonomous motives depend on whether or not the individual has internalized the values and meanings of an assignment/task, we can deduce that individuals will most likely be fully engaged when that given assignment or task supports their autonomy. If educators assign and expect students to complete tasks for the sole purpose of getting the grade then we should also expect students to feel no real autonomous motivation to complete or really engage with the assignment/task at hand.

If our aim as educators is to get students to really respond to material and to encourage them to think critically and engage with the tasks we set before them, then we need to make sure that these assignments are supportive of their autonomy. If we are successful in accomplishing this, then our students are more likely to settle into their academic identities and feel really intrinsically motivated to participate in our classrooms.

From the research conducted by Tang (1989), goal-setting was connected to students’ intrinsic motivation. In the study, goal setting was paired up with positive teacher feedback and dished out to students. The end result was that these students did indeed make academic improvements and their levels of perceived self-competence was elevated, making them more intrinsically motivated to perform. Goal-setting is a method of eliciting and sustaining students’ intrinsic motivation and students should be given the chance to participate in the construction of their own academic goals.

From the research conducted by Oginsky (2003), when students completed assignments and did extra credit, it meant that they were intrinsically motivated to do so. Also, when students were given choice, they were more likely to be intrinsically motivated to engage in the

task. Lastly, sharing standards and benchmarks with students and encouraging students to write their learning goals increased students' intrinsic motivation.

It seems noteworthy to mention that choice is a possible way to increase intrinsic motivation that it is connected to autonomy. According to research conducted by Wilste (2001), Koka and Hein (2003), Weist et al. (2001), Tang (1989), Kenkel (1981), and Schunk and Swartz (1993), positive teacher feedback led to a decrease in student active involvement. This seems to go against what the other researchers have observed about the implications of positive feedback on students' intrinsic motivation. Despite the contrary nature of this research's findings, I did stumble upon an emerging idea, perhaps sharing standards and having students write content goals might be an effective way to elicit students' increase intrinsic motivation.

There are inferences to be made from the research conducted by Ng et al. (1996). Since the 5th graders reported an increase in intrinsic motivation when they perceived the content to be in support of their autonomy and the 3<sup>rd</sup> graders did not report an increase in intrinsic motivation due to perceived autonomy support, I wonder if we could see an increase in intrinsic motivation (by way of an autonomy supportive learning environment) as we see an increase in students' ages. In other words, it may be safe to believe that as students get older their value of autonomy support increases?

Apostoleris (1999), Oginsky (2003), Stoll (1970), Usuki (2001), Hudley (1996), Blackwell, Trzeniewski & Dweck (2007), one may infer that more choice (an autonomy supportive method of teaching), cooperative learning, interest driven projects, enhances/encourages students' motivation. The belief that students' competence abilities are limited, along with a teacher centered philosophy, would work against engaging students

intrinsic motivation. This study prompted an emerging idea; it seems that just because students see a subject as important, it doesn't mean that they will feel competent in it.

Students who believe in the incremental theory exhibit more motivation and positive ideas about effort and also tend to show less helpless attitudes and are therefore more autonomous than students who believe in the entity theory. Also, since students who believe in the incremental theory tend to have positive ideas about motivation and effort, and that they are more likely to achieve higher academically. Engaging students in a conversation about the incremental and entity theory at the start of each school year is a great way to start students off on the path to learning.

Action in schooling is somewhat connected to survival—we need education to get jobs, so that we can get paid, so we can eat. However, education is mainly constructed so that individuals can function well in their social environments, so they can live happy pleasurable lives. If this is the main function of school shouldn't those social environments and pleasurable experiences be present in the classroom. Curriculum that demonstrates relevance and relatedness achieves this. If our aim as teachers is to get students to act, or in other words to engage and interact with tasks and assignments, then we need to make sure that motivation is present. We can not necessarily prescribe motivation at all times, instead we are better off using the natural motivation that our students already possess—their intrinsic motivation. One way to access this intrinsic motivation is to provoke students to engage and act by triggering their desires to function well in society, to utilize their prior knowledge so that we can connect information to their pre-existing neuronal networks, and to spark their pleasure-based curiosity. Curriculum that is focused on relevance and relatedness will achieve these things and because

of its inherent multicultural and diverse nature it will succeed in motivating the masses instead of the chosen members of a dominate culture, and thus will work to close the achievement gap.

Relevance naturally plays an important role in enhancing, encouraging, eliciting, and sustaining students' intrinsic motivations. When students feel and understand that they are getting an education that will be useful in their out of school lives, they are more likely going to engage with the activities inherent in that specific lesson. Relevance in education refers to assignments and tasks that are applicable and connected to students' lives--so much that students are fully able to see a clear purpose for engaging in such tasks. When students are set up with assignments and tasks that are relevant, they will feel an intrinsic desire to succeed because they realize that the reward is in the opportunity to practice and master the skills that will positively impact theirs lives.

#### Further Research

I have begun questioning the roles that curiosity and exploration play in intrinsic motivation. In my history chapter I asked, "Why do people demonstrate playful and exploratory behavior?" According to Deci and Ryan (1985) theorists like Fowler believed that humans explored and played in order to achieve optimal arousal. I am grappling with some discomfort regarding relevant educational approaches. Though relevant educational approaches make students feel like academia is related to and relevant for their real lives how do relatedness and relevance spark curiosity? Would curriculum that is too relevant and related limit students' opportunities to experience unexplored domains? If curiosity is positively correlated to increasing intrinsic motivation, then too much relevant and related curriculum might actually result in decreasing an individual's intrinsic motivation. From this I realize a need to read more studies that examine curiosity and its effect on intrinsic motivation.

After reading professional autonomy supportiveness research conducted by Apostoleris (1999), Oginsky (2003), Stoll (1970), Usuki (2001), Hudley (1996), Blackwell, Trzeniewski & Dweck (2007), I saw a possible glitch in possessing the staunch belief that autonomy supportiveness positively impacts students' intrinsic motivations. In one of the studies, it was revealed that students who were learning English were not yet ready to be autonomous. It was noted that their previous cultural learning experiences were not autonomy supportive. This directed my attention to the difficulties that I will face when trying to assess when students are ready and capable of working autonomously. I would like to see some research that digs deeper into the appropriate uses of autonomy supportiveness.

### Conclusion

The questions that this paper explored were rooted in my desire to engage all students so that all students could have a fair shot at obtaining a great education regardless of their backgrounds. I began with the understanding that interaction and engagement were necessary for learning and that these are forms of action. Aware that action requires some sort of motivational force, I began to link motivation to the world of education. In my earlier experiences as an educator I relied on extrinsic rewards and believed that students were motivated by rewards and punishments and or material gains. I embarrassingly admit that I was one to give stickers and erasers to students who finished their academic work or behaved in ways that dominate society considered appropriate. I treated motivation as something I could give to students and I believed that I held the power to define and decide what would serve as motivation.

I realized that my use of extrinsic rewards and ideas about motivation did not fit with the rest of my teaching practices or goals. I wanted to reach all students. I wanted all students to feel like their education was pleasurable and important. I also wanted all students to feel comfortable with their identities while leaving them room to explore and try on other identities. I wanted them to bring these identities to class with them, wanted them to share these with one another, and wanted them to use these identities to inform my teaching so that nobody would feel pushed to the margins. These desires reminded me that I was indeed an educator who internalized a constructivist student-centered approach. Upon realizing the previous, I began to rethink my take on motivation. I began to question whether or not I really had the power to define and decide what would motivate students. Moreover, I began to rethink whether or not I had the power or right to control students' actions through rewards and punishments; I decided I didn't.

Once I knew that I did not have the power or right to control students' behavior with rewards and punishments and that I also did not have the right to define and decide what would motivate them, I was forced to research the reasons why people take action. I had to figure out what seemed to push people towards action. These questions lead me to the history of motivation.

Chapter two reminded us that motivation was a matter of psychology. Freud made huge contributions to the study of motivation. He believed that the driving forces that lead humans to act were sex and aggression (John et al., 2008). Hull was another early motivation theorist who happened to share some of Freud's ideas. Hull, like Freud, believed that the driving forces that propel people toward action were, hunger, thirst, avoidance of pain, and sex (Hull,

1943). Though this was a great start toward understanding why people do what they do, Freud and Hull's research did not fully explain all of the causes of human action.

Freud and Hull's contributions to motivation left some questions unanswered. An in-depth explanation of behavior and motivation was needed. Effectance motivation theory worked to explain perhaps more evolved behaviors like play and exploration. Effectance motivation revealed that people also act and behave in order to effectively or efficiently live in their environments. This suggested that humans not only acted in response to survival needs, but that they also acted in response to their social environment (culture). In addition, chapter two reminded us that wanting and choosing to respond well to the social environment in a competent and effective manner, even when survival did not depend on it, was the beginning description of intrinsic motivation.

Prior to examining the research herein, I asked whether or not intrinsic motivation positively influenced students' learning. If it did, I sought to find the different strategies that educators could use that would elicit and sustain students' intrinsic motivation. It was not enough to know what strategies elicited and sustained students' motivation. In order to fully understand these strategies I needed to know how these strategies worked, how they looked in practice, and why they worked in favor of intrinsic motivation. With these questions answered, I would be able to see the implications that intrinsic motivation and the strategies within could have on teaching practices.

Chapter three revealed that intrinsic motivation does positively impact students' academic success. The research also revealed that feedback, autonomy supportiveness, and relevant/relatedness were all key components and strategies that educators can use to elicit and sustain students' intrinsic motivation.

The research regarding feedback conducted by Wilste (2001), Koka and Hein (2003), Weist et. All (2001), Tang (1989), Kenkel (1981), and Schunk and Swartz (1993), revealed that students' sense of competence was impacted by the feedback they received from teachers, parents, and their peers. Moreover, students who had a positive sense of self competence were more likely to be intrinsically motivated to use the feedback they received, and could therefore work to improve their writing or other academic efforts. The results from the research also acknowledged that not all forms of feedback were beneficial to students and further, that not all feedback elicited and sustained students' intrinsic motivation. The studies suggested that to enhance students' intrinsic motivations, feedback needed to be elaborative and explanatory. The general consensus gleaned from the studies was that positive feedback conditions increased students' intrinsic motivation more than no-feedback conditions, but that contrary to popular belief, not all negative feedback proved to be detrimental to students' efforts and intrinsic motivation. In order for negative feedback to be useful, the studies showed that feedback needed to be in the form of an observable nature and that students actually responded to and used observable negative feedback. Lastly, the research revealed that feedback given to students about their progress elicited their intrinsic motivation to use what they learned.

The findings of the professional research regarding feedback conducted by Wilste (2001), Koka and Hein (2003), Weist et. All (2001), Tang (1989), Kenkel (1981), and Schunk and Swartz (1993) showed providing feedback to students about their progress and writing is beneficial to their learning and development. By providing students with feedback that is positive in nature, I will be reminding them that they are competent individuals who have the ability and knowhow to be well communicated, talented, writers as well as creative and gifted thinkers. This should work to sustain the intrinsic motivation that they brought to the

assignment or task in the first place. I also feel comfortable in the idea that giving informative and explanatory feedback to students, will give them the additional resources and wherewithal that they need to develop their thoughts and writing. Informative and explanatory feedback would work to communicate where the student overlooked essential ideas while also asking and pointing towards questions and ideas that would point students in directions that would help to develop their understanding and voice instead of hindering it and pointing out deficits.

As an English language arts teacher I will have to give feedback that is not so positive. There will be times when I will need to correct students' schemas. In these cases, it seems that telling students what I heard and observed would be the best way to let that students know whether or not their intended ideas were well-communicated. By informing the student about what I heard and observed, the student will either feel satisfied with their communication efforts (writing or discussion) or they will feel that they have yet to communicated well thus causing them to feel intrinsically motivated to improve or rethink their original method. Either way, the student feels in control and practical about the task or assignment at hand without the burden of feeling like they have some sort of deficit.

The research regarding autonomy supportiveness conducted by Apostoleris (1999), Oginsky (2003), Stoll (1970), Usuki (2001), Hudley (1996), Blackwell, Trzeniewski & Dweck (2007) revealed that when students perceived learning environments and tasks to be autonomy supportive, intrinsic motivation was increased. The studies showed that learning environments and tasks that provided students with opportunities to exercise choice proved to be autonomy supportive. In addition to this, students who had a say so in their learning demonstrated more engagement and reported positive feelings of perceived autonomy support. The studies also showed students who participated in the construction of their learning, were more likely to

apply what they were learning. Lastly, the studies proved that the students who experienced autonomy supportive learning environments tended to have higher levels of intrinsic motivation and most importantly, academically out tested and or out- performed the students who did not experience autonomy supportive learning environments and tasks.

The research regarding autonomy supportiveness, showed that by setting up learning environments and activities that are in support of students' autonomy I will be doing what I can to elicit and sustain their motivation. One way to do this would be to allow them time to grapple with puzzles and problem based activities that encourage and call on them to do the thinking instead of recording and recalling answers that I tell them. I can also provide opportunities for students to work with their peers. In these groups students will hopefully contribute what they already know so that every member's understanding is progressed to a higher level. From these experiences students will feel part of the social construction of knowledge and will therefore feel that their voice is valued. Upon feeling that their voice is valued, students will most likely feel intrinsically motivated to participate even more in their education. In addition to the previous, when students are participating in their education, they will most likely be more successful in their academic endeavors.

The research regarding relevant and relatedness teaching methods conducted by Lipman and Gusein (2001), Sorkenes and Kelting-Gibson (2007), Tran (2007), Carruthers (1990), Oldfather (1994), Handly (1998), and Semra and Tekkaya (2006), revealed that students who experience conditions that legitimize and call on their prior knowledge reported being more engaged and intrinsically motivated to perform tasks. The studies also revealed that students who experienced conditions that encouraged them to feel that the task or assignment at hand was beneficial or relevant for their whole selves and out of school lives,

reported feelings of intrinsic motivation which had positive implications on task completion and engagement. The research pointed out that relevant teaching called on teachers to adopt student centered approaches towards teaching in the sense that it made them aware of students' learning styles, which can be seen as a culturally influenced phenomena. Lastly, the studies suggested that problem based and experiential learning were innately relevant teaching strategies. When students experienced this type of learning, they reported and demonstrated being more intrinsically motivated to engage with assignments and tasks.

The findings of the research regarding relevance and relatedness, showed that tapping into and using students' prior knowledge is an effective way to teach. By setting students up with opportunities to use and remember their prior knowledge, I will be working to make them feel as though their whole selves are valued. It is my belief that when students experience feelings of value, they will feel more intrinsically motivated to contribute more of themselves will therefore be fully engaged with their learning. As a teacher, I can also give students the opportunity to learn and practice concepts that they will need to use in their out of school lives. I could introduce them to experiences that will teach them skills that they could use in their communities as well as in their future jobs or careers. These types of experiences will remind students that the skills and concepts they learn at school can be essential to their well-being. When students believe that lessons are essential to their well-being they will be intrinsically motivated to learn and again, intrinsic motivation, as seen in the studies has hugely positive implications on students academic success.

Chapter four summarized main points of this paper. Chapter four served the purpose of bridging the professional research to the practical world of the classroom. Within this chapter, addressed were possible areas for further research that have the possibility of contributing to

the ongoing conversation regarding the most effective methods for eliciting and sustaining students' intrinsic motivation.

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