# Self-Regulated Learning Process Model Used As A Framework For Learning and Work In An English III American Literature Classroom Setting

by

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ABSTRACT

This qualitative case study was conducted in a rural high school classroom setting. The study sought to determine data that reflected how participants' learning and work were impacted by a teacher-facilitated implementation of Zimmerman's Self-Regulated Learning Process Model through a Social Cognitive Lens used as a framework for the compilation of an eleventh grade English research project. The research project was assigned to all Standard English III eleventh grade students. Seventeen participants with consent submitted data that was analyzed based on Self-Regulated Questionnaires and Post Interviews. Participants' data were shuffled and randomly organized, with their names removed to ensure objectivity. The study provides evidence that the Phases and subprocesses of the SRL model (Forethought, Performance, and Self-Reflection) impacted learning and work. Subprocesses of Forethought, planning, and organizing, and subprocesses of Performance, environment, and attention focusing were impacted. Qualitative data show that participants responded that the SRL process model impacted intrinsically and extrinsically.

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# CHAPTER I: INTRODUCTION

Self-Regulated Learning (SRL) is defined in several ways as it is an offspring of the psychological study of Self-Regulation in general. The process of SRL, whether in or out of a school classroom setting, can be viewed through the lens of Operant Theory, Phenomenological View, and Social Cognitive Theory, to name a few (Zimmerman & Schunk, 1989). Self-Regulated Learning (SRL) "emphasizes autonomy and control by the individual who monitors, directs, and regulates actions toward goals of information acquisition, expanding expertise, and self -improvement" (Paris & Paris, 2001 p.89). SRL is a proactive means to self-pace, self-regulate, and self-discipline while engaged with learning and work.

SRL is self-management as one acquires knowledge, works through a problem, and completes a task or course. Self-regulated learning has many definitions and many lines of research; however, a common link is that self-regulated learners seek to accomplish academic goals through strategies and manage to unravel challenges by using one or several resources (Boekaerts, et al.,2005; DiBenedetto, 2018; Randi & Corno,2005). No matter the perspective, theory or theorist, or lens, all have in common that SRL is learning based on a process. Learning takes place when the learner sets goals, monitors their progress, thinking, motivation, and behavior during the learning and reflects on the process and outcomes of the learning and work (Pintrich, 2000; Zimmerman, 2001). SRL is a process that takes place through forethought, performance, and self-reflection. SRL is not an opportunity or suggestion to remove the teacher, but rather an opportunity to better regulate learning by the learner and promote autonomy which is necessary for life-long learning (Schunk,1989; Zimmerman, 2002). The teacher

becomes a facilitator of learning, and the student engages in learning by discovery, interaction with peers, and self-efficacy.

As the words, Self-Regulated suggests, SRL is about the regulation of the self while learning. SRL, as a part of perspectives and theories, has been established as important in education. For example, in Operant Theory, theorists discuss a self-control aspect of SRL. Operant theorists refer to the single action of SRL as an "attempt to provide a natural-science account of phenomena our common experience refers to as commitment, delay of gratification, or impulsiveness" (Mace, Belfiore, & Shea, 1989, p. 27). Another example is the Phenomenological View in which SRL is considered a process that "accepts the primacy of self-phenomena in directing and regulating learning behaviors; it favors a person-referenced over a performance-referenced account of self-regulated learning processes and activities" (McCombs, 1989 p. 52). From a Volitional Analysis perspective, SRL can be defined as the "internalization of learning and task-management strategies, coupled with the ability to mobilize and maintain them when situations demand" (Corno, 1989 p. 112). The Vygotskian view adds to the SRL definition by specifying that learning is a specific event that does not happen as an isolated event that is based on prior experience, but that "intrapersonal consequences can be related to former and ongoing interpersonal influences" (Rohrkemper, 1989 p. 142). If this is true, students can develop learning from interpersonal or social influences to become more self-directed.

Self-regulation has many meanings in the field of psychology, yet in educational psychology it is common to view SRL as a process that engages students in learning a system that reflects students' thinking processes (cognitive and metacognitive) while

working through a task or completing a project (e.g., research project) (DiBenedetto,2018; Nilson, 2013). Most SRL studies have focused on *why* and *what* theories, such as reasons for certain behaviors and goals people seek (Reeve, Ryan, Deci, & Jang, 2008).

Although SRL is multifaceted and is found in different practiced disciplines, ranging from health, clinical, and education, this study viewed SRL through a Social Cognitive lens based on Zimmerman's SRL model (2000). What each perspective has in common is that learning is a process that is intrinsically or extrinsically motivated and all perspectives agree that academic achievement must involve self-regulation. SRL is a process that allows students to manage acquisition of knowledge to produce their learning and work as opposed to being passive learners. Students are not just passive learners. They can take an active part in learning and reaching goals that they set themselves. SRL is key to success not only for students to transfer to college, but also as technology is a part of most job fields, students must be able to use a process that enables them to engage and monitor their forethought, performance, and self-reflection when approaching new endeavors in the job market. A major goal of education should be to give students strategies that can be used as tools for managing, help them develop self-efficacy, and develop self-regulatory capabilities to educate themselves during their lifetime (Bandura, 1993; DiBenedetto, 2018).

In this context, the Social Cognitive lens is a classroom setting. In this study, the process, as defined and constructed by Barry J. Zimmerman, is a cyclical process strategy that students engage with while acquiring a new skill or completing a task, project, or course. In this study, students' learning and work were framed by Zimmerman's Self-

Regulated Learning Process model. The phases of the process model are forethought, performance (or sometimes called volitional control), and self-reflection. This study focused on SRL as a process best used in a classroom setting to promote an opportunity for students to use a process model to gain the ability to manage learning and work, as well as complete a research project. Perry, Hutchinson & Thauberger (2007) postulates that students develop SRL in classrooms where they are engaged in complex tasks, have a degree of control over their learning, and are involved the evaluation of their work. This study sought to understand how students used an implemented teacher facilitated SRL process model based on Zimmerman's model to impact learning and work.

In the forethought phase of the SRL process in Zimmerman's model, students engage in planning and goal setting, in the performance phase there is self-monitoring, and in the reflection phase students self-evaluate (Zimmerman, 2005 in Boekaerts et al. pp. 13-35). Therefore, self-regulated learners can be created via exercises and strategies taught in a classroom setting and facilitated by the teacher (Nilson, 2013). Although facets of SRL are found in educational psychological theories and perspectives, because learning does not happen solely through isolation, but rather, in a classroom setting, students learn in social, communal engagements, and activities as well (Jackson, Mackenzie, & Hobfoll, 2005 in Boekaerts et al. pp. 275-296). SRL is not a matter of students learning without guidance, but rather SRL is about students' ability to regulate their learning process in attaining knowledge or completing a task.

Through a social cognitive lens, forethought, self-monitoring, and self-reflection, it is important that students are given a choice (e.g. selections in reading, creating a learning environment, etc.) (Schunk, 2014). For example, if students are to be engaged in

research, it is important for students to have choice in topic, goals, and tools to help them self-monitor as well as choice in the research process and how it is executed.

In SRL, students have autonomy, or can gain autonomy (Paris & Paris, 2001), by engaging in strategies constructed or modeled that show self-regulation in learning. SRL emphasizes individualism, but SRL through a Social Cognitive lens does not mean that people learn in isolation (Jackson & Hobfoll, 2005). Therefore, it should not be assumed that SRL involves isolation or is a linear process that appears to happen in subsequent steps only.

With strategies that fall within the subprocesses of SRL, a cyclical process happens. Schunk & Ertmer (2005) cite both Bandura (1986) and Zimmerman (1994, 2000) explaining that "Social cognitive theory emphasizes the interaction of personal, behavioral, and environmental factors. Self-regulation is a cyclical process because these factors typically change during learning and must be monitored" (p.633). Such monitoring leads to changes in an individual's strategies, cognitions, affects, and behaviors. While implementation is step by step, the actual SRL process is cyclical:

> This cyclical nature is captured in Zimmerman's three-phase self-regulation model. The *forethought phase* precedes actual performance and refers to processes that set the stage for action. The *performance (volitional) control phase* involves processes that occur during learning and affect attention and action. During the *self-reflection phase,* which occurs after performance, individuals respond to their efforts" (Schunk & Ertmer, 2005 in Boekarts et al. p.633).

SRL should not be thought of as a process that occurs in a linear fashion where students can refer to steps in a process, however; during a linear process such as composing a

research project, the SRL process facilitated by the teacher and adopted, as well as adapted, by the student will progress in circular motion. Zimmerman's model exemplifies a recursive process that revolves around forethought, performance, and self-reflection, promoting a great level of self-efficacy for learning that begins in the forethought phase, progresses in the performance phase and is realized in the self-reflection phase. As the process takes place, students may find themselves reflecting within the performance phase, which may affect forethought, and then again, self-reflecting, which may affect performance (Schunk & Ertmer, 2005 in Boekarts et al. p. 634).

While this process can be observed by teachers to occur in students intrinsically, for students who are more successful with learning and work, there are extrinsic measures that can happen to help students who are less successful. Students can possibly learn a process that will help them to become more successful. SRL is innate for successful students but can also be taught as a process. Figure 1 is an adaptation of Zimmerman's (2005) model as it takes place in learning and work. The model was adapted to show a clockwise repetitive motion:

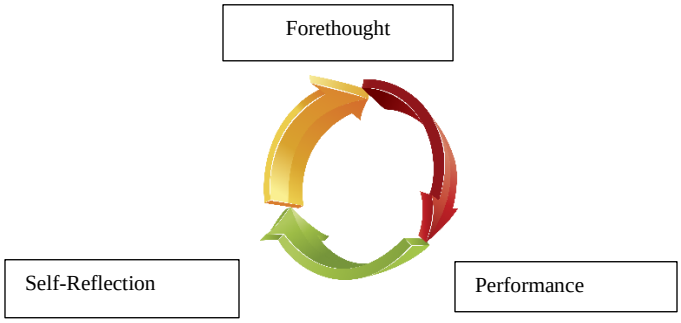



**Figure 1: Adaptation of Zimmerman's model of an SRL Process**

Zimmerman (2005) explains his view that SRL processes and beliefs are based on the idea that learning occurs in three phases, which create a cyclical process by which the phases can repeat. The first, Forethought, is based on the influences that precede action and therefore sets the stage for action. Performance, the second phase, involves actions that happen physically and mentally during the process. And, Self-Reflection, the third phase, occurs after performance and allows for a student's response to a given experience. As self-reflection provides the opportunity to review the first two phases, change may or may not occur, a cyclical process takes place (Zimmerman, 2005).

This study focused on the *how* aspect of SRL (e.g. how impactful is an SRL process or part of the process in completing a project). The researcher was interested in how students' learning and work are impacted when taught an SRL process through a social cognitive lens. Meaning, through observation and interactions with students, the researcher wanted to implement Zimmerman's SRL process model and teach the SRL process and see how students engage with the strategies and process to complete a task. Students had choice and input as to their SRL strategies. Schunk & Ertmer cite

Zimmerman (1994), explaining that "The hallmarks of self-regulation are choice and control: Students cannot self-regulate unless they have options available for learning and can control essential dimensions of learning" (Schunk & Ertmer, 2005 in Boekaerts et al.).

Most teachers hope that students develop intrinsic motivation that causes the students to acquire a love for learning and become life-long learners. Many teachers notice students with intrinsic motivation in their classrooms. These are the students that appear to self-talk, self-monitor, seek help and not seek the answer from the teacher, and when these students are asked to submit an assignment or evaluate their graded work, they appear to self-reflect (Randi & Corno, 2005). In other words, these are the students whose teachers can see their students' metacognitive processes in action. Paris & Paris, 2001 define these students as those "who ask questions, take notes, and allocate their time and resources judiciously and take charge of their learning" (pp. 89-90). Students who appear to be aloof or daydreaming, disorganized, and find completing tasks difficult, typically do not show SRL skills (Paris & Paris, 2001) intrinsically.

## Background of the Problem

As students enter high school, they can be faced with many more social challenges that can disturb their focus on learning and work. The researcher agrees with Schunk (2014) that all students want to learn especially when they understand how they learn as well as have a choice in their learning procedures and tasks. Often, students are not given choices in their learning due to such issues as feasibility in changing environment or fear of a student choosing not to participate because they are not told specifically what to do.

At the high school level, many students may enter Standard 11th grade Standard English American Literature as passive learners, based on observations by the researcher as a teacher with thirteen years of experience. The researcher has experienced the behavior of students who are accustomed to classroom lectures only, they are not accustomed to playing an active role in their learning. Setting goals, organizing, self-monitoring, self-assessment, and self-reflection are components of an SRL process that most Standard 11th grade students have not endeavored in a traditional high school classroom setting. Therefore, many students lack the skills necessary to have an efficacious learning experience that shows transfer of skills from one grade level to the next, as well as within a learning progression set forth by the teacher. Ness & Middleton (2012) state, "Students who struggle with planning may be unable to organize their materials or set attainable goals resulting in procrastination. Students who have difficulty with performance may be unable to accurately monitor their progress and performance on a task" (p. 268). This type of performance leads to students who do not hold themselves accountable for completing tasks or accountability for their part in the learning process. When students lack self-regulatory skills, they are less likely to be accountable for their learning and are apt to feel that they have not been taught successfully by the teacher (Paris & Paris, 2001). While there are many strategies that a teacher can use to help students organize and stay on task, projects framed by an SRL process can strengthen students' metacognitive skills (Randi & Corno, 2005).

Students can be taught self-regulatory skills at any grade level. While the literature of SRL supports this, according to Dignath & Butner (2008) there is a "gap" that does not show how teachers can bring SRL to the classroom (p. 232), and moreover,

the researcher finds that the literature does not reflect many qualitative studies that show how students are affected by having learning and worked framed by an SRL process model. SRL has generated a great deal of research on how an SRL process can be applied across all disciplines, across all ages, and promotes motivation and self-efficacy (Paris & Paris, 2001; Schunk & Zimmerman, 2012; DiBenedetto, 2018). The researchers' thirteen years of experience lead to this study. Students who were successful seemed to follow a process when acquiring knowledge and completing tasks, whereas students who were less successful did not.

## Problem Statement

The problem was that the researcher had noticed that students who were not successful in learning and work in Standard English III classes appeared to lack a process to guide them through learning. The researcher discovered that the matter of the problem was that students needed a guide as well as an example of a thinking process. Students needed to see how thinking is executed as well as how it frames learning and work. The literature does not reflect qualitative case studies in which students were allowed to elaborate on their experience with SRL. This qualitative research reflects how students engage with completing a task that is framed by an SRL process.

With the opportunity of choice, a major component of SRL through a social cognitive lens (Schunk, 2014), students should also be given checks to help with monitoring, assessing, and reflection (DiBenedetto, 2018; Nilson, 2013) and these should be conducted individually as well as in peer groups. Self-regulatory skills are evident in our successful students, yet *how* the strategies impact student learning and work is rare in

the literature. Teachers should be held accountable for only part of the equation in learning and work as it unfolds in a classroom between teacher and student.

SRL does not have a component that specifically directs students to be accountable, or examples of accountability, rather it is a process that allows students to develop a sense of ownership and thereby, they are intrinsically motivated to be responsible for their learning. This study sought how students with little or some prior knowledge and desired success gained knowledge and increased positive performance in learning and work as their project was framed by Zimmerman's process model.

How often do teachers teach students to set goals, self-monitor, self-assess, and self-reflect, all the while, including the students' input in each part of the learning process? Studies of SRL in the classroom, exploration, and examination of how students use strategies that are subprocesses of Zimmerman's process model of SRL through a social cognitive lens are few, especially in qualitative research.

## Purpose of the Study and Research Question

The purpose of this qualitative case study was to determine how SRL impacts students' learning and work, and if an SRL process generates student performance by setting goals, working and creating attention focusing strategies, and completing a task such as an in-depth research project. Qualitative case studies are rare in the literature.

SRL studies fall into three theoretical categories: *Why, What, and How* (Reeve, Ryan, Deci, & Jang, 2008). This study seeks to determine *how* SRL is a factor in the success of student learning and thereby creates a learner who is more engaged and shows with SRL for productive and successful learning and work. The intent was to add to the conversation of SRL and continue exploring "[…] what degree one engages in self-

regulation rather than whether one is self-regulated" (Schunk, 2014 p. 356). Through student responses to questionnaires and a post-interview, a greater level of self-regulation can be inferred as the students progressed towards completion of their projects. This study sought to answer the following research question:

> How does a teacher-facilitated implementation of Zimmerman's Self-Regulated Learning Process through a Social Cognitive lens impact students' learning and work in a research project in a classroom setting?

This study engaged students taken from a Standard 11th grade English, American Literature class. The study sought to evaluate and determine the elements of an SRL process as it affects student learning and work. The paradigm of the process is based on the work of B.J. Zimmerman and D.H. Schunk (1989). As SRL can be viewed through many theoretical lenses, a social cognitive lens is best for this study as the study took place in English III, 11th-grade high school setting.

The researcher was interested in how students are impacted by the SRL process model through a social cognitive lens, meaning, through observation and interactions, questionnaires, and post interviews with students, the researcher implemented SRL strategies and taught an SRL process to see how students were affected by the strategies and process during learning and work.

## Significance of the Study

While there are studies in SRL and the effect on students' achievement and motivation (Schunk & Zimmerman, 2012; Zimmerman & Schunk, 1989), there is little qualitative research on how an SRL model as a framework impacts learning and work. There is little and rare research on Forethought, Performance, and Self-Reflection

(Zimmerman's Self-Regulated Learning Process) strategies as the framework of a research project implemented by the teacher for student learning. The results of this study may be beneficial administrators, teachers, and beneficial to promote life-long learners as it offers an exploration of a learning strategies, Zimmerman's SRL process model that is based on educational psychology. This research is important to the academic conversation of thinking processes as internal or taught strategies for learning and work.

As a byproduct of this study, the researcher hoped to add to the continued conversation and discussion of SRL as key to self-efficacy, achievement, and motivation in students (Zimmerman & Schunk, 1989; Schunk & Zimmerman, 2008) via the elaboration of the students as to the effect of the process model on their learning and work. Likewise, parents may benefit from the increased autonomy of their child through engagement in a process which explores student choice, monitoring, assessment, and reflection.

The student is the center of this study. In most studies of SRL, while there is focus on the student, there is little if any research that allows the student to voice their experience with an SRL process before, during, and after a project. By allowing students to express their experience, administrators, teachers, and parents can understand the benefits of SRL and how it should be implemented throughout a person's educational path.

## Assumptions and Limitations

The researcher did not have contact with the students in the sample before the study. The course took place at the beginning of the 2nd semester of the 2018-2019 school year. Students were given a choice in their environment as far as seating inside the

school's library and the classroom. This study assumed that the students entering the course were from diverse backgrounds in learning levels, which contributed to the study as it assumed that all students could benefit from an SRL process through a social cognitive lens. A written research paper and presentation to the class are a part of the curriculum for English III, American Literature in this school system. This study involved a written research paper and presentation that all students were assigned; however, only seventeen students were able to submit all data collection documents within the time frame of the study.

Based on thirteen years of teaching experience, the researcher is biased as to the positive impact of the implementation of SRL processes. Successful students show engagement with forethought, performance, and self-reflection. Yet, students who do not can be taught these processes. To minimize bias the SRL process was not introduced to students until entry into the course. Students were not asked or prompted to talk about their experience in learning and work before the study. Only records to show learning ability (IEP) were examined before the study. No participant who had an IEP had a learning disability to the degree that the participant could not engage in the study.

Not to assume that all students in Standard English III do not show some degree of SRL; however, based on the researcher's thirteen years of experience most students in Standard English III courses do not show an intrinsic system that is reflective of SRL. The study was limited to the first six weeks of the first quarter, of the second semester of the new school calendar year. If a student became disenrolled during the study, then that student was automatically removed from the study. The research project was assigned to all students, yet data were not collected from students without consent. All students and

parents gave consent; however, during this study the student body and faculty of the high school were affected by illness. Due to illness several students were not able to complete this study within the time frame. Those students who were ill were removed from this study as data were not collected due to absences.

Student data were analyzed based on a Prior Knowledge Questionnaire, Self-Regulated Learning Questionnaire 1, Self-Regulated Learning Questionnaire 2, and audio recorded Post Interviews. The questionnaires were answered on student notebook paper, and the Post Interviews were audio-recorded. Observational notes were recorded to track progress and show instruction of the project and implantation of the process model. Only the questionnaires and audio recorded post interviews were analyzed to determine impact.

## Definition of Terms and Abbreviations

**One O'Clock Day:** As a part of the 180 day school year calendar, two days per semester are half

days. The 1:00 days usually occur the day before Parent/Teacher Conferences at the Middle Schools and High School of the Tullahoma City Schools System.

**504 Plan:** A plan developed by stakeholders to ensure that a child who has a disability identified under the law and is attending an elementary or secondary educational institution receives accommodations that will ensure their academic success and access to the learning environment.

**Forethought:** The first phase of Zimmerman's Self-Regulated Learning Process Model

**IEP:** Individualized Education Plan for students who receive Special Education for disabilities.

**MLA:** Modern Language Association is an organization that has developed a format for students in literature courses to use uniform guidelines for formatting research papers, and assignments.

**Performance:** The second phase of Zimmerman's Self-Regulated Learning Process Model

**Self-Reflection:** The third phase of Zimmerman's Self-Regulated Learning Process Model

**SMART**: Specific, Measurable, Attainable, Results-Oriented, Time-Bound

**Social Cognitive Lens:** View of students interactions and learning based on a theory that learning takes place and occurs through models and influences of peer groups.

**SRL:** Self-Regulated Learning: Learning that involves students that are active metacognitively, motivationally, and behaviorally in their learning process (Zimmerman, 1986 in Nilson, 1989).

**SRLIS**: Self-Regulated Learning Interview Schedule

**Standard English III**: 11th grade English course in American Literature is an English Language Arts requirement for students in Tennessee public schools.

## Conclusion

Self-Regulated Learning (SRL) is multifaceted in definition based on context, such as clinical psychology to education. This study is based on the premise that students in Standard American English, 11th grade, may not be successful due to poor Self-regulation. While there are significant studies that show a relationship between SRL and motivation, it is rare that student data show *how* students are impacted. There are few qualitative studies that show authentic student perspective, growth, and thinking process.

This study sought to give opportunity for students to voice the impact of an SRL process model on learning and work.

# CHAPTER II: LITERATURE REVIEW

While there are many definitions, depending on the context, as well as much Self-regulated learning (SRL) process models, this study is based on the research of B.J. Zimmerman. His SRL process model will be used as the framework for the classroom study conducted to answer the essential question:

How does a teacher-facilitated implementation of Zimmerman's Self-Regulated Learning Process through a Social Cognitive lens impact students' learning and work in a research project in a classroom setting?

In history, Benjamin Franklin, George Washington Carver, and other prominent figures have shown to be self-regulated learners (Zimmerman, 1998). In *The Autobiography of Benjamin Franklin,* there is sufficient evidence of goal-setting, self-monitoring, and self-reflection. While these figures appear to have self-regulatory skills intrinsically, several educational theorists and psychologists have created models that reflect a self-regulated learning process that can be taught (Paris & Winograd, 2003). To frame this study, as there is various body of literature based on the multifaceted perspectives and theories of SRL, literature selected reflects SRL through a social cognitive perspective.

## Rationale for the Literature Review

Self-regulated learning (SRL) can be discussed through many lenses, and studies have shown the use of SRL models, created by many theorists, to show the effects SRL in cognition, metacognition, achievement, and motivation. As the literature depicts several avenues of study regarding the effects of SRL through many theoretical learning lenses, this study narrows focus to SRL through a social cognitive lens. Boekaerts, Pintich, &

Zeidner (2005), in an overview of SRL, postulate that in the 1980s article on SRL appeared mainly in psychology and personality journals. In the 1990s, concepts of SRL expanded to report that in the 1980s, a large number of articles on self-regulation appeared, mainly in social psychology and personality journals. In the 1990s, the concepts were broadened to include application of self-regulation areas of focus, including self-regulated learning, self-control, and self-management.

All areas of Self-regulation, including SRL, agree that the study of Self-Regulation, especially SRL, deals with "science of the mind" (Boekaerts, Pintich, & Zeidner, 2005 p. 2). Science of the mind can be explained as what effects the thinking process of an individual. No matter the field of study, all agree that Self-regulated learners are the most successful learners (Butler &Winne, 1995).

This study sought to determine the impact of an SRL model and strategies of sub-processes as they affect students when completing a project. Therefore, in this case, SRL was viewed as an event as opposed to aptitude. When students are engaged in an SRL process, self-regulation can occur as an event. Winne, P.H. & Perry, N. E. (2005) postulate, "SRL has properties of an aptitude and an event." This study explored the impact of an SRL process and therefore viewed the learning episodes as "An event is like a snapshot that freezes activity in motion, a transient state embedded in a larger, longer series of states unfolding over time" (Winne, P.H. & Perry, N. E, 2005 p.534). The researcher finds that by viewing SRL as an event for this study, Zimmerman's model of SRL is most suited to demonstrate the effects of an SRL process in an 11$^{th}$-grade classroom setting.

This Literature Review shows models related to Zimmerman's model and classroom studies that have used a model as the framework for investigation. The models depicted are chosen as they are frequently used and discussed in the most current edition of the *Handbook of Self-Regulation* edited by Monique Boekaerts, Paul R. Pintrich, and Moshe Zeidner (2005). All authors of SRL agree that the process is cyclical and goal-oriented (Panadero, 2017). The models selected the most cited in SRL literature (Panadero, 2017).

**Boekaerts' Model**

In this approach, SRL is organized around two basic mechanisms of SRL: cognitive and affective/motivational self-regulation (p. 5). This model, from the 1980s, is one of the earliest models used to explain a learning process. Figure 2 explains what can be viewed as a flow of SRL from specific knowledge to goal setting. This model reflects the aspect of emotions in learning. Boekaerts' work focuses on explaining how students formulate different types of goals related to self-regulation (Panadero, 2017). Boekaerts' is a structural model that divides self-regulation into six components:

1. Domain-specific knowledge and skills
2. Cognitive strategies
3. Cognitive self-regulatory strategies
4. Motivational beliefs and theory of mind
5. Motivation strategies
6. Motivational self-regulatory strategies

These components were organized around what Boekaerts considered as two mechanisms of SRL: cognitive and affective/motivational self-regulation (Panadero, 2017). This

model is included in this Literature Review as an example of an earlier SRL process model. This model does not reflect learning a cyclical process, but rather a process in which learning takes place as a set of building blocks. See Figure 2:

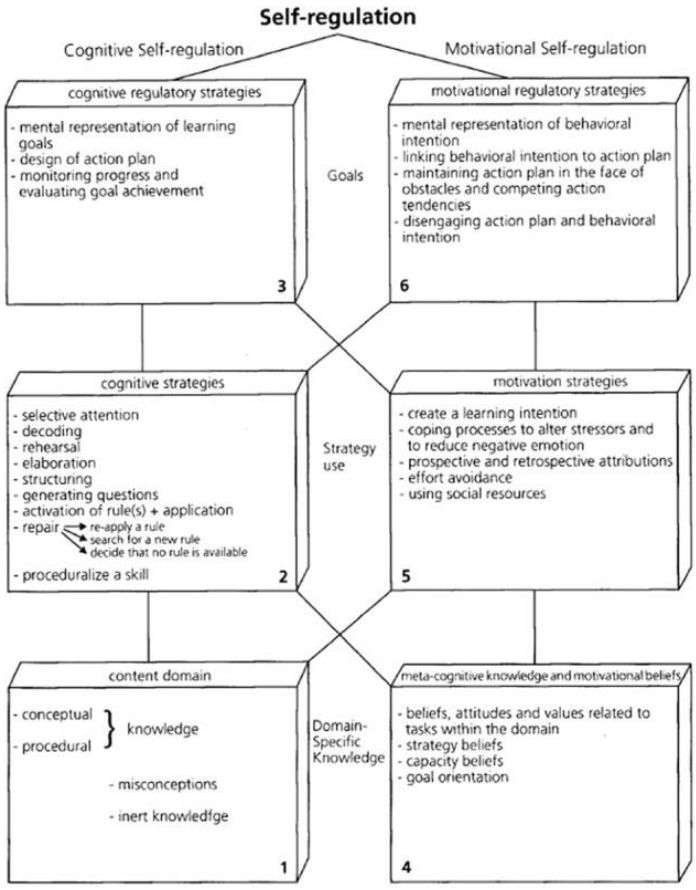



**Figure 2: Boekaerets Six-component model of SRL**

As this study sought to determine the impact of an SRL process in a classroom setting that involves modeling and community Boekaerets, model reflects the goal orientation of SRL.

**Pintrich's Model**

Pintrich's model is included in this literature review to show the comparative to Zimmerman's model that is used in this study. Pintrich's model reflects four phases of SRL. Each phase shows four different areas of self-regulation. As depicted in other models SRL begins with forethought, planning and goal setting. Pintrich's research involves the motivational aspect of SRL. Although Figure 4 appears linear, his research agrees that the process is cyclical. Pintrich's model, which is more like a table, also reflects SRL in phases. This model suggests that learning is a sequence that takes place when a student performs a task. Like most models, SRL occurs with self-monitoring, self-control, and reaction that is dynamic as a student progresses through a task. The phases occur in a general sequence that students go through when working on a task (Pintrich, 2004). Comparable to Zimmerman, the phases are not "hierarchically or linearly structured" (Pintrich, 2004 p. 389) and can occur at different intervals in learning or be readdressed as learning is taking place.

See Figure 3:

TABLE 1 Phases and Areas for Self-Regulated Learning

| Phases | Areas for regulation | | | |
|---|---|---|---|---|
| | Cognition | Motivation/affect | Behavior | Context |
| 1. Forethought, planning, and activation | Target goal setting | Goal orientation adoption | [Time and effort planning] | [Perceptions of task] |
| | Prior content knowledge activation | Efficacy judgments | [Planning for self-observations of behavior] | [Perceptions of context] |
| | Metacognitive knowledge activation | Ease of learning judgements (EOLs); perceptions of task difficulty | | |
| | | Task value activation | | |
| | | Interest activation | | |
| 2. Monitoring | Metacognitive awareness and monitoring of cognition (FOKs, JOLs) | Awareness and monitoring of motivation and affect | Awareness and monitoring of effort, time use, need for help | Monitoring changing task and context conditions |
| | | | Self-observation of behavior | |
| 3. Control | Selection and adaptation of cognitive strategies for learning, thinking | Selection and adaptation of strategies for managing motivation and affect | Increase/decrease effort | Change or renegotiate task |
| | | | Persist, give up | Change or leave context |
| | | | Help-seeking behavior | |
| 4. Reaction and reflection | Cognitive judgments | Affective reactions | Choice behavior | Evaluation of task |
| | Attributions | Attributions | | Evaluation of context |

**Figure 3: Pintrich's SRL Model**

## SRL Models in General

There are many other models that have been created by researchers. Zimmerman's model has been adapted from Bandura's Triadic Reciprocal Determinism Cycle, and there is less emphasis on motivation. Models evolve from theories in Self-regulated learning as there are as many models as facets of SRL. The models displayed in this Literature Review are permitted for use under the condition that authors are cited. (Appendix I)

**Zimmerman's Model**

Zimmerman's model, used as the framework of this study, is based on self-regulation as a social-cognitive process explained by Albert Bandura (Zimmerman, 2000). Bandura postulates that self-regulation occurs through a "triadic reciprocal determinism" (Zimmerman, 1990) cycle in which cognition and metacognition take place. Bandura describes self-regulation in learning as a process which:

> First, desired patterns of behavior and standards for self-evaluation or self-reinforcement should be modeled by agents of change such as parents or teachers. Second, an explicit set of performance requirements should be created and perhaps linked to a graded system of incentives. As a learner can perform imitatively on his or her own, the expert model gradually withdraws support. However, modeling and reinforcement are not enough to achieve a self-regulatory level of functioning. Third, Bandura recommended subjects should be taught such self-regulatory functions as standard-setting, evaluation, and self-reinforcement in addition to target behavior (Zimmerman, 1990).

SRL, through a social cognitive lens, explains the need for models in learning. The models may be teachers, parents, or peers. Bandura's "triadic reciprocal determinism" model is often cited by SRL theorists (Zimmerman, 1990; Schunk, 2014) and adapted in Figure 4:

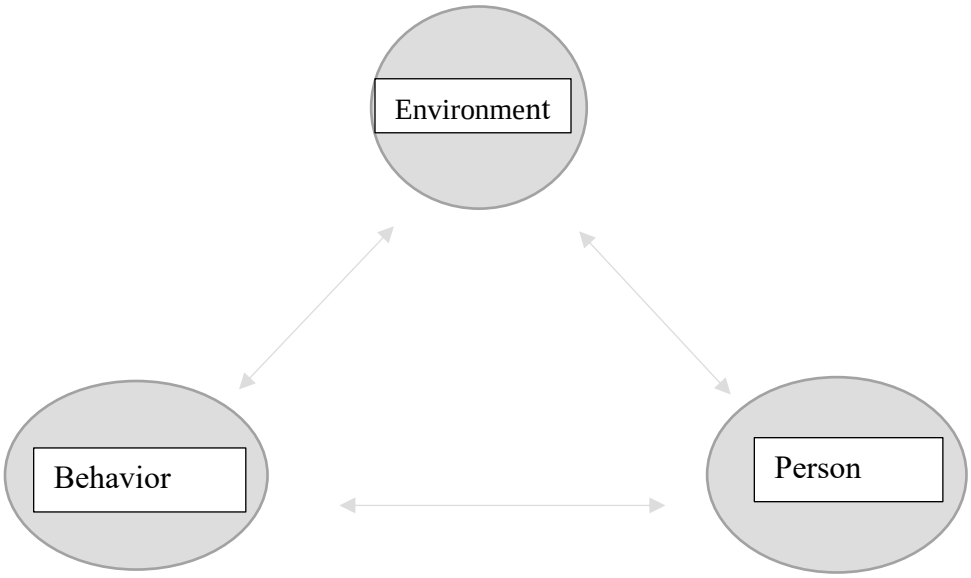



**Figure 4: Triadic Reciprocal Determinism Cycle**

The triadic reciprocal determinism model is the basis for Zimmerman's model. Zimmerman (1990) explains, "Students' efforts to regulate learning involve three classes of determinants: personal processes, the environment, and one's behavior" (p.190). This image shows how learning is affected and thereby becomes a process. Learning is affected by both internal and external factors. For instance, forethought, efficacy, motivation (person) generates performance (behavior), which affects the situation (environment). From a social cognitive perspective, the environment is a key factor.

Zimmerman (1990) continues, “From social-cognitive theory and research, two major classes of environmental influence were identified: the physical context, and material and social resources” (p.191). Environmental factors such as the effects of modeling by a teacher, choice in physical space, choice in material to be studied, peer monitoring exercises, and other environmental factors may prove to be the largest determinant in students’ ability to self-regulate their learning. Social cognitive theory places emphasis on the interaction of personal, behavioral, and environmental factors (Schunk & Ertmer, 2005; Bandura, 1986; Zimmerman, 1994, 2000). Zimmerman’s model expands on this theory.

Zimmerman (2000) explains his model as cyclical beginning with forethought, which effects performance control, which effects self-reflection. The process is not to be thought of as linear as each component drives the other and can, in turn, cause a student to readdress a previous component. To view this from a social cognitive perspective:

> Self-regulatory processes and accompanying beliefs fall into three cyclical phases: forethought, performance or volitional control, and self-reflection processes. Forethought refers to influences that precede efforts to perform. Performance involves processes that occur during physical and mental actions that affect attention and action. Self-reflection involves actions that occur after performance efforts and influence a person’s response to that experience. The self-reflections, in turn, influence forethought regarding subsequent motoric efforts –thus completing a self-regulatory cycle (Zimmerman, 2000 p.16).

Within the cyclical phases, there are subprocesses that are affected by SRL strategies. As the cycle is in motion the teacher facilitates the framework model in which she models

strategies, feedback is given, choices are given and made, and students can create strategies based on environment (Zimmerman, 2000). Figure 5 is a depiction of Zimmerman's model.

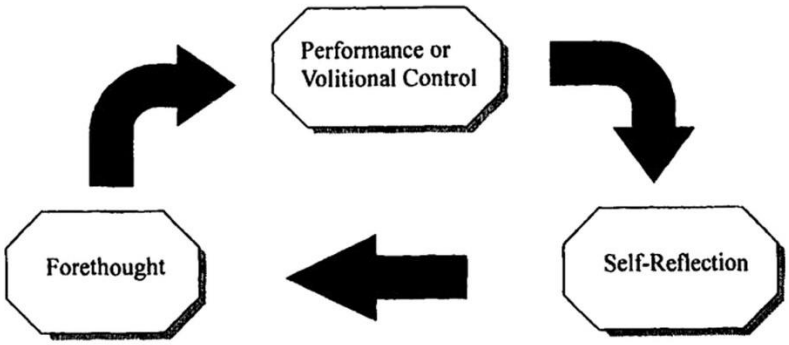



TABLE 1 Phase Structure and Subprocesses of Self-Regulation

| Cyclical self-regulatory phases | | |
|---|---|---|
| Forethought | Performance/volitional control | Self-reflection |
| Task analysis<br>Goal setting<br>Strategic planning | Self-control<br>Self-instruction<br>Imagery<br>Attention focusing<br>Task strategies | Self-judgment<br>Self-evaluation<br>Causal attribution |
| Self-motivation beliefs<br>Self-efficacy<br>Outcome expectations<br>Intrinsic interest/value<br>Goal orientation | Self-observation<br>Self-recording<br>Self-experimentation | Self-reaction<br>Self-satisfaction/affect<br>Adaptive-defensive |

**Figure 5: Zimmerman's model. Panadero, 2017.**

The idea of modeling by the teacher or peers is not to impress that learning takes place solely based on mimicry, but rather it is to be thought of by the student as a part of

becoming self-regulated. Learning is to be thought of as something that is done for oneself rather than something that happens or is done for them (Zimmerman, 1998).

Table 1 is an adaptation that shows subprocesses that happen under each process in the cycle. This table reflects several phases and subprocesses used in this study:

**Table 1. Cyclical Self-Regulatory Phases and Subprocesses. Adapted from Zimmerman, 1998; Shunk,2014**

| | **Cyclical self-regulatory phases and subprocesses** | |
|---|---|---|
| **Forethought** | **Performance/ volitional control** | **Self-reflection** |
| Goal setting | Attention focusing | Self-evaluation |
| Strategic | Self-instruction/imagery | Attributions |
| Planning | Self-monitoring | Self-reactions |
| Self-efficacy | Modeling | Adaptivity |
| Beliefs | | |
| Goal | | |
| Orientation | | |
| Intrinsic | | |
| Interest | | |

The forethought phase encompasses goal setting for a target or outcome of a project, product, problem, or end of the course grade. Setting a goal is the first step in the learning process for most students. Highly self-regulated students are goal-oriented intrinsically, yet students can be taught goal setting strategies. Table 1 shows the subprocess which can occur as a teacher creates strategies that foster SRL. However, "No self-regulatory strategy will work equally well for all persons, and few, if any, strategies will work optimally for a person on all tasks or occasions" (Zimmerman, 2000 p. 17). In any case, goal setting is the key subprocess of the forethought phase. This phase in the cycle is what sets the stage for learners to be proactive rather than reactive in their learning. Zimmerman (2012) explains, "From a cyclical phase perspective, proactive learners self-regulate more effectively because they engage in high-quality forethought, which in turn improves their self-regulatory functioning during subsequent phases" (p.279). During the forethought phase of the cycle, it is important to note two types of goals that students may formulate: performance or mastery (Pintrich, 2000). Dweck and Leggett (1988) refer to student goal orientation a learning goal or performance goal. A performance goal may be a desire to pass the class; whereas, a mastery goal may be to learn concepts that make for better writing. Therefore, as a Self-regulation process can be used as the framework for achievement it is important to teach goal setting (how to set a goal and types of goals) when fostering SRL in the classroom.

Zimmerman's model moves from forethought to performance or volitional control in the cycle. At this point in the process, students monitor their learning as they perform. At this point, a repeat of goal setting may be modified, depending on feedback. Pintrich (2000) states, "Of course, goal setting is most often assumed to occur before starting a

task, but goal setting actually can occur at any point during performance" (p. 457). Learners may set a goal at the beginning of a task, but the goal may be altered during the performance phase due to the "function of monitoring, control, and reflection processes" (p.457). During the performance phase, learners emulate or formulate strategies to help them maintain their strategies and self-monitoring and move forward in reaching their set goal. Self-control methods are "designed to overtly or covertly enhance one's learning and performance" (Zimmerman, 2012). In a standard classroom setting, students will have to be given examples, suggestions, and the teacher will have to model strategies to help students maintain attention, self-instruct, and model for peers.

The performance phase leads to the self-reflection phase in Zimmerman's model. Zimmerman (1998) explains,

> […] the forethought phase of self-regulation prepares the learner for and influences the effectiveness of the performance or volitional control phase processes, which in turn affect processes used during the self-reflection phase. These self-reflective processes influence subsequent forethought and prepare the learner for further efforts to achieve mastery (p. 5).

Proactive learners will self-reflect throughout the learning process, and this will determine if modification is needed in the forethought phase. Skillful self-regulators are also more likely to use systematic guides or techniques, such as self-instruction or imaginal guidance, to implement their methods or strategies of learning (Zimmerman, 1998 p.8). Students may become engaged in metacognitive monitoring in the form of systematic self-observation, such as the use of charts, voice recording, or portfolios (Zimmerman, 2012).

In the Self-Reflection phase of the cycle, students will self-asses. Self-assessment can also be a part of self-reflection. Self-assessment strategies can be taught and are most successful when the student is included in the assessment process. Andrade & Valicheva (2009) found that "Self-assessment is a key element in formative assessment because it involves students in thinking about the quality of their work, rather than relying on their teacher as the sole source of evaluative judgments" (p. 13). As the self-reflection phase of Zimmerman's model involves evaluation, attributions, and adaptivity, the student should continue to be at the center of the process. Evaluation is a moment in which the student can assess their actions towards completing or not completing the task or achievement desired. At this point, the student can decide which attributes to their work are positive or negative such as the factors that determine quality. When the student has self-assessed they can then adapt new strategies that are needed or if needed. Andrade & Valicheva (2009) explain that "Self-assessment is a process of formative assessment during which students reflect on the quality of their work, judge the degree to which it reflects explicitly stated goals or criteria, and revise accordingly" (p. 13). The emphasis here is on the word formative. Self-assessment is for improving and not a matter of students determining their final grades (Andrde & Valicheva, 2009). Self-assessment is imperative in the learning process as the student has the opportunity to become a part of the grading process which is a factor in determining achievement. Self-assessment is a core element of self-regulation because it involves awareness of the goals of a task and checking one's progress toward them. As a result of self -assessment, both self-regulation and achievement can increase (Andrade, Heidi & Valicheva Anna, 2009; Schunk, 2003).

Zimmerman's model can be used as a framework, as well as is a model of SRL. Self-reflection does not mark the end of learning nor the beginning. The process is cyclical and, therefore a continuation of learning. Students can use the process to create learning as an event that takes place with their involvement. Students can be taught this process as well as strategies for subprocesses that are necessary to complete a task, be successful in a course, and become life-long learners. Hattie (2012) explains that "The key for understanding the process of learning (or self-regulation) is that it is taught, such that the student learns to monitor, control, or regulate their learning […]" (p.122)

While there are many models of SRL, Zimmerman's model based on Social Cognitive Theory allows students to move through a process that involves the dynamics of a classroom setting.

**Bandura's Triadic Determinism of Social Cognitive Learning**

Zimmerman's model is based on Bandura's Triadic Reciprocal Determinism Cycle of Social Cognitive Theory (Zimmerman, 2000). Bandura's model shows an interaction of personal, environmental, and behavioral factors that all function interactively as determinants of each other by effect (Bandura, 1986) Figure 4. Bandura (1986) postulates that learning through a social cognitive lens "views human functioning as reciprocal interactions between behaviors, environmental variables, and cognitions and other personal factors" (Zimmerman & Schunk, 1989 p. 84). This does not happen linearly, but reciprocal and is different in each learner. Zimmerman's model goes a step further and adds subprocess, which involves subprocesses which are affected by external and internal feedback (Schunk & Zimmerman, 2012).

**Characteristics of Classroom Study of SRL: Principles to Consider**

Self-regulation, as a topic has been researched in many areas from clinical to classroom contexts. Researchers and teachers who have studied SRL in a classroom context have sought to gain insight on how SRL affects motivation, metacognition, performance, and the effects on teacher instructional strategies (Paris & Paris, 2001; Butler, 2002). There is a vast amount of experimental and exploratory research on the theories of SRL and the effects of strategies regarding student involvement ranging from Head Start (pre-school) to post-secondary and vocational classroom settings regarding age, gender, subject matter, and learning disabilities. Paris & Paris conclude, "SRL is also more likely when teachers create classroom environments in which students have opportunities to seek challenges, to reflect on their progress, and to take responsibility and pride in their accomplishments" (p.99). As the researcher seeks to explore, via student perspective, how these aspects of an SRL process affect students engaged in a structured research project. Paris & Paris propose principles to apply, and they are broken into four major features of research:

1. Self-appraisal leads to a deeper understanding of learning.
2. Self-management of thinking, effort, and effect promotes flexible approaches to problem-solving that are adaptive, persistent, self-controlled, strategic, and goal oriented.
3. Self-regulation can be taught in diverse ways
4. Self-regulation is woven into the narrative experiences and the identity striving of the individual

**Examples of SRL Studies in Classrooms**

Most studies in SRL show an aspect of an SRL process and the effects of strategies used in the process and subprocesses in quantitative measures and do not specify which SRL model is used. Rather, the studies are based on the basic phases of SRL: Forethought, Performance, and Self-Reflection. These phases are a part of Zimmerman's model. Most studies regarding an SRL process look at student achievement and motivation.

Schmitt, McClelland, Tominey, & Acock (2015) presented a quantitative study that examined the efficacy of a self-regulation intervention for Head Start children of demographic risk. In their research they considered that socioeconomic factors could place students at risk of not being able to acquire self-regulated learning skills. They found that SRL intervention strategies helped with gains in self-regulation and academic achievement for N=276 children in 14 Head Start classrooms (Schmitt et al., 2015). The study incorporated SRL strategies, which showed benefits to student learning using strategies based on an SRL model.

A primary element of Zimmerman's model is goal setting, defined here as a subprocess under Forethought. In a quantitative study conducted by Zimmerman and Kistantas (1997), both goal setting and self-monitoring (performance) were tested for the effects of increasing achievement in a physical education exercise: dart throwing. The study "hypothesized that girls who shifted goals developmentally from process to outcome (or performance to mastery Dweck & Legget, 1988) would surpass classmates who adhered to only process goals which, in turn, would exceed classmates who used only outcome goals in posttest […]" (29). The findings for this study support

Zimmerman's social cognitive model. The researchers found that after the initial training via modeling and mimicking, girls who focused more during self-directed practice on performance then shifted to mastery, displayed stronger self-efficacy and achievement. The girls also showed greater interest in the game (Zimmerman & Kistantas, 1997). All SRL models agree that goal setting, be it performance or mastery, is the baseline for SRL gain (Hofer, Yu, & Pintrich, 1998; Zimmerman, 1989).

Theories of SRL share a common view that students are metacognitively, motivationally, or behaviorally active "promoters" of their achievement academically (Zimmerman & Martinez-Pons, 1990). In Zimmerman & Martinez-Pons' 1990 study, 5th, 8th, and 11th grade students, 45 boys and 45 girls, students were studied to show their use of 14 self-regulated strategies. Gifted students of different races of the middle-class socioeconomic level were a part of the study that took place in a mathematics classroom. The quantitative study conducted was based on Zimmerman's model, which reflected Bandura's triadic theory of social cognition: Environment, Person, Behavior. The students were studied for their verbal and mathematical efficacy. Students were also studied for their strategy use. The Self-Regulated Learning Interview Schedule (SRLIS) was used to measure 14 classes of self-regulated learning strategies. The SRLIS was developed by Zimmerman and Martinez -Pons in 1986 (Zimmerman & Martinez-Pons, 1986; Zimmerman & Martinez-Pons, 1988). Zimmerman and Martinez-Pons found that the 11th-grade students surpassed the 8th, and in turn the 8th surpassed the 5th on three measures of SRL. The study showed a decline in reliance on adult assistance. Based on the evidence, the 5th grader students showed that they could appraise their math and

verbal competence, and it was predicted that they would display increases in efficacy from the 5th through 11th grade (Zimmerman & Martinez-Pons, 1990).

What the literature is showing is that there is a development of automaticity and less involvement of the teacher. However, the teacher is not removed completely; rather, students are gaining more self-dependency in their learning. There is a great need for teacher-led instruction and modeling in SRL. Stoeger, Songtag, & Ziegler (2014) examine the impact of a teacher-led intervention, implemented during regular classroom learning and work. The sample of students from 12 classrooms (n=266) was a group of 4th-grade students assigned to finding the main idea and reading comprehension in expository texts. The researchers did not use Zimmerman's model and argued that a simpler model should be used for elementary students.

Dignath & Buttner (2008) postulate that a more simplified model stresses those cognitive and metacognitive aspects, for which there are promising results from earlier interventions with elementary school students. A seven-step cyclical normative model of self-regulated learning (visual is not available) places less emphasis on motivational aspects as motivation issues appear to play a greater role in interventions for secondary students, according to Dignath & Buttner (2008). The results of the study proved positive for teacher-led instruction and therefore continue to add to the conversation of teacher intervention tenet of SRL process through a social cognitive lens. Dignath & Buttner (2008) include this description of their model: The first three phases of the model used in this study reflect aspects of Zimmerman's forethought phase. The next three steps are strategy implementation, strategy monitoring, and strategy adjustment, and these are related to Zimmerman's performance phase. The final step in the seven-step cyclical

normative model is outcome evaluation. Participants were 763 4th grade students in urban, suburban, and rural areas of southern Germany. The model was used as an intervention for students in finding the main ideas in expository texts and reading comprehension. Students were divided into groups: a) Students who received regular classroom instruction b) Students who received SRL intervention. A final result showed that the students preferred SRL and identified more main ideas as well as improved reading comprehension.

Kistner et al. (2010) postulate that "Teachers can promote self-regulated learning either directly by teaching strategies, or indirectly by arranging a learning environment that enables students to practice self-regulation" (p. 157). Kistner et al. (2010) note that process models (like Zimmerman's model) focus more on learning phases of "events that constitute the ideal process of self-regulated learning and their typical requirements on the learning" (p. 158). In their study, 20 German mathematics teachers with 538 students in 9th grade were videotaped for a lesson on the Pythagorean Theorem. Boekaerts model of SRL was used to measure implicit versus explicit use of SRL strategies and instruction. The results of the study reveal that there is a discrepancy between the usefulness of explicit and implicit strategy instruction in rare occurrences in classroom settings. This quantitative study showed that students with explicit SRL instruction had higher achievement and greater transfer. However, although there was a positive relationship between self-regulation and performance gain, this does not apply for all strategies and features of the learning environment (Kistner et al., 2010)

In another study, Eilam & Aharon, (2003) set up a science classroom to enable SRL heightened by:

a) An independent learning environment where students were given autonomy to control and perform their science inquiry considering many possible alternatives and choosing specifically according to their determined goals.
b) Students were given a specially designed tool for aiding in planning their activities and managing time over a year.
c) Minimized external feedback in the learning environment
d) Yearlong (necessary for this study) duration for the task

They explored and sought to identify SRL behaviors in 9th-grade science students (n= 33) in traditional classroom settings. This qualitative study used an SRL process model in which the researchers used interviews, video recordings, notes, daily planning reports, and yearly planning reports to track students' progress in their SRL were used. The study demonstrates how students were allowed autonomy throughout the lesson. Evidence revealed students' "ability to set goals, plan activities, consider alternatives, monitor and reflect, perceive diverse cues from various sources, readjust plans to improve progress rates and demonstrate accountability" (Eilam & Aharon, Abstract, 2003).

**Social Cognitive Theory in Self-Regulated Learning**

A common classroom setting is made up of a teacher and pupils. The teacher serves as the facilitator of learning, and this may take form in many ways. Teaching may be didactic, interactive, or the teacher can serve as a model. Social Cognitive Theory challenges teaching that is in the form of the teacher as the sole source of learning and distributes awards and punishment as consequences for learning known as positive and negative reinforcement (Schunk, 2014). Learning can also occur through a communal classroom setting where students use each other as well as the teacher to learn (Clark,

Mills, & Powell, 1986). A lead theorist of Social Cognitive Theory, Albert Bandura, found that people can learn from observing others (Schunk, 2014). People not only learn from instruction but also their social environment. Zimmerman's model allows for this aspect of Social Cognitive Theory through the subprocesses of his model. Teachers and students serve as models throughout the process (Zimmerman, 2000). As Zimmerman's model is based on Bandura's Triadic Reciprocal Determinism Cycle environment, social environment is key in students' self-regulation. With regards to rewards and praise, positive and negative reinforcement, "people can increase their self-reactions by using environmental supports" (Zimmerman, 2000 p. 25). Learning extends beyond instruction only, rewards, and punishments, but rather, learning takes place through a combination of performance, observing, listening, and engaging with materials written, digital, or visual (Schunk, 2014).

Social Cognitive Theory emphasizes a cyclical process of personal, behavioral, and environmental factors. There is an interaction between the three (Bandura, 1986; Zimmerman, 2000). See Figure 5. Zimmerman bases his model, forethought, performance, self-reflection from Bandura's model. Forethought involves the personal component, performance involves the behavioral component, and self-reflection involves the environmental factor. Yet, all are interactive and can be revisited throughout learning and work.

Bandura's model of Reciprocal Determinism (See Fig. 5) reflects a cyclical process of interactive components in learning. Specifically, learning involves, self, behavior, and environment. Zimmerman's model reflects these components in the process of forethought (person), performance (behavior), and self-reflection (environment). The

subprocesses of Zimmerman's model reflect a reciprocal action of the components. Zimmerman (2013) reflects, "My initial effort to develop a social cognitive model of SRL was based in part on Bandura's triadic analysis of human functioning in terms of personal, behavioral, and the environmental components […]" (Zimmerman, 2013 p.137). Zimmerman's model adds subprocesses of strategies, and he adds the fact that feedback is an important key that drives the process in learning and work.

**Conclusion**

SRL can be explored both quantitatively and qualitatively; however, a qualitative perspective gives students a chance to talk through their experience based on the data collection tools used. Also, there are component and process models that can be used when exploring an SRL process and how it affects students. As most classroom settings are communal (Jackson, 2005) in nature, Zimmerman's model based on Bandura's triadic determinism of social cognitive learning is the best fit to examine *how* students are impacted by an SRL process when learning concepts and completing a task. The selections for the Literature Review reflect the ongoing research practices regarding SRL as it affects motivation, performance, and SRL learning processes. There is a gap in the literature as it is mostly conducted from a quantitative perspective and rarely from a qualitative perspective. Moreover, the literature is nonexistent in classroom studies with English III, 11$^{th}$-grade students completing a research task.

# CHAPTER III: METHODOLOGY

This study sought to determine how a teacher-facilitated implementation of Zimmerman's Self-Regulated Learning Process through a Social Cognitive lens as a framework impacts student engaged in a research project in a classroom setting. The problem was that the researcher had noticed that students who were not successful in learning and work in Standard English III classes appeared to lack a process that would guide them through learning and work. The researcher discovered that the matter of the problem was that students needed a guide as well as an example of a thinking process. In the literature, most studies are quantitative and do not provide an opportunity for students to speak about how learning and work are impacted by an SRL process model. Zimmerman's model (2005) was used as a framework for implementation and instruction throughout learning and work on the research project assigned to students.

## Role of the Researcher

The researcher chose this topic after thirteen years of student observations and had concluded that students are most successful when they have a degree of self-regulation. As literature in the study of Self-Regulated Learning (SRL) shows, just as the researcher has observed, there is a direct relationship between SRL and motivation, efficacy, and achievement (Schunk & Zimmerman, 2008). However, there is a gap in the literature that shows how to implement SRL in the classroom and provide an opportunity for students to elaborate on the impact of an SRL model as a framework for learning and work. The model constructed by B.J. Zimmerman (2005) was best suited for this study, which took place in an 11$^{th}$ grade Standard English III course for students assigned a research project that is a part of the curriculum for all 11$^{th}$ grade English III students. As

Zimmerman's model is based on social cognitive theory the communal environment of a classroom setting was the best fit for this study. Zimmerman's model allowed for the academic freedom of the teacher to create strategies that work best for students. The researcher served as the facilitator of the activities which reflect the phases of Zimmerman's model. Figure 5. The researcher sought to explore and determine impact of Zimmerman's model as a framework for students who have been assigned a research project.

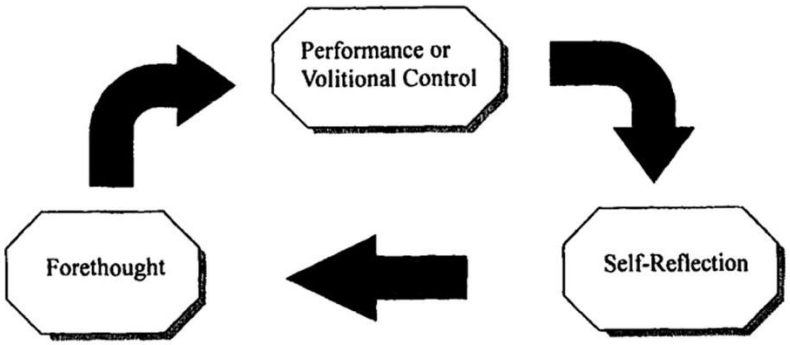
To minimize bias, the researcher had not introduced the concept to students before the study. The student participants in this study had not engaged in a Standard English III course before January, spring semester. Data were collected from seventeen participants, and they were allowed to see their responses to questionnaires. The model was used as a framework for the project and students referred to it to determine which phase reflected their thinking and performance. The students were not required to associate with the model to affect the student's grade. To further minimize bias that the process model does not work for all students, students were not told that they had to use the model, rather than the model was a process that they could use to frame their learning and work. Based on observations and interactions, researcher to student, all students did not use the model. Throughout the study, one participant said that the model did not impact learning and work.

**Theoretical Underpinnings**

Zimmerman's SRL process model is constructed based on social cognitive theory was used as a framework for the students' research project assignment. The skills and concepts that were to be learned are not only aligned with the Tennessee State Learning

Standard for English III but also associated with the 21st Century Survival Skills (Wagner, 2009) and are necessary for life-long learning.

SRL is a form of learning in which the learner sets goals, self-monitors, and self-reflects to reach their goals (Banrjee et al.,2014). Through a social cognitive lens, SRL can be impactful through teacher implementation and interaction with classroom peers. In a traditional setting, where SRL is minimally existent, students can be passive and dependent on teachers for the acquisition of information and skills to be learned (Boekaerts &Niemivirta, 2000). While there are a great number of quantitative studies in SRL, there are few qualitative studies that show or provide students the opportunity to voice how they are impacted by completing a task that is framed by an SRL process. Zimmerman's model, Figure 5 in the Literature Review, can be used as a framework for constructing lessons and strategies as well as a framework for students to use throughout to completion of a task, project, or course.

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| Self-motivation beliefs<br>Self-efficacy<br>Outcome expectations<br>Intrinsic interest/value<br>Goal orientation | Self-observation<br>Self-recording<br>Self-experimentation | Self-reaction<br>Self-satisfaction/affect<br>Adaptive-defensive |

**Figure 5: Zimmerman's model. Panadero, 2017.**

Multiple sources of data (questionnaires and an individual post interview) were collected and analyzed as the researcher attempted to allow the students to express *how* an SRL process impacts their learning and work. As Merriam advises, this strategy is used for increasing the internal validity of this investigation (Merriam, 2016). The data reflect how students were impacted by the SRL process.

This study was based on the theory that SRL can be taught to both children and adults (Zimmerman, 2000; Paris & Winogrod, 2003;). As the words imply, Self-Regulated Learning is a person's ability to control their learning through planning and self-monitoring. Paris & Paris (2001) best explain that SRL "emphasizes autonomy and

control by the individual who monitors, directs, and regulates actions toward goals of information acquisition, expanding expertise, and self-improvement" (p.89). The researcher sought to show that these strategies and competencies can be taught through the framework of an SRL model.

**Setting**

This study took place in a Standard 11th grade English III American Literature course during the 2018-2019 school year, the second semester. The classes for this course were set at a 90-minute block per class. The school year was broken into four quarters in which quarters one and two are fall semester, and quarters three and four are spring semester. Most core courses are one semester.

The school is considered a rural school set in a Southeastern United States small-town community with a population of 19,370 reported in 2018. The total amount of students enrolled in the school system was 3,581 during the 2018-2019 school year. There are four elementary schools, two middles schools, and one high school. The high school, where the study took place, 1,040 were enrolled, of which three are American Indian, twenty-nine Asian, eighty-six African American / Black, five Native Hawaiian, 843 White, fifty-three Hispanic/ Latino, and twenty-one Multi-Racial. At the high school level, 35 percent of the student body qualified for free and reduced lunch.

This study was held in a classroom setting of a typical classroom with 11th-grade students. The graduating class of 2019 (11th grade at the time of the study) consisted of 140 males and 113 females for a total of 253 students. The student sample in this study was selected from a pool of volunteers, with child and parental consent, from block two Standard American English course out of three taught by the researcher during the spring

semester. This block was chosen because it was the best fit for the time of day for the study to progress consistently.

**Participants**

All twenty-seven students in block two of the researcher's Standard English III American Literature class were invited to participate. All twenty-seven students assented and had parental consent to participate in the study. However, due to illness, six students were removed as it was not possible to obtain consistent data from these students. Two students reached the age of 18 during the second week of this study, and under IRB protocol, permission was sought or obtained regarding students under eighteen years of age. During the study, one student was removed from the school due to disciplinary action, and one student was removed from the program to seek a vocational diploma.

Out of the twenty-seven students who started the study, seventeen completed with all data submissions. Six participants were girls, and eleven were boys, all ranging from ages sixteen to seventeen. The sample consisted of students who participated in extracurricular activities such as band, choir, and school clubs. Three students had after school jobs. All the students were taking the course for the first time. Included in the sample was one student with a 504 Plan for generalized anxiety and one student with an IEP due to a learning disability. The IEP did not inform that the disability would prevent the participant from engaging in the study. The participant required extra time to complete the assignment. One student verbally expressed suffering from anxiety in previous classes that required group work. The researcher is not at liberty to report the information on the IEP; however, the participants' learning disability did not prevent participation in the study. The participants' ranged in ages from sixteen to seventeen. The

participants were involved in various extracurricular activities such as band, choir, basketball, and competitions in cosmetology.

**Design**

A qualitative case study fit the purpose of this study. The purpose of the research was to determine the impact of an SRL model as a process and the impact of the strategies within the process of learning and work on students engaged in a research project in an English III classroom setting. Butler (2002) explains that "qualitative methodologies can be employed profitably to address a range of research questions with learners at different ages" (p. 59). The researcher sought to improve teaching and learning for 11th grade English students. Merriam & Tisdell (2016) define researchers who use qualitative methods as researchers as "having an interest in knowing more about one's practice, and indeed in improving one's practice." (p.1) They believe that research focuses on "discovery, insight, and understanding from the perspective of those being studied offers the greatest promise of making a difference in people's lives" (p. 1). This qualitative case study sought to explore:

> How a teacher-facilitated implementation of Zimmerman's Self-Regulated Learning Process through a Social Cognitive lens impacts students' learning and work in a research project in a classroom setting?

Data were analyzed to explore participants' responses regarding how the phases in the process and subprocesses of the SRL model impacted their learning and work as their project evolved. All students were assigned the research project as it is a requirement in the Standard English III American Literature curriculum to align with Tennessee State Standards. Data were also collected to determine if the SRL process model impacted the

students as they progressed through their project, and the data also determined how instruction was carried out day-to-day for learning.

A qualitative case study was used in this research study as it allowed students to elaborate through the back-and-forth conversational style through the audio recorded Post Interviews. In the Prior Knowledge Questionnaire, Self-Regulated Questionnaire 1, and Self-Regulated Questionnaire 2, participants could self-reflect and review their learning and work and then elaborate on the impact in their interview. As most SRL studies are quantitative, a qualitative perspective was needed to determine how the impact of an SRL process model unfolds.

Data were analyzed from four sources:

1. Prior Knowledge Interview / Questionnaire (Appendix A and Appendix B). The questionnaire was given to the participants during week one before the selection of topics.
2. Questionnaire 1 based on SRLS questions that were selected for this specific study to examine progress and change in Forethought, Performance, Self-Reflection of the SRL process model framework used for this study. This questionnaire was given to the participants during weeks three and four of the study. (Appendix C and Appendix D)
3. Questionnaire 2 based on SRLS questions that were selected for this specific study to examine progress and change in Forethought, Performance, Self-Reflection of the SRL process model framework used for this study. This questionnaire was given to participants during weeks five and six of the study. (Appendix E and Appendix F)

4. Audio Recorded Post-Interviews took place to determine an impact on learning and work was given at the end of week 6. (Appendix G and Appendix H)

Data were collected and analyzed from the documents in a linear process. The data were analyzed to address impact of the SRL process model on learning and work. Table 2 shows the relationship of the data sought.

**Table 2. Relationship of Data Collection Documents**

| | | | |
|---|---|---|---|
| Prior Knowledge Questionnaire<br><br>Familiarity and Prior Knowledge→ | Self-Regulated Learning Questionnaire 1<br><br>→Degree of Self-Regulation impacted by the SRL model used. | Self-Regulated Learning Questionnaire 2<br><br>→ Degree of Self-Regulation impacted by the SRL model used. | Audio Recorded Post Interviews<br><br>→Overall Impact |

## Task/ Procedure

All twenty-seven students enrolled in the class were assigned a research project as a part of the Standard English III curriculum in the school system. The project required them to build an annotated bibliography, outline, research paper and works cited, and PowerPoint presentation of their work. All of the supplies for the students' research project were provided by the school, as not to divulge students who may or may not have

been able to afford supplies. Students used school- provided Chrome Books, folders, pen/pencil, and notebook paper. Due to laws and regulations, information regarding the socioeconomic status of the students was not given.

Each phase of the process model leads to subprocesses that were carried out by the students using a strategy or intervention that fosters SRL. Table 3 is an illustration of Zimmerman's model used as a framework to implement SRL through a social cognitive lens for learning and work. The strategies, activities and /or intervention reflects the subprocesses that take place during an SRL process. The fourth column shows the tools that were used to collect data.

**Table 3. SRL phases, subprocess, strategy, activity and/or intervention, and data collection.**

| Phase | Subprocess | Strategy / Activity or Intervention | Data Collection |
|---|---|---|---|
| **Forethought** | **Goal setting**<br>**Strategic Planning**<br>**Self-efficacy beliefs**<br>**Goal orientation**<br>**Intrinsic Interest** | **SMART Goal**<br>**Project Steps**<br>**Selection Choice** | **Self-Regulated Learning Questionnaire based on SRLIS Questionnaire (Questionnaire 1)**<br><br>**Teacher Observation notes for the progress of students and this study but not analyzed.** |
| **Performance** | **Attention focusing**<br>**Self-instruction / imagery**<br>**Self-monitoring** | **Choice**<br>**Teacher modeling**<br>**Peer modeling**<br>**Self-checks**<br>**Peer checks**<br>**Peer critiques** | **Self-Regulated Learning Questionnaire based on SRLIS Questionnaire (Questionnaire 2)** |
| **Self-Reflection** | **Self-evaluation**<br>**Attributions**<br>**Self-reactions**<br>**Adaptivity** | **Co-create Rubrics with teacher and peers**<br>**Post Interview** | **Post Questionnaire based on SRLIS (Questionnaire 2)**<br><br>**Post Interview** |

### Phase I: Forethought

Before the research project process, participants read and engaged in discussions about an excerpt from *The Autobiography of Benjamin Franklin* to introduce an example of a person from history who is described as a Self-Regulated Learner. The excerpt contains a daily schedule and self-reflection composed by Benjamin Franklin. Students were asked to discuss this as an example of SRL. While there were participants who said that they used some form of daily reminders, they did not exercise the use of a daily schedule, planning, or goal-setting (Forethought phase). Participants were then asked to complete a Prior Knowledge Questionnaire based on Zimmerman & Marinez Pon's Self-Regulated Learning Interview Schedule (SRLIS) modified by the researcher to evaluate participants' current SRL. A modified questionnaire based on the SRLIS was used to measure the impact of an SRL process at the end of the project. (See questions on page 53).

**Self-Regulated Learning Interview Schedule (SRLIS)**

The SRLIS was created by B.J. Zimmerman and M. Martinez-Pons to explore SRL in high school students (Winne, 2005). The model is comprised of categories of SRL strategies that high school students use during class and study, such as self-evaluation, organizing, goal setting, and planning (Zimmerman & Martinez-Pons, 1988). The questions were modified to address the self-regulated learning level in participants at intervals during the study. The questionnaires used in this study were based on the SRLIS. The questions used in the questionnaires explored the categories of strategies set in this SRLIS. An example of the SRLIS follows in Table 4:

**Table 4: Adaptation of SRLIS categories and probes (Modified for the project assigned and purpose of this study)**

| Categories of strategies | Seeking answers to address: |
|---|---|
| Self-evaluation | Statements indicating student-initiated evaluation of the quality or progress of their work |
| Organizing and transforming | Statements indicating student-initiated overt or covert rearrangement of instructional materials to improve learning |
| Goal -setting and planning | Statements indicating student setting of educational goals (performance or mastery) |
| Seeking information | Statements indicating student-initiated efforts to secure further task information |
| Keeping records and monitoring | Statements indicating student-initiated efforts to record events or results |
| Environmental Setting | Statements indicating student-initiated efforts to select or arrange the physical setting to make learning easier |
| Seeking social assistance | Statements indicating student-initiated efforts to solicit help from peers, teacher, other adults (e.g., librarian) |

Questions were formulated and categorized to reflect the SRLIS. For example:

**Self-Regulated Learning Questionnaire Example**

1. Describe how you determine if you are doing your work correctly. (Self-Evaluation)

2. How do you organize the materials necessary to begin your work? (Organizing/ Planning)
3. How did having a choice in choosing your topic help you to become interested in this project? (Self-Reflection)
4. How did setting a SMART goal before you began your work help you? (Planning)
5. Describe your feelings about writing or typing your notes. (Performance)
6. Have you used something external to help shape your environment (e.g., seating or music)? (Environment)
7. If so, why did you choose this?
8. How did you stay on track and focused? (Self-Reflection)
9. Are there other things that you feel would help you concentrate better as you complete future research projects? (e.g., gum, candy, stress ball, teacher-created outline, self-constructed outline)? (Self-Monitoring)
10. Which place do you prefer to do your work: classroom or library? (Environment)
11. How did you determine the area or seating you need to do your work? (Environment / Self-Reflection)
12. When you find yourself off topic such as starring out in space or talking with your peer, how do you manage to get back to the project? (Self-Monitoring)
13. How did you determine if your work was acceptable or needed improvement? (Social Influence / Environment)

For the purpose of analysis, the questions were grouped by category in which the question was used to probe.

After introducing the phases and subprocesses of Zimmerman's SRL process model and how the students' day-to-day construction would be framed by the components of the model, the students were introduced to the SMART Goal strategy. SMART is an acronym for Specific, Measurable, Attainable, Results-Oriented, Time-Bound (DuFour, DuFour, & Eaker, 2008). Each student decided on a goal they would like to complete by the end of their project. The SMART goal sheet used is a free graphic that was obtained by Google. Goal setting was also addressed as an event that changes during learning and work during the research project. Pintrich (2000) explains that:

> Of course, goal setting is most often assumed to occur before starting a task, but goal setting actually can occur at any point during performance. Learners may begin a task by setting specific goals for learning, goals for time use, and goals for eventual performance, but all of these can be adjusted and changed at any time during task performance as a function of monitoring, control, and reflection processes (p. 457).

The researcher provided the SMART Goal graphic to each student to record goals set by each individual as well as help students to organize their thoughts while determining their goal. As the SRL process model is cyclical, it was anticipated that the students would revisit their goals throughout the project. This happened during any phase of the cyclical process, and students were asked to discuss change with the researcher if their goal changes. During class discussions and in the post interviews participants said that they would set daily goals, mentally or physically, as self-checks to monitor their progress and what they wanted to complete for a given day. The SMART goal responses were not analyzed for data collection.

After students established a personal goal of learning during the project to take place, students were asked to select an American author and social issue associated with the author. Students were given a choice from a collection, or they were also allowed to select an American author that is not on the list with approval. Most of the author/ social issue choices were based on the availability of resources offered in the library book series collections and subscribed databases. One of the major book sources was selections of author/social issues in the book series *Social Issues in Literature.* For example, students could possibly choose F. Scott Fitzgerald / Social Class Conflict or Toni Morrison/ Slavery in *Beloved*. The students based their research on the question: From imagination or effects of a social issue on the author's life, does the author compose?

Choice is a foundation of SRL as explained by Schunk & Ertmer (2005) as they cite Zimmerman, 1994**,**

> The hallmarks of self-regulation are choice and control: Students cannot self-regulate unless they have options available for learning and can control essential dimensions of learning. Students have little opportunity for self-regulation when teachers dictate what students do, when and where they do it, and how they accomplish it (p.632).

Therefore, students could also suggest authors/social issues that are not on the list; however, they are restricted to American authors as the course is in American Literature.

Instruction, lecture, and discussion were audio-recorded to assist with the collection of observational notes. The recordings allowed the researcher to reflect daily on the study and teaching process needed for students, such as if more examples or modeling were needed for learning and work.

**Phase II: Performance**

Phase II reflects the subprocesses of the Performance component of Zimmerman's model. There are three phases that take place during the learning and work: Phase I: Forethought, Phase II: Performance, and Phase III: Self-Reflection. In Phase III: Performance, the next step in constructing the project was for each student to create an annotated bibliography following an MLA format guideline consisting of source citation and student-generated notes, summaries, quotes, and paraphrases. The expectations were that students either learn how to perform these tasks as new learning or reinforcement of prior knowledge. The researcher modeled the construction of citations for participants as well as provided examples. As the students constructed their annotated bibliographies, the first component in the research project, many began to form peer groups, selected desired seating environment, and use tools such as music to help with monitoring and attention focusing on their progress in addition to using others in a group setting as models. The participants were also given self-check forms developed by the researcher to help monitor their progress and ask them about their strategies. As the task progressed, the researcher scaffolded the self-check by asking the students to reflect or edit the self-check to personalize their progress or needs. As students show progress through the work, self-check forms were no longer created by the teacher/researcher, but rather, the students created their self-checks. Nilson (2013) terms self-checks as "wrappers" and the purpose is to "heighten students' conscious awareness of their learning process: what they are and are not understanding or retaining, how they are or are not learning, what they are deeming important, how they are tackling and proceeding with an assignment" (p. 13). Using self-checks are a part of the performance phase of the SRL model.

The students, as well as the researcher, used the self-checks to measure students' engagement in SRL and as formative assessment of progression within the task, as well as address the need for reteaching. Also, as the project progressed, the teacher asked students to begin choosing their environment, such as seating, monitoring strategies such as listening to music, or finding a place of isolation. The purpose was to help the participant to choose their learning and work environment as they worked towards completing the project. Environment and especially the choice of environment is key in the process of learning (Banarjee, Payel & Kumar, (2014); Jackson, Mackenzie & Hobfoll, (2005); Randi & Corno, (2005)). The students were given a choice in seating and style of seating (sitting or standing desks, floor with pillows, etc.). A key element of SRL through a social cognitive lens is that students be allowed choice in environment (Schunk, 2014). The researcher found this to be true as students gave positive responses to the impact of choice in their environment on their learning and work.

For each component of the research project (annotated bibliography, topic outline, research paper with works cited page and PowerPoint presentation) the researcher continued to model, assist in coordinating peer grouping for student-to-student modeling and ask participants to write a self-reflection in small essay format to assess their engagement towards self-regulation. Students were prompted only by the question: "How have you progressed towards reaching your goal"? Moreover, the researcher explored participants SRL occurring as an event through observation and dialogue between researcher and student as they self-monitored and developed self-regulation (Winne & Perry, 2005) during the performance phase of Zimmerman's SRL model.

**Phase III: Self-Reflection**

Although participants self-reflected daily by establishing daily goals and rethinking their original SMART goals. As a part of the Self-Reflection phase of the overall project, participants co-created a rubric used in the final self-assessment process. The researcher wanted students to voice the concepts they had learned during the project and how mastery should be determined. The term self-assessment does not mean that students will give themselves grades that will lead to their final grade (Wiliam, 2011). Andrade & Valicheva (2009) explain that

> Self-assessment is a key element in formative assessment because it involves students in thinking about the quality of their work, rather than relying on their teacher as the sole source of evaluative judgments. Self-assessment is a process of formative assessment during which students reflect on the quality of their work, judge the degree to which it reflects explicitly stated goals or criteria, and revise accordingly. The emphasis here is on the word formative: Self-assessment is done on drafts of works in progress to inform revision and improvement: It is not a matter of having students determining their grades (p.13).

While the participants continuously self-reflected, they were also active in creating the measuring instrument for the criteria that should be exemplified in an MLA formatted research project. The participants continued to peer critique and model. Rubrics were constructed to measure growth and grade determination for each component of the project. Measures of strategies used in aiding and development of SRL was not a part of the student's grade; rather, they served to respond to the researcher's question:

How does a teacher-facilitated implementation of Zimmerman's Self-Regulated Learning Process through a Social Cognitive lens impact students engaged in a research project in a classroom setting?

Observations Notes and Classroom Instruction document (Appendix J) is included to show how the lesson was executed and observations of students' actions and reactions to the process. The Prior Knowledge Questionnaire was given during the first week of the study. Students were not introduced to the SRL process model before the Prior Knowledge Questionnaire, the class discussed persons from history who were considered Self-Regulated Learners. After the Questionnaire and introduction to the model, the students became concerned that their grades would be affected as the model seemed "hard" as in hard work. Self-Regulated Questionnaire 1 was given and completed by week four after the students had selected topics and began construction of an annotated bibliography. After 1 week of the study were conducted, the students had begun to form group settings, change their seating environment for a more comfortable setting for learning and work, and although they worked in groups, they began to take charge of their progress through researcher created self-checks or mental self-checks. Questionnaire 2 was given and completed by week six. After the study, after students' completed projects has been graded and returned, audio recorded Post Interviews took place during week six. The interviews took place one-on-one between the researcher and the student. The classroom observations and course of instruction were not analyzed to show impact, but to show the reader a reflection of how the class was conducted and student behavior in reaction to instruction. Classroom Observations and Instruction (Appendix J) is included to show the researchers work, much like solving a math

problem. In math, the process is shown. This qualitative case study includes field notes that were taken during the study. They were audio-recorded and transcribed to a Word document (Appendix J)

## Analysis of Data

Using instruction for qualitative research from Merriam & Tisdell (2016), Patton (2015), and Saldana (2016), data were collected and coded from a Prior Knowledge Questionnaire, two questionnaires during the progression of the project, and audio recording analysis of Post-Interviews to determine an impact on learning and work.

Task procedures, instruction, and brief lecture notes, and observations were recorded in the researcher's notes and observations that were used to inform instruction, student needs, and adjustments to be made throughout the project completion for learning and work. The observations were used to record active moments in which students were engaged in SRL strategies during peer grouping and modeling. The observations and instructions (Appendix J) were used to drive instruction in day-to-day learning and work.

Questionnaires based on Zimmerman and Martinez-Pons Self-Regulated Learning Schedule (SRLS) and responses to audio recorded post interviews were analyzed through two cycles of coding as described by Saldana (2016). In Vivo Coding was used on all documents for the first cycle of coding to lead to categories in the Prior Knowledge Questionnaire, and to view live codes in the Questionnaires and Post Interviews. As this study sought to provide student perspective through personal responses as to how SRL phases and subprocess impact students' learning and work, In Vivo, was appropriate as it is "particularly for beginning qualitative researchers learning how to code data, and studies that prioritize and honor the participant's voice" (p. 106). As the researcher

anticipated large amounts of data, Pattern Coding was used to condense the data into smaller analytic units and determine if there was a common theme within each of the categories (Saldana, 2016). This study is deductive as the categories in Questionnaire 1, and Questionnaire 2 was predetermined based on Zimmerman and Pons' SRIS categories of SRL.

The data were stored and protected on a password secured computer. The participants are randomly organized and were given a name or pseudonym to ensure objectivity.

**Coding**

As a novice, the researcher used In Vivo Coding for First Cycle coding that was the best fit for this qualitative research study was to show responses from the participants as verbatim responses. Saldana (2016), explains that type of coding is "natural coding" (p. 105) and has also been labeled as "literal coding," "verbatim coding," and "inductive coding," to name a few." The first cycle of coding (Appendix A, C, E, G). The first cycle codes (responses) were categorized based on the SRLIS categories that were reflected in the Questionnaires and Post Interviews used for this study. Each Questionnaire and Post Interview were analyzed by using InVivo coding method as the first cycle of coding. Each response was analyzed to hone into the participant's main point. Brackets were placed around the participants' verbatim expression and labeled as a code. The code was then categorized based on the areas of Self-Regulation as determined in the Self-Regulated Learning Interview Schedule (SRLIS) Table 3 and the process phases of Zimmerman's model: Forethought, Performance, and Self-Reflection. InVivo coding of each of the documents is in Appendices A, C, G, and E. The categories for the Prior

Knowledge Questionnaire were determined by the researcher's exploration of the familiarity and background the participants may have had with prior research projects from previous experience in a classroom setting. For example, the code "citing" was placed in the category of Prior Knowledge. The collection of codes was categorized: Prior Knowledge, Confidence, New Learning, Previous Work, Description of Process, and Working through a Social Cognitive Lens.

After the First Cycle Coding, the Second Cycle Coding, which is also advised for novice researchers, was used as well as to analyze further the changes and themes that may have evolved from analysis. The Second Cycle coding used for this study was Pattern Coding. Saldana (2016) explains that Pattern coding is a way of combining or "grouping" (236) summaries into smaller number of categories to look for themes or concepts. In this study, participant responses were coded, and then the researcher categorized the code to reflect the phases and subprocesses of the phases of the SRL model used. Then, the researcher recorded a theme to show action and meaning that was determined to fit into the category. For example, the codes which reflected responses such as "Put everything in order in how I have to start" were categorized in Organizing and Planning, which is a subprocess of the Forethought Phase in Zimmerman's SRL process model. As theme should reflect meaning, the codes were analyzed to reflect what the action of the codes meant. For example, codes that fit the category Organizing and Planning thematically showed that students were beginning to set small goals daily, yet few are just working in general. This specific theme was taken from the Prior Knowledge Questionnaire which was given during week 1 of the study. Therefore, the theme implies

the time in which the action was taking place. 2nd Cycle Coding for the Questionnaires and Audio Recorded Post Interviews can be seen in Appendices B, D, F, and H.

The documents were then placed side-by-side to trace changes in the level of engagement with the model and to determine an impact of the model. This is explained more in Chapter 5. The data collected show an impact of the SRL process model as an external teaching method on sixteen of the seventeen participants. One participant said throughout each document that the model did not impact learning and work.

**Conclusion**

A sample of seventeen students completed this qualitative case study which sought to answerer the essential research question:

> How does a teacher-facilitated implementation of Zimmerman's Self-Regulated Learning Process through a Social Cognitive lens impact students' learning and work in a research project in a classroom setting?

Students / Participants were assigned a research project to capture whether an American author wrote from imagination or from the effects of a social issue upon the author's life. The learning and work throughout the project were framed by an SRL process model developed by B. J. Zimmerman to show the development and levels of Self-Regulated Learning. Data were collected in the form of questionnaires and audio recorded post interviews for analysis. Day-to-day progress was checked by the researcher to determine the level of instruction needed for learning concepts and components of students' research projects. Data were collected from seventeen participants that were randomly organized as not to reveal the names to the researcher when analyzing. The purpose was to remain objective. The data artifacts were collected using a roster, then randomly

shuffled and organized after the names were blacked out. First Cycle Coding used was In Vivo coding to code specific verbiage of the participants that zoned in on their main points when answering questions on the questionnaires and audio recorded post interviews. Second Cycle Pattern Coding was used to combine larger units with into smaller units to determine theme in the case study question by question.

# CHAPTER IV: RESEARCH FINDINGS

The purpose of this qualitative case study was to seek the impact of Zimmerman's SRL process model as a framework for a research project assigned to Standard English III 11th grade students on their learning and work. The problem addressed in this study is that students in the researcher's Standard English III course were students that did not have a process to use when engaged in learning and work. The researcher sought to examine how an SRL process and subprocesses as a framework impacted learning and work for a Standard English III American Literature, the 11th-grade class engaged in a research project. The study began on January 11 of the 2019 calendar year and ended February 15.

This study sought to answer an essential research question which evolved from the literature:

> How does a teacher-facilitated implementation of Zimmerman's Self-Regulated Learning Process through a Social Cognitive lens impact students' learning and work in a research project in a classroom setting?

The data presented shows a linear process as the data collected from each questionnaire was analyzed to see if there was an impact on learning and work.

This chapter shows a breakdown of data collection via questions asked on the Prior Knowledge Questionnaire, Questionnaire 1, Questionnaire 2, and Post Interviews. Student responses do not reveal names, gender, or race as the researcher did not need to determine the effects of student background to answer the research question. The responses were collected as a case, and responses that were the same or similar were

summarized. The day-to-day instruction was carried out and based on Observations and Instruction document (Appendix J).

## Presentation of Results

### Prior Knowledge Questionnaire

This questionnaire was constructed to determine participants' level of knowledge and familiarity with research projects as well as inform the researcher of the students' familiarity with the SRL processes and subprocess that are a part of an SRL process model, specifically Zimmerman's model. The Prior Knowledge Questionnaire with the First Cycle In Vivo coding document can be found in Appendix A. The Second Cycle Pattern Coding can be found in Appendix B. The Prior Knowledge Questionnaire was given to students during Week 1 of the study. The Questionnaire consisted of 10 questions that the students were asked to answer on notebook paper (Appendix A). Some participant responses were summarized as participants gave the same answer. The participants were not introduced to the model before the Prior Knowledge Questionnaire. The questions and codes are based on responses follow:

**Question (Categorized Previous Work with Processes to determine confidence):** *In previous classes how well did you grasp the process that was taught?*

All the participants had prior experience with a process when compiling a research project. However, one participant *never was able* to grasp the process that was taught in previous experiences. One out of seventeen *grasped onto what was being taught,* while others depended on *how the teacher taught.*

The codes, based on responses, reflected that some of the students had learned based on what the teacher did, but one did not grasp at all. The participant who *never was*

*able* was discouraged about the SRL process model as he or she felt that the model meant that the learning and work would be difficult and affect grades.

**Questions (Categorized Prior Knowledge) to further determine prior knowledge and familiarity with concepts and learning processes of compiling a research project for English classes at the high school level:**

*From prior knowledge, explain a citation on the works cited page. What is plagiarism? Explain, as best as you can, what is an annotated bibliography.*

Three out of seventeen left blanks. The blank was categorized in No Prior Knowledge. Other responses were coded as *Title of article and author, reference material, and the resources that you used for the project and giving them credit.* Two out of the seventeen had *never heard before* or were coded *I don't remember.*

There are students who had shown that they had some familiarity with the concepts and components of a written research project. The researcher, based on experience, concluded that this meant no prior knowledge with the usage of each component. Once the project commenced and instructions and models were given to the students, many reflected that they did remember and were ready to proceed. The models were examples of annotated bibliography entries and research papers with MLA formatted parenthetical citations. Some students began to reflect that they remembered but did not know how to construct the citations.

**Question (Categorized Importance):** *Why is it important to learn a process in putting together a project?*

All participants responded to this question. *Important* and *Organization* were codes that could be inferred that students understood that there needs to be a process.

Two out of the seventeen reflected the importance of learning a process was *to get a good grade.* One participant reflected *it is necessary for future projects.*

The participants' responses reflect a category that was labeled Personal Feelings About Learning a process when compiling a project. Their responses show that they feel that it is important to learn a process.

**Question to determine familiarity with working with models and in peer groups (Categorized Social Cognitive Learning):** *How does working with peers help to put together a project such as a research paper and presentation?*

Two participants had issues with working with others. One out of seventeen has a 504 plan that reported that the participant suffered from anxiety and usually preferred to work alone. Another participant verbally expressed that working in groups made them anxious. Yet, as the study progressed, and the classroom became a communal environment, both students became more comfortable working with others. The codes that evolved from the responses were *working with others helps, help via opinion or prior knowledge; if you mess up, they can help you understand or fix something wrong.*

Overall, the participants show that working with others is helpful depending on their group or partner for correction and understand. This shows familiarity with working in groups. However, the two participants that did not like to work with groups were afraid that the researcher would require them to work in groups after reading the question. The researcher did not require students to work in groups but followed the theory that students must have choice.

**Questions to determine previous work with projects:**

*Name and explain a previous project of any kind that you have completed. How did you plan the project that you completed?*

The Previous Work category was a precursor to the Second Cycle Coding Category: Forethought. The participants' responses (codes) reflect that they had planned in their heads as they *read some stuff.* Others reflected that they had engaged in *A presentation.* Yet, two out of the seventeen thought that a research project meant that they had *bought some stuff* or did a *book report* and therefore, had completed a research project.

The participants were familiar with the idea that a project should be planned, yet their responses do not show setting a goal is a part of planning (Forethought). Rather, most responses showed that what they were most familiar with was that there must be a presentation as completion or as the actual artifact constructed. The researcher also determined that some participants had not engaged with a project since their *9th grade year*; therefore, learning and work may have been retained as there was not an opportunity to practice again during their 10th grade year. The data (codes) reflect that participants *read some stuff*, *bought supplies*, and that a *book report* were things associated with doing research. Only one participant reflected a process by responding *Plan ahead. Make a rough draft. Proofread it. Retype it.*

**Question that was categorized New Learning:** *Name something new that you would like to know more about with this project.*

One participant of seventeen felt that they did not want *anything specific, just to hear something new.* Others wanted *to plan, manage time better,* and *to be able to list off facts on the spot about my person.*

The codes based on responses reflect that this group of participants wanted to learn something new. The researcher determined that this desire to learn would affect the students' perception of the SRL process model as something impactful on their learning and work either positively or negatively.

**Question (Categorized Purpose of Learning) to determine participants' feelings about purpose of research:** *What is the purpose of research in general?*

One participant of the seventeen reflected that *the purpose to learn knowledge is power. The more you have the better off you are.* Others reflected that the purpose was *to find information* and that the *purpose of research is to learn and understand the past and use this information to guide or better the future or present.*

The data (codes) reflect that the participants are receptive to understanding that there is a purpose for research and that they may find using an SRL process model as a framework will affect their planning, performance, and self-reflection phases of learning as the researcher reflected on previous questions in addition to this question.

After the Prior Knowledge Questionnaire, the researcher drew an example of Zimmerman's Self-Regulated Process model on the board. The participants became interested in the idea of using the model as it appeared to be an organization graphic that would help them complete the project. Yet, at this point, they were also concerned with how much work had to be done, what was an annotated bibliography, what was an MLA

formatted paper. Participants were anxious that the presentation of the process model meant that the project was going to be difficult and that it might affect their grades.

The participants did not elaborate on why learning a process was important to them; rather, they did want to know a process as new learning. After the questionnaire the students began to reflect on previous classes, in class discussion, and felt that they would be successful; however, students who simply wanted to "pass the class' said that they were worried and said "well, I'm going to fail."

**Self-Regulated Learning Questionnaire 1**

Self-Regulated Learning Questionnaire 1 was given and completed by the end of second week of the study. At this point students had chosen their topics, had been introduced and were instructed how to access sources for research, given examples of the first component of the project, and the researcher modeled MLA format for citations to be put onto their annotated bibliographies. Before Questionnaire1, students had been engaged with Forethought, Performance, and Self-reflection as a frame for their progress and associated these steps with the drawing example. The students were introduced to the SRL process model after completing the Prior Knowledge Questionnaire. The Questionnaire consisted of eleven questions to probe six categories of SRL based on Zimmerman and Martinez-Pons SRLIS. The questions were categorized to reflect Forethought, Performance, and Self-Reflection: Self-Evaluation, Organizing / Planning, Performance, Environment, Self-Consequences, and Self-Assessment, which are subprocesses of the phases (Table 2, p.50). The researcher determined that the responses that were coded reflected an impact of the SRL process model based on previous

responses to the Prior Knowledge Questionnaire was beginning to affect some but not all participants.

As the students began work on their projects, they began to show self-direction by naturally grouping, using tools for self-monitoring. Students who had responded that they depended on the teacher for their learning on the Prior Knowledge Questionnaire began to need less help from the teacher or librarians and relied on their peers based on observation notes (Appendix J). The participants began to sit in group settings by choice or move about the room to ask questions to each other. When the researcher offered help, most would reply "he told me" or "she told me." The examples given by the researcher helped to show a picture of the work to be done, but the participants preferred to explain it to each other. Some participants would conclude an issue and then ask the researcher, "Is this right?"

Through a Social Cognitive lens, learning and work were generated by peer group interaction. As the students began to group, the researcher labeled the groups A,B, and C. Group A consisted of four boys, Group B consisted of three boys and a girl who had expressed before the assignment that she did not like to work in groups because of her anxiety. Group C consisted of four boys and two girls. After instruction and modeling the students began to rely on each other for better understanding and examples of work.

**Question (Self-Evaluation Category):** *Describe how do you determine if you are doing your work correctly?*

At this point, the researcher was probing for answers regarding how the students self-evaluated. Earlier in the study, the researcher had talked about performance goals versus mastery goals and the class had determined that obtaining good grades was a

performance goal and did not reflect learning. However, even at this point one out of the seventeen still associated *if I get a good grade* with mastery and determined that grades still evaluated learning. Two of the seventeen participants' codes *ask in advance,* and *Ask my teacher* reflected that the students, although they had the choice to join groups, relied on the teacher as the sole evaluator. However, most participants had begun to *have others analyze, look at other examples, self-check and follow directions.*

This question probed the participants' self-evaluation, which is a subprocess of the Self-Reflection phase (Table 2). The data reflect that the participants show a variety of ways in which they self-evaluate. At this point the students are showing interest in their topics and are beginning to take ownership. Students who show that they are determining their system for reflecting or checking to see if their work is correct, they are beginning to show self-regulation (Zimmerman & Schunk, 1989).

**Questions (Organizing / Planning Category*)*** *How do you organize your materials necessary to begin your work? How often do you set a goal before you begin your work?*

Fifteen of the seventeen participants had begun to use an organization system that was self-created or based on the self-checks created by the researcher. Two participant codes reflected that the participants *just knew* or reflected *I just do the work.* Four of the seventeen were coded as participants who set goals *some, all the time, or typically.* Others organized their work by self-created systems such as self-checking their work by *organizing by writing on paper, putting things into categories, or self-check my materials.*

This question probes the Forethought phase of the process model by looking at the subprocesses organizing and planning of the participants. Organizing and planning

are subprocesses of the model (Table 2, p. 50). Although the students were given physical self-check lists of daily activities to be completed for success towards completion, data reflect that the participants plan mentally or physically, yet some form of planning occurs, but not for all participants. The participant who responded that "I just do the work" did not realize that they mentally set out to complete a portion of the work each day, which is in itself a plan.

**Questions (Performance Phase Category):** *When do you determine that you should ask for help during work constructions? When you ask a friend for help, do you show them your work? How do you stay on track, stay focused, and/or revisit your purpose?*

Codes varied as each student had different systems of self-regulated strategies that were the participants used for attention focusing and revisiting their purpose. Many reflected codes such as *Depends on what I need, Listen to music, Sit in a quiet area, Eat a snack.* One participant, however, determined that *if I have done it correctly, then they can learn from it* as they felt that while working with others meant that they were more of a role model to the others more so than needing help from the others.

The responses that evolved into codes show that students were engaged in finding attention focusing methods to affect their performance. Data, the codes, reflect that some participants are engaged in social cognitive learning behavior as they do not mention being dependent solely on the teacher, but also their peers or their peers depend on them. The researcher did not require students to ask their peers

questions, yet they were encouraged to ask, refer to models, and continue to work with their peers.

**Question (Environment Category):** *How do you determine the area or seating you need to do your work? Which place do you choose, or which place do you prefer to do your work: classroom or library? Why do you prefer this location?*

At this point in the study, the researcher noticed that the participants would continue to work in their groups and also consult other groups or individuals within other groups. Some participants left their groups to change seating environment. One participant out of seventeen who said that there was not an impact from the process model did not change seating environment but preferred traditional desk seating. The participant also would answer questions from the others if asked. However, the participant said that their environment did not affect their learning and work. The participants that did determine that they needed to change seating environment reflected such codes as *colder environment, spot with less distraction, there is more room in the library.* As participants had freedom to move about the classroom or change areas such as working in the hallway or going to the library, their learning and work progressed better in comparison to students in Standard courses that did not have this opportunity.

This question probed the impact of environment. The participants were given choice of seating as opposed to traditional seating. Flexible seating, such as the use of standing desks, lounging furniture, and different areas around the perimeter of the classroom, was impactful. The library was also offered. Data reflect that environment, which is a subprocess of the Performance Phase affects learning and work. As the participants are shown a level of self-reliance, self-efficacy, and autonomy to a degree,

the researcher noticed self-regulations at a developmental stage for the participants, with the exception of the one participant who was self-sufficient throughout the study.

**Question (Self-Consequences/ Self-Rewards Category)*:*** *If you do well on your work, how do you treat yourself?*

*I don't reward myself, Pat on the back, Movie and television* are a few responses that were coded to determine if participants exercised self-consequences when succeeding or not succeeding in learning and work. One out of the seventeen still responded that they felt *good about my grade.* This reflection shows that there were participants who measured with grades. Two participants out of seventeen responded, and codes evolved *Don't treat myself* and *take some time off.* Data (codes) reflect that the participants did engage in self-consequences / rewards which is a part of self-regulated learning.

Based on thirteen years of experience, the researcher has observed and adopted the idea that treats such as food or gift coupons to local restaurants were desired as rewards for students who show success. However, data reflect that the participants do not engage in these types of self-consequences. One participant said "I pat myself on the back." Self-Consequences and Self-Rewards are subprocesses of the Self-Reflection phase. As most studies in SRL show an impact on motivation and achievement, this area in this study add to the conversation of intrinsic and extrinsic motivation. The researcher found interest in the participants who did not reward themselves with a treat, but rather a simple pat on the back was enough.

**Question (Self-Assessment Category):** *How do you determine if your work is well or needs improvement?*

While this question probes Self-Assessment as a subprocess of the Self-Reflection Phase, participants started to rely solely on each other at this point. They would rarely ask the researcher questions. The researcher was an observer and supplier of models if asked. One out of seventeen was coded *by my teacher* as a participant who still saw the teacher as the resource for learning and work. Other codes that evolved were I *ask someone who knows a lit bit more about writing (Goal: To become a better writer), Comparing to others.* One participant reflected that they *read over it multiple times.*

Self-Assessment is a subprocess of the Self-Reflection phase. Data reflect participants are working more with peers and in groups. While some ask outside of peer groups, they are using models in comparison to their work. “When I read over it multiple times” shows a degree of self-reflection and performance.

At this point in the study, the researcher observed as well as collected data that show impact mostly occurs in the subprocesses of environment and the effects of being in a social cognitive environment. The participants measured their work by comparing it to others or the use of models from others in the class. The progress of the research project for the participants became student-driven and the participants' progress reflected the processes model.

**Self-Regulated Learning Questionnaire 2**

Self-Regulated Learning Questionnaire 2 was given at the end of the fourth week of the study. Data show that participants are beginning to show that there is an impact on their Social Cognitive thinking. Introduction to the model seemed to encourage the students that they had the freedom to organize in groups, change groups, or request the help of those who did not want to work in groups. A learning community setting evolved. Learning and

work were within a communal environment that the students created by choosing their seating arrangements and having the freedom to walk about the classroom. Students were using their peer groups as needed.

The groups were labeled A, B, and C. Group A, in response to "Why do you prefer to sit in the lounging area of the library," they said, "It is a homey feeling; it's more comfortable and more room." They were modeling their work for others for evaluation or as to serve as examples of strategies used for learning and progress. Group B, in response to why they did not ask the teacher questions anymore", they said, "It's better to talk to someone your own age." The group activity was noted as the researcher wanted to give a picture of self-regulation through a social cognitive lens. The group responses were not coded or analyzed.

Researcher created self-checks were no longer needed as students had begun to create his or her own lists of work that needed to be done or revised either mentally or written. This action reflects the Performance and Self-Reflective Phase. As the work progressed, some students revised their original goals and set smaller goals to complete smaller daily tasks during a class period (Forethought phase), which can be inferred as a level of self- motivation through goal setting.

Although many participants showed self-efficacy and autonomy, based on observations, they continued to sit in groups. Each student worked on their own unless they needed the help of others. The participants relied heavily on music as a self-monitoring, attention focusing strategy to control their focus and stay on track. Students engaged in Self-Reflecting by self-evaluating their work by re-reading and revising, self-checks, and consulting peers. Self-Regulated Learning Questionnaire 2 shows data which reflect an

impact of the SRL process model as students use the model to organize and identify actions in their day-to-day learning and work. Although one participant still reflected by this time in the study that the model did not impact learning and work. Self-Regulated Learning Questionnaire 2 addressed new thinking that took place by week four. The categories are based on the process phases and subprocesses of the SRL model and Self- Regulated areas based on the SRLIS and can be seen in Table 4, p.51.

**Question (Category Self-Evaluation):** *Describe how you determine if you are doing your work correctly.*

One participant out of the seventeen responses was coded as *asking the teacher to check*. One participant's response was coded as *went off my topic outline*. The participants had been given instruction and modeling for the use of a topic outline as a self-check and progress report for construction their research project. At this point only one participant had responded that they used the topic outline as a guide. The remaining participants were coded *keep checking over time, ask a friend, compare, and reread.* The participants, most, are showing a degree of self-regulation that had increased or stayed the same.

At this point, the participants would go outside of their groups and ask others who had decided to work alone. The participants who decided to work alone were more than likely the participants who had issues with anxiety. Yet, as a communal atmosphere developed, the classroom setting was appeared to be comfortable and safe as the participants become more familiar with one another.

Data reflect that the rest of the participants rely on each other or performance strategies, such as a topic outline. The Self-Regulated Learning process model at this

point is reflected in the participant's self-evaluation, then performance as they correct or edit their work based on peer interaction.

**Question (Category Organizing/ Planning*):*** *How do you organize your materials necessary to begin your work?*

Organizing and Planning occurred daily. When the model was referenced during the study all participants reflected that they had an organization system that worked for them. The researcher had supplied the participants with folders if they needed them. Some participants' responses were coded *put papers in my folder* as the rest used their binders. Organizing and planning for most participants was a mental action as many no longer used written self-checks; one was coded *check-off list*. Other participants were coded *start with what needs to be done first.* This reflects that some participants mentally picked up where they had left off at an earlier time.

This questionnaire was presented after the participants had worked on their projects for four weeks. This question probes their behavior at this point in the project. Data reflect what the students use or how they prepare over the weeks of working on their projects. Planning and organizing are subprocesses of the Forethought phase. At this point Forethought, in the form of physical or mental action, is evident.

**Question (Category Self-Reflection):** *How did having a choice in choosing your topic help you to become interested in this project?*

Having a choice is a factor in the development of self-regulation. Choice is best reflected in the code *something about sports would have gotten me more involved.* The study gave options of choosing American authors and social issues but did not offer any other genre. Although the participant continued with the project, the researcher noted that

not have more options, as choice is a factor in self-regulation, may have affected impact. All other participants' responses fell under codes such as *I didn't feel like I was made to do research over someone I didn't want to.*

Except for one participant, the opportunity of self-choosing topics made a positive impact on learning and work. Having a choice is impactful. Although there were participants who preferred choice in genre, having a choice at all was helpful as the students remained engaged in their topics.

**Question (Category Planning):** *How did setting a SMART goal before you began your work help you?*

This question instigated participants to reflect on their original goal. The researcher noted that by this point in the study, although students were eager to complete their projects, many had kept their goals in mind. The coded responses of *kept me on track, it helped me figure out everything, effected my overall work* shows that the students are engaged with goal setting and the impact of goal setting. All participants had set an original SMART goal at the beginning of the project.

Participants' responses show that there is an impact in the area of Forethought through goal setting. Planning is a subprocess of the Forethought phase in the model. Data reflect that participants' performance was impacted by thinking about their goal.

**Question (Category Performance):** *Describe your feelings about writing or typing your notes.*

The participants interpreted this question as what measures did they use when typing or writing their notes as the question probed the Performance phase of the model. The environment was a factor coded *seating helped.*

Attention focusing, a subprocess of the Performance phase, was a positive factor for most participants' responses and were coded *music, gum, looking at the clock and video.* The responses show the participants interpreted the question to reflect on the things that helped them to type or write their notes. The notes were a part of the annotated bibliography which was a new concept most participants as reflected in the Prior Knowledge Questionnaire. Participant data reflect the use of attention focusing tools and strategies.

**Question (Category Self-Monitoring):** *When you find yourself off topic such as starring out in space or talking with your peer, how do you manage to get back to the project?*

In the researcher's thirteen-year experience, it has been noted that group work can sometimes lead to distracted students. Learning and work can be negatively impacted by allowing student to work in groups. However, the participants' acknowledgment of a thinking process that seemed to be complex at the beginning of the study seemed to allow the students to feel as though they were equal in their learning, and each was interested as opposed to some being interested and others losing interest. The participants had been given a due date for the project, and their goals had changed as they felt pressure and wanted to complete the project. The pressure caused more emphasis on Self-Monitoring. Codes such as *I think about when it is due and how well it needs to be written because if I wasted time, I would be in a rush to finish,* and *I looked around and saw others working and stopped myself from being off track*. Participants were still dependent on groups; however, the classroom had become a communal environment, and the students used one another as models. The one participant who still reflected that there was not an impact on

learning and work by the model completed the project early and began reading a library book. The participant seemed to have removed himself mentally from the class.

Self-Monitoring is a subprocess of the Performance phase. This question probes the cyclical nature of the process model. The researcher sought to determine what the participants used to remain focused on their project. Attention focusing strategies are reflected in responses such as "sitting alone." The participant has changed their environment to remain focused. At this point in the study, the participants were ready to complete the project as in they were influenced by time and in some cases losing interest. Also, participants looked at their goals more closely, and as there was a due date for their projects some participants began to concentrate more on completing the projects as opposed to mastery of concepts.

**Post-Interview**

The Post Interview gave the participants an opportunity to express their experience in a more open setting. The interviews took place in the classroom at the teacher's desk, where they felt comfortable in having a one-to-one conversation. In discussing goals, participants were asked to recall a brief introduction to types of goals such as mastery (learning goal) and performance. Heidi Grant and Carol S. Dweck postulate that the two types of goals are linked to motivation and achievement (Grant & Dweck, 2003). An example of a mastery goal is when the participants set out to become a "better writer" or "to do better research." According to Grant and Dweck students who choose a mastery (learning goal) show more success when faced with obstacles. Yet, each participant, by the end of the project, under the influence of a due date, had changed goals from learning to performance as they wanted to complete the project and receive a passing grade. At the

beginning of the study, many had set learning goals and argued that a performance goal could also be thought of as a learning goal. Participants who felt that performance was an opportunity to learn thought of their self-checks, topic outlines, and using the clock to achieve completion of the project were factors in impact. Based on thirteen years of experience, the researcher realized that the participants had the learning capacities to grasp the process as explained by the model. Yet, "I believed in myself," and responses that reflected personal preference in organizing and planning, do not reflect the process model, yet it reflects self-motivation. The participant reflected that when they did previous projects this thought was a part of how they planned. Zimmerman, Schunk, and others have conducted studies in SRL as it affects motivation, but motivation was not sought in this study.

Audio recorded Post-Interviews were conducted one-on-one between the researcher and the participants at the end of the sixth week of the study after graded work had been returned to participants. The Prior Knowledge Questionnaire, Questionnaire 1, and Questionnaire 2 were considered in the construction of the Post-Interview questions and sought to determine impact of the SRL process model as a framework. The Post-Interview data were broken into five categories in which evolved based on participants' responses and to reflect the phases and subprocesses of the SRL process model through a Social Cognitive Lens: Forethought, Performance, Impact on Learning, Self-Reflection. The interview questions evoked conversation regarding the project and impact of the phases of the SRL process model. For example, one participant responded, "learning the process helped me because I want to go to college, and this will help me organize." Post-Interview transcriptions and coding can be seen in Appendix G and Appendix H.

The data reflect an impact on learning work in the areas of Forethought, Performance, and Self-Reflection. Many responded that there was a positive impact on their learning and work due to Goal Setting and Environment, subprocesses of Forethought, and Performance. For example, a participant from Group A said, “At first I just wanted to pass the class, but then as I got closer to completing the project, I understood some of the things that I was learning.” A participant from Group B reflected that the library “was more open” as opposed to the classroom. Goal Setting is a subprocess of the Forethought phase of the SRL process model, and Environment is a subprocess of the Performance phase of the SRL process model. However, several participants had changed their original SMART goal as they were affected by the due date of their projects. Although students had set an overarching goal, many responded that time was a factor towards the end of the study.

Most participants responded that the SRL process model as a framework was beneficial. However, one out of seventeen still responded that there was no impact by the model. Some participants viewed the model in parts and responded that certain parts were more impactful than others. As the SRL process model is cyclical, the data shows that students reflected, changed goals, and performed in a cyclical motion as they repeated Forethought, Performance, and Self-Reflection.

SRL through a Social Cognitive Lens is also reflected in the data. As the study progressed, the participants viewed the researcher as a facilitator more than a source. Students learned from one another through examples and responses to questions that they gained from their peers.

**Questions (Category Forethought Phase):** *What was your original SMART goal? In the beginning, did you set a performance goal or a mastery goal? Why did you*

*choose this goal? If your goal was a performance goal, how did you monitor yourself towards reaching your goal?*

During a brief lecture at the beginning of the study, the researcher briefly introduced and invoked discussion regarding the types of goals the participants had chosen for their SMART goal. The type of goal had no bearing on the participants' grades but was purely for discussion and learning. As there was a deadline for the project to be due at this point, many participants had changed their goal, and their response was coded *To get the paper done on time, but I wanted it to be good.* However, one out of the seventeen's responses was coded *I didn't rush myself like I usually do.* Three participants continued to keep mastery goals and were coded *increase my skill.* Uniquely, one out of the seventeen extended his goal to reflect *it helped. It finally helped me to realize my goal in life and what I need to do to get to that route.* Two participants' responses were coded *setting a goal was an opportunity, and I've never done that before.* All others including the participant who said there was no impact found that the subprocess of the Forethought phase, goal setting, was impactful. Yet, the participant that said that it was not impactful said that it did not help to make them a better writer, but setting a goal was helpful.

**Questions (Category Performance Phase):** *Which part of the research project do you feel that you have reached mastery? Why and what evidence do you have to support your thinking? Describe your responsibilities with this project. Describe the importance of engaging in the performance. How did your environment impact your performance?*

The purpose of these questions was to evoke reflections on how they performed day-to-day and if the choice in environment impact learning and work. Two out of the seventeen recorded their self-checks in their binders, but the remaining participants were

coded *mental self-checks* or *put the reminders on my phone.* All participants felt that seating, code *environment helped greatly,* was impactful. Attention focusing strategies, subprocess of the Performance phase, were also impactful. Participant responses were coded *Certain ones helped like music.* Working in groups also remained impactful, *working with peers helped when I would ask about a strategy,* as many students remained in group settings.

As the interview questions led to conversations that allowed participants to elaborate on which parts of the process model impacted their learning, there were responses such as "Yes, all of those things helped a lot" and "Environment helped greatly." The participant who did not want to work in groups nor participate in discussions during brief lectures about the process model felt that "It didn't impact me much." Although through the researcher's observations the student did show that he planned, performed, and self-reflected.

**Questions (Category Self-Reflection Phase and to show Impact on Learning*):*** *In past courses, what was your grade on assignments that involved research? Why do you believe you earned this grade on other assignments? If you were assignment another research project, which part do you feel you are best at constructing? Why?*

In an earlier lecture, the researcher had asked participants to reflect on their skills gained from the project and how they wanted the skills to be measured in the form of a grade. All participants found that having input on grading was impactful as it allowed for the opportunity to revise their work before submitting for a grade. One participant's response out of seventeen was coded *Not much because I really don't understand rubrics*. Yet, others were coded *fair* as they felt the rubric made the grading process fair. The

participant who did not think there was an impact reflected again about goal setting and said, “I don’t think it helped me strive to do the best for the research paper because like usually if we don’t have a goal or anything it’s like I’ll do what I normally do, but since my goal was to improve my writing, I tried a bit harder.”

The concepts learned, however, were strategies from the subprocesses of the Performance phase as the participants reflected that the “annotated bibliography” and “the topic outline” helped guide the construction of their project. Other codes evolved such as *constructing facts* and *responsible for meeting the deadline.* The interview questions caused students to reflect on their goals, what worked best, and compare how they had performed on previous research projects. Many felt that they performed better because they felt organized. Regarding the process model, one student responded,

> *Yeah, it would make me think what I could possibly do because we all can write more advanced like other people; it’s just I gave a lot of effort and time to writing, wanting to get better.*

The participants also reflected over areas of learning, such as which parts of the project they felt they had reached mastery. Most of them replied “Annotated Bibliography” or “The paper.” The questions opened opportunity for the participants to elaborate on their learning and if the process model impacted their learning and work. When asked about strategies which reflected the subprocesses a participant replied, “I think it helped me strive to do the best for the research paper because like usually if we don’t have a goal or anything it’s like I’ll do what I normally do, but since my goal was to improve my writing, I tried a bit harder.” As one participant reflected regarding working

with peers in a group setting (social cognitive learning) they elaborated that it gave a "personal connection."

**Continuation and Elaborations of Self-Reflection:** *When you created your own self-checks without the teacher, what did you evaluate as far as your progress that day? Why did you choose those elements?*

Participants were given the researcher created self-checks as "wrappers" (Nilson, 2013) to help them self-reflect and then perform day-to-day based on their self-checks. As the study progress the researcher prompted participants to self-create self-checks. Many said that this strategy was helpful and referred to the self-check often during the audio-recorded post interviews. However, many also gave responses that were coded *tell myself, go back and reread, and mental self-checks.* Many had stopped writing daily checks and began recording them mentally. In general, however, one participant responded "Self-Reflection, or whatever, it just showed me what I needed to do and how I needed to do and how I needed to stay on track with everything.

The participants began to reflect daily with prompting from the researcher. Some became more critical of their work as reflected that 'I talked about the work I completed like what I'm going to do to improve it, and how I did it and what tomorrow's work I'm gonna do." Self-reflection occurred through mental or physically written self-checks.

**Questions (Category Social Cognitive Lens):** *How did your peers help you in reaching your goal? How did co-creating the rubric with your teacher and peers impact your performance?*

These questions probed students to reflect on the social cognitive environment in the classroom. One particular activity that involved the whole class was co-creating a

rubric so that the students would have input over what skills they had learned and how to measure progress towards mastery of those skills. The code *learning from peers* included responses such as “I would ask questions,” “They had the same ideas that I had,” and “Some people were doing the same structure, and I just kind of changed mine up.” The participant who did not find the model impactful responded, “It didn’t impact my learning too much. If they needed help, I would show them, or if they needed visual notes I would show them.”

Social cognitive learning opportunities allowed participants to gain knowledge and skills from each other, which led to greater confidence in the participants to complete their work. Based on observations, the participant who had relied on the teacher for help, according to the Prior Knowledge Questionnaire, had become less reliant on the teacher. One participant reflected that there was not an impact. The participant replied that “It didn’t impact my learning too much. If they need help, I would show them, or if they needed visual notes then I would show them”. Another participant replied that working in groups provided an opportunity to “set a good example for others, so if they need help with something because I helped different people, my responsibility was to get it done.”

**Summary of Data**

The purpose of this study was to seek the answer to the essential research question:

> How does a teacher facilitated implementation of Zimmerman’s Self-Regulated Learning Process through a Social Cognitive lens impact students’ learning and work in a research project in a classroom setting?

Data were collected and organized based on qualitative responses to a Prior Knowledge Questionnaire, SRL Questionnaire 1, SRL Questionnaire 2, Post-Interviews. The questions

reflected categories that were adapted from Zimmerman and Pons' SRLS to measure impact in the areas of SRL. Codes (responses) show evidence that participants' progress through the project was cyclical as they revisited and revised their goals or created smaller daily goals, which affected their performance day-to-day.

**Forethought Phase**: Data shows that students set an overarching SMART goal that reflected mastery or performance. After the Prior Knowledge Questionnaire, discussion evolved, and it was determined that "pass the class" was a performance goal. Yet, those who chose to "pass the class" did not change their minds throughout the project. As their work progressed throughout the project, students began to set daily goals based on their performance and Self-Reflection in the form of Self-Checks that were recorded physically or mentally. As their deadline for the project neared many students reported that the deadline became the driving force for their performance.

**Performance Phase:** Attention focusing, Self-Instruction, and Environment are all factors in the Performance Phase of the SRL process model used in this study. Greater impact on Environment and Attention focusing is reflected in the data as students responded that choosing their environment and the use of music helped them to focus and progress throughout the construction of their projects.

**Self-Reflection Phase:** Strategies evolved based on Self-Reflections that took place daily. Students used written self-checks or mental self-checks to "see what had been done that day and what needed to be done the next day" (Participant). As the Self-Reflection phase occurred, daily performance and forethought were impacted either through change in environment or reinforcement of activity such as more instruction from the researcher. At the beginning of the study, the researcher created and distributed self-

checks to help with self-reflection. As the study progress, the researcher created self-checks ended, and students were verbally prompted to check their work. Towards the end of the study, the researcher no longer prompted the participants; however, they continued to refer to their binders or folders, topic outlines, or would mentally reflect.

**Social Cognitive Learning Lens:** The researcher allowed students to choose their seating arrangements, and groups and partnerships evolved. Students not only relied on one another for examples or models but for critiquing as well. Some students responded that "you learn better from your peers." Although the researcher had provided models and brief lectures of instruction, the participants used the examples, yet relied on one another for deeper instruction and understanding. Participants responded that showing their work to their peers and then listening to their peer's responses to the work helped them to progress. Also, one participant stated that "When I looked at his work, I could see how I could make mine better."

Table 5 gives a side-by-side depiction of self-regulated learning progress based on the summation of codes bases on responses.

**Table 5. Side-By-Side Summary Of Self-Regulated Learning Progression**

| **Prior Knowledge Questionnaire**<br><br>Familiarity and Prior Knowledge→ | **Self-Regulated Learning Questionnaire 1**<br><br>→Degree of Self-Regulation impacted by the SRL model used. | **Self-Regulated Learning Questionnaire 2**<br><br>→ Degree of Self-Regulation impacted by the SRL model used. | **Audio Recorded Post Interviews**<br><br>→Overall Impact |
|---|---|---|---|
| Participants show familiarity with concepts of a research project, yet many of them reflected that buying supplies, reading some stuff, and book reports were the bulk of their experiences. Three participants reflected that processes taught for completing research were based on how the teacher taught and that they relied on the teacher as the provider of knowledge.<br><br>→ | Participants had created a SMART goal and began using self-checks to reach that goal. Participants began to group instinctively, and some relied on the researcher (teacher). Two students did not wish to work with groups due to anxiety.<br><br>→ | Participants no longer need the researcher to create self-checks or written self-checks as they begin to record mentally. At this point the participants relied on each other, attention focusing strategies, and seating to help them perform.<br><br>→ | Sixteen out of seventeen participants verbally expressed that the process model was impactful. Each had exercised strategies based on the subprocesses of the model to engage in Forethought, Performance, and Self-Reflection. One participant out of the seventeen expressed throughout that the model was not impactful, yet agreed that he did use Forethought, Performance, and Self-Reflection intrinsically. |

## Conclusion

Data, coded responses, that were categorized based on the Phases of the model and the SRLIS, reflect an impact of each phase of the SRL process model either as a framework or a thinking process. Data show an impact in the area of allowing students choice and liberties with environment and group working. Student responses to the Prior Knowledge Questionnaire, Self-Regulated Learning Questionnaire 1, Self-Regulated Learning Questionnaire 2, and the audio recorded Post Interviews show a linear process of progression throughout learning and work that happened due to external influence of the process model or as a thinking process which reflects the model.

As the study progressed, although many placed themselves in group settings, they used music heavily, brought snacks, referred to their topic outlines, and timed themselves. At the beginning of the study, yet it was new for them, students were not organized, apprehensive, and frustrated as to how to create the components to the project. Yet, as the researcher would refer to the process model and explain which part of the process mode they were reflecting, this seemed to relax the participants, and they became more engaged and receptive to the information and models. However, working with each other leads to individualized success for most participants.

# Chapter V: CONCLUSION

This qualitative case study in a Standard English III American Literature in a high school classroom setting aimed to explore and determine an answer to the research question:

> How does a teacher facilitated implementation of Zimmerman's Self-Regulated Learning Process through a Social Cognitive lens impact students' learning and work in a research project in a classroom setting?

The study was conducted with the premise that successful learning and work can evolve based on the processes and subprocesses of an SRL process model used as a framework for learning and work. The researchers' thirteen years of experience lead to research of what was a factor in student success with learning and work. The problem was that some students did not have a process to use. The researcher discovered Zimmerman's SRL process model and research and based this study on Zimmerman's theory.

Zimmerman's process model was used as a framework for learning and work of a research project assigned to a Standard English III course at the high school level. Based on the literature for this study, students can gain self-efficacy, autonomy, and skills through a process that helps to determine how the student learns best. Self-Regulated Learning in general is a theoretical concept in which students progress and gain knowledge by completing a task. By setting goals, self-monitoring, and self-reflecting student outcomes are favorable (Pintrich, 2000; Zimmerman, 2002). The literature of SRL studies rests primarily on using SRL as an intervention and does not necessarily explore how teachers can use an SRL model for learning and work in the classroom to promote positive academic consequences (Dignath & Butner, 2008). Self-Regulated

Learning (SRL) is a multifaceted theoretical concept that can be found in educational theories such as Operant Theory, Phenomenological View, and Social Cognitive Theory (Zimmerman & Shunk, 1989). Among all theories that view SRL as a self-regulatory process, a commonality is that students are impacted by planning, primarily setting a goal, self- monitoring their performance, and self-evaluating through self-reflection (Zimmerman, 2008); moreover, Self-Regulation deals with "issues of the science of the mind" (Boekaerts et al. p. 2). Science of the mind is a description, in an educational sense, that attempts to explain how students think (cognitive and metacognitive processes). Zimmerman's SRL process model reflects how learning occurs in an organized, cyclical sense. The process model reflects a thinking process as well as how a lesson, project, or learning concept can be framed throughout execution of the teaching and learning.

This study sought to give students perspective as to how SRL through a Social Cognitive Lens is impactful. Qualitative data were collected to reflect student self-regulation within a learning community setting. To determine impact on learning and work, students were given open-ended questions that were categorized based on a SRLIS and the phases and subprocess of the model to give voice to how learning and work were impacted by the framework of an SRL process model which included subprocess such as attention planning, attention focusing strategies and tools, and peer modeling that allowed for social learning. SRL does not suggest removal of teachers, but rather directs students to be accountable, or exemplify accountability, promote intrinsic motivation, and allow for a sense of ownership in learning and work. Through a Cognitive Lens there is an emphasis on the impact of environment, behavior, and the self (Bandura, 1986; Schunk &

Ertmer, 2005). In this study the researcher facilitated and fostered an SRL classroom setting that supported Social Cognitive Learning.

The task set for the participants was a research project based on an American Author and Social Issue. The question posed for research was, “Does your selected author write purely from imagination, or is there writing affected by a social issue which occurred in the author’s life”? This study took place over six weeks of the span of the spring semester 2019. All students were assigned the task as it is a part of the English III curriculum.

This qualitative case study consisted of seventeen students who consented to be participants in this study. Qualitative data were collected and analyzed. A linear transition of the data was based on a Prior Knowledge Questionnaire given during the first week of the study, two Self-Regulated Learning Questionnaires were given midway through the study, and audio recorded one-on-one Post Interviews given at the end of the study. The Questionnaires and Post Interviews were given at specific times during the study to show progress and influence of the SRL process model through a Social Cognitive Lens. Appendix J is a layout of instruction and observation notes. The purpose of the study was to provide students an opportunity to verbally express their experience and how there was an impact from the SRL process model. A great number of studies in Self-Regulated learning are not qualitative and therefore do not allow participants to voice their experience.

**Implementation**

The researcher did not introduce the SRL process model to participants until consent from the participants was given, and the Prior Knowledge Questionnaire was answered. The process model was drawn on the board in front of the classroom, and a brief lecture was given to explain the Forethought Phase, Performance Phase, and Self-Reflection Phase. The participants were anxious that the model was intimidating and that it would affect their grade as it was something they have not discussed in previous courses. Yet, all participants responded to the Prior Knowledge Questionnaire that they wanted to learn something new.

Weekly, the class was directed to refer to the model and which part of the model reflected where they were in the process and progress of their projects. Most participants were influenced by goal setting, a subprocess of the Forethought Phase. Another impact of the model was the attention focusing strategies, which are a subprocess of the Performance stage. Participants often responded that choice in topics, environment, and being able to use music helped them with their progress.

**Interpretation of Results**

Qualitative data does reflect an impact on learning and work framed by Zimmerman's three-phase SRL process model, but not for all students as an external factor. The model consists of a Forethought Phase, Performance Phase, and Self-Reflection Phase, which impacts learning and work in a cyclical motion. Zimmerman (2000) postulates "high self-efficacy for learning in the forethought phases becomes realized as self-efficacy for continued progress in the performance phase and self-efficacy for achievement in the self-reflection phase" (p.634). As evaluation unfolds in the self-

reflection phase, subprocesses such as goal setting in the Forethought Phase or environmental changes in the Performance Phase are impacted.

Participants in this study responded that their learning and work was impacted by goal setting (Forethought) and environment (Performance); moreover, each phase was supported by a social cognitive learning environment. Data show statements and summations of statements made by the participants that reflect their engagement with goal setting and planning, environment and peer interaction. However, one participant did not feel that the process model or subprocesses of the model were impactful. Although the model did not drive the participant's progress through the project as a framework, the participant did show that learning and work take place through a process. Observations and inferences from responses show that the student's planned, performed, and self-reflected daily.

Responses to open-ended questions posed on the Prior Knowledge Questionnaire reflected that many participants in this study felt that learning was primarily based on how the teacher taught or interest in the subject. The participants did not give responses that reflected the individual's responsibility, specifically in the learning equation of teacher and student. However, based on observations and responses to Self-Regulated Learning Questionnaire 2 and the Post Interviews, students became more student-centered in learning and work via their social cognitive skills as opposed to a teacher leading the process through lecture and modeling. Participants also revealed little knowledge of the concepts to be taught in the project set forth for this study, such as construction an annotated bibliography, the structure of citations, and building an MLA format for constructing a research paper. Questionnaires 1 and 2 tracked the progress of

learning and work as they were framed by an SRL process model. Qualitative data show an impact of all three phases of the model as a process or as a description of how learning and work can be organized for successful consequences and outcomes.

Qualitative data answers the essential research question. The data shows favorable outcomes of each phase and how each impact learning and work either as a physical model that drove progress or as a model of a thinking process that took place during learning and work. In post interviews participants favored choice in topic selection, choice in environment, choice in attention focusing strategies, and the opportunity to work in groups or with a partner. As the study progressed participants utilized the teacher as a resource and facilitator; however, autonomy, self-efficacy, and the social cognitive learning environment became precedence.

## Link to Literature

The literature reflected in this study is grounded in Zimmerman's theory, among others, that learning occurs as a process, and that the process can be represented by a model, in this case, Zimmerman's SRL Process model. The finding in this study reflects Forethought, Performance, and Self-Reflection which are processes that students' show as they progress through learning and work. SRL is a form of learning that can take place when the learner sets goals, performs based on those goals, and reflects in a cyclical process (Banarjee, Payel & Kamelesh, 2014). In addition to the literature, this study shows a way to implement SRL and bring it to the classroom. The literature in SRL shows a gap in ways to bring SRL to the classroom (Dignath & Butner, 2008).

Once SRL is introduced to students, the teacher can create, based on research, methods, and strategies to guide and impact learning and work (DiBenedetto, 2018;

Nilson, 2013). Zimmerman's SRL process model also gives opportunity for teachers to develop and tailor strategies for specific assignments and courses. The implementation and findings are based on the literature of SRL theories and studies that show that traditional settings, such as seating and execution of the lesson, should shift for today's students (Boekaerts & Niemivirta 2005). Traditional settings have been based on the idea that the teacher is the sole provider for the acquisition of knowledge. This study shows that knowledge can be obtained and distributed by the use of an SRL process model through a social cognitive lens. Students can gain a better degree of SRL by interaction with peers, models, and the teacher as a facilitator of learning (Zimmerman, 1989).

This study reflects the use of a model as a framework, rare in the literature, as a guide that can be taught or can occur as a process. This study aligns with the theories, concepts, and ongoing conversation of Self-Regulated Learning. This study reflects goal setting and environmental factors that are a large part of SRL (Jackson, Mackenzie, & Hobfoll, 2005; Schunk, 1989).

## Implications

### Implications for Practice

There are several studies that probe student motivation and student accountability. While this study sought to determine impact of an SRL process model as a framework, the concept of this study could also be used to determine the impact of an SRL process model on student motivation and student accountability. Rarely in the literature is a qualitative perspective given. Additionally, there is a gap in the literature as to how teachers can bring SRL to the classroom (Dignath & Butner, 2008).

As education calls attention to the need of focus on 21st Century Learning, it is worth expressing that traditional classrooms, such as traditional seating, traditional lecture centered settings, and emphasis on prescribed methods and guidelines for all students, do not give opportunity for learning and work to occur through student understanding of how thinking processes take place. In the traditional classroom or even school setting, tend to develop over-dependency on teachers for knowledge when the teacher is the facilitator for discovery and guidance rather than the supplier for knowledge (Boekaerts & Niemivirta, 2005). This study gives way for student-centered learning that occurs in a learning community setting in which the students become leaders of their learning and work. Zimmerman's SRL process model reflects the phases of a thinking process that can occur externally by being taught the model's phases to show students which mode they are reflecting while compiling a project. As the model is based on a social cognitive lens, students can see the phases reflected in peers and the relation is positive on their learning and work throughout the project.

**Students**

Students are the primary stakeholders in SRL. This study provides students with a visual process that shows them how their planning and performance evolve (cognitive thinking). As the researcher found it problematic for students who were not successful lacked a model of their thinking process as they progressed through learning and work, students can benefit from engaging in the model to determine how the lack of a process may be the issue with success in learning and work.

**Parents**

Parents can benefit from this study as, in the researcher's experience, they have a concern for how to help their child progress in learning and work. Research projects usually involve outside of the classroom help, such as parental help. The use of an SRL process model can be beneficial as it is a visual and a guide to aid students with their progress. Parents, just as teachers, can reference the phases and subprocess to construct performance checks, self-reflection tools, and attention focusing strategies in the home that can be carried to the classroom.

**Teachers**

Professional development for how to implement SRL in the classroom is needed. This study can be used as a model that not only is effective in a specific class but can be tailored for other disciplines. The conversation of SRL is a part of 21st Century Learning as students show a need to be in a student-centered classroom based on a communal environment. This study reflects the idea that students no longer should view the teacher as the sole provider of knowledge. Professional Development in SRL models can show teachers how to use the models as a teaching tool or as examples of how thinking evolves when engaged in learning and work.

**Implications for Future Research**

Many questions arise from this study. Two of interest to the researcher that arose from this study:

1. How does an SRL process model effect autonomy?
2. How does an SRL process model effect mastery in learning concepts?
3. How does transferability occur when students engage in another project?

4. How does SRL effect student motivation to learn challenging concepts and skills?

Answering these questions requires more qualitative case studies to allow an opportunity to show work as to how the phenomena occur. Mastery of concepts was not the focus of this study; however, does the SRL model effect how students gain knowledge and show mastery of a concept such as sentence expression, mathematical concepts, proving scientific methods, or interpretation of different eras in art and history? To answer these questions there is a need for researchers to be able to spend extensive time with participants as opposed to a quarter in a semester. Perhaps this calls attention to block schedules and traditional scheduling.

**Limitations**

This study took place over six weeks with a small group of participants due to illness and other student issues. The study reflected the SRL process used as a framework in an English III course that was based on a specific high school curriculum. Although the study included a student with a documented learning disability (IEP), the study does not claim to reflect all students with learning disabilities can be impacted by an SRL process. The results of this study are not generalizable.

## Reflections

Engaging in this study allowed the researcher to reflect on learning in general and how it takes place when constructing a project. This study reflects Forethought, Performance, and Self-Reflection as being taught externally or as a process that students work through during learning and work.

Interaction with the participants gave the researcher a better perspective as to the need for individualized learning in the form of allowing creativity, the importance of choice, and the need for reform of traditional classroom settings. Before this study, the researcher often used prescribed methods such as linear steps and order to teach students how to process and prepare projects. As the SRL process model is cyclical the way to construct projects in classroom setting are also cyclical. The participants in the 2019 spring semester English III course were grateful for the opportunity to have more freedom when working. This idea may imply that a teacher is not necessary for future classroom settings; however, according to this study the role and actions of teachers are what will change as students appear to prefer a student-centered learning environment.

**Conclusion**

This qualitative case study sought to show how students' learning and work were impacted by an SRL process model as a framework for learning and work. This study sought to give student perspectives regarding learning and work that was framed by an SRL process model. Data reflects that there is an impact on learning and work. Also, the participants now have a structured process to use as they continue their education. The SRL process model not only framed the study but also reflected the thinking process (cognition and metacognition) of the participants. As the school district moves forward with creating more student-centered learning environments and continues to offer quality educational practices in the classroom, SRL and the use of SRL models should be considered. The next steps for further contribution to the literature of SRL and the implementation of SRL process models should be a factor in decisions regarding professional development for new teachers as well as experienced teachers.

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# APPENDICES

# Appendix

## Appendix A

## Prior Knowledge Questionnaire and Responses

## First Cycle Coding

Prior Knowledge Questionnaire for English
III Research Project

1. In previous classes how well did you grasp the process that was taught?
2. From prior knowledge explain a citation on a works cited page.
3. What is plagiarism?
4. Explain, as best as you can, what is an annotated bibliography.
5. Why is it important to learn a process in putting together a project?
6. How does working with peers help to put together a project such as a research paper and presentation?
7. Name and explain a previous project of any kind that you have completed.
8. How did you plan the project that you completed?
9. Name something new that you would like to know more about with this project?
10. What is the purpose of research in general?

[redacted]

Confidence 1. [I knew] [how to do most thing in the class] but [a few things] [I didn't quiet understand.]

NO Prior Knowledge 2.

Prior Knowledge 3. plagiarism is [when you take someone elses work without giving them credit.]

Guess 4. [It's a biography that's gone through through.]

Personal feelings about learning 5. So. [you can learn more] and [get a good grade.]

Working through social cognitive lens 6. it [shows you how the skills] [to work together.]

NO previous work 7.

Description of a process 8. [plan ahead. make a rough draft. proof read it. retype it.]

9 + 10 not answered

[redacted]

Confidence 4.) [I grasped the process] of [other classes easily] [I just had to work on a few examples until I grasped it.] — grasped easily just had to work few examples but I grasped it

Prior Knowledge 2.) It is [the resources that you used for the project and are giving them credit.]

Prior Knowledge 3.) Plagiarism is a [very bad thing] [it means somebody's hard work and using it for your own gain with no credit.] — very bad thing somebody's work No credit

NO Prior Knowledge 4.) To be honest [I've never heard that before.] — never heard that before

Personal feelings about learning 5.) It [helps] to [get more information] on a certain subject and since you worked on it it'll stick with you. — helps get more information

Working through social cognitive lens 6.) It [helps] because [their will be multiply ideas] [and opinions] and [it'll also help get the work done faster.] — helps multiple ideas and opinions get work done faster

Previous Work 7.) My [previous project] was just recently [for Chemistry Hrs II] we had to [make a game] about atoms. — previous Chemistry make a game

Previous Work 8.) I [first read the instructions] then [I did reasearch] then [I went to the store a bought supplies] and lastly [I went home turned on some music] and [went to work.] — read instructions did research went to store -bought supplies turned on some music went to work

New Learning 9.) I would [love to know more] about [something that I haven't known and dive] into the unknown. — Love to Know more Something I haven't Known

Purpose of Learning 10.) In my opinon the purpose of research is to [help you know more about the topic.] — help know the topic

[redacted]
1-15-18
P.2

Confidence 1 [Not very well] I [never was able] to grasp [much other than math and science.] — Not very well never was ask much other than science and math

Prior Knowledge 2 A citation is [a way to show where you got your information from] — show where you got your information

Prior Knowledge 3 The [copying of anothers work without giving credit] — copying without credit

NO prior Knowledge 4 I will be honest, [I have no idea what that is.] — have no idea

Personal feelings about learning 5 [If you don't follow a system] [you are likely to falter] and [not do your best in said project] — don't follow a system likely to falter not your best

Working through social cognition Lens 6 It [depends on if the people working] are [willing to help] — depends on other people and willing to help

Previous Work 7 [car buying project] - Mrs. Stevens - [select a car, see how much you must pay for, pay off overtime.] — car buying project select car pay pay over time

Previous WORK 8 I [had to bring in my own laptop] [just barely make it in time.]

New Learning 9 When I work [to plan] around it. — to plan

Purpose 10 [To aid] [in one's understanding] of said subject.] — aid in understanding

[redacted]

Confidence
1. pretty well

Prior Knowledge
2. a source where you got your information

Prior knowledge
3. copying other peoples work

Guess
4. a more explained bibliography

Personal feelings about learning
5. /

Thinking about Cognitive others
6. puts more minds together rather than just one

Personal work
7. dont remember

8. /
9. /
10. /

No Answer

[redacted]

1 I [grasped it pretty good] because [I make A's and B's]
2 A [quote from something]
3 [Copying] somebodys work and [not giving them credit]
4 IDK
5 So [you can do it] within
6 [More People brainstorming = [More ideas]
7 A Research [Paper on Adolf Hitler]
8 I just [kinda read some books] [on him]
9 [I can't really Put my finger on anything]
10 To [learn more about Something]

| | Category | Code |
|---|---|---|
| 1 | Confidence | 1) good pretty good A's B's |
| 2 | Prior Knowledge | 2) quote |
| 3 | Prior Knowledge | 3) Copying without giving credit |
| 4 | No Prior Knowledge | 4) — |
| 5 | Personal feelings about learning | 5) you can do it |
| 6 | Working through Social Cognitive Lens | 6) more people brainstorm make ideas |
| 7 | Previous Work | 7) Research paper |
| 8 | Previous Work | 8) Kinda read some books |
| 9 | New Learning | 9) can't put finger on anything |
| 10 | Purpose of learning | 10) learn more about something |

Confidence ① By seeing it on the screen like when it was math class on how to do a new formala.

No Prior Knowledge ②

Prior Knowledg ③ Copying someone else's work and not including them as the artist or writer of the thing you have taken.

No Prior Knowledge ④ Fruely I don't know what that is.

Personal feelings about learning ⑤ Cause as your get older projects are things that will follow you around

Working Theory Social Collaborative Learning ⑥ so if you mess up they can help you understand or fix something wrong.

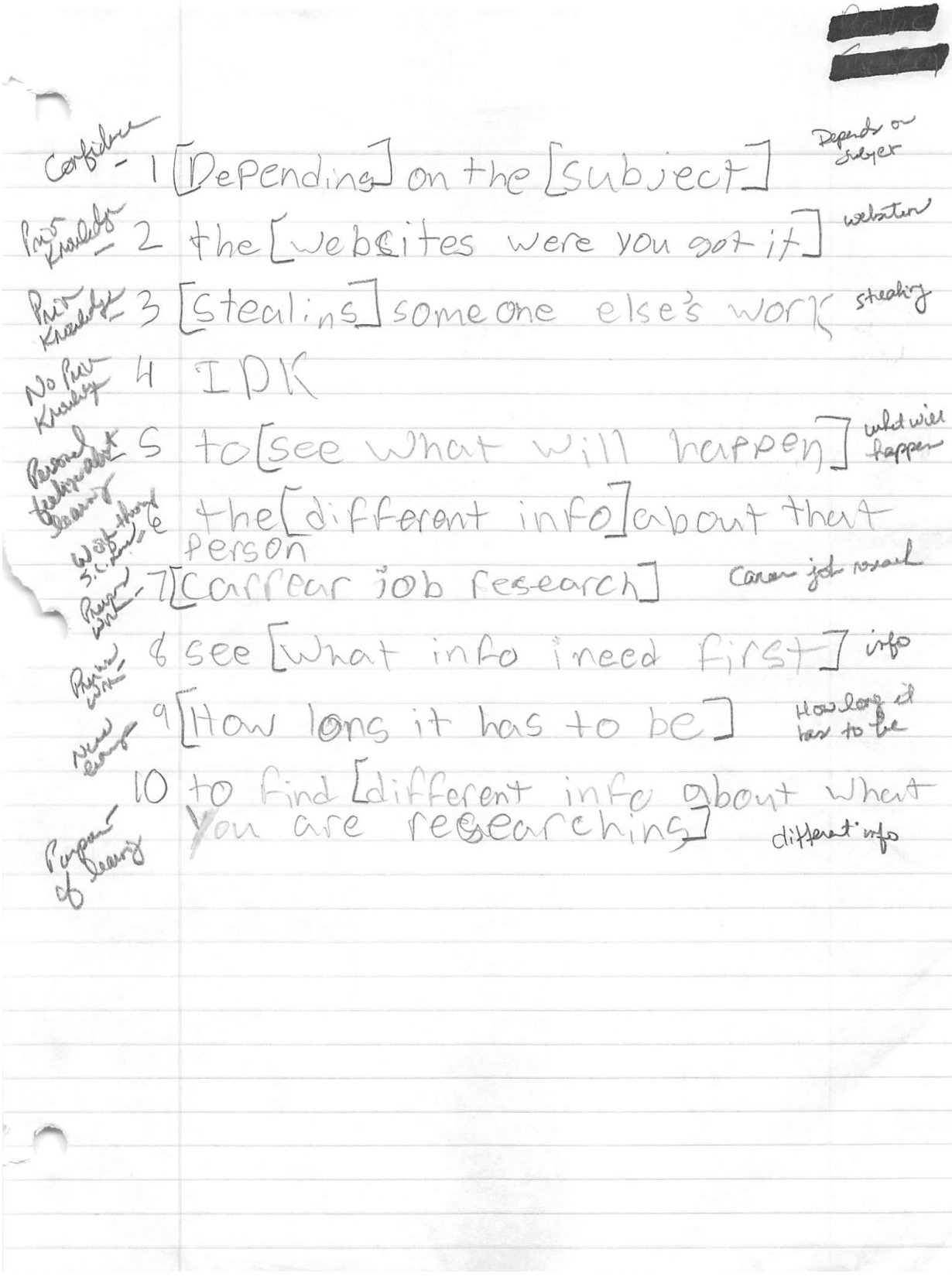
Previous Work ⑦ The trueman project for missisisk that evolved people that experienced the atomic bomb he droped on nagasaki I was a survivor that told what was so wrong with what he did.

Previous Work ⑧ I started by researching what my survivors family and told it in a series of questions

⑨ I know the other team was going to do it so we would have won

⑩ to see how he was guilty for war crime or not

Did not understand remaing questions


[redacted]
Confidence
1 [Depending] on the [subject]
Depends on subject
Prior Knowledge
2 the [websites were you got it]
website
Prior Knowledge
3 [stealing] someone else's work
stealing
No Prior Knowledge
4 IDK
Personal Knowledge
5 to [see what will happen]
what will happen
Work through S.C.
6 the [different info] about that person
Purpose
7 [career job research]
Career job research
Purpose
8 see [What info i need first]
info
New concept
9 [How long it has to be]
How long it has to be
10 to find [different info about What you are researching]
different info
Purpose of learning

[redacted]
1/15/19
2nd period

Confidence 1.) In [previous classes] I [understood the processes thoroughly and completely.] understood process

Prior Knowledge 2.) A citation [lists the source of information], the author of the information, the date it was written, the date the information was accessed, and the publisher, if it's a book, in an order specific to different formats. list some information

Prior Knowledge 3.) Plagiarism is when [someone uses somebody else's work and doesn't give them credit.] use either give credit

Prior Knowledge 4.) A bibliography that [has important information labeled.] important info labeled

Personal feelings about learning 5.) It is [important to learn a process] so that [you can put together the project efficiently and effectively.] learn a process efficiently & effectively

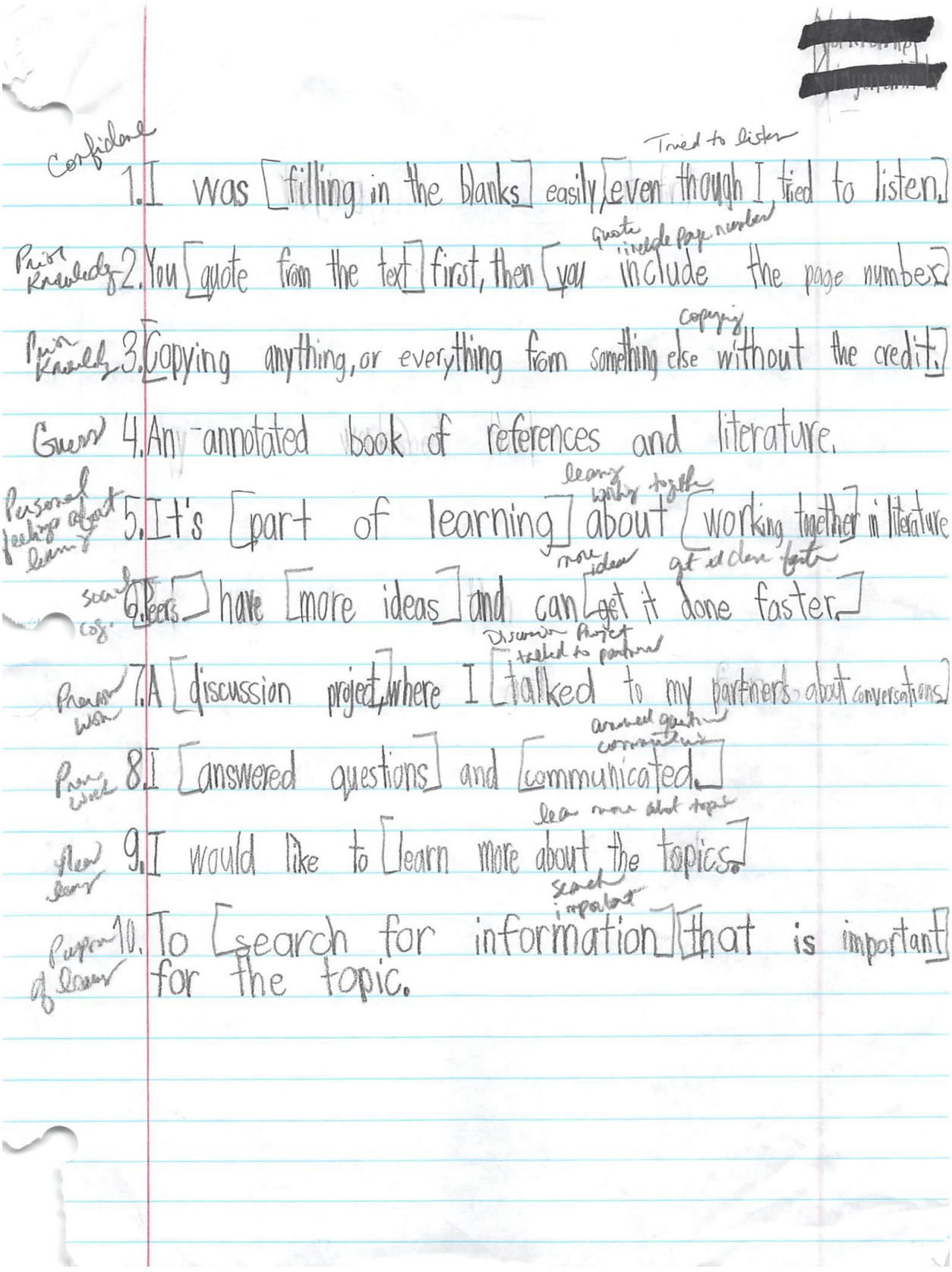
S.C. 6.) [Sometimes] [working with peers] [helps you] to better [organize or express the information] or come up with more ideas. come up with more ideas

Prior Work 7.) [I recently] did a [research] project [on Cuba in Spanish.] curiosity spanish

Prior Work 8.) I [came up with topics] about Cuba [I was going to research] and then [I found as much information about those topics that I could. Then [I summarized] each topic's information [into a few sentences.] come up with topics summarized into few sentences

Prior Knowledge 9.) [I'm not really sure if there is anything currently.]

Purpose of learning 10.) The [purpose] of research [is to learn and understand] the past, and to use this [information to guide or better] the future and/or present. learn and understand better future and/or present



Confidence
1. I was [filling in the blanks] easily, [even though I tried to listen.]
Tried to listen

Prior Knowledge
2. You [quote from the text] first, then [you include the page number.]
quote + inside page number

Prior Knowledge
3. [Copying anything, or everything from something else without the credit.]
copying

Guess
4. An annotated book of references and literature.

Personal feelings about learning
5. It's [part of learning] about [working together] in literature
learning + working together

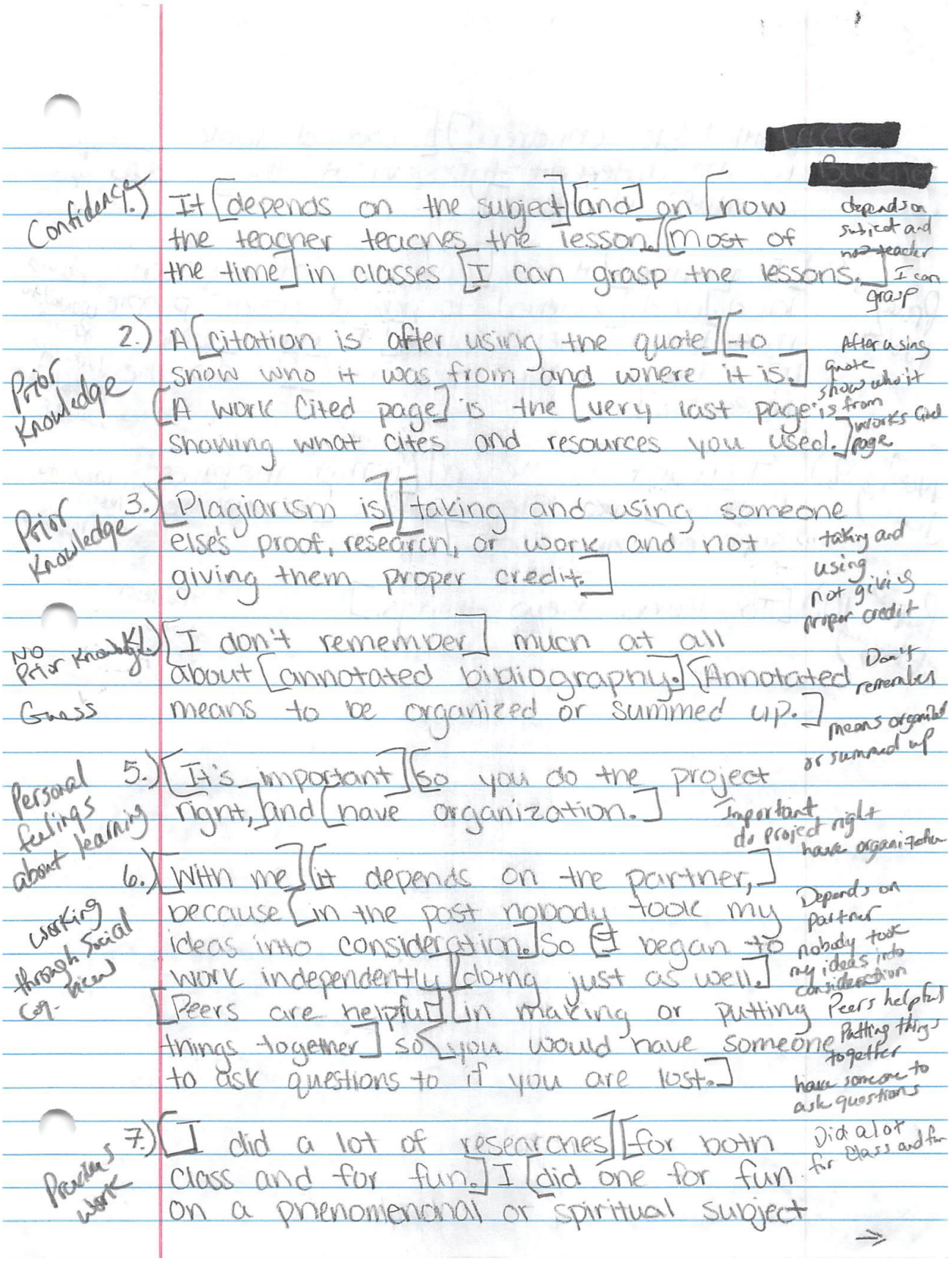
Search Collaborate
6. [Peers] have [more ideas] and can [get it done faster.]
more ideas + get it done faster

Prior Work
7. A [discussion project] where I [talked to my partners about conversations.]
Discussion Project + talked to partners

Prior Work
8. I [answered questions] and [communicated.]
answered questions + communicate

New Learning
9. I would like to [learn more about the topics.]
learn more about topic

Purpose of Learning
10. To [search for information] [that is important] for the topic.
search + important

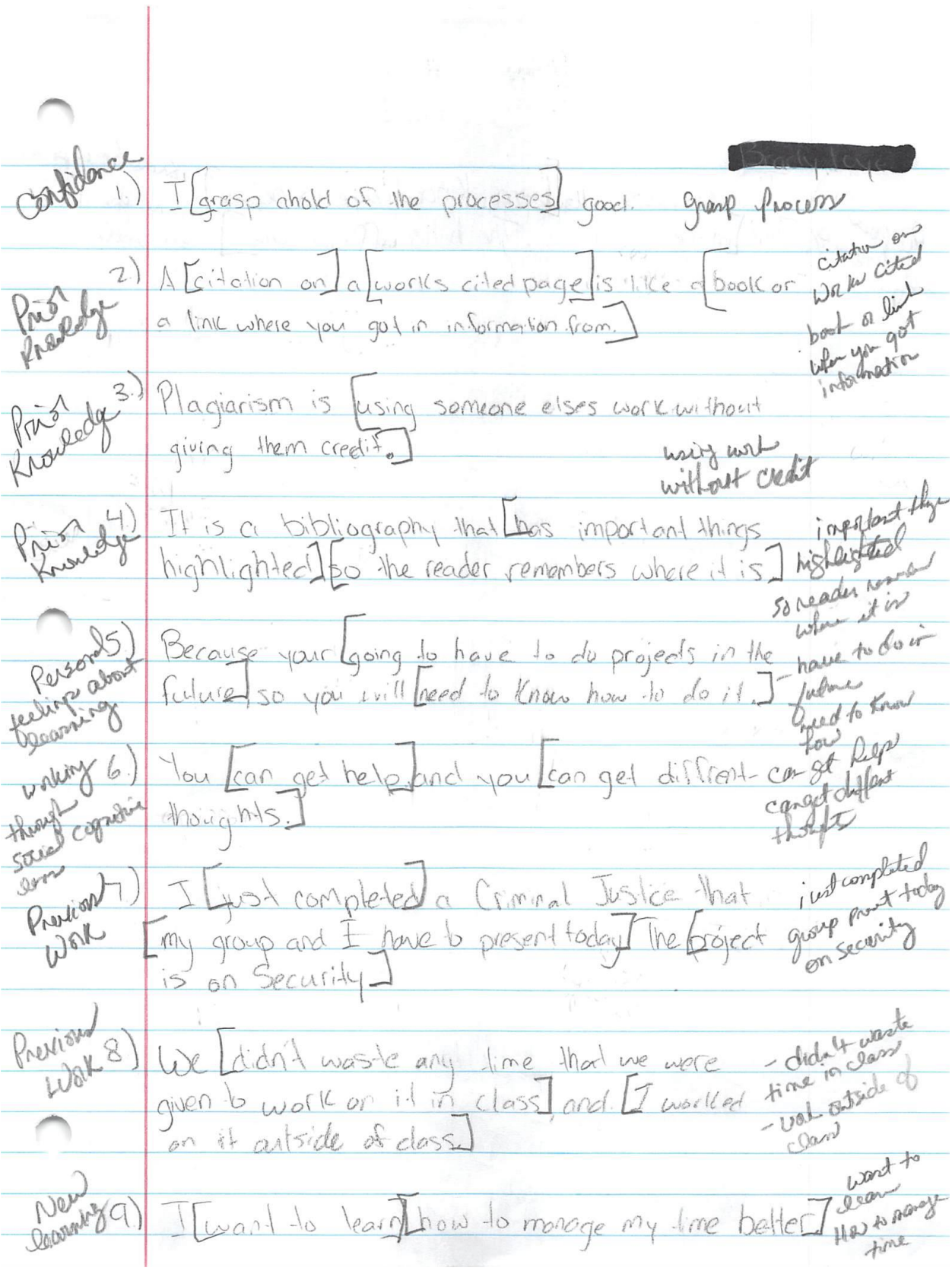

[redacted]
Confidence
1.) It [depends on the subject] [and] on [how the teacher teaches the lesson.] [most of the time] in classes [I can grasp the lessons.]
depends on subject and not teacher
I can grasp
Prior Knowledge
2.) A [citation is after using the quote] [-to show who it was from and where it is.] [A Work Cited page] is the [very last page] is the [very last page] showing what cites and resources you used.]
After using quote show who it is from
Works Cited page
Prior Knowledge
3.) [Plagiarism is] [taking and using someone else's proof, research, or work and not giving them proper credit.]
taking and using not giving proper credit
No Prior Knowledge
Guess
4.) [I don't remember] much at all about [annotated bibliography.] [Annotated means to be organized or summed up.]
Don't remember
means organized or summed up
Personal feelings about learning
5.) [It's important] [so you do the project right,] [and have organization.]
Important do project right have organization
Working through Social Cog.
6.) [With me] [it depends on the partner,] because [in the past nobody took my ideas into consideration.] So [I began to work independently] [doing just as well.] [Peers are helpful] [in making or putting things together] so [you would have someone to ask questions to if you are lost.]
Depends on partner
nobody took my ideas into consideration
Peers helpful
Putting things together
have someone to ask questions
Previous work
7.) [I did a lot of researches] [for both class and for fun.] I [did one for fun on a phenomenonal or spiritual subject
Did a lot for class and fun
→

[redacted] called 'star children'.] [I would look up the different types, what they do, stuff like that.] Look up different topics

Previous Work 8.) [I planned] it our [curiosity of my own kind,] and [wanted to know what people meant on the subject.] I would [look up reliable internet sources] [to do the research.] planned wanted to know look up reliable internet sources

New learning 9.) I [want to learn] [what inspires Author's] like Stephen King [to write such amazing books.] want to learn what inspires

Purpose of learning 10.) [To learn new things.] To learn new things


Confidence
1) I [grasp ahold of the processes] good.
grasp process
Prior Knowledge
2) A [citation on] a [works cited page] is like a [book or a link where you got in information from.]
citation on Works Cited page is like a book or link where you got information
Prior Knowledge
3.) Plagiarism is [using someone elses work without giving them credit.]
using work without credit
Prior Knowledge
4) It is a bibliography that [has important things highlighted] [so the reader remembers where it is]
important things highlighted so reader remembers where it is
Personal feelings about learning
5) Because your [going to have to do projects in the future] so you will [need to know how to do it.]
have to do in future need to know how
working through social cognitive term
6.) You [can get help] and you [can get different thoughts.]
can get help can get different thoughts
Previous Work
7) I [just completed] a Criminal Justice that [my group and I have to present today] The [project is on Security]
just completed group project today on security
Previous Work
8) We [didn't waste any time that we were given to work on it in class] and [I worked on it outside of class.]
- didn't waste time in class
- work outside of class
New learning
9) I [want to learn] [how to manage my time better]
want to learn how to manage time

[redacted]

10) The purpose to [learn. Knowledge is power.] Knowledge is power more you have the better
Purpose of learning The [more you have. The better off you are.]

[redacted]

Confidence 1. I have [always been able to grasp] [what was being taught quickly.] Especially [if the lesson is being taught repetitively.]

always able to grasp
lesson taught repetitively

Prior Knowledge 2. A [citation on a works cited page] is [giving someone credit] for the [work or idea you used.] It [also shows where you got your information from.]

Works cited page
for the idea
shows where you got information

Prior Knowledge 3. Plagerism is [when you copy someone's work without giving them credit.] [Plagerism = stealing]

copy without credit
stealing

Guess 4. An annotated bibliography is [a bibliography that has been broken down to get the whole idea in less words.]

Personal feelings about learning 5. It is [important to learn the process] in [putting together a project] [because you do [not want] to miss any information] for your project. [Knowing the process] also [helps everything run smoothly.]

important to learn process, not miss information, makes helps run smoothly

Working through words Cognitive tools 6. [Working with peers] for a project is [sometimes a great thing] because [everyone can have assigned tasks] and [then put everything together at the same time.]

working with peers
sometimes great
everyone assigned tasks
put everything together at same time

[redacted]

Previous Work

7. I have [completed a research paper] on Malala Yousafzai. In this project [I had to tell my audience] [about her life and all the stuggles] she went through. I [had to tell how she impacted the world as well.] — completed; tell audience about life; impact

Previous Work

8. I had [two weeks to complete this project] so the [first week I read her book] and [took notes.] I [broke down the book] and [then planned what I was going to talk about in each paragraph.] — two weeks to complete; read book; took notes; planned each paragraph

New Learning

9. I would [like to be able to know the person] I research on the back of my hand. I [want to be able to list off facts] [on the spot about my person.] — like to know about person; list facts on spot

Purpose of Learning

10. The purpose of research is [to help grow your knowledge on a person or an idea or a topic.] — grow knowledge on a topic

Confidence 1.) IT ALL [DEPENDED ON HOW THE TEACHER TAUGHT ME/US.] depended on How taught

Prior Knowledge 2.) IT'S THE LAST PAGE [CITING] ALL THE [SOURCES] YOU [USED TO GET THE IMFORMATION.] citing sources used to get information

Prior Knowledge 3.) WHEN YOU USE [SOMEONE ELSE'S WORDS WITHOUT PERMITION.] Someone else's words without permission

No prior Knowledge 4.) I HONESTLY DO NOT REMEMBER

Personal feelings about learning 5.) WELL, WE [DON'T WANT] TO PUT A [PROJECT TOGETHER BACKWARDS OR OUT OF ORDER.] don't want project backwards or out of order

Working through Social Cognitive lens 6.) [MULTIPLE] PEOPLE [HAVE DIFFERENT KNOWLEDGE] YOU PUT [MULTIPLE MINDS] [WORKING TOGETHER] AND YOU'll HAVE AN [AMAZING FINISHED PIECE.] multiple have def Knowledge working together amazing finished piece

Previous Work 7.) THE [LAST PROJECT] I CAN REMEMBER DOING IS MY [FRESHMAN YEAR] AND IT WAS A [BOOK REPORT.] Last project Freshman year Book report

Revising Work 8.) I [LISTED WHAT I WANTED TO PUT/WRITE DOWN.] listed what I wanted to put down

[redacted]

New learning 9.) I'D [LOVE TO LEARN MORE ABOUT A CITATION PAGE] I'M NOT THE BEST.

love to learn more about citation page

Purpose of learning 10.) TO [UNDERSTAND] THAT [SUBJECT/PERSON/EVENT] WITH [FIRST HAND.] YOU [GRASP THE SUBJECT MORE.]

understand subject person event
Grasp subject more

[redacted]

Confidence
1. In my [previous classes] I [understood mostly all the information.]
previous classes understood information

Prior Knowledge
2. A citation is a [reference or quote] from the book [which you cite on your paper.]
reference or quote cite on paper

Prior Knowledge
3. Plagiarism is [copying ones work word for word or without quotations.]
copying word for word without quotation

Personal feelings about learning
4. You have to [learn the info] and [process it] [before putting it together.]
learn the info process it before putting it together

Prior Knowledge
5. A annotated bibliography is [a list of citations] to [books, articles and documents]
list of citations books, articles and documents

Ways to work Social Aspect
6. [working] with [partners helps because everyone brings something to the table.]
working partners helps everyone brings something to the table

Previous Work
7. I completed a [disease project in medical therapeutics.]
disease project in medical therapeutics

Previous Work
8. I [planned my project by doing the research and the jotting the info down.]
doing the research jotting info down

New Learning
9. I would like to [learn about the struggles] and [problems of people and how they defeated challenges.]
learn about struggles and problems how they defeated challenges

Purpose of research

10. The [purpose of research] is to [learn new info and gain knowledge.]

Purpose
learn new info
gain knowledge

[redacted]

Confidence

1. In previous classes, I [grasped the process] of things [that were taught pretty well] but [for some, I had to ask friends] around me [to help explain]

grasped process that was taught I had to ask friends to help explain

Prior Knowledge

A citation on a [works cited page] [allows you to give credit where credit is due]

works cited page allows you to give credit

Prior Knowledge

Plagiarism is where you [take someone's own words] and [act as if they're your own] [without giving them credit]

take someone's own words act as if they're your own without giving credit

No Prior Knowledge

I have never heard of an annotated bibliography

Personal feelings about learning

It is [important to learn a process] in [putting a project together] because [you want to make little to no mistakes]

important to learn process want to make little to no mistakes

Working with others (Vygotsky Cognitive theory)

[Working] with [peers helps to put together a project] because [you can take in what others are saying] and [they might have seen something you did not see]

working peers to help take in what others are saying

Personal work

The [Polyhedron Project] - For this project, [I had to make a few

had to make w/ cardboard paper straws

polyhedrons out of something other than posterboard, paper, or cardboard.]

Prepare to learn 8 I [set daily goals] [to complete this project] — set daily goals complete project

New learning 9 Throughout the project, [I want to find out what made my author write what they wrote] — author write what they write

Purpose of learning 10 The [purpose] of [research] in general to me is [to find out more info on a certain topic] — purpose to find out new info

[redacted] Ashley

| Category | | Code |
|---|---|---|
| Confidence | 1. In previous classes [I grasped onto what was being taught.] [Sometimes I would get confused] but [for the most part I kind of understood.] | grasped onto what was being taught<br>Sometimes I would get confused<br>For the most part I understood |
| Prior Knowledge | 2. [I think] it's [something like] the [title of the article and author.] [It has been a little while since I've done citation.] | I think<br>something like<br>It has been a little while |
| Prior Knowledge | 3. [Plagiarism is taking someones words and acting as they are your own.] | Definition |
| No Prior Knowledge | 4. [I can't remember] | |
| Personal feelings about Learning | 5. It is [important to learn] [how to put together] a project because [certain things may need to happen before other things.] | important<br>put together<br>certain things may need to happen |
| Working through Social cognitive Lens | 6. [Working with others] [helps] [because people may have different ideas] on [how to make a presentation or research paper better.] | working with others helps<br>different ideas<br>how to make a presentation or research paper |

[redacted]

Previous Work 7. A presentation [I recently completed] was for Spanish. [We had to use our vocabulary list] which included things in a house. we had to find rooms and [label what was inside]

recently vocabulary list Labeled

Previous Work 8 [Yes I planned] the project [by finding pictures that had most of the stuff on our vocabulary list] [that way it made it easier and faster] unlike if I got individual pictures of things.

planned Finding Pictures made it easier

New Learning 9.

Purpose of Learning 10. The [purpose of research] is so [we can learn more about history]

Purpose to learn more about history

[redacted]

Confidence [Sometimes I get the concept][sometimes I don't] it souly [depends on how I feel] [about the subject to begin with.] — Sometimes depends on how I feel about subject

Prior Knowledge 2. A citation is [what you use to reference material] that you've used. It [often comes last for anything you may be doing.] — what you use to ref; comes last

Prior Knowledge 3. When you [take work and use it as your own.] — work and use it as your own

Guess 4. [A list of books that has been noted through out the text]

Personal feelings about learning 5. So that the [work can be done well] [everytime you do it] — work done well everytime you do it

Working through Social Cog. View 6 [They can help][via opinion or prior knowledge] with your work. [personally I rather work alone.] — they can help via opion or prior knowledge rather work alone

Previous Work 7 [I did a career project][in ninth grade] [over the job I wanted to do at the time] We all [had to explain the basics of our job.] — Career project ninth grade had to explain

Previous Work 8 [By looking for material][then answering the questions.] — Looking for

[redacted]

New Learning 9 [Not anything specific just hear something new] not anything specific

Purpose of learning 10 To [gather knowledge] and [expand on it] gather knowledge expand on it

# Appendix B

## Prior Knowledge Questionnaire Second Cycle Coding

2nd Cycle Coding—Pattern Coding

| Category | Code | Pattern |
|---|---|---|
| Confidence | ➢ Grasped onto what was being taught<br>➢ Sometimes<br>➢ "I kind of understood"<br>➢ "[…] depends on how I feel about the subject"<br>➢ "How the teacher teaches the lesson"<br>➢ "[…] a few things I didn't quite understand"<br>➢ Never was able<br>➢ "[…] if the lesson is being taught repetitively"<br>➢ "It all depended on how the teacher taught me/us" | Students appear to have learned based on what the teacher did as opposed to discovery, autonomy, self-efficacy. |
| Prior Knowledge | ➢ "I think it's something like […]"<br>➢ Title of article and author<br>➢ "Plagiarism is taking someone's words and acting as they are your own"<br>➢ "It has been a little while since I've done citation"<br>➢ Reference material<br>➢ Works Cited Page<br>➢ "[…] the resources that you used for the project and giving them credit"<br>➢ Blanks<br>➢ "I've never heard before"<br>➢ "I don't remember" | Students appear to show that they have some familiarity with concepts such as annotated bibliography and plagiarism, but do not know function and placement. |
| No Prior Knowledge | ➢ Blanks<br>➢ "I don't remember"<br>➢ A list of books<br>➢ Guesses | Students have not heard of or mastered the concept of an annotated bibliography and its function |
| Personal Feelings About Learning | ➢ Important<br>➢ "[…] work can be done well everytime [sic] you do it"<br>➢ Organization | |

| | | |
|---|---|---|
| | ➢ Get a good grade<br>➢ Important to learn a process<br>➢ "[…] going to have to do projects in the future"<br>➢ You have to learn a process | Most students' responses reflect the importance of learning a process is important. |
| Working Through A Social Cognitive Lens | ➢ Working with others helps<br>➢ Different ideas<br>➢ Help via opinion or prior knowledge<br>➢ Depends on the partner<br>➢ "[…] shows you have the skills to work together"<br>➢ "It helps because their will be multiply [sic] ideas and opinions and it'll also help get the work done faster"<br>➢ 'It depends on if the people working are willing to help"<br>➢ Can get help<br>➢ "So if you mess up they can help you understand or fix something wrong" | Students feel that working with others is helpful depending on group or partner for correction and understanding. |
| Previous Work | ➢ "Yes I planned the project by finding pictures that had most of the stuff on our vocabulary list that way it made it easier and faster unlike if I got individual pictures of things"<br>➢ A presentation<br>➢ One project in 9th grade<br>➢ "plan ahead. Make a rough draft. Proofread it. Retype it.:"<br>➢ I read some stuff<br>➢ Bought some supplies<br>➢ Book report | Students are familiar with basic research and how to put together a project, yet no response to applying a process, synthesizing, and creating a project that can be used by others. |
| New Learning | ➢ "Not anything specific just hear something new"<br>➢ Want to learn<br>➢ "[…] love to know more about something that I haven't known […]"<br>➢ To plan<br>➢ "[…] want to be able to list off facts on the spot about my person"<br>➢ Manage my time better<br>➢ "[…] Live [sic] to learn more about a citation page | Students want to learn something new. |
| Purpose of Learning | ➢ "The purpose of research is to learn and understand the past | |

| | | |
|---|---|---|
| | and use this information to guide or better the future and/or present”<br>➢ To find information<br>➢ Gain knowledge<br>➢ “The purpose to learn knowledge is power. The more you have the better off you are”<br>➢ To learn new things | Students show a good disposition about the purpose of learning. |

# Appendix C

## Self-Regulated Learning Questionnaire 1

## First Cycle Coding

**Self-Regulated Learning Questionnaire 1**

1. Describe how do you determine if you are doing your work correctly? (Self-Evaluation)
2. How do you organize your materials necessary to begin your work? (Organizing / Planning)
3. How often do you set a goal before you begin your work? (Organizing / Planning)
4. When do you determine that you should ask for help during work construction? (Performance)
5. When you ask a friend for help, do you show them your work? (Performance)
6. How do you stay on track, stay focused, and/ or revisit your purpose? (Performance)
7. How do you determine the area or seating you need to do your work? (Environment)
8. Which place do you choose which, place do you prefer to do your work: classroom or library? (Environment)
9. Why do you prefer this location? (Environment)
10. If you do well on your work, how do you treat yourself? (Self-Consequences)
11. How do you determine if your work is well or needs improvement? (Self-Assessment)

2-13-19

[redacted] 2nd

1. I'll ASK THE TEACHER IF I'M UNSURE.
2. I HAVE IT LAID OUT IN MY MIND. SO LIKE I TELL MYSELF WHAT I NEED TO WORK ON.
3. WELL THE GOAL THAT I'VE KEPT IS "I HAVE TO BEAT THE DEAD LINE".
4. WHEN I START GETTING CONFUSED OR WHEN I'M STARTING SOMETHING OUT.
5. YES, I'll SHOW THEM MY WORK.
6. I LISTEN TO MUSIC TO STAY FOCUSED.
7. I FEEL CLOSED IN, BUT I'M FINE.
8. LIBRARY. THERE'S MORE ROOM
9. THERE'S MORE ROOM
10. WHEN I START REALIZING I'M REPEATING WORDS.
11. Not answered

[redacted]

1 I determine if I am doing my work correctly [by comparing my work to the examples given to us.]

2 I [organize my materials] my [keeping my items for research separate from my other items.]

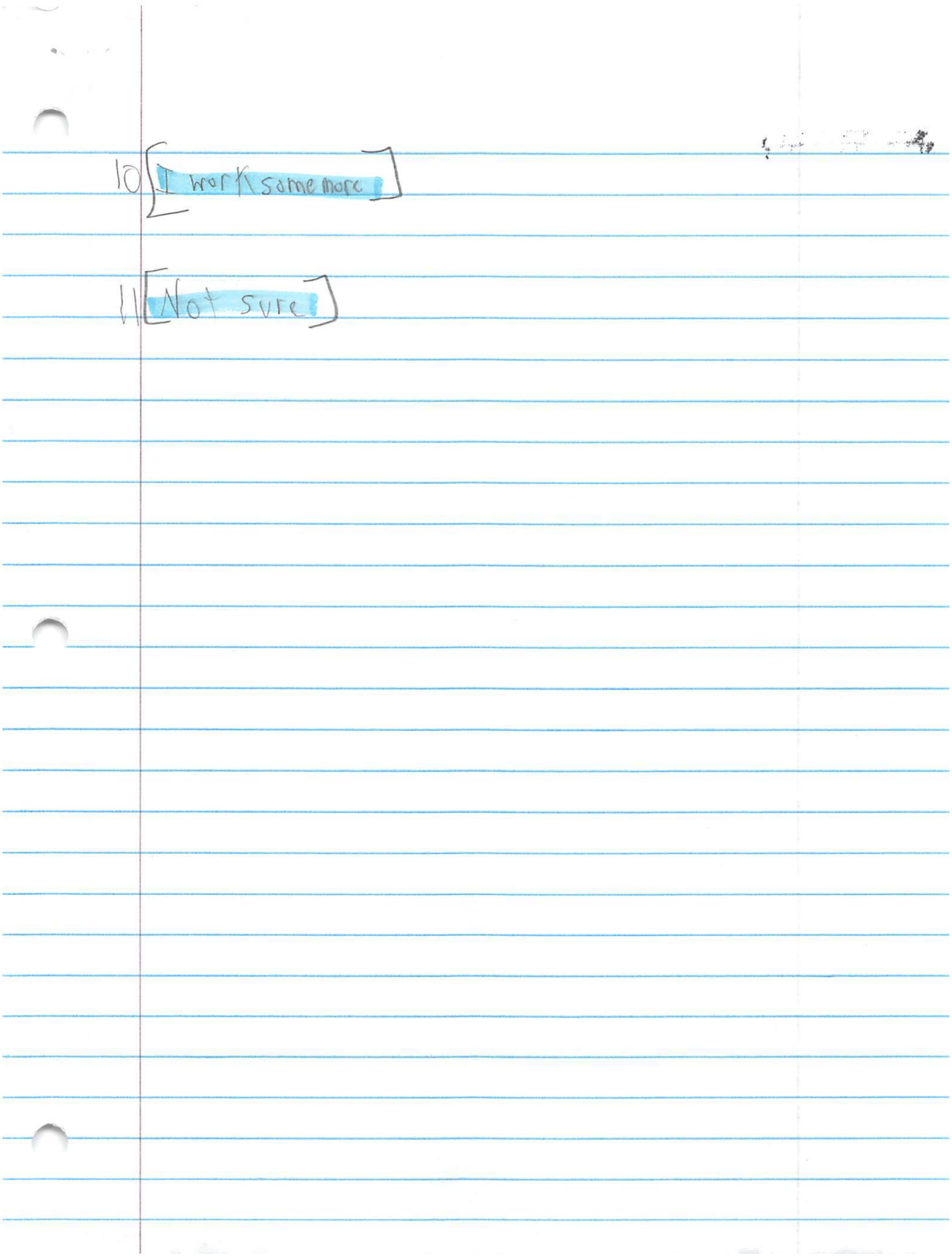
3 [I don't set goals often] because [if I don't complete that goal, I will worry too much about it.]

4 I [ask for help when I am stuck in a certain place after trying a couple times.]

5 When I [ask a friend for help, I often do show them my work because I want them to completely understand what I need help on.]

6 I stay focused mainly [by listening to music.]

7 I mainly [sit where it's calm and comfy] because [I don't have to focus on being uncomfortable.]


10 I work some more
11 Not sure

[redacted]

1. I can determine if I am doing my work correctly by noticing if I am progressing any and if I am having any trouble getting my work done.

2. I organize my materials into steps and goals organizing my materials into steps help me progress swiftly and efficiently.

3. Typically with most of my work I set goals along the way to help me complete it.

4. If I ever get stuck and can not find a solution to help me move on, is when I ask for help.

5. When asking my friends for help, I show them my work because it is easier to understand help with a visual.

6. I stay on track by listening to music or eating a snack or chewing gum.

[redacted]

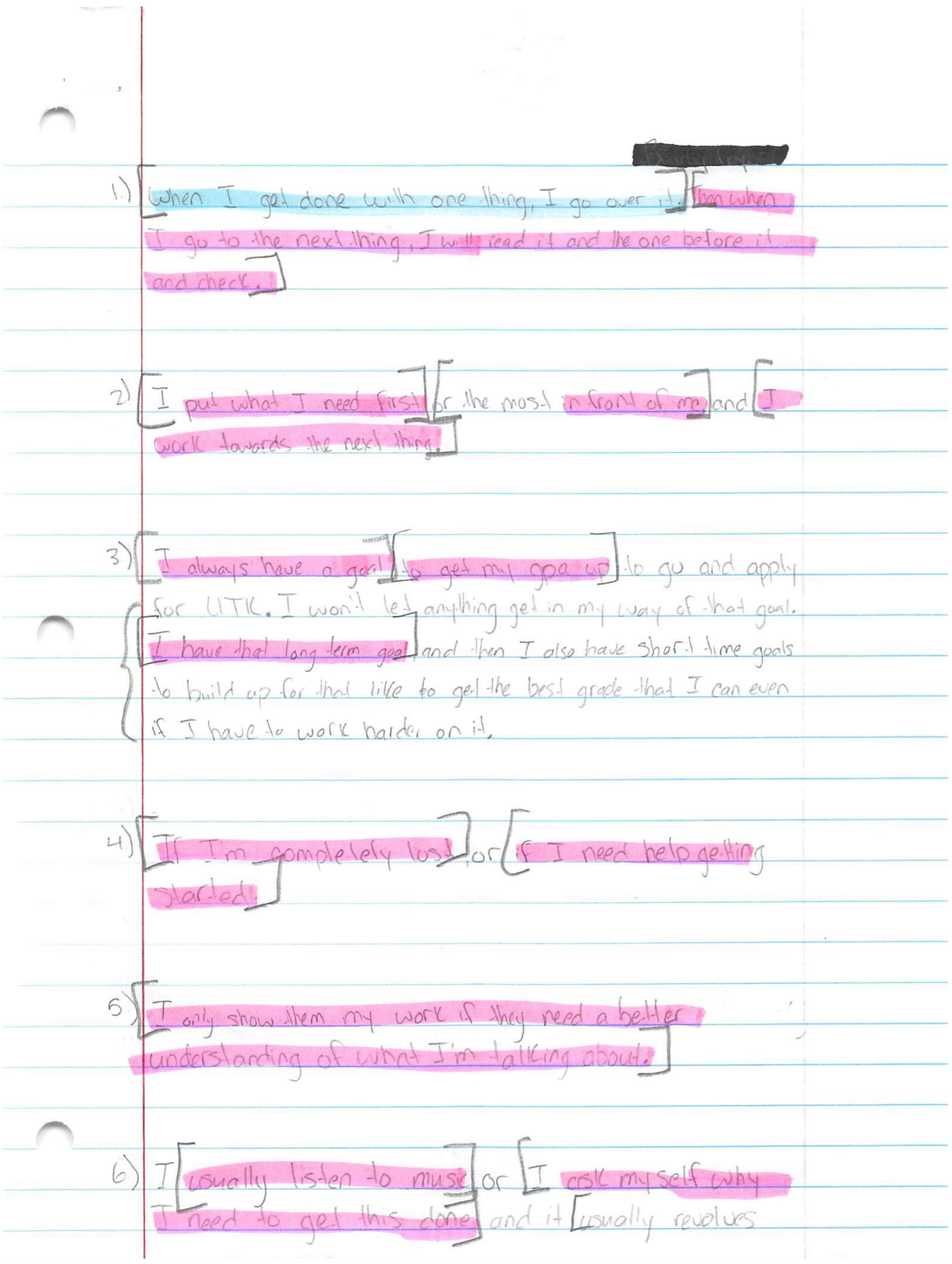
7. I work best alone, or with one to two people near by. I know this from previous projects or school work.

8. I like to work in either environment, but classrooms are a lot easier to adapt to and change.

9. Classrooms are best because you can change and adapt to this environment easiest.

10. If I do well on my work, I usually dont reward myself with anything but if I did it would be ice creath and a movie.

11. I can determine if my work is good or needs improvement because I know what I can do and what my limitations are it's my work.



1) When I get done with one thing, I go over it. Then when I go to the next thing, I will read it and the one before it and check.

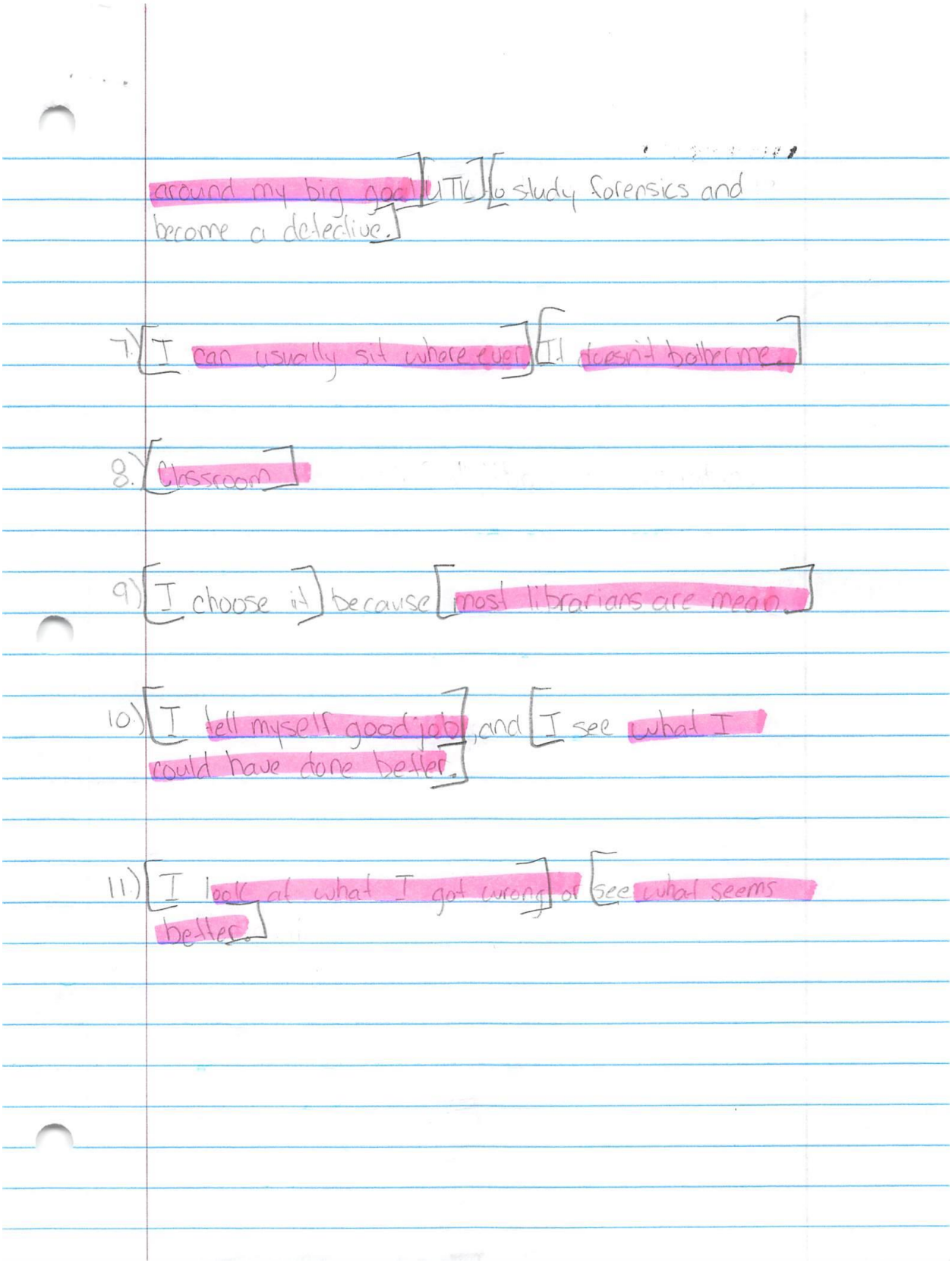
2) I put what I need first or the most in front of me and I work towards the next thing.

3) I always have a goal to get my gpa up to go and apply for UTK. I won't let anything get in my way of that goal. I have that long term goal and then I also have short time goals to build up for that like to get the best grade that I can even if I have to work harder on it.

4) If I'm completely lost or if I need help getting started.

5) I only show them my work if they need a better understanding of what I'm talking about.

6) I usually listen to music or I ask myself why I need to get this done and it usually revolves



around my big goal] [UTK] [to study forensics and become a detective.]

7.) [I can usually sit where ever] [I doesn't bother me.]

8.) [classroom]

9.) [I choose it] because [most librarians are mean.]

10.) [I tell myself good job], and [I see what I could have done better.]

11.) [I look at what I got wrong] or [see what seems better.]

[redacted]

1. [comparing with other students/examples.]

2. I [pick a starting spot] and [go as far as I can]

3 [Not very often.]

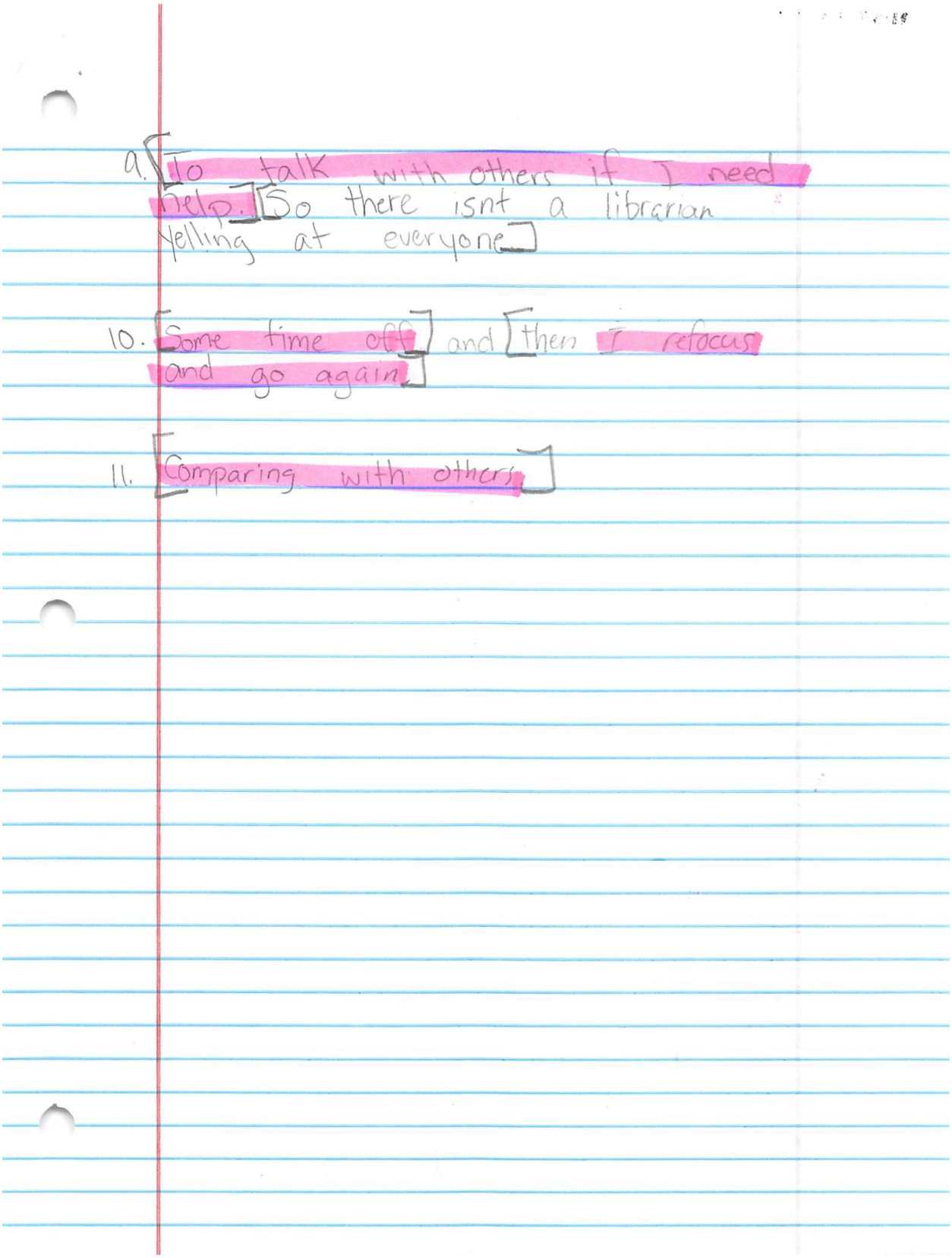
4. [When I get stuck] or [do not know where to start next.]

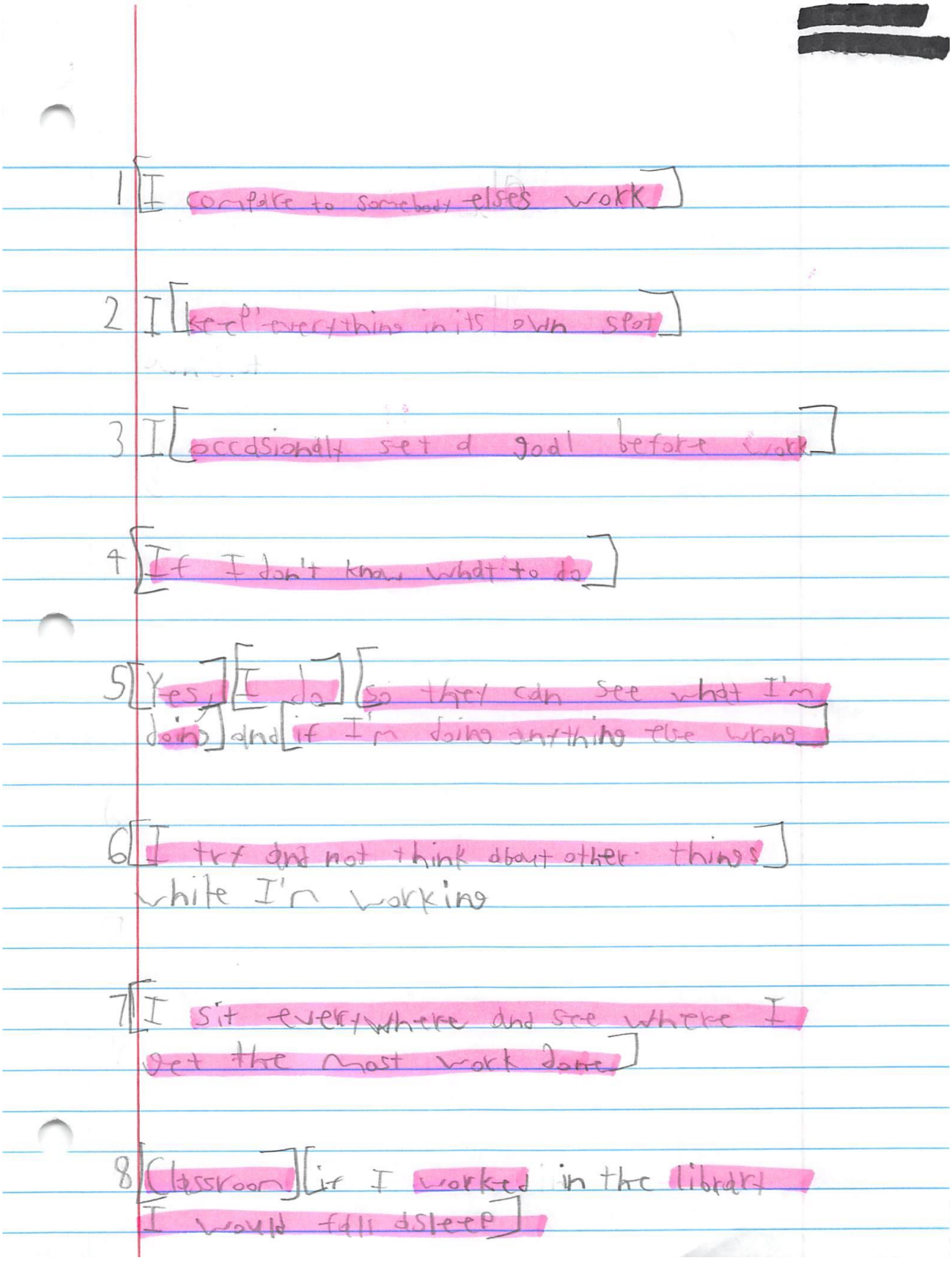
5. [Yes,] [so they know what I am talking about.]

6. I [listen to music] [to block out all other noise.]

7. [Tempature] I [prefer a cool environment] [so I can be comfortable]

8. [Classroom] [so I can talk with others for help]


9. To talk with others if I need help. So there isnt a librarian yelling at everyone
10. Some time off and then I refocus and go again
11. Comparing with others

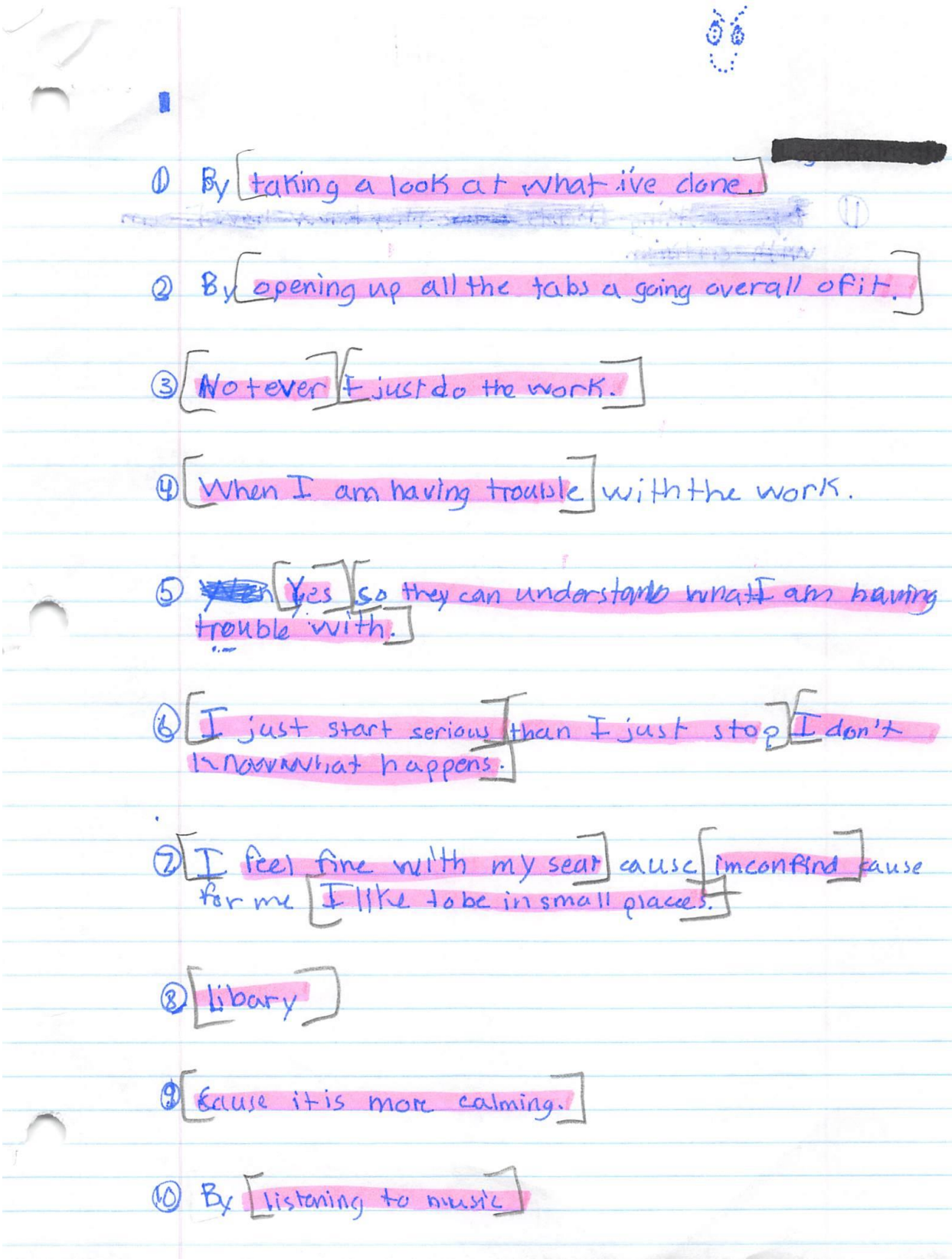

1 I compare to somebody elses work
2 I keep everything in its own spot
3 I occasionaly set a goal before I work
4 If I don't know what to do
5 Yes, I do so they can see what I'm doing and if I'm doing anything else wrong
6 I try and not think about other things while I'm working
7 I sit everywhere and see where I get the most work done
8 Classroom if I worked in the library I would fall asleep

Fletcher, Robertson

9 [It's not quiet] and [if I need inspiration, I will just look at somebody elses work]

10 [I just pat myself on the back]

11 I [ask somebody else] or [the teacher]



1. By taking a look at what ive done.
2. By opening up all the tabs a going overall of it.
3. No ever I just do the work.
4. When I am having trouble with the work.
5. Yes so they can understand what I am having trouble with.
6. I just start serious than I just stop I don't know what happens.
7. I feel fine with my seat cause imconfind cause for me I like to be in small places.
8. Libary
9. Cause it is more calming.
10. By listening to music

(1) By [asking a teacher to check it] cause [they know what I need]

[redacted]

1.) I do the work how it makes sense to do it and I look over it after I'm done and determine if it makes sense and if it seems correct.

2.) When I make a plan I figure out what materials I'm going to need for each step.

3.) It is uncommon for me to not make a plan, but it is common for me to not have a goal other than to finish the work.

4.) If I don't understand something, I will ask for help.

5.) I don't often ask for help.

6.) I dislike having things that I have to do, especially with a deadline, but I also dislike having nothing to do. Both make me anxious and stressed, but getting work done is better than having things to do.

7.) I just sit wherever I am told to or whereever is most convinient.

8.) I actually kind of dislike both, but I slightly prefer the library to the classroom. Patrick's

9.) I prefer the library because it is more open and less crowded.

10.) I have a standard of excellence for myself, so I don't have any rewards for good work.

11.) I have obsessive compulsive disorder, so my work always has to meet my standards and nothing is ever perfect.

[redacted]

1. I am checking the examples with my work.
2. I put important papers in my folder and important websites aside.
3. Very often
4. If I'm very behind compared to other people's work.
5. Yes, if this is what the teacher tells other students to do.
6. I remember the purpose of the work and the instructions.
7. I go with my assigned seat.
8. Classroom I haven't been in here more.
9. Because I have been in here more.
10. There are many things I'd do but I don't get the chance.
11. I follow all instructions and examples.

Category on questionnaire

Live Code Highlighted

1. [I ask in advance] [to clear up any confusion] I have.

2. I [put everything in order] in [how I have to start.]

3. [I do it some] I [should probably do it more often.]

4. I would [ask as I went] [that way I could fix anything] [before I got to far ahead.]

5. [It depends] on [what I need] help with. If it is just [something minor] I [don't usually show my work.]

6. I just [listen to music] or [sit in a quiet area.]

7. I have to [work in a colder environment.] If it is [too hot] I tend to get off track.]

8 I would [rather work in the hall.]

9. [It's quiet] and [colder than the classroom.]

10. [Nothing too exciting.] [Just a pat on the back.]

11. I [ask someone who knows a little bit more about writing]

[redacted]
2nd block
english III

1. In order for me to [know if my work is being done correctly] is by [having others analyze my work.]

2. I [self check my materials] [in order] [so that I know I have them all.]

3. I try to [set a different goal] [everytime I do my work.]

4. Either [when I get confused] or [have been thinking about a certain subject for awhile.]

5. [When asking a question] [I will sometimes show them my work] [if required.]

6. [Classical music] in particular [keeps me focused] [as well as calm] Being calm and relaxed is important to me so that I won't overwhelm myself.]

7. I [choose a spot] with the [least amount of distractions.]

[redacted]

1. How I check my work is [I look at other examples] or I [ask my teacher] [depending if the examples don't help.]

2. [I organize] my work [by writing it on paper] and [put the items in catagories.]

3. [I always set goals,] [they end up being set for everything I want to accomplish.]

4. [When ever I hit a very confusing point in the road,] and [I'd get stuck.] I would [ask for help if I can't figure out my mistake.]

5. [Yes] [when I get stuck] I [show others my work] [so they could see what is messed up] and [help me with them.]

8 [The library] [do to the fact] that its [different then going to an everyday classroom].

9 The [library] [tends to be quieter] and there is [usually a wider variety of places to sit.]

10 If I [feel that I did well] then [I'll treat myself] to a [long nap to refresh myself]

11 By [comparing it to others] or [by having others look at it for me.]

6. [I stay focused] by [sitting alone] and [listening to music.]

7. I find that [I work best alone] [so people don't distract me by stuff.]

8. I'm good with [both library and classroom.]

9. I'm [not picky with location] [unless if it is outdoors.]

10. [When I do good] [I relax] myself [with drawing or crafting stuff.]

11. By [looking at other peers] or [by my teacher.]

[redacted]

1. If you [follow the directions] and [check your work] [to see if you're doing it right.]

2. [make a goal on each thing you're about to do.]

3. [every time,] [because it helps get it done.]

4. [If you aren't understanding the material.]

5. [yes.] [if I have it done correctly they can learn from it.]

6. I [chew gum] [listen to music.] [move myself somewhere quiet.]

7. It [has to be quiet] [if it's loud I find it hard to concintrate.]

8. I would [prefer the hall] or [the library].

9. It's [nice and quiet.] [no distractions.]

10. [don't treat yourself, because you'll feel like you always will have to.]

11. [If it doesn't look long enough] and/or [it lacks the directions.]

[redacted]
Mrs. Vannatta
Period 2nd

1.) The way I determine if my work is done correctly is that I love to check myself by writing down what I achieved and how.

2.) I first organize what I need and then I plan out in my head for a few minutes about how to start it then begin.

3.) All the time to push myself to learn how to improve and grow instead of closing myself out of everything.

4.) I just asked if I ever got stumped and asked for examples to know more about how to do it.

5.) When a friend asks for my help what I do is I show them my work how I did it and then do an example of it for them.

6.) A way I stay on track is by listening to music because it calms me down and the other thing is my ultimate goal I have.

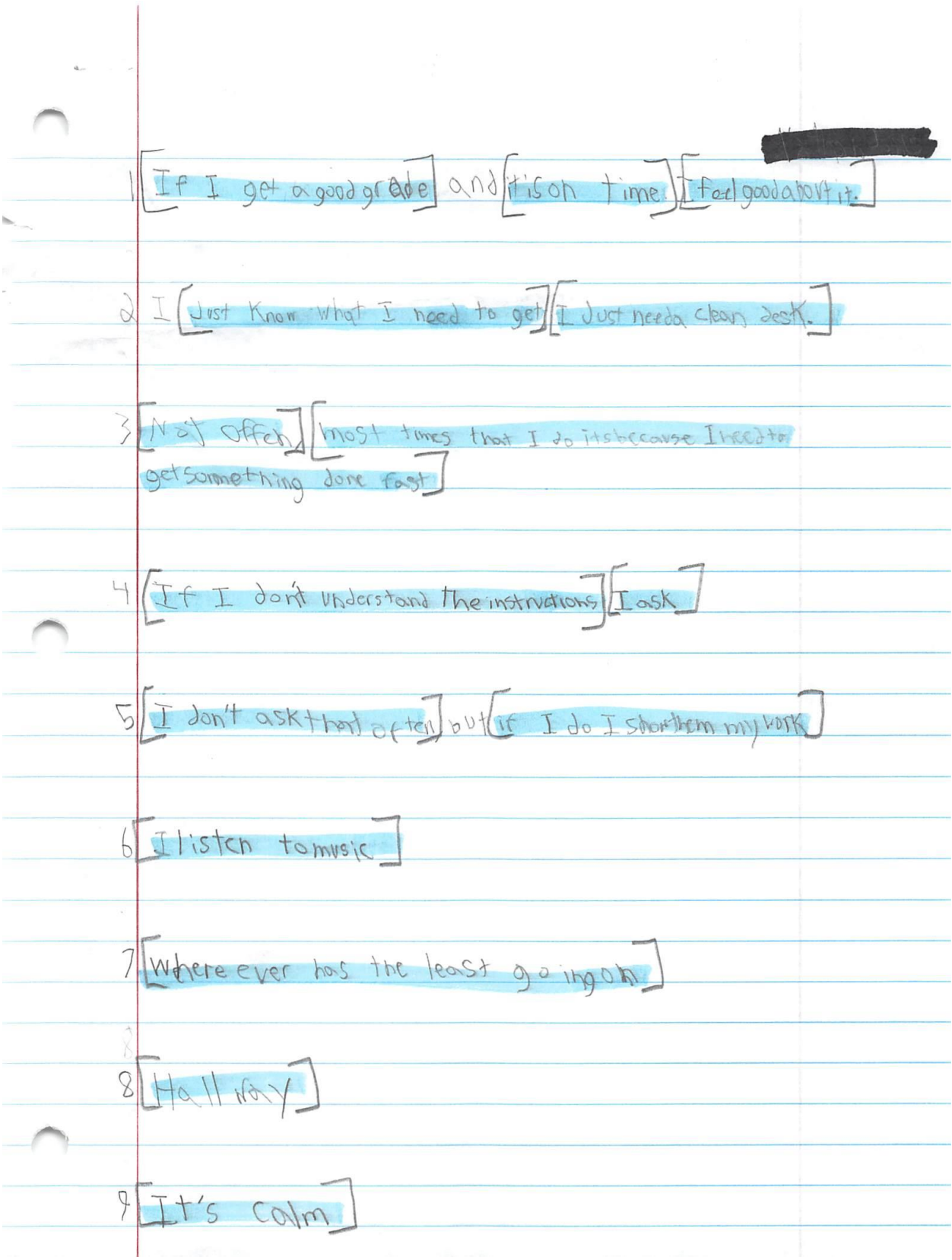
7.) I just look around where I could be alone and to listen to music.

8. Either place as long as I could find a quiet place to be alone and listen to music.

9. The reason why is because I already a very sociable person that sometimes I want to be alone when I work to get more done.

10. A way for me to treat myself is to relax and watch tv shows or movies.

11. When I read over it multiple times I start to change more and more to make it better.


1 If I get a good grade and it's on time I feel good about it.
2 I Just Know what I need to get I Just needa clean desk.
3 Not Often most times that I do it's because I need to get something done fast
4 If I don't understand the instructions I ask
5 I don't ask that often but if I do I shorthem my work
6 I listen to music
7 Where ever has the least going on
8 Hallway
9 It's calm

[redacted]: self regulated learning

1. To determine if I am doing my work correctly [I always go back and read directions.]

2. I [try to put all my assignments in order] to [be organized]

3. [I try to set a goal before each time I begin working.]

4. When I began to [spend an extended amount of time not understanding the work.]

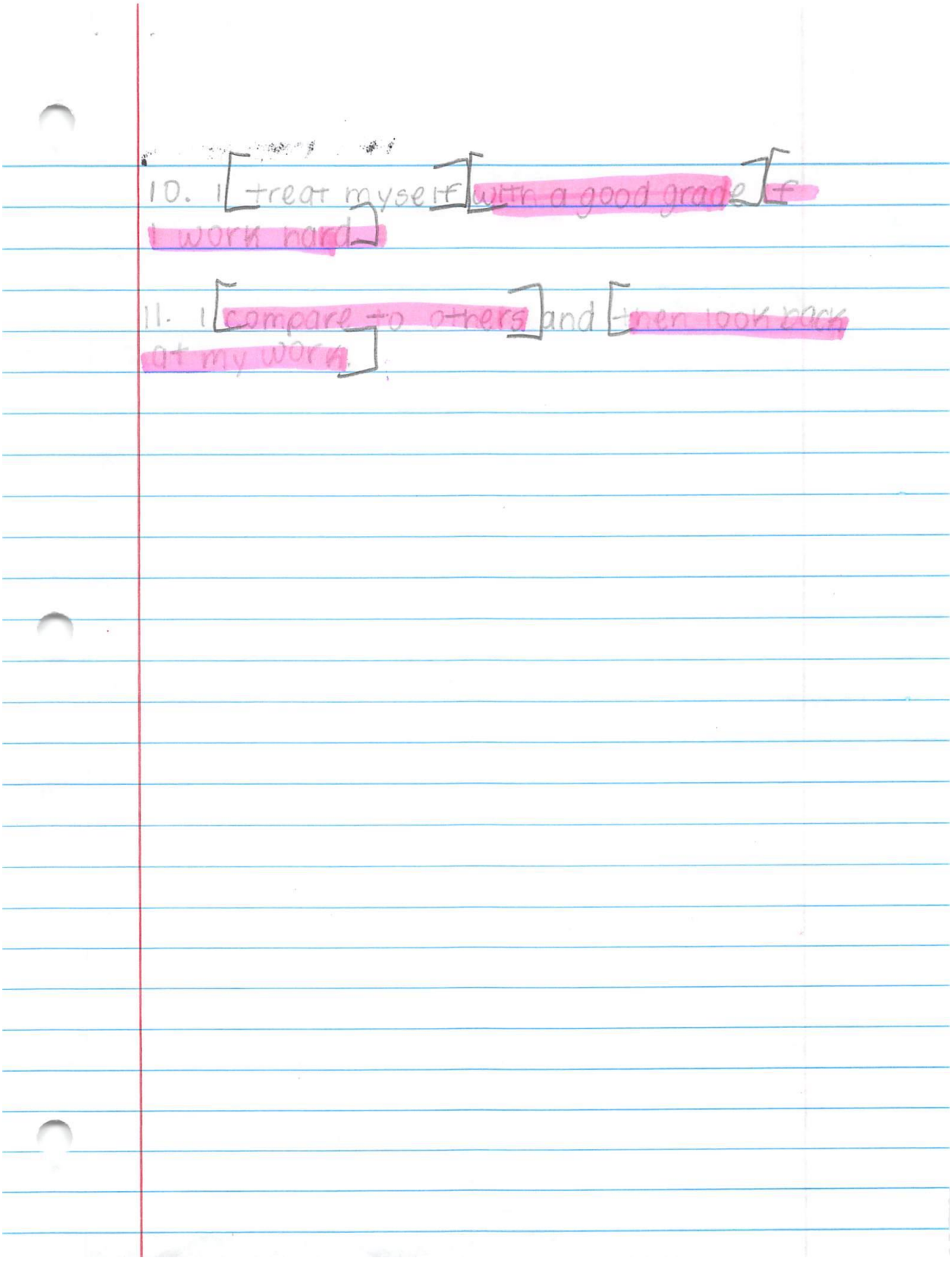
5. [yes] [I let them see my work to compare the two.]

6. [I listen to music to sooth the mind]

7. [I choose any spot as long as you have self discipline you will be able to complete your work.]

8. [I have no preference as long as I have music.]

9. [There is no preference.]


10. I treat myself with a good grade if I work hard
11. I compare to others and then look back at my work.

11 How I can tell is if [I read throush it and letting my ferinds read it and see what needs to be improved]

[redacted]

Project

1 [I look at any examples the teacher gave] or [I look at a peers to compare.]

2 To [see if I have got what I needed to start the project.]

3 [Depends on the subject.]

4 [If I'm stuck] or [I don't know how to get there in areas.]

5 [Yes] [to see what their opinon is] and [to see mistakes] [I have made.]

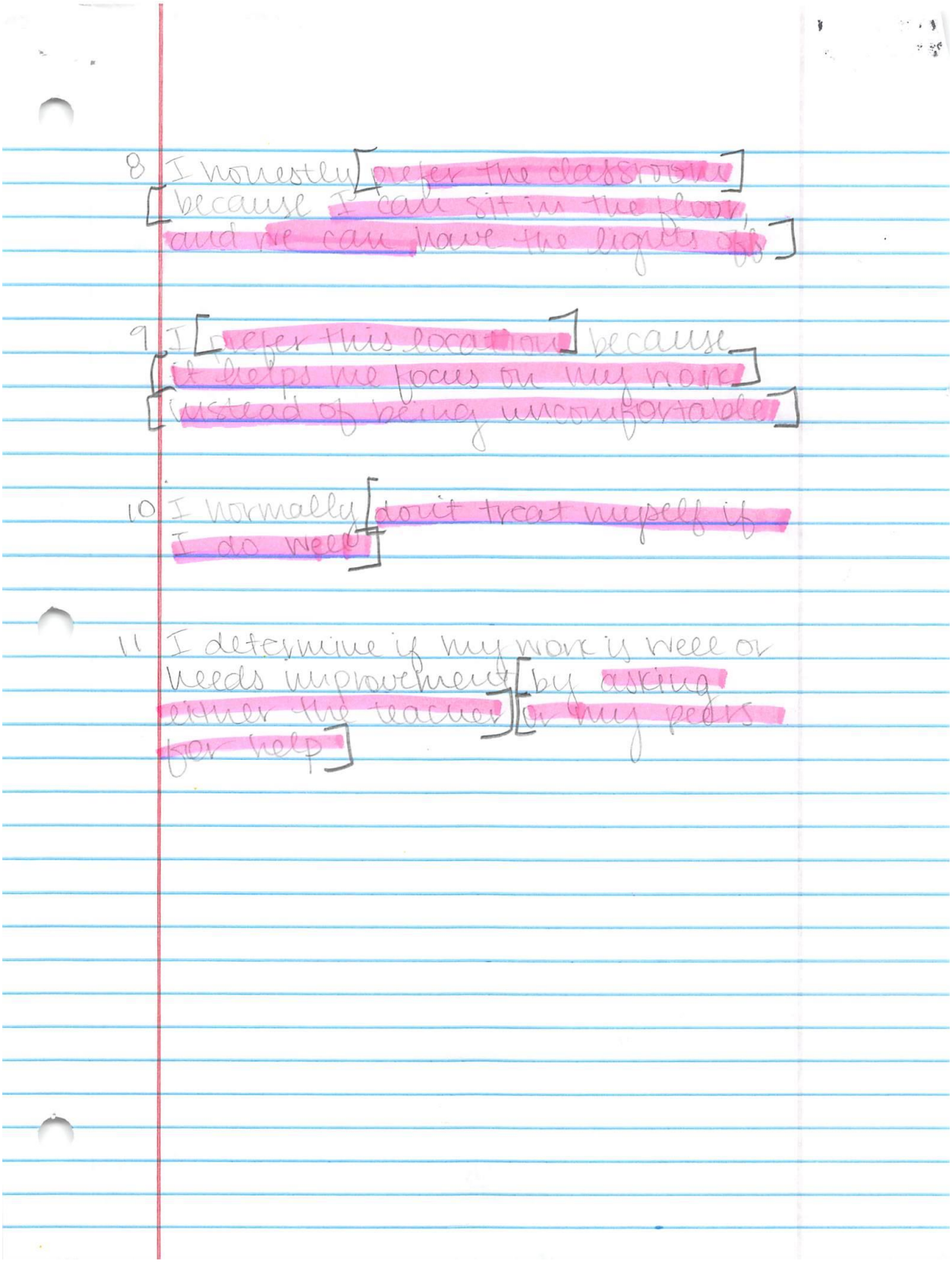
6 How I stay focus on the work is [listening to classic rock] when I'm working.

7 When I'm able to choose were I sit at [I usual sit near freinds.]

8 [Classroom] because [I feel more comfortable in that environment]

9 [I'm confortable] and [easy to work in] and easy to ask my peers about the project]

10 How I treat myself is [knowing that I did a good job] and [having that good feeling.]



8 I honestly [prefer the classroom] [because I can sit in the floor, and we can have the lights off]

9 I [prefer this location] because [it helps me focus on my work instead of being uncomfortable]

10 I normally [don't treat myself if I do well]

11 I determine if my work is well or needs improvement [by asking either the teacher] [or my peers for help]

# Appendix D

## Self-Regulated Learning Questionnaire 1

## Second Cycle Coding—Pattern Coding

| Category | Code | Pattern |
|---|---|---|
| Self-Evaluation | ➢ Ask in advance<br>➢ Having others analyze my work<br>➢ Look at other examples<br>➢ Ask my teacher<br>➢ Check your work<br>➢ Follow directions<br>➢ The way I determine if my work is done correctly is that I love to check myself by writing down what I achieved and how.<br>➢ If I get a good grade<br>➢ Notice my progress<br>➢ Talk with others if I need help<br>➢ Taking a look at what I've done | Students are evaluating through Self-reflection and ask others for help if needed (Social Cognitive Learning Behavior) |
| Organizing/Planning | ➢ Put everything in order in how I have to start<br>➢ I do it some *(Set Goals)*<br>➢ Self check my materials<br>➢ I try to set a different goal every time I do my work<br>➢ Organize by writing on paper<br>➢ Put things into categories<br>➢ Make a goal on each thing you are about to do<br>➢ I plan out in my head<br>➢ All the time *(Set Goals*) to push myself to learn how to improve and grow instead of closing myself out of everything<br>➢ I just know<br>➢ Not often *(Set Goals)* | Students are beginning to set small goals daily, yet a few are just working in general. Students see the benefit of setting goals and utilizing organization strategies. |

| | | |
|---|---|---|
| | ➢ Typically *(Set Goals)*<br>➢ I just do the work | |
| Performance | ➢ Depends on what I need<br>➢ Listen to music<br>➢ Sit in a quiet area<br>➢ Sometimes show my work<br>➢ Show my work for understanding<br>➢ Ask if it is required<br>➢ Eat a snack<br>➢ Chew Gum<br>➢ If I have done it correctly then they can learn from it<br>➢ I show my work as an example | Students perform using attention focusing tools in the for of music and snacks while working and progress by showing their work to peers or researcher. |
| Environment | ➢ Colder Environment<br>➢ Rather work in hall<br>➢ Spot with less distraction<br>➢ Library as opposed to everyday classroom<br>➢ Library: Variety of places to sit<br>➢ Work alone<br>➢ Work with others nearby to talk to if I need help<br>➢ Comfortable and not confined (Classroom Preference to sitting on the floor)<br>➢ Don't want to go outdoors<br>➢ Classrooms are easier to adapt to<br>➢ Library: There's more room | Given choice students prefer a cool, quiet environment with others nearby and have plenty of room; yet, some prefer to sit by themselves. |
| Self-Consequences / Self-Rewards | ➢ I don't reward myself<br>➢ Pat on the back<br>➢ Movie and television<br>➢ Feel good about my grade<br>➢ Long nap to refresh myself<br>➢ Drawing and Crafting<br>➢ Don't treat yourself because you'll feel like you always will have to<br>➢ Work some more | In general students do not reward themselves extravagantly but are fine with self-pat on back and feeling good about their grade. |

| | | |
|---|---|---|
| | ➢ Tell myself good job and see what I could have done better<br>➢ Some time off and then focus again | |
| Self-Assessment | ➢ I ask someone who knows a lit bit more about writing (Goal: To become a better writer)<br>➢ Comparing to others<br>➢ By my teacher<br>➢ If it doesn't look long enough or lacks direction<br>➢ When I read over it multiple times I start to change more and more to make it better<br>➢ Letting friends read it | Students are comfortable with allowing peers to review their work and then make changes, yet others show ownership and self-efficacy by reviewing and assessing their work. |

# Appendix E

## Self-Regulated Learning Questionnaire 2

## First Cycle Coding

**Self-Regulated Learning Questionnaire 2**

1. Describe how you determine if you are doing your work correctly. (Self-Evaluation)
2. How do you organize your materials necessary to begin your work? (Organizing/ Planning)
3. How did having a choice in choosing your topic help you to become interested in this project? (Self-Reflection)
4. How did setting a SMART goal before you began your work help you? (Planning)
5. Describe your feelings about writing or typing your notes. (Performance)
6. Have you used something external to help shape your environment (e.g. seating or music)? (Environment)
7. If so, why did you choose this?
8. How did you stay on track and focused? (Self-Reflection)
9. Are there other things that you feel would help you concentrate better as you complete future research projects?. (e.g. gum, candy, stress ball, teacher created outline, self-constructed outline)? (Self-Monitoring)
10. Which place do you prefer to do your work: classroom or library? (Environment)
11. How did you determine the area or seating you need to do your work? (Environment / Self-Reflection)
12. When you find yourself off topic such as starring out in space or talking with your peer how do you manage to get back to the project? (Self-Monitoring)
13. How did you determine if your work was acceptable or needed improvement? (Social Influence / Environment)

[redacted]

Q2

1. I [ask a friend] and also glance at their work then [I compare]

2. I [start with what needs to be done first.]

3. [I didn't feel like I was made to do research over someone I didn't want to]

4. It was [something I wanted to reach] in a [short amount of time]

5. [It was a little stressful because all of my sources had the same exact information. There wasn't anything new about my person]

6. [Seating helped] When I sat in the hall more and more people started

14. When did you determine that you should ask for help during work construction? (Performance)
15. When you looked at your peer's work and compared it to yours, what did you notice? (Performance/ Self-Reflection)
16. Explain how you have helped yourself so far in this project (e.g. follow directions, rethink the directions and put things in order for your own understanding). (Self-Assessment)

coming out and It made it harder because I was less concentrated after I come back in the room it was better

7. [Sitting inside the room] was quieter than in the hall [I was more focused]

8. [I tuned out everything] around me

9. [Gum helped me stay focused]

10. [Classroom] is what I prefer

11. [Whichever one felt more comfortable and not a lot of noise]

12. I think about [when it is due] and [how well it needs to be written] because [if I wasted time I would be in a rush to finish] [and it wouldn't be as well written as it should]

13. [If I was off task alot or not]

14. [During my notes] that way [I could fix anything before I got to writing my paper]

15. Theirs are [sort of the same] but [some of their sentences included bigger words]

16. I just [put things in ways makes more sense to me] and [in ways its more organized]

Questionar [redacted]

1. I determine on my work correctness by [looking at examples] or [by asking for help.]

2. I [organize my materials by planning on what I need and need to do.]

3. [Yes,] [choosing my own topic helped strike an interest in the project.]

4. [It kept my mind on track during the project.]

5. [I like writing and typing my notes] [due to me organizing and memorizing the notes.]

6. [I used a lot of external help.] I [used music and] [sitting in different environments.]

7. I chose those [so I didn't get distracted and could keep my mind on one thing.]

8. I [used my enviornment] and [music] [to keep me on track.]

9. There was [some that helped me] more like [coffee], [self-constructed attires] and [sometimes gum.]

10. I would be good in both the [classroom] or [library.]

11. I [determined my enviornment by instinct.] [When I want something done, I'll do anything to get it done.]

12. I [normally don't get off topic due to sitting alone,] yet when I space out I'll have to snap out of it and [keep reminding myself of the project.]

13. I would [re-read] my works continuously to see if it needs more work or if it is fine.

14. [I determined when I need help is when I'm lost even with examples on how to do it.]

15. [I didn't have any other peers besides my teacher.]

16. I often [re-thought of the instructions] and [put things in away I could understand.]

1. [Keep checking] your work overtime.

2. [do one step at a time.]

3. because [we weren't assigned something that would make me lose interest.]

4. It [helped me figure out everything I needed to do.]

5. I [hate typing] but [writing] I could do that all day.]

6. I [sat with a couple diffrent groups] and [music] helped.

7. to [see where I was most comfortable.]

8. [music] helps alot.

9. [gum] [food], [the outline] you gave us.

10. [classroom]

11. I would [prefer group] but [alone doesn't hurt either.]

12. [just remember to focus.]

13. [if it's to short you must likely need to make it longer.]

14. [when the teacher is done talking.]

15. [That theirs is longer than mine.]

16. did [step by step.] [he organized my work.]

[redacted]
Mrs. Vannatta
English 3 block 2nd

1) The way I could describe if I doing good is that when I finish [I reread it to make it better.]

2) I [first think what I'm going to need for the assignment] and [then I start doing my work.]

3) [It gave me more of variety to choose from, and that's what sparked my interest.]

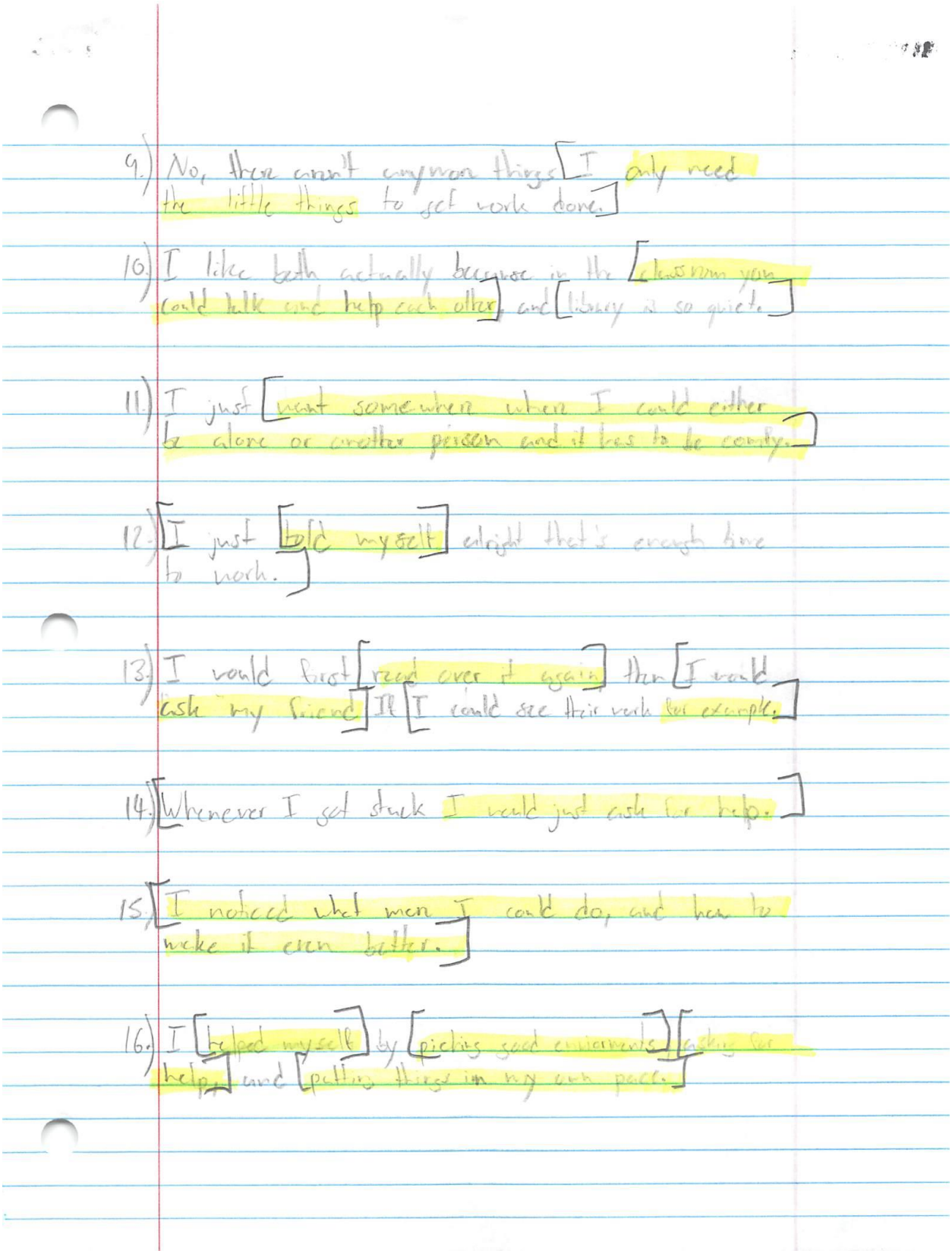
4) [It helped me to determine my overall goal] and [how I'm going to keep working up to it slowly.]

5) My feeling toward either typing a writing notes is the same [I can't choose which because I like both.]

6) I have I [used music] so I could flow with it, I also [chew gum to help relieve stress, and I change my seating position.]

7) I choose them because they [help me to get in the mood to start.]

8) [I stay on track because I self checked my self in my head along the way.]



9.) No, there aren't any mean things [I only need the little things to get work done.]

10.) I like both actually because in the [classroom you could talk and help each other] and [library is so quiet.]

11.) I just [want somewhere where I could either be alone or another person and it has to be comfy.]

12.) [I just [told myself] alright that's enough time to work.]

13.) I would first [read over it again] then [I would ask my friend] If [I could see their work for example.]

14.) [Whenever I get stuck I would just ask for help.]

15.) [I noticed what mean I could do, and how to make it even better.]

16.) I [helped myself] by [picking good environments] [asking for help.] and [getting things in my own pace.]

1. [If I have more done at a progress rate of .01%/min Then it is "muy bueno"]

2. I [gather the required items then Stand work]

3. [No] not really, [I would have Prefered a fiction short story]

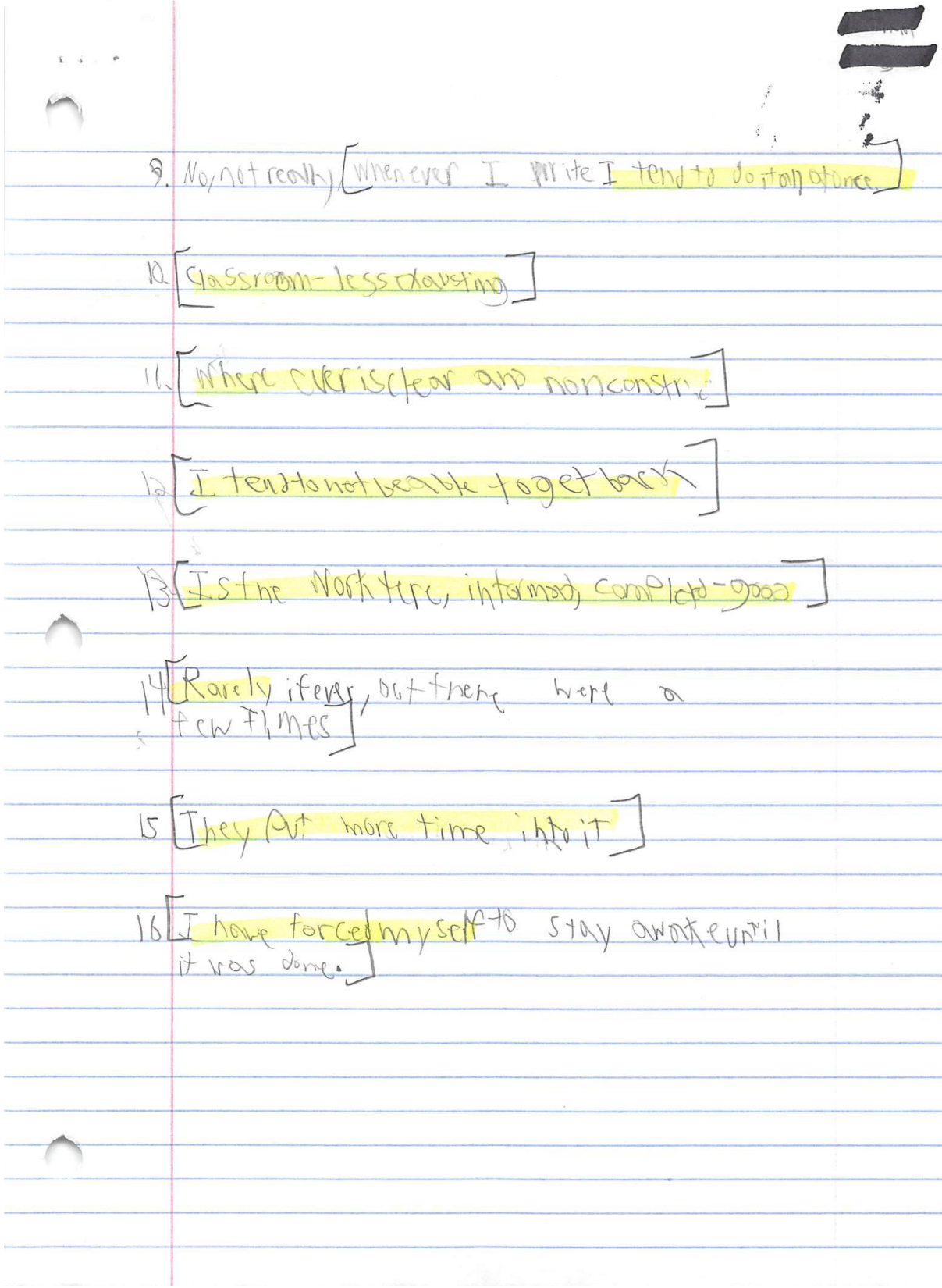
4. Honnestly [it did n't help that much]

5. [I wosn't too thrilled about the notes anyways]

6. Yes, [music] [floor] [wall]

7. [Music] I like it [the others where sure of the moment]

8. [the sence of impending doom]



9. No, not really, [whenever I write I tend to do it all at once.]

10. [Classroom- less stressful]

11. [Where everything is clear and nonconstrictive]

12. [I tend to not be able to get back]

13. [I start the work here, in the middle, complete - good]

14. [Rarely if ever, but there were a few times]

15. [They put more time into it]

16. [I have forced myself to stay awake until it was done.]

9) I think [gum,] [examples] on the board, and [more talking and working together would help a bt.]

10) [Classroom.]

11) [Based on the experience in the library. The librarian just had a negative effect on my work.]

12) [Just remembering to work] or [looking at the clock.]

13) [Comparing to my peers near me.]

14) [When I get stuck and didnt know where to go from there.]

15) [That I was doing very well.]

16) [Staying on top of things and focusing with music.]

1. I found out how I was doing was [getting the teacher to check.]

2. By [getting everything open and going through what all I need to finish.]

3. [By knowing what they did and enjoying what they where known for.]

4. By [getting done and not wanting my parent called.]

5. [Typing] was [easier] because I type beter than I write.

6. [I went and worked in a group for a bit and I found out music and working alone is easier for me.]

7. [Cause I don't like being where I watched and talked about how I'm doing.]

8. I focused by [listening to music] and [gum.]

9. By [having something to fidget with] [I need to move my hands at all times to stay on track.]

10. I [prefer the libary cause I can sit in the corner and be alone.]

11. [By testing new spots and seeing how I did when the time went on.]

12. By [going back through my mind] and [telling myself] [what would happen if I don't finish.]

13. By [getting it checked by a peer] or [the teacher close by.]

14. [When I started to notice how bad I start to do my ewording and how I do.]

15. [That they have a better thought process than me where they knew what they needed.]

16. [By knowing how to do my work better than I thought I could do before]

1 I [look at a Peers Computer to check]

2 I [just keep my work dated check]

3 [It really didn't help me become more interested]

4 It [kinda helped me have a Reason to work]

5 I [feel like [it helps] me a lot [especially if you organize] [your notes in a timeline]]

6 [I Sat next to a friend So I would know if I was doing it right]

7 [So I would be sure I was doing everything right]

8 [Once I got in the zone I just kinda Started there]

Fletcher Robertson

9 I [don't really think there are many other things]

10 [Classroom] is better than a library

11 I [just sat everywhere until I felt comfortable]

12 I [don't really do anything it just kinda happens]

13 I [compared it to somebody else's work]

14 [If it looked right or not]

15 [They were pretty much the same thing]

16 I just [put the directions in my own words]

2-25-19

[redacted] 2nd

1.) Yes, I believe I did my work correctly. WHY? I went off of my topic outline

2.) Well, for any side notes. I write on paper. That way I don't have to keep flipping through my tabs.

3.) I started out interested in my topic, but soon became bored. It became a hasel & I was really worried about the deadline.

4.) It helped me stay on task.

5.) At first, I wasn't really sure of what to take notes on. So this was a huge set back for me.

6.) I've used music. It helps so much.

2-25-19

[redacted]

7.) IT [HELPED BLOCK OUT STUDENTS TALKING & HELPED ME STAY FOCUSED.]

8.) [THE DEADLINE. THAT'S HOW I STAYED ON TRACK]

9.) [JUST THINGS TO MESS AROUND WITH FOR WHEN I GET AGGRIVATED. LIKE A STRESS BALL.]

10.) [LIBRARY] FOR SURE. THE [LIBRARY HAS MORE ROOM.]

11.) I [JUST STAYED IN MY SAME SPOT.]

12.) NORMALLY [IF I GET OFF TASK IT'S EXTREMELY HARD FOR ME TO GET BACK ON TASK.]

13.) I [LET MY OLDER SISTER CHECK IT.]

2-25-19

[redacted]

14.) WHEN I START TO STALL OR NOT MOVE ON FROM WHERE I'VE BEEN SITTING.

15.) THEY WERE AHEAD BY A LOT, BUT I WAS SICK MULTIPLE DAYS.

16.) I HELPED MYSELF BY REALLY PAYING ATTENTION TO MY TOPIC OUTLINE.

[redacted]
English III
Mrs. Vannatta
Feb 25 2019

Self-regulated learning

1. [I look at another peers and compare our work.] [Also if needed I will ask the teacher for directions.]

2. I [put everything into a order with first being the most important and last being the least important.]

3. [I wanted to choose a topic from African-American history. I was very interested in Malcolm X already and the project has enlightened me with more info.]

4. [It help me set a goal and shoot for it.]

5. I prefer to [type] notes rather than to write. I feel it is [much easier to go back and forth] while researching when typing.

6. I have used [music] and also a [seating arrangement to shape my enviroment.]

7. [It helped me stay on task. I feel as if I am a better worker with music and also if my environment is comfortable.]

8. I [listened to music] and [looked at the due date and pushed for it.]

9. I think that a nice snack would contribute to concentration.

10. I prefer to work in the classroom. I enjoy the lights out and the warmth that the class gives.

11. I chose a seat with enough room to to put my feet up and feel comfortable.

12. I looked around and saw others working and stopped myself from being off track.

13. I compared my work to others to see if it was acceptable.

14. I felt as if I needed help when I focused on a certain part for more time than other recent times.

15. I noticed common similarities and also differences when comparing my work.

16. I would rethink the question and would also closely follow directions.

Questionare #02

1 I determined if I was doing my work correctly [by asking other peers to go over my work] and [asking a former teacher to look over my project]

2 I [organize my materials necessary to begin my work] by [keeping my research items separate from all my other things]

3 [Having a choice in choosing my topic helped me become interested in this project because I got to engage in something I already knew a little bit about having to start fresh on a topic you're lost on is a difficult task]

4 [Setting a smart goal before I began my work helped me because it made me engage more and made me want to accomplish it]

5 [Typing] my notes was something brand new to me. [I have always used notecards] but [by typing them, my hands didn't get tired]

6 TO shape my environment, [I changed my seating to be around those that provided comfort and were/it noisy.] [The few times I went in the hallway, the others that were out there were goofing off, so I came back in the classroom] [I listen to music because I don't enjoy sitting in a quiet room]

7 [Again, where I sat and who I sat with - not noisy and provided comfort]

8 In order for me to stay on top of things, [I have to take little mental breaks]

9 [For future research projects, I would use mint-flavored gum, music, and I would choose to sit in a comfy environment.]

10 [Although the library had comfy couches, I would say the classroom is where I would prefer to work.]

11 [I determined the area or seating I needed to do my work by choosing something more like home - lights off, around people, and comfy]

12 [Sometimes, moments like those help my mind take a break, but I would do that for at most ten minutes]

13 I determined my work was acceptable by [self-reflecting]

14 I determined that [I should ask for help when I got stuck]

15 [When I compared my work to my peers work, I was always ahead]

16 During the project, I [helped myself] by [choosing my environment, asking questions, and taking little breaks]

[redacted]
02/25/19
2nd Block

1. I can determine if I am doing my work correctly [by how efficiently I work through a passage or problem.] [I know if I am doing my work correctly by how much work I get done.]

2. I [organize my materials before I start working into steps, and I use some sort of [check off list.]]

3. Having a [choice] in topic [helped me] [become interested in this project] because I knew before hand some information on certain authors. So it made me more involved with my work.

4. [setting a goal before working helped me strive to meet my goal.] [it made me have something to work towards.]

[redacted]
02/25/19
2nd Block

5. [I liked typing my notes because it made my information easier to find and organize.]

6. [I helped shape my environment by listening to music, bringing a snack, and working individually.]

7. [I chose this type of environment because I know my strengths and weaknesses, and how I work best.]

8. [I stayed on track by listening to music and blocking out others noises.]

9. [I feel gum/candy and a choice of a teacher or self created outline could help.]

[redacted]

02/25/19
2nd Block

10. I [prefer to work in the classroom because I can set my own environment easier.]

11. I [determined my seating by previous projects I have done.]

12. When finding myself off task, [I just put my headphones in and got back to work.]

13. I determined if my work was acceptable because [I know what I can and cannot do and I know my work.]

14. I knew when I needed to ask for help because [I would feel like I was not progressing any in my work.]

[redacted]
02/25/19
2nd Block

15. When I looked at my peers work [I noticed that we had the same type of writing style and all the content given and topic outlines were similar but unique to our own authors/topics.]

16. I [helped myself] by [following directions] and [put my things in order for my own understanding] and [by organizing my information to my liking.]

[redacted]

1.) [I will look a examples or the rubric.]

2.) [I usually put what I can get done first and have the rest of the work around me.]

3.) [It gave me more of a choice to choose what I wanted to work on.]

4.) It honestly [didn't help that much] [I'd just told me everyday what I'm working on to get better.]

5.) [I like it because then when I write my paper. I can get a good amount of info for my paper from my notes.]

6.) I use [music] or [a video] to help.

7.) [Music helps me stay concentrated] and a [video can help me get ideas] or [when I feel like I need to take a break.]

8.) [Well, it just boils down to me wanting to go to UTK. I have to get my GPA up, so I have to make good grades.]

9.) [I think outlines help alot.]

10.) [Classroom because I feel like I have more freedom in a classroom.]

11.) [I can really sit any where] because [I as a person can block noises out and focus.]

12.) I usually [tell myself that my gpa isn't going to rise it self.]

13.) [I would read over it, and ask myself if I can do better.]

14.) [When I know I don't know how to do it, and I'm not making any progress.]

15.) [I notice the different thought processes.]

16.) I've [gotten more strict on myself] and [told myself that I need to get my work done for the sake of what I want to do when I get older.]

[redacted]
2nd

1) [Comparing with others] or [looking at examples.]

2) [Knowing what I have done] and [what I need to do next.]

3) [I really wasnt interested in this topic. Something about sports wouldve gotten me more involved.]

4) It [didnt help] What [helped most is just picking up where I left off and working till the bell.]

5) [Typing] makes it alot [quicker and easier.]

6) I used [music] and [water.]

7) [To help my focus and keep me going.]

8) Just from [zoning in and focusing on what I needed to get done.]

[redacted]

2-25-19

1 By [looking at examples]

2 I [open up my three documents and look to see what I can put in]

3 [learning about Stephen Crane and his books about war was interesting]

4 [So that I know what I need to work on]

5 [It was alright when listening to music made it much better]

6 Both [seating] and [music] helped. [Seating was able to help by looking at examples and [music just to concentrate]]

7 [To were I feel comforteble with my enviroment]

8 listening to [music]

9 a [self-constructed outline]

10 [classroom] because I feel more comfortable

11 [To ask a question and look at examples from peers]

12 [By knowing what needs to be done]

13 [examples from peers to see if they found small mistakes that I missed]

14 [When I didn't know what I was doing]

15 [The small mistakes we both made]

16 [rethinking questions to were I understand them]

[redacted]

1.) [If my essay makes sense and adequately describes or tells about the topic, I am doing my work correctly.]

2.) [When I [plan] how I am going to complete my work I figure out what materials I will need for each step.]

3.) I [chose a topic that interested me.]

4.) [Setting a goal] [helped me] [get an idea of the specific details I needed to work on improving.]

5.) [I think writing down notes in your own words is a good way to comprehend information that you're reading or researching.] I do not particularly care for typing in general.

6.) I [listened to music] and [chess lectures] while completing the project. [This helped me focus.]

7.) [I listened to them because it helped me focus.]

8.) [I stayed on task pretty well the entire time I was doing the project because I had a plan of what I needed to do, and I had my information, so I just had to put it together which is a simple task. Simple tasks are easier to stay focused on.]

9.) [I don't think there is any realistic ways to help me focus or concentrate other than listening to something.]

10.) [I slightly prefer the library to the classroom because it's less crowded and has more space.]

11.) [where I sit doesn't affect my work much.]

12.) [I don't talk to people often unless they talk to me first. My mind is always doing multiple things simultaneously so I am able to effectively split my attention when I need to. Essentially I'm always both on topic and off topic.]

13.) [I have high standards so I am typically able to tell when something is acceptable, however, I believe that everything can always be improved.]

14.) [I never ran into a problem where I needed help.]

15.) [I noticed that it wasn't uncommon for information to be repeated a couple times.]

16.) [Every time I recieved instructions, I would go over the instructions a few times and come up with to best, most efficient way to finish]

[redacted]

1. I [follow the instructions] [and the examples] for the assignment.

2. I [put papers in my folder] and [pencils in my binder]

3. [I couldn't figure out what I should put in the essay.]

4. [I could figure out ways to help myself in the future.]

5. [I am going to do it if this is told so by the teacher.]

6. [I've used what I have to help focus and concentration.]

7. [I chose this because that's the way I must work through.]

8. I was [on the site] the whole time [to process my thoughts.]

9. [Yes I and s no, but it is all up to you.]

10. I prefer to do my work [anywhere.]

11. I was just [thinking about the first day of school]

12. I was [never off topic, and always on my site.]

13. I [compared it with examples to succeed.]

14. I was [requested by checkers to do so.]

15. [I explained the information of the sources, which was better than my peer, who was just biographical and unorganized.]

16. [I have been thinking about this more than anything else when this was first assigned. I did this work first before my assignments, and I was remembered the themes was needed to include.]

Appendix F

Self-Regulated Learning Questionnaire 2

Second Cycle Coding—Pattern Coding

| Category and subcategory | Code | Pattern |
|---|---|---|
| Self-Evaluation (subcategory of Self-Reflection) | ➢ Ask a friend<br>➢ Compare<br>➢ Follow example<br>➢ Keep checking over time<br>➢ Reread<br>➢ How efficiently I work<br>➢ Asking the teacher to check (1 student)<br>➢ Look at peers<br>➢ Went off my topic outline | Students are showing the impact of Social Cognitive Thinking as they consult and interact with their peers for guidance. Some students are self-reflecting or self-evaluating to determine progress. |
| Organizing / Planning (Subcategory of Forethought) | ➢ Start with what needs to be done first<br>➢ Planning on what I need<br>➢ Organize my materials<br>➢ One step at a time<br>➢ Check of list<br>➢ I usually put what I can get done first and have the rest of the work around me<br>➢ Plan<br>➢ Put papers in my folder | Students are impacted by the process as they have constructed organization systems on their own without teacher instruction or examples. This also reflects performance. |
| Self-Reflection (Choice's effect on performance) | ➢ I didn't feel like I was made to do research over someone I didn't want to | |

| | | |
|---|---|---|
| | ➢ Strike an interest in project<br>➢ Because we weren't assigned something that would make me lose interest<br>➢ I would have preferred a fiction story<br>➢ Something about sports would have gotten me more involved<br>➢ "I wanted to choose a topic from African-American history. I was very interested […] the project has enlightened me with more info."<br>➢ Learning about topic kept interest | Having a choice impacted interest and learning. |
| Planning (Subcategory of Forethought) (Impact of SMART goal) | ➢ Something I wanted to reach in a short amount of time<br>➢ Kept me on track<br>➢ "It helped me figure out everything I needed to do"<br>➢ Effected my overall | Setting a goal made an impact on most students in the case study. (Two reported that it didn't help much and that they just wanted to meet the deadline which is a goal) |
| Performance | ➢ Seating helped<br>➢ "I used a lot of external help"<br>➢ Music<br>➢ Gum<br>➢ Sat with a couple of different groups | Environment helped, but overall strategies were the use of music, food, or looking at the clock. |

| | | |
|---|---|---|
| | ➢ Changed my seating positions<br>➢ Video<br>➢ Brining a snack<br>➢ Looking at the clock | |
| Self-Monitoring | ➢ "I think about when it is due and how well it needs to be written because if I wasted time I would be in a rush to finish and it wouldn't be as well written as it should"<br>➢ Sitting alone<br>➢ Told myself<br>➢ Looking at the clock<br>➢ It just kinda happened<br>➢ "I looked around and saw other working and stopped myself from being off track"<br>➢ Knowing what needs to be done<br>➢ Taking a break | Students show self-efficacy in monitoring themselves with different tactics and strategies. They did not need the teacher to redirect. |

# Appendix G

## Post Interviews

## Transcripts and First Cycle Coding

Post Interview

1. What was your original SMART goal? (Forethought)
2. In the beginning did you set a performance goal or a mastery goal? Why did you choose this goal? (Forethought)
3. If your goal was a performance goal, how did you monitor yourself towards reaching your goal? (Forethought)
4. Which part of the research project to you feel that you have reached mastery? Why and what evidence do you have to support your thinking? (Performance)
5. In past courses, what was your grade on assignments that involved research? Why do you believe you earned this grade on other research assignments? (Self-Reflection)
6. I'm going to ask you about each part of the self-regulated learning process. Describe how you felt about setting a goal…the monitoring strategies you were taught…self -reflection. (Process Model Impact)
7. When you created your own self-checks without the teacher what did you evaluate as far as your progress that day? Why did you choose those elements?(Self-Reflection)
8. How did your peers help you in reaching your goal? (Social Cognitive Lens)
9. Describe your responsibilities with this project. Describe the importance of engaging in the project. (Performance)
10. If you were assigned another research project, which part do you feel you are best at constructing? Why? (Self-Reflection)
11. How did co-creating the rubric with your teacher and peers impact your performance? (Social Cognitive Lens)
12. How did your environment impact your performance? (Performance)

Forethought
Performance
Impact on Learning and Work
Social Cognitive Learning Less

**Transcription 1—Post Interview**

**Student 1**

Teacher: What was your original SMART Goal?

Student: I think it was to get the paper done on time, but I wanted it to be good; not just thrown together.

Teacher: So you wanted to complete the task and to do good work. So, you remember when we talked about performance and mastery goals? So, what you chose was a performance goal. Why did you choose that type of a goal.

Student: I don't know

Teacher: Is that what was more important to you?

Student: Nods head

Teacher: How did you monitor yourself to reach your goal?

Student: Spaced out my time. Certain day I would do this, certain day I would do this, certain day I would that. You know and getting closer to the deadline.

Teacher: Did the Self-checks help you do that?

Student: uh hum, nods head.

Teacher: Which part of the research project do you feel that you have reached mastery. Which part do you feel that you could do all on your own without very little help.

Student: Probably, the annotated bibliography

Teacher: ok. What evidence do you have to support that.

Student: I don't know

Teacher: So when you looked at the rubric that we co-created, did that lend towards your decision that your annotated bibliography was your final draft?

Student: Yes

Teacher: Why

Student: I don't know. It just seemed that was something that I caught on easily. I knew how to do everything else.

Teacher: In past courses, courses before this course, what was you grade on projects that involved research?

Student: Normally about a B or a C

Teacher: Ok., Why do you believe you earned that grade.

Student: It was mostly just punctuation. I didn't go back and check like I should've.

Teacher: Ok, I'm going to ask you about each part of the Self-Regulated Learning Process. Describe how you felt about setting a goal.

Student: Pretty good.

Teacher: How did it impact your learning

Student: I knew I needed to learn it so that I could move on

Teacher: Ok, there were some monitoring strategies that were taught during the process such as the self-checks, environment, using music. Did any of those impact your learning?

Student: Uhm, just depended on the day. Like music helped me some days and some days I could just sit down and do it.

Teacher: Ok, I noticed you changed your environment a couple of times. How did that impact your learning?

Student: It was better in here, even though it was a little warm, it was quieter.

Teacher: The self-reflections, how did they impact your learning?

Student: Uh hum, nods head. Self-reflection or whatever, it just showed me what I needed to do and how I needed to do and how I needed to stay on track with everything.

Teacher: When you created your own self-checks, you remember I passed them out at first and then I would prompt you to do your own, and you would create them without me, what did you evaluate as far as your progress for that particular day.

Student: I did pretty good.

Teacher: What parts would you evaluate, what did you determine needed to be checked?

Student: I just kind of went back and went over everything and made sure it flowed together and just checking my work.

Teacher: Ok. How did your peers help you in reaching your goal?

Student: I'd ask them what they thought about it and if it made sense and they would show me theirs and I could kind of see where they were headed, so I knew what I was doing.

Teacher: Describe your responsibilities with this project? Describe the importance of engaging in the project. Do you see its importance?

Student: I know that I need to and I'll have to learn this for college. I'll need it before I get there.

Teacher: What part helps you, is it the organization or the process of staying or target or just the writing.

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Student: It was the organization. I like being organized.

Teacher: So this process helped you with that?

Student: Uh hum, nods head.

Teacher: If you were assigned another research project, what part do you feel you feel you are best at constructing and why?

Student: The Annotated Bibliography. I liked getting everything together.

Teacher: How did co-creating the rubric with your teacher and your peers effect your performance.

Students: They had the same ideas that I had.

Teacher: So you felt like your learning was in sync with everyone else's learning

Student: uh, hum. Nods

Teacher: Did you have to go back and revise anything after the rubric was constructed.

Student: I went back and checked over it.

Teacher: How often do you rely on your own thinking to construct your project. At which point did you make your own decisions.

Student: Probably when I started the Topic Outline. Some people were doing the same structure and I just kind of changed my up.

**Transcription 2—Post Interview**

**Student 2**

Teacher: I going to ask you a few questions about the project, and you were out a few days because you were sick, but you were able to get through it and stay on target. So, what was your original SMART goal. What was your goal?

Student: My main goal was to improve my writing because I have not always been a good writer so I wanted to increase that skill.

Teacher: Ok, so that was both a performance and mastery goal. Why did you chose that goal.

Student: Mainly because I feel like I can do better, but I did not apply much effort to do the maximum amount.

Teacher: How did you monitor yourself towards reaching your goal? How did you make sure that day to day you were reaching that goal?

Student: I would do mental self-checks and I would put reminders on my phone to check to make

sure that I had certain stuff so I could make sure and progress.

Teacher: Ok. ,Which part of the research of the research project do you feel you have reached mastery. Meaning that you don't feel that you would need help if you did it again?

Student: Probably the Annotated Bibliography

Teacher: What evidence do you have to support your thinking?

Student: Mainly because it seems so much easier than everything else, it kind of just flowed and it seemed like I knew what I was doing and that it was correct and that I was doing a good amount of work for it.

Teacher: Ok., I want to ask you about each part of the Self-Regulated Learning process. So how did you feel about setting a goal. How did it impact your thinking.

Student: I think it helped me strive to do the best for the research paper because like usually if we don't have a goal or anything it's like I'll do what I normally do, but since my goal was to improve my writing, I tried a bit harder.

Teacher: The monitoring strategies, things like your environment, self-checks, you said you used your phone. What helped you stay on track besides the self-checks and making notes on your phone?

Student: I think it was my seating and writing

Teacher: You've done a lot of self-reflecting. Did that impact your learning?

Student: I think it does

Teacher: How does it help?

Student: It helped improve my essay a little bit more and I would think to myself on what I needed to improve. It really helped me a lot

Teacher: When you had to create your own self-checks, you had to create your own without me, what did you choose and record on your paper?

Student: I would record how far I've gotten and if I had missed anything and make sure that I had achieved my goal for that day and then I could move on to the next thing.

Teacher: Ok, your peers, sometimes you worked with other people just a little bit; How did that help you in reaching your goal?

Student: I think it helped me with reassuring that I was doing what I needed to do and also making sure it is correct. It really helped me reassure myself.

Teacher: Ok., Describe your responsibilities wit this project? Describe the importance of engaging in the project.

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Student: I feel like I had to be a lot more focused and engaged in the project because I knew what the requirements were and how much work was needed to be sufficient so I held myself responsible by not getting off task and reaching my goal.

Teacher: You were absent the day we created the rubric. So, let me ask you this: Know that your peers helped create the rubric, does that impact your learning in any way? How do you feel about being given the opportunity to engage in the grading process?

Student: I think it gives me a chance to expand more on what I expect from myself or hear from somebody else what they expect and I think well I expect that too but I never realized it.

Teacher: Ok., your environment. How did that impact your learning. You go to choose your environment everyday. How did this impact your learning.

Student: I think that helped greatly actually because I like to be in more darker, quieter setting and not being told to sit in a certain spot because that stresses me out.

Teacher: During the project, when did you rely on your own thinking. At which point did you decided to create your own; you didn't rely on your peers or the examples.

Student: When I actually started writing the research paper and I really had to tune into my thoughts and think about what my writer went through and interpret that in a different way and not copying making it seem bland or basic.

**Transcription 3—Post Interview**

**Student 3**

Teacher: Ok., I want to ask you a few questions about the project now that we are finished with it. So, what was your original SMART goal?

Student: To do better in research.

Teacher: What are you comparing that to?

Student: I use to do a lot of research and people said it wasn't correct so I wanted to correct it and find out how to do it right.

Teacher: In the beginning you wanted to set a performance or master goal, so wanting to do better research is a mastery goal. So, why do you think you chose that goal. Do you think you can elaborate on it a little more.

Student: I basically like to do research because I get to learn new things every time, so I guess if I can do a correct research pattern or know an outline for it then I can do more research that I can give out to the world so that they can see the research that I've found on certain topics.

Teacher: Ok., How did you monitor yourself towards reaching your goal?

Student: I would look at my past research and then look at the present one and see the differences.

Teacher: Which part of the research project do you feel that you have reached mastery? Which component do you feel that you could do with very little help?

Student: Uhm, the Annotated Bibliography. It's the one I had a little bit of trouble on but I understand it more. Putting the sources in hanging indent and organizing it more.

Teacher: In past courses other that this course what was your grade on projects that involved research?

Student: I would say about average or I got Bs on them, mostly I took about 2 or 3 weeks on them and ended up with a C. So this was gave me a little more time.

Teacher: Why do you believe you earned a better grade on this project compared to other projects?

Students: Because the more you learn something the better you can do at it. So I'm thinking since I learned new things I should do better on this one.

Teacher: Ok., So, now I want to ask you about each part of the Self-Regulated Learning Process. So tell me how did you feel about setting a goal in the beginning? Did that impact you in any way?

Student: I determined me. It gave me a goal to look forward to. so like, I would remember that I need to get this done. So I wouldn't slack off.

Teacher: Monitoring, the Performance part of our framework, you were given some monitoring strategies such as working with peers, environment, music, did any of those impact your learning?

Student: Certain ones helped, like the music it helped me block out anything that would distract me. Changing environments helped me. Working with peers helped when I would ask about a strategy. In the beginning she did not want to work with anyone but the teacher..

Teacher: What about the Self-Checks?

Student: They at least help with if I need to get something else done then I know what I need to get done.

Teacher: When you did the Self-Reflections such as the self-checks or writing down what was done for the day how did that impact your learning?

Student: If it wasn't enough then I would look at it the next day and the say ok this needs to get done

Teacher: How did the Self-Regulated Learning process impact your motivation to achieve your goal?

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Student: It helped out a lot because I would be able to kind of be able to look at myself and say ok I can do this on my own and If I can do this then I can probably do more.

Teacher: When you created your own self-checks what did you write. How did you evaluate yourself?

Student: I would basically write what I did that day what I need to do and if I needed to correct anything. I would work on it the next day and make it better.

Teacher: You did not work with a lot of peers, but I want to ask you this anyway: How did your peers help you in reaching your goal? I noticed that you did not ask anyone a question, but someone would ask you a question. How did that impact your learning?

Student: It didn't impact my learning to much. If they needed help I would show them or if they needed visual notes then I would show them.

Teacher: Describe your responsibilities with this project. Describe the importance of engaging with this project.

Student: You get to learn more about artists and their personal perspectives

Teacher: The opportunity to do your own monitoring, set your own goal, self-reflect, did those things make you feel more responsible or less responsible?

Student: I felt more responsible because you had more to do to keep your mind more organized.

Teacher: Let's talk about co-creating the rubric. How does that impact your performance, being a part of how you're going to be graded?

Student: Not much because I don't really understand rubrics. My mind doesn't understand rubrics.

Teacher: How did your environment impact your learning?

Student: Well, being alone keeps to where you're not as distracted as easy if someone is goofing off. The library was relaxing and I could think better.

Teacher: At which point in the project did you feel like you were completely on your own? When did you feel independent?

Student: I felt independent since it very much started. I was independent most of the time. More near the topic outline and the PowerPoint. I was more dependent on the examples during the annotated bibliography.

**Transcription 4—Post Interview**

**Student 4**

Teacher: What was your original SMART goal.

Student: Was to get it done. I didn't really. I just didn't rush myself like I usually do.

Teacher: What made you take your time?

Student: I wanted to reach my goal and I felt like that would help me.

Teacher: Which part do you feel like you could do on your own now?

Student: The topic outline

Teacher: Did it keep you organized. Did it help you monitor yourself?

Student: It was easier because I could pick what I wanted to say and easier for me to go back to.

Teacher: What was your grade on past projects before this class.

Student: I usually did pretty well.

Teacher: Why do you feel you earned this grade?

Student: Because I took my time and I made sure that I didn't plagiarize or anything.

Teacher: Describe how you felt about setting a goal, the self monitoring strategies, choosing your environment, and self-reflecting.

Student: Choosing your own environment. I sat in like 3 different places. I like the standing desk.

Teacher: How did you know where to start every day and what helped you monitor yourself to stay on track?

Student: The music kept me from being distracted.

Teacher: How did the self-checks impact you every day? Did you ever make your own?

Student: I would stay focused when I did my own.

Teacher: Did you ever do peer interaction? I noticed that you worked in groups sometimes, how did that help you?

Student: I would ask questions to help me be correct.

Teacher: Why was it better for you to ask your peers instead of your teacher.

Student: Because they were closer. I didn't have to get up every two seconds.

Teacher: Describe your responsibilities with this project. Describe the importance of engaging with the project?

Student: When you gave us an example and then you let us just do it instead of telling us how to do it.

Teacher: How did co-creating the rubric impact your performance.

Student: I don't think it really impacted anything, it made it easier to score higher?

Teacher: How?

Student: Because some stuff I did was already above the rubric except for the grammar.

Teacher: How often did you rely on your own thinking to construct your project, when you no longer needed the examples or for me to show you anything.

Student: When I got to the essay

Teacher: Do you think that the annotated bibliography helped you do that?

Student: Yes

**Transcription 5—Post Interview**

**Student 5**

Teacher: I am just going to ask you some questions about the Self-Regulated Learning process and how it impacted your performance, your learning, and the outcome of your grade. So, what was your original SMART goal?

Student: It was to learn more about everything a little bit more about everything, to expand my variety of thinking, my way of learning, what to do to improve upon myself.

Teacher: Ok., Was there a specific skill that you wanted to improve or just research in general.

Student: Research in general.

Teacher: In the beginning you set a mastery goal a well as a performance goal in doing that why do you want to be a better researcher.

Student: I want to be a better researcher because I want to know more about the culture how to improve ourselves and learn new skills to be better and to better myself. So I know I'll be limited to a few things but I'll know a variety of things so if I went to work in different things I can explore new things.

Teacher: How did you monitor yourself through this project. Were there any things that we did in class such as environment, snacks, music, what did you use?

Student: Yes all of those things helped a lot.

Teacher: I know you did group and that helped a lot. Which part of the research project that you fell that you have reached mastery? So, if I assigned another research project, which part do you think you could do all on your own.

Student: I think the annotated bibliography and the research paper, but probably all of it.

Teacher: So, you feel like you have a foundation on how to put together a research project.

Student: Nods, yes.

Teacher: Why and what evidence do you have to support your thinking.

Student: I think I should do all of it because I got accustomed to it and the examples that you showed us I have those to help me on how to do citations how to write it perfectly and how to do all those other things.

Teacher: So your grade is not what you're going by?

Student: No, shakes head.

Teacher: Ok., So in past courses, classes you took before this class, what was your grade on assignments that involved research.

Student: Like a B.

Teacher: Why do you believe you earned that grade as opposed to the grade on this assignment

Student: I put all I had into it a lot of effort to get a better grade and to explore and improve on my skills.

Teacher: Ok., Now I want to ask you about each part of the regulated learning process. Describe how you felt about setting a goal? Did that impact your learning in any way.

Student: Yes, it did because it helped it finally help me to realize my goal in life and what I needed to do to get to that route.

Teacher: The monitoring strategies that you were taught, like the self-check, self-reflection, changing your environment, how do you feel about those, do they make you feel more responsible, more independent.

Student: Yeah it helped me because it kept me in check on what I was doing. Like the self-checks looked at if I did this or if I did that so yeah it kept me in check.

Teacher: So, self-reflection, you had to do a couple of those in your project, when you self-reflected what would you mainly talk about in your reflection?

Student: I talked about the work I completed, like what I'm going to do to improve it, and how I did it and what tomorrow's work I'm gonna do.

Teacher: Did any of those strategies impact your motivation to achieve your goal. What motivated you.

Student: What motivated me was to get it done right and to get it completed the right way and to put in a good effort.

Teacher: When you created your own self-checks how did you evaluate your progress. What things would you use to check yourself?

Student: I would try to keep up with my work

(I had interviewed this student previously about working with groups)

Teacher: Ok., Describe your responsibilities with this project and the importance of engaging with this project.

Student: To set a good example for others so if they needed help with something, because I helped different people, my responsibility was to get it done.

Teacher: If you had to do another research project what part do you feel you are best at constructing, could you elaborate a little bit more on that.

Student: I feel like I adapted more to it because like back in the day I was like in between because I didn't know what to do. The examples you showed me really helped.

Teacher: Ok., Co-creating the rubric with your teacher and peers impact your performance? Getting the opportunity to have input on how you would be graded did that impact you in any way?

Student: Yeah it helped a lot I guess because it gave me a chance to put out my opinions about my work and list all the problems and if I did something wrong then I got to correct it.

Teacher: At which point did you rely on your own thinking during the project.

Student: The majority of the time. Sometimes I would ask (Student) for example and we would help each other. We would suggest a few things and we would do them better.

**Transcription 6—Post Interview**

**Student 6**

Teacher: So what was your original SMART goal?

Student: To pass the class

Teacher: Uh, ok. Is that what you wrote on you sheet, though (laughter)

Student: You know exactly what I wrote

Teacher: So is that is a mastery goal. Why do think you chose this goal?

Student: Because last year in my English class I got a C so this year I prefer to at least get a C.

Teacher: So did you feel like this was going to be more of a challenge

Student: No it turned out that it wasn't as challenging as I thought it would be

Teacher: So what challenged you

Student: Because I actually had to work

Teacher: So in past classes you haven't had to work

Student: Technically I have to do it but it wasn't as important

Teacher: I see. What made this one important

Student: The fact that it made up a large portion of the grade

Teacher: Ok., Which part of the research part that you feel you have reached mastery, that you feel you do not need any help.

Student: The Annotated Bibliography

Teacher: What evidence do you have to support your thinking?

Student: The fact that I was able to do three on my on after I got help

Teacher: Was that a new document for you

Student: Yes, I did note cards before and didn't have to type it.

Teacher: In past courses on assignments that involved research

Student: I don't remember I haven't done one since the end of the eighth grade. I have I just don't remember them.

Teacher: do you think you will remember this one

Student: Possibly

Teacher: I want to ask you about each part of the Self-regulated learning process, the forethought and panning , the process, and the self-reflection.

Student: The goal that I personally set was to pass the class. I had a hard time staying conscious. I didn't want to mess it up and waste time

Teacher: So how did you monitor yourself? You said in your forethought that you wanted to pass so how did you work towards passing every day. How did you stay on track, what helped more than anything.

Student: The self-checks didn't help me, but working out in the hallway helped because there was nothing going on out there.

Teacher: At one point in the library I had you sit with me, how did that effect you because you were having a hard time staying on track.

Student: I guess it gave me the ability to ask questions when I didn't understand what to do.

Teacher: Ok, you said the self-checks really didn't help you, so how did you monitor yourself? How did you know each day where to begin and then at the end of the day what you had completed.

Student: Well, I found the self-checks in my notebook and I did them so yeah they helped

Teacher: Did you ever create your own self-check

Student: Yes

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Teacher: You said you changed your environment by sitting out in the hall. How did your peers help you in reaching your goal?

Student: Not much. I mean (student) looked over my paper, but that didn't help much

Teacher: Describe your responsibilities with this project. Describe the importance of engaging in this project.

Student: Passing

Teaching: Do you feel that you gained a skill? Such as writing, organization, taking your notes and turning them into an expository presentation.

Student: Yeah I guess those were pretty useful things I got out of this

Teacher: How did co-creating the rubric with your teacher and peers impact your performance?

Student: Probably let me know I got a passing grade. It was easier to change my paper

Teacher: At which part did you rely on your own thinking? At which part did you feel independent?

Student: When I wrote the paper.

**Transcription 7—Post Interview**

**Student 7**

Teacher: I want to look at our Self-Regulated Learning, mainly the process. So, what was your original SMART goal?

Student: Learn how to write better.

Teacher: So, in the beginning you set a mastery and goal and you can also look at this as a performance goal. Why do you think you chose this goal?

Student: I chose that goal because I think in the past research papers haven't been where like I gave it my all. This research paper helped me to strive for that goal.

Teacher: Was it because it was broken down into a process. It was framed by a process and you were given choices, environment, working with peers.

Student: I'd say like breaking down those parts like with those process steps.

Teacher: So how did you monitor yourself in reaching your goal, what did you do everyday to reach your goal, what strategies did you use?

Student: I listened to music to help me stay on track and to stay focused. It blocked out everything.

Teacher: I noticed that you didn't work in groups, you felt better on your own. So the music helped you to isolate yourself.

Student: I didn't feel the need for a partner or help from anyone else. I showed someone my work once but they just thumbed through it.

Teacher: Ok., Which part of the research project do you feel that you have reached mastery. Which part do you feel that you could do all on your own.

Student: I think the topic outline part of it. I thought I was going to struggle on it but recently I had another research paper and I used those skills that I learned in this class.

Teacher: Is it because it's organizing

Student: Nods, uh hum. I just feel better if everything is organized and planned out

Teacher: Ok, in past courses, classes before this one, what was your grade on assignment that involved research? Why do you believe you earned that grade.

Student: I never had like a real low grade in other classes I just wanted to improve my research.

Teacher: Did you score better on this one

Student: Uh, hum, nods. I did a lot better on this one.

Teacher: Describe how you felt about goal setting

Student: I thought the whole goal setting portion of this help me to strive to reach a certain point like a certain skill that I needed to have it just made me want to try harder.

Teacher: Ok. The monitoring strategies that you were taught or suggested helped

Student: The gum it helps me focus and the environment. Even though I worked alone I still liked having peers around me.

Teacher: So did you like the classroom better than the library because people were closer around

Student: Nods, uh hum

Teacher: Self-Reflection: Some days I gave you sheets and then some days you made your own. Did you find those helpful

Student: I found those helpful because it would tell me what I needed to get done the next day and I would think back on what I did that day and what I needed to do the next day and the next day.

In the beginning I would monitor my sources and if they were credible

Teacher: Describe your responsibilities with this project? Describe the importance of engaging in the project?

Student: I feel like I was responsible for meeting the deadline. I think that I'm going to need this

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in college this is going to help when I'm writing papers. I did a good job not procrastinating and getting it done a couple of days ahead so that I could change what I needed to change.

Teacher: If you were assigned another research project what do you feel that you are best at constructing and why?

Student: I think that I am best at constructing all the facts and then turning the into sentences and paragraphs.

Teacher: How did co-creating the rubric impact you?

Student: I think that impacted my performance because I had a say in what was best to be on the rubric instead the teacher saying this is what I want because that doesn't look at everyone's wants and needs.

Teacher: Ok., How often did you rely on your own thinking to the project. When did you feel independent?

Student: Probably when I started putting everything together.

**Transcription 8—Post Interview**

**Student 8**

Teacher: What was your original SMART goal?

Student: To get it done, to pass the class, I just wanted to get it done

Teacher: Why did you chose that goal, what drove you

Student: I just wanted to make a good grade on something I done myself

Teacher: So you like the idea of being independent

Student: Yeah

Teacher: Ok., So how did you monitor yourself every day?

Student: I just went through the day we started and the day it had to be done and just like see what I had to get done that day

Teacher: Did you ever write it down sometimes? I remember you would tell me that you did it mentally.

Student: Most of the time I just did it in my head but I might have written it down a couple of times.

Teacher: Ok., Which part of the research do you feel like you have mastered. Which part do you feel that you could do all on your own?

Student: Just doing my research.

Teacher: What evidence do you have to support your thinking?

Student: I know how to find the information that I need to get

Teacher: Which part do feel you could do without getting any help?

Student: Researching it, like getting all the information, like the annotated bibliography

Teacher: So, in past courses what was your grade on research projects

Student: Awful, writing papers are not my thing, I struggle with that.

Teacher: So, let me ask you about each part of the Self-Regulated Learning Process, Forethought, Performance, and Self-Reflection. So the goal setting, how did that effect your performance?

Student: It helped with coming in every day knowing where I needed to get started

Teacher: Monitoring strategies like working with a group, I noticed that you worked mainly with a group, you never changed your environment. How was that impactful.

Student: Being able to see other student's examples instead of teacher examples. It just made it easier in knowing what I needed to do by looking at other people's to see if I'm ahead or behind.

Teacher: What is it about looking at other student's work instead of teacher work that is better for you?

Student: Just like, I guess like a teacher's example is very different from a student's example and students are easier to comprehend instead of the teacher doing it.

Teacher: Ok, so you learn better from your peers, is that what you're telling me?

Student: Nods, yes

Teacher: Self-Reflection. Sometimes I would give you sheets and sometimes I would prompt you to write your own. Were those helpful

Student: Maybe not me specifically, but like I do things in my head.

Teacher: How did co-creating the rubric help impact your performance

Student: It made the rubric more fair. Because if it was just the teacher there would be very few A's. It let's know where we stand and where we need to improve. I think that teachers are expecting more than what kids have actually learned.

Teacher: So, how did your environment impact your learning?

Student: Just sitting with my own group and listening to music helped me stay focused.

Teacher: When did you rely on your own thinking, you said that you did a lot mentally, how often did you feel independent.

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Student: After the examples. Having to make our own topic outline helped.

**Transcription 9—Post Interview**

**Student 9**

Teacher: What was your original SMART Goal?

Student: To get a good grade on the paper

Teacher: Is there a performance that you wanted to become better at such as writing, research

Student: I guess I wanted to become better at writing

Teacher: So how did you monitor yourself towards reaching your goal

Student: I don't know. I just did it, like I don't know about monitoring myself

Teacher: So did you do anything as far as like measuring what you had learned that day and think towards what you had to do the following day? How did you do that? Did you do it mentally or was it with the self-check sheets?

Student: I guess the self- check sheets. I guess it was both.

Teacher: So, what part of the project do you feel that you have reached mastery? Which part do you feel that you could do all on your own?

Student: The topic outline

Teacher: What is it about the topic outline that you find helpful?

Student: It tells me what to do

Teacher: So it kept you focused?

Student: Yeah

Teacher: Ok, In past courses what was your grade on assignments that involved research?

Student: C or B

Teacher: Do you think that you earn that grade

Student: Yeah

Teacher: Did you do better on this one

Student: Have you put the grade out, yet? Oh, I've got to check my grade.

Teacher: So now I want to ask you about each part of the Self-Regulated Learning Process. So, how did you feel about setting goals, your planning, your forethought?

Student: The goals told me how much I needed to get done that day

Teacher: So the monitoring strategies, how did you monitor yourself each day

Student: I sat with (students) and I could check my work every day. I could compare my work to theirs.

Teacher: And, then Self-Reflection, did you reflect in some way every day? Did you use the self-check sheets or did you create them on your own

Student: I guess the self-check sheet. I didn't do anything on my own.

Teacher: So you couldn't create them on your own

Student: Shakes head, no

Teacher: Did having choice in environment which is a part of our process did that motivate you

Student: Yeah that really helped me a lot cause I didn't have to sit in one spot

Teacher: So, you say that you didn't create your own self-checks, so how did you check your work every day. How did you know that you were moving in the right direction or the wrong direction?

Student: I would show (students) my work to see if I was doing it right. That's what helped me more than anything.

Teacher: So, peer groups helped you more than anything

Student: Yeah

Teacher: So, describe your responsibilities with this project? Describe the importance of engaging with this project. When did you feel responsible and not just doing it because the teacher told you to?

Student: Yeah, like when I was researching it like learning more about Mark Twain it was more on my own and not doing what the teacher told me to do.

Teacher: If you were assigned another research project, which part do you feel that you could do all on your own?

Student: The Annotated Bibliography because it's just like notes

Teacher: How did co-creating the rubric impact your performance

Student: I got to see what my grade would be like. I don't know how to explain it

Teacher: Did it have to do with the skills that you had learned. Do you think that those skills would have been talked about if the teacher had created the rubric solely?

Student: It's hard to say. It's hard to put into words.

Teacher: At which point did you rely on your own thinking?

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Student: The annotated bibliography

**Transcription 10—Post Interview**

**Student 10**

Teacher: The first thing I want to ask you is how was your performance on other projects before you took this class.

Student: Uhm, not so well. I would have trouble on different parts

Teacher: Which parts would you have trouble with

Student: Like paragraphs and stuff like that. I do good with PowerPoints and stuff like that, but

Teacher: How are you at gathering information and organizing it and putting it into a paper

Student: Yeah, I can do this when I'm at home by myself.

Teacher: What was your original SMART goal

Student: To pass, to finish

Teacher: In the beginning you selected what could be thought of as a performance and a mastery goal? So why? Have you had trouble with finishing projects in the past?

Student: Yes

Teacher: So you did pretty good because you did finish this project. So how did you monitor yourself every day? How did you monitor your progress?

Student: If I was at home, my mom looked at it. If I was here, my friends looked at it.

Teacher: Which part do you feel you've reached mastery, like which part do you feel you could do all on your own?

Student: The PowerPoint and writing out the paper.

Teacher: I want to ask you about the Self-Regulated Learning Process. The goal setting, performance, and self-reflection.

Student: Environment. I sat in the hallway, I sat in groups, I sat by myself, I worked on it at home

Teacher: So that helped you monitor your performance a lot.

Student: Yeah, at home you do more stuff, you take your time, but when you're here it's like crunch time.

Teacher: Ok, So, how did you feel about setting a goal.

Student: It was different for me. I never really set goals. I just did the project.

Teacher: You just did the work

Student: Yeah

Teacher: So setting a goal was an opportunity

Student: Yeah, a new opportunity.

Teacher: So, self-reflection. We did self-checks every day and then you had to do them on your own. That was tough for you.

Student: Yeah. I don't reflect on what I've done. I just do it.

Teacher: Did having choice and setting a goal and reflecting impact your motivation

Student: Kind of, yeah

Teacher: How? Can you describe that?

Student: Like, knowing what I got to do makes a difference

Teacher: When you asked your peers to help you, how was that helpful to you.

Student: Like showing how to do it, how to make it better. Like when I was doing my annotated bibliography, I was doing it in like sentence form and (student) showed me how to do bullets and that's where I changed it.

Teacher: You feel like the part your best at is collecting information, now.

Student: Yeah, I'm good at finding information

Teacher: Ok, co-creating the rubric with your teacher and your peers, how did that impact your performance?

Student: I knew what I had done wrong

Teacher: So, you were able to revise

Student: Yes

Teacher: So did it appeal to your sense of fairness

Student: Yeah

Teacher: How often did you rely on your own thinking to construct your project? At which point did you not need the examples and your peers?

Student: The PowerPoint, the annotated bibliography, and then the topic outline. I never did one of those before.

**Transcription 11—Post Interview**

**Student 11**

Teacher: What was your original SMART goal?

Student: I just wanted to work by myself and get it done.

Teacher: That was your goal?

Student: Yeah, to like get it done.

Teacher: Did you want to learn ore about writing, did you want to learn more about your topic in general? You just wanted to finish?

Student: Yes Ma'am

Teacher: Why did you choose this goal? Did you have a hard time reaching this goal in other classes.

Student: I had a hard time in other classes, deadlines freak me out.

Teacher: So, being able to choose your deadline, you had an opportunity to choose your deadline; Did that help?

Student: Yes Ma'am, a little bit, but I missed a lot because I was sick

Teacher: But, you were able to finish on time

Student: Yes Ma'am

Teacher: That's commendable. So, which part of the research project do you feel like you have mastered, like which part do you feel like you could do all on your own?

Student: The topic outline

Teacher: What did you find helpful about the topic outline?

Student: It showed me how to set up my essay and how to like go about it

Teacher: Did you like having a choice in putting that together instead of me telling you what to put in your topic outline.

Student: uh, hum. Yes Ma'am.

Teacher: Describe how you felt about setting a goal?

Student: It was different. I hadn't done it in a class.

Teacher: How have you done it in other ways?

Student: I hadn't had a teacher to come to us and say set a goal. I just did it.

Teacher: You play sports, don't you? So, what type of goal do you set for yourself?

Student: Just work harder and get better at pitching

Teacher: But that doesn't transfer to a performance goal in classes? In classes you just want to get it done?

Student: Uh, hum (yes)

Teacher: Your performance and monitoring strategies: You had choice in your topic, you sat where you felt comfortable, there was music, gum, how did any of those things impact you in any way?

Student: It helped a lot. The gum like helped me focus and the music helped me think more and then (students) helped me a lot.

Teacher: How do you feel that learning from your peers is more helpful than learning from your teacher?

Student: I feel more comfortable because some teachers in the past have favorites and you have a friend to talk to.

Teacher: What do you mean that teachers have favorites? You mean that student's have favorite teachers?

Student: No, teachers have favorites

Teachers: That they help more than helping everybody

Student: Yeah

Teacher: So, it's better to work with your peers.

Student: Yeah

Teacher: Ok, I understand that. Ok., So, when you created your own self-checks what would you evaluate? Did you find the self-checks helpful?

Student: I did find them helpful. They helped me stay on task or like on track.

Teacher: When you created your own what would you put in yours

Student: Uh, what I got done that day and how much I moved on

Teacher: When did you take responsibility, like when did you feel independent?

Student: Like when I got home and when I'd stay after to work on it

Teacher: So, what made you feel responsible?

Student: Like after school. Like when I was in class I had to get it done but after school I had to take control of it.

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Teacher: How did co-creating the rubric help, or , well, you were absent

Student: Yes Ma'am

Teacher: Well knowing that your peers had helped create the rubric did that help you any. How did you find that impactful?

Student: It helped me

Teacher: How did your environment impact your performance

Student: I like to have to have a lot of room and there's not a lot of room in here so I like the library better.

Teacher: How often did to rely on your own thinking to construct your project. When did you feel independent?

Student: When I had to stretch out stuff

Teacher: Like explain more?

Student: Uh, hum.

**Transcription 12—Post Interview**

**Student 12**

Teacher: What was your original SMART goal

Student: To finish a couple of days before the due date

Teacher: So you wanted to finish before the due date. Why did you choose that goal.

Student: Just not to be stressed and rush through it

Teacher: So how did you monitor yourself towards reaching that goal

Student: I just got like each day I got it done and just kept adding to it

Teacher: So, which part of the project do you feel you have mastered? So which part do you feel you could do all on your own?

Student: I struggled with the citations at first but now I feel like I could do that on my own.

Teacher: So, can I say Annotated Bibliography?

Student: Yes, Ma'am

Teacher: What evidence do you have to support that thinking?

Student: Well, I guess a couple of times I tried it on my own and then you showed me how to do it and when I got to my desk I did it right. And, I got a 100 on it so.

Teacher: Laughter. Ok., In the past, before this class, how did you do on research projects

Student: Honestly, I don't think I had a research project in the past cause this is my second year here so I never did a research project

Teacher: So, why do you believe you earned the grade that you have for this project

Student: It's just because I put the time in it and did the work put effort into it

Teacher: Ok. Now I want to ask you about each part of the Self-Regulated Learning Process? So, setting a goal, was that helpful for you?

Student: It was very helpful because if I didn't set a goal I would have been just asleep over there and say I'll do it, I'll finish the day before.

Teacher: Ok. So working with peers, how did that impact your learning?

Student: It helped because (student) was finished with his so I could look at it and reflect on it and see if it was similar.

Teacher: The strategies such as the self-checks, the topic outline, having choice, how did those things impact your learning?

Student: I feel like if I had not had a choice I would have been bored with it. I got to pick someone I was interested in.

Teacher: Were the self-checks and when you did self-reflection were those helpful

Student: Uh, hum they were helpful because if I didn't have it done I knew where to start

Teacher: When you created your own self-checks how did you evaluate your progress

Student: I would try to check off everything I had done that day and so I would do a page a day and the next day I would do like a page and a half

Teacher: What is it about working with peer groups vs working with your teacher is helpful

Student: Just being able to reflect over it and having someone to talk about it and not just staring the computer and sometimes you just need to talk

Teacher: Describe your responsibilities with this project? What is the importance of engaging in this project?

Student: Everything, trying to get it done, trying to be able to keep self-control like being around people.

Teacher: If you were assigned another research project which part do you feel you are best at constructing

Student: The annotated bibliography

Teacher: Why do you feel that it is something you could do on your own.

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Student: Because at first I struggled with it and now after doing it so many times

Teacher: You know that the rubric was put together by your peers along with me How did you feel about that

Student: I got to grade like I don't know like

Teacher: Your skills, what you learned

Student: Uh, hum

Teacher: How often did you rely on your own thinking? When did you feel independent?

Student: After the sources or the annotated bibliography

**Transcription 13—Post Interview**

**Student 13**

Teacher: What was your original SMART goal?

Student: To become a better writer

Teacher: To become a better writer. Why did you choose this goal?

Student: Because I've never been good at putting words to a paper and to be able to better that with somebody by my side that was a really good goal for me.

Teacher: So how did you monitor yourself towards reaching your goal?

Student: I had to take breaks sometimes and take a look at the process and what I needed to do and the gum and music also helped me.

Teacher: I observed your environment, so is that a factor for you as well?

Student: Yes, I like to sit with people.

Teacher: Did you use those people in any way or did they use you? How did you interact with them as far as putting the project together?

Student: I felt they used me more than I used them but it was just their company helped me but I helped them more often than they helped me.

Teacher: How would you help them?

Student: Like when they had trouble coming up with their theses I would show them some ideas.

Teacher: Which part of the project do you feel that you have reached mastery? Which part can you do all by yourself?

Student: I would say the annotated bibliography is my strongest thing.

Teacher: Is it the helpful part of putting a project together you think

Student: Yes

Teacher: So, what evidence do you have to support that?

Student: Before we would just write down notes and use it in our paper. Having it all right there was just really helpful.

Teacher: Ok., Now I want to ask you about each part of the Self-Regulated Learning Process. So describe to me how you felt about setting a goal. Had you ever done that before?

Student: I've never done that before

Teacher: Did it make a difference

Student: Yes because I worked really hard to master the goal

Teacher: How did the monitoring strategies make you feel, how did you feel being able to select your own topic, having a choice in seating, and use monitoring strategies that could help you monitor your progress.

Student: It made me feel more comfortable because I wasn't told that I had to do something. I got to pick something that I was interested in and that helped me focus more

Teacher: Whenever you would reflect did you think about what you had did the day before or how did you reflect?

Student: I would go through what I had done before and then I had like a set date to finish everything and then go through and see if I could write better like could I have done this and I think that doing the self-checks it helped more to stay on track that was always trouble for me.

Teacher: In past courses what was your grade on assignments that involved research?

Student: I've always had A's but I've never had 100s.

Teacher: Why do think you earned the grade that you got for this research paper?

Student: Well, I was surprised, but I worked really hard on it. I went home at night and worked on it.

Teacher: When you created your own self-checks what did you look at specifically as far as your progress every day?

Student: Everyday I wanted to a least get something done. Like some days I got accomplished more than I intended to, but like with the PowerPoint I set a goal of having at least 3 slides done everyday and when I did at least 3 I was happy but when I did more than 3 I was over the top

Teacher: Ok., describe your responsibilities with this project? What was the importance of engaging with this project? So there were things that I was responsible for such as instructing you, facilitating, making sure you had what you needed. When were you responsible, what parts were you responsible for

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Student: I would say that I was responsible for staying on track and getting things accomplished and if I needed help ask people around me or as teachers and stuff like that.

Teacher: So, you were responsible for staying on track as opposed to me telling you what to do, how much to do each day.

Student: Yeah

Teacher: So, if you were assigned another project what do you feel you are best at constructing and why?

Student: I would say the annotated bibliography because I'm good at organizing and it's organized notes and picking out something that you need vs what you want is helpful and I'm good at that

Teacher: What's the importance of engaging with this project? What did you get out of it.

Student: I got a lot of knowledge because I didn't know someone could go through so much but he still had the ability to write.

Teacher: Getting a chance to co-create the rubric with your peers and your teacher did that impact your performance?

Student: Sorta kind of it made me feel like it wasn't just a group goal but individual goals like creating with the class was nice

Teacher: So it made it more individualistic for you?

Student: Yes, that was nice, I really like it.

Teacher: So, how often did you rely on your own thinking, at which point did the project become your own?

Student: I would say after the annotated bibliography.

Teacher; That's when you felt like you were own your own

Student: Yes

**Transcription 14—Post Interview**

**Student 14**

Teacher: What was your original SMART goal

Student: My original thought was to try and write better and in this better type better and just working at it cause I know I was having mistakes here and there and just trying to fix that.

Teacher: Ok.,

Why did you choose a performance goal as opposed to a mastery goal; instead of just saying to get an A

Student: For me the work you do on it even though if you want to go for an A your performance goal can help you get to that

Teacher: So how did you monitor yourself every day to get to your goal?

Student: Uhm, I usually I plugged in my music and listened to that and if I got off topic like just out free floating in space I tried to get back on to it and I used some sites to try to get a little bit more information like for my research paper I add about the Civil War , the deaths the injuries on both sides I put that in for that topic.

Teacher: Which part of the research project do you feel that you have reached mastery?

Student: The annotated bibliography. I know my topic outline I could have worked on a little bit more, my paper I could have fixed here and there, but just my annotated bibliography.

Teacher: What evidence do you have to support that?

Student: Just how I look for the information, just skimmed through it and put the important parts on a document to where I can later put it onto my paper and just going and back and forth from my notes and putting it on paper.

Teacher: In past courses, classes before this class, what was your grade on assignments that involved research?

Student: I'd say around a C maybe closer to a B

Teacher: Why do you believe you earned this grade? What's the difference between how you did in the past vs presently?

Student: I don't think much changed, it's just like the environment I picked what I got to do instead of someone picking a topic for me that I really don't want to do but I know I've got to do just to get that grade.

Teacher: Ok., so maybe that is what effected your goal. You knew that it was something that you would have more independence with. Ok., I want to ask you about each part of the Self-Regulated Learning Process and so describe how you felt about setting a goal? Did that impact you in any way?

Student: It impacted me a little bit just trying to keep reminding myself that hey I've got this one goal to fill and possibly get a better grade a good grade to where it can help me.

Teacher: The monitoring strategies, there were all kinds, how did you feel about using those.

Student: They helped me. Every time I got out of first period I would switch the music to what I wanted to listen to during this class. Sitting by a friend to look off a friend to see what I'm doing wrong, what they're doing wrong to help both of us. There's a couple of more things that I can't think of right now, but just basically that.

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Teacher: Self-reflection: The self-checks and then creating your own self-checks, how did that impact your learning?

Student: it showed me how close I was to getting to the goal. How close I was to almost finishing it and that's basically it.

Teacher: When you created your own self-checks what did you choose, how did you evaluate your progress? What did you do on your self-checks?

Student: I would look at what I've done the day that day and see how far I got see what I need to work on and all that just to see where my goal where is it heading towards was going and to see how good it is.

Teacher: When you worked with your peers how did they help you in reaching your goal?

Student: Like me and (student) would exchange chromebooks and read through and see what would fit there and fix any mistakes that we made uhm like he was having trouble with how many quotes we had to have and I told him and I told him and just little stuff like that we helped each other out.

Teacher: Describe your responsibilities with this project.

Student: My responsibilities with this project was just knowing that I got something that needs to be done each day and not slacking off. If I slack off one day it means I'm behind that day so just getting it half way through it or almost done in one day and then focusing on starting something else.

Teacher: What was the importance or describe the importance of engaging in the project? What was something that you got out of it maybe something that you may be able to use in the future.

Related personally

Student: With Stephen Crane like one of the poems I read from him I forgot the name of it but it talked about the son of a mother that's been born into fighting and going to war and how that reflects on her and just me thinking how my grandpa fought in Vietnam and Desert Storm and just seeing how they went through it and how my dad went through it growing up knowing if he would be back or not.

Teacher: Ok., so it kind of brought things home for you. You found it relevant. If you were assigned another research project which part do you feel that you are best at constructing and why?

Student: Probably the annotated bibliography just looking at the facts of what day he was born, his death, his family also pulling out interesting facts from other websites like what he did in his spare time. Like the one interesting fact I found about Crane is that he signed up in the military to get the feel of war to where he could put it in his books.

Teacher: Ok., Co-creating the rubric. How did co-creating the rubric with me and your classmates impact your performance.

Student: I know like where I went through each one where I saw the A, the B, and the C, I saw

where this could be my grade or this could be it so like my annotated bibliography I feel good about this uhm my topic outline I had a little bit there to where I could get this grade but I got this one and the same thing with the paper I mean I thought I had this grade but ended up getting this one which I was not mad about but I knew I wouldn't get this grade.

Teacher: So when you co-created the rubric it didn't make you go back and revise anything?

Student: Like I thought I had everything figured out then it's like man I missed something that I could've got.

Teacher: Ok., How did environment impact your performance

Student: Between the library and the classroom while we were in the library for the few weeks we were even though sitting at the table with another person to help out I didn't feel like I was comfortable in that to where we got to the classroom I felt more comfortable in doing this and doing that and asking for help.

Teacher: At which point did you rely on your own thinking, like when did you feel like you were doing your own thinking.

Student: All the way. I had a little trouble with MLA, like the citations like which ones to do. The topic outline I mostly did that myself and the paper I did it myself but I had someone to look through it but I did it myself.

Transcription 15—Post Interview

Student 15

Teacher: What was your original SMART goal?

Student: To practice putting information in a cohesive and correct order.

Teacher: Ok. So, that is performance goal, so, why did you choose that goal? What were you thinking about when you chose that goal?

Student: I think that any essay is as good as the way the information is presented.

Teacher: How did you monitor yourself every day? How did you monitor your progress?

Student: I was just seeing how much I got done every day in comparison to how long I have left to see if I would actually be done so that I would have more time to revise that actually write it

Teacher: How did you stay on track?

Student: I was focused because it was a topic that interested me.

Teacher: Which part of the project do you feel that you have reached mastery?

Student: I don't think I have reached mastery at any part of it.

Teacher: What's lacking?

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Student: I'm not necessarily lacking anything I just don't feel like I've mastered things. confidence

Teacher: Ok., What evidence do you have to support your thinking

Student: Well, you can always be better and I can always elaborate more

Teacher: Ok., So did you have any of your peers to look at your work or did you pretty much work on your own.

Student: I worked on my own

Teacher: Ok. In past courses what was your grade on assignments that involved research?

Student: 95 to 100

Teacher: So, you usually make A's. Why do you believe you earned those grades

Student: Because I typically find relevant information and I like to expand on it.

Teacher: Describe how you felt about setting a goal? Is that something that you usually do or was this new for you?

Student: This specific goal like for this project is not something I typically do but I general goals like finishing the assignment in a satisfactory way is always a goal.

Teacher: Did you use any monitoring strategies? How did you feel about using those? Did you feel like you had more freedom with this project?

Student: I used music

Teacher: Self-reflecting. Did you self-reflect every day? Did that impact your goal?

Student: Yeah I looked at what I completed each day

Teacher: When you created your own self-checks, how would you evaluate your progress for that particular day.

Student: Well after you stopped giving the checks I had already finished so I was just revising

Teacher: Describe your responsibilities with this project

Student: I guess doing accurate research and creating an essay that accurately outlined event that happened and description of my author's work.

Teacher: What was the importance in engaging in the project to you?

Student: It's very interesting to learn about James Baldwin which something that we now a days take for granted.

Teacher: Ok., So if you were assigned another research project which part do you feel you are best at constructing and why?

Student: I think I'm good at coming up with structure like the topic outline

Teacher: How did co-creating the rubric impact your performance

Student: I don't know it didn't impact me too much because I always try to make papers a certain way

Teacher How did your environment impact your performance

Student: At times it could be distracting but for the most part I was more focused on my project

Teacher: How often did you rely on your own thinking to construct your project, when you no longer needed the examples.

Student: I did that for almost all of it except for the topic outline. I used the example to see what would be the best order.

**Transcription 16—Post Interview**

**Student 16**

Teacher: What was your original SMART goal?

Student: To get better at writing

Teacher: Ok, so, to get better at writing is a performance goal. So, why did you pick this goal as opposed to just to pass the class or just to get it done.

Student: Because passing the class is a given. I'm going to pass the class. But, to get better at writing will help me if I go to college; to write better and make better grades.

Teacher: How did you monitor yourself towards reaching your goal?

Student: After I got done writing something I would like read it over to see if there's anything I could change or make it sound better or just see if anything needed to be fixed

Teacher: Which part of the research project do you feel that you have reached mastery?

Student: My topic and writing about it.

Teacher: So, you do feel like you are better at writing.

Student: Yes

Teacher: So, what evidence do you have to support your thinking?

Student: Before we started I used a lot of simple words like third grader words and when I went back and read my paper and everything it sounded to simple so I would go back and change how it sounded to sound more like professional.

Teacher: Did reading the databases help you with that, seeing more advanced writing and thinking about you own writing

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Student: Yeah it would make me think what I could possibly do because we all can write more advanced like other people do it's just I gave a lot of effort and time to writing wanting to get better.

Teacher: In past courses what was your grade on assignments that involved research?

Student: 80s a few Cs

Teacher: Why do you feel that you earned that grade on other assignments

Student: Cause I really didn't care at the time until I realized if I was wanting to go to the college that I wanted to and to make myself to write better I would need to

Teacher: So, describe how you felt about goal setting and monitoring strategies and self-reflecting. Did those things help you feel that this project was important? How did these things impact your learning and work?

Student: Well all these things they all revolve getting my work done and getting a good grade and the good grade revolves around me getting my GPA up. So, I'd look at like I'd self-reflect and monitor what I'm doing and I would think back about what I'm getting out of all this because if I just sit here and do all the work as basic as I can I'd probably make about a C or a B, but to get to the place that I want to I'd have to step up and do better.

Teacher: When you created your own self-checks what did you evaluate as far as your progress for the day?

Student: I just went back and looked at all of the stuff that I did before I started and see if I had any progress.

Teacher: How did your peers help you in reaching your goal

Student: Well, I would read my partners paper and he would read mine like the stuff that we got done and we would both tell each other what we thought we could do better on or how our writing should go so if gave me different ideas of how to do a paper.

Teacher: Describe your responsibilities with this project?

Student: Well I had to stay on topic I couldn't just go and wander off and do whatever I wanted because I did that one day and I got pretty far behind so I realized that couldn't just goof off.

Teacher: What's the importance of engaging in the project?

Student: Well it's pretty important because if you don't engage in it then you're gonna realize that you're far behind and you're gonna end up not turning it in on time or have to spend more time outside of school that you could have just done in school and not take time away from yourself.

Teacher: Ok., If you were assigned another research project what part do you feel that you are best at constructing?

Student: I feel like I'm pretty good at like reading the information and writing my own story.

Teacher: So, can I say transferring the annotated bibliography to your research project?

Student: Uh huh, Yes, nods

Teacher: So how does knowing that your peers were a part of creating the rubric impact you in any way?

Student: No

Teacher: So you feel that if just the teacher had created the rubric then you would have done well

Student: Nods yes

Teacher: How did your environment impact your performance?

Student: If I put myself around more friends and stuff then I would have been tempted to talk and get off topic so I placed myself in any area where there was not much communication.

Teacher: How often did you rely on your own thinking? When did you feel independent?

Student: When we had to work by ourselves like we could sit where we wanted

Teacher: So, you felt independent when we came back into the classroom and you could sit wherever you wanted to sit.

**Transcription 17—Post Interview**

**Student 17**

Teacher: What was your original SMART goal?

Student: I wanted to complete an Annotated Bibliography

Teacher: That's a performance goal. How did you monitor yourself? How did you choose your goal?

Student: It was just the instructions

Teacher: Had you ever heard of an annotated bibliography before

Student: I heard of an annotated bibliography before

Teacher: Which part do you feel that you have reached mastery? Which part do you feel that you could do all on your own?

Student: Annotated Bibliography

Teacher: What about the topic outline, research paper

Student: Yes

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Teacher: So, you feel like you could do the whole project on your own?

Student: Yes

Teacher: Which one do you feel strongest about

Student: The annotated bibliography

Teacher: What evidence do you have? How do you know that is your strongest?

Student: The documents

Teacher: The information that you gathered

Student: Yes

Teacher: So, describe how you felt about setting a goal. Had you ever done that before?

Student: I tried to think about the goal

Teacher: How did you monitor yourself

Student: I believed in myself

Teacher: Did you self-reflect every day. Did you take a look at your progress every day?

Student: Only if it was instructed

Teacher: Did the Self-Regulated Learning process, the goal setting, the monitoring, the self-reflecting, how did that impact you.

Student: It worked

Teacher: How did you monitor yourself everyday

Student: I checked to see if I did a good job

Teacher: Describe your responsibilities this project? What were you responsible for?

Student: The whole document

Teacher: What was the importance of engaging with the project?

Student: Because it's English III

Teacher: How did your environment impact your performance

Student: I could sit anywhere if it's assigned, but I couldn't really figure out where I wanted to sit

Teacher: Which part of the project did you rely on your thinking, when did you work without using an example?

Student: Both the annotated bibliography and writing the paper

# Appendix H Post Interview

## Second Cycle Coding—Pattern Coding

### Impact

| Category | Code (Quotes from interviews) | Pattern |
|---|---|---|
| Forethought:<br>• Performance Goal<br>• Mastery Goal<br>• Planning<br>• Organizing | ➢ *To get the paper done on time, but I wanted it to be good.*<br>➢ *Spaced out my time*<br>➢ *I knew I needed to learn it so that I could move on*<br>➢ *I like being organized*<br>➢ *Improve my writing; increase that skill*<br>➢ *Mainly because I feel like I can do better*<br>➢ *To do better research*<br>➢ *To become a better writer*<br>➢ *I just didn't rush myself like I usually do*<br>➢ *"[…] it helped. It finally helped me to realize my goal in life and what I need to do to get to that route"*<br>➢ *I prefer to get at least a C*<br>➢ *Pass the class*<br>➢ *Learn how to write better*<br>➢ *Breaking down those parts like with those process steps*<br>➢ *I just feel better if everything is organized and planned out.*<br>➢ *I thought the whole goal setting portion of this helped me to strive to reach a certain point like a certain skill that I needed to have. It just made me want to try harder.*<br>➢ *To get it done*<br>➢ *To pass the class*<br>➢ *To finish*<br>➢ *Setting a goal was an opportunity* | Students set either mastery or performance goals by the end of the project and were impacted by the process by planning and organizing their work without prompting from the teacher. |

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| | ➢ *I've never done that before (set goal)*<br>➢ *To practice putting information in a cohesive and correct order*<br>➢ *I tried to think about the goal*<br>➢ *I believed in myself* | |
| Performance<br>• Learning<br>• Self-Monitoring<br>• Environment | ➢ *Mental Self-checks*<br>➢ *Put reminders on my phone*<br>➢ *So I could make sure and progress*<br>➢ *I think it was my seating and writing*<br>➢ *I would record how far I've gotten*<br>➢ *Environment helped greatly*<br>➢ *Certain ones helped like the music.*<br>➢ *Working with peers helped when I would ask about a strategy. (This student did not want to work with others in the beginning)*<br>➢ *I would basically write what I did that day, what I need to do, and if I needed to correct anything. I would work on it the next day and make it better.*<br>➢ *Not much because I really don't understand rubrics*<br>➢ *The library was more relaxing and I could think better*<br>➢ *Choosing your own environment*<br>➢ *Yes, all of those things helped a lot.*<br>➢ *Yeah, it helped a lot I guess because it cave me a chance to put out my opinions about my work and list all the problems and if I did something wrong then I got to correct it.* | Performance was impacted by the students' choice in their environment, self-monitoring exercise such as self-checks and the use of music. |

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| | ➢ *The self-checks helped me stay on track*<br>➢ *Chewing gum*<br>➢ *I got to grade [my skills]*<br>➢ *I had to take breaks sometimes and take a look at the process and what I needed to do*<br>➢ *It made me feel more comfortable because I wasn't told that I had to do something. I got to pick something that I was interest in and that helped me focus.*<br>➢ *It didn't impact me much* | |
| Impact on Learning<br>• Self-Regulation<br>• Skill<br>• Component of Project<br>• Self-Efficacy<br>• Process Model | ➢ *Annotated Bibliography*<br>➢ *The paper*<br>➢ *The PowerPoint*<br>➢ *The Topic Outline*<br>➢ *I think it helped me strive to do the best for the research paper because like usually if we don't have a goal or anything it's like I'll do what I normally do, but since my goal was to improve my writing, I tried a bit harder*<br>➢ *Improve my essay.*<br>➢ *I feel like had had to be lot more focused and engaged*<br>➢ *It gives me a chance to expand more on what I expect from myself, or hear it from somebody else what they expect and I think well, I expect that too but I never realized it.*<br>➢ *It determined me. It gave me a goal to look forward to. What motivated me was to get it done right and to get it completed the right way and to put in a good effort.*<br>➢ *Because I had to actually work hard.* | The Self-Regulated Learning Process model impacted learning as student's gained new skills, gained autonomy and strengthened their self-efficacy. |

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| | ➢ *Responsible for meeting the deadline*<br>➢ *Constructing all the facts and then turning them into sentences and paragraphs.*<br>➢ *I think that [co-creating the rubric] impacted my performance because I had a say in what was best to be on the rubric instead of the teacher saying this is what I want because that doesn't look at everyone's wants and needs.*<br>➢ *I just wanted to make a good grade on something I had done myself*<br>➢ *It made the rubric more fair. Because if it was just the teacher, there would be very few A's. it let's us know where we t\stand where we need to improve. I think that teachers are expecting more than what kids have actually learned.*<br>➢ *A personal connection*<br>➢ *Trying to be able to keep self-control like being around people.*<br>➢ *I worked really hard on it. I'm not necessarily lacking anything. I just don't feel like I've mastered things.*<br>➢ *I think I'm good at coming up with structure like the topic outline.*<br>➢ *Yeah, it would make me think what I could possibly do because we all can write more advanced like other people d; it's just I gave a lot of effort and time to writing, wanting to get better.* | |

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| Self-Reflection<br>• Reflecting<br>• Self-Checks | ➢ *I went back and checked over it*<br>➢ *Self-checks*<br>➢ *Tell myself*<br>➢ *Go back and reread*<br>➢ *Self-Reflection, or whatever, it just showed me what I needed to do and how I needed to do and how I needed to stay on track with everything*<br>➢ *I just kind of went back and went over everything and make sure it flowed together and just checking my work.*<br>➢ *Mental self-checks*<br>➢ *I would record how far I've gotten*<br>➢ *It helped out a lot because I would be able to kind of be able to look at myself and say ok I can do this on my own and if I can do this then I can probably do more.*<br>➢ *I talked about the work I completed like what I'm going to do to do to improve it, and how I did it and what tomorrow's work I'm gonna do.*<br>➢ *I just did it in my head, but I might have written it down a couple of times.*<br>➢ *I just did the work*<br>➢ *I would go through what I had done before and then I had like a set date to finish everything and then go through and see if I could write better like could I have done this and I think that doing the self-checks it helped more to stay on track that was always trouble for me.*<br>➢ *Showed me how close I was to getting to the goal.* | Students began to reflect daily without prompts from the teacher. They became more critical of their work and showed ownership. |
| Social Cognitive Learning Lens | ➢ *I would ask questions*<br>➢ *They had the same ideas that I had.* | |

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| Impact of working in a group or with a partner | ➢ *To set a good example for others so if they needed help with something, because I helped different people, my responsibility was to get it done.*<br>➢ *I'd ask them what they thought about it*<br>➢ *They would show me theirs*<br>➢ *Some people were doing the same structure and I just kind of changed mine up*<br>➢ *I think it helped me with reassuring that I was doing what I needed to do and also making sure it is correct. It really helped me reassure myself.*<br>➢ *It didn't impact my learning too much. If they needed help, I would show them or if they needed visual notes then I would show them.*<br>➢ *Being able to see other students' examples instead of teacher examples. It just made it easier in knowing what I needed to do by looking at other people's to see if I'm ahead or behind.*<br>➢ *I guess like a teacher's example is very different from a student's example and students are easier to comprehend instead of the teacher doing it.*<br>➢ *You learn better from your peers*<br>➢ *Just sitting with my own group and listening to music helped me stay focused*<br>➢ *I would show my work to see if I was doing it right. That's what helped me more than anything.*<br>➢ *Like showing how to do it, how to make it better.* | Social Cognitive<br>Learning opportunities allowed students to gain knowledge and skills from each other which proved each student with confidence to continue their work on their own. |

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| | *Like when I was doing my annotate bibliography, I was doing it in like sentence form and (student) showed me how to do bullets and that's where I changed it.*<br>➢ *It helped because (student) was finished with his so I could look at it and reflect on it and see if it was similar.*<br>➢ *Having someone to talk about it and not just staring at the computer and sometimes you just need to talk.* | |

# Appendix I

## Permission

Appendix J

**Classroom Observation Notes and Course of Instruction**

Classroom Instruction (Brief Lectures) and Observation Notes

| | |
|---|---|
| Weeks 1-2 | • Distributed Consent Forms (27 students)<br>• All forms returned<br>• Lecture: Thank you and Introduction to SRL Process Model<br>• Assigned class time reading: from The Autobiography (Benjamin Franklin)<br>• Class Discussion: Virtues: The whole class selected cleanliness but did not quite understand the others until explained. Prompt: Do you plan your day? Majority said No. A few said that they "semi-plan"<br>• Prompt: Did you notice Benjamin Franklin's sleeping schedule? Responses: "Sleep is for the weak," "It's a mind thing," "If you sleep, you might miss something"<br>• Purpose of discussion prompts: To generate conversation about self-regulatory practices.<br>• Prior Knowledge Interview: For time sake, students answered questions on notebook paper.<br>• 1st Day of Project: Students immediately asked, "Can we work with partners?"<br>• Explained that we would naturally form groups and I would not place them in groups. 3 students with social issues (1 IEP, 1 504, 1 verbally expressed anxiety issues).<br>• Passed out Project Description and Selections<br>• Students questioned about author's not on the list<br>• Set parameters with choice: Not able to select Dr. Seuss<br>• Students selected authors/social issues<br>• Lecture and Modeling:<br>MLA format for heading and header; Navigating Google Docs<br>• Lecture: Performance Goals v Mastery Goals, SMART Goal<br>• Class assignment / Activity: SMART Goal Sheet<br>• Lecture, Example, and Modeling:<br>Annotated Bibliography<br>Citations<br>• Class Motto: "Check yourself before you wreck yourself" This was our response to Self-Reflection<br>• New environment: Library |

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| | • After librarian lectured on resources available, distributed examples of common citations for resources library had to offer, students began to group naturally. Some needed one on one help with citations from teacher or librarian. Students begin to feel anxious about what the annotated bibliography should look like in the end in spite of the example and lecture. A few said "I'm confused" as they were reluctant to get started.<br>• Once everyone was clear on the type of citation, they needed for their first entry (source) students began to settle down. Some shared their work with their partner or group.<br>• Students formed about 5 groups; 1 with teacher's aide, 2 sat alone. 2 groups had to be redirected as they were off task. Students were encouraged to change groups or sit with teacher.<br>• SMART goal sheet collected for teacher evaluation<br>• 1/17: Self-Check 1 and Self-Reflection<br>• 1/23: Some students begin to miss days of class due to illness<br>• 3 Day weekend<br>• 1/22 Self-Check 2<br>• Students begin to change seating in the library. Many listen to music while they work. 1 student having trouble staying awake. I encouraged him to sit with me. When I asked a group why they changed environments (seating) they said they preferred the "homey" environment.<br>• Many students making progress. 1 student still has not grasped how to create a citation.<br>He says that he wants to read the material first<br>• 1/24: First day of one on one conferences to provided help, check progress, check level of interest/engagement with topic<br>• Students have discovered that annotations take on a personal preference. Many use bullets to organize information. A few used color coding to organize information. 1 student prefers to write notes on paper before typing them.<br>• Students begin to express hunger and/or a need for candy or gum to help them stay on track. These can be viewed as monitoring tools. |
| Weeks 3-4 | • 1/28:<br>❖ Lecture, Model, Example of Topic Outline and its function (Performance strategy)<br>❖ Review Thesis statements<br>❖ Students a little sluggish today, some are sick, many say they are hungry and don't eat before school mostly because they are pushed for time because they sleep late. Some say they have not slept. |

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| | • Students struggle with thesis statements. Many show each other and provide examples from their papers. Self-monitoring is still in the form of music and self-check sheets. Prompt: Today, create your own self-check or write a reflection.<br>• Teacher provides gum and many say that it helps with staying focused<br>• 1:00 day<br>• We have had a school wide sick day<br>• I have not been able to collect data from several students as they have been absent several days due to illness. I am considering removing them from my study as I do not have data for these students.<br>• 2 students have turned 18 (removed from study) as IRB permission not obtained for students of this age for this study.<br>• 2 students removed from school and placed in alternative school<br>• New environment: Moved back to the classroom<br>❖ Many are glad as they say it is hot in the library.<br>❖ One group says that the librarians are mean.<br>❖ Students who worked in group setting have now started to sit alone.<br>• Questionnaire 1<br>• Lecture, Model, Example: MLA Research paper. Importance of strong introduction and conclusion. Review in text citations and how to avoid plagiarism.<br>• Class discussion: Due date. Parameter: A day on week 6 unless a student has had extreme difficulty. Only 1 student appears to be behind but reports on his self-checks that he is progressing well. While there is progress, it is very little. Music is not helping, gum is not helping, reflecting is not helping. Students agree that Feb.15 is fair. Prompt: Begin thinking about skills gained and how this should be reflected on a rubric.<br>• One student decided to sit closer to teacher's desk. He says it will help him stay awake<br>• Performance seems to be based on Self-checks, Self-talk, and discipline. Many students say that the deadline is what is driving them to work.<br>• Self-Checks 3-5 given out<br>• Students prompted to reflect more with self-check 4<br>• Students who are behind are prompted to use the clock as a monitoring strategy: Time yourself as to how much to write within so many minutes. |

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| | • Reflection Prompts: How close are you to reaching your goal? How do you plan to progress over the next two weeks? How will you evaluate your work?<br>• While students have begun to work alone, they continue to work while in a group setting.<br>❖ Group A: Moved into the hallway because fewer people (4 boys)<br>❖ Group B: Some comfortable sitting on the floor in the classroom (Combination of 2 girls and 4 boys)<br>❖ Group C: Asked why they preferred not to ask the teacher for help and they replied that it's different when you work with someone your own age (3 boys and 1 girl who had expressed that she felt anxiety when working with groups at the beginning of the semester) |
| Weeks 5-6 | • 2 sick days district wide<br>• Have collected consistent data from 17 students<br>• Lecture, Examples of PowerPoint presentations<br>• Students say that they mainly reflect in their heads, but some create their own self-checks and write self-reflections.<br>• Questionnaire 2<br>• 2nd one on one conference to check for thesis statements and format<br>• Students who were behind have caught up. They say that the due date is what is driving their progress<br>• Punctuation has improved for several students<br>• Students do not ask me questions anymore. They work diligently and depend on each other for help.<br>❖ Groups say that it is beneficial as showing work provides more examples<br>❖ Beneficial because of the company<br>❖ Learn from others' opinions<br>• Students who were working alone have begun to sit closer to groups with the exception of one. As several students are completing the task early redirection is necessary to encourage self-evaluation.<br>• Lecture, Example of Rubrics<br>• Class discussion and construction of rubrics<br>• Students very receptive to be a part of grading. Many expressed new skills and how they should be considered. Several, however, were concerned with length of research paper. Many were concerned about effort.<br>• Group interaction and discussion about rubrics consisted over how much their work had in common. |

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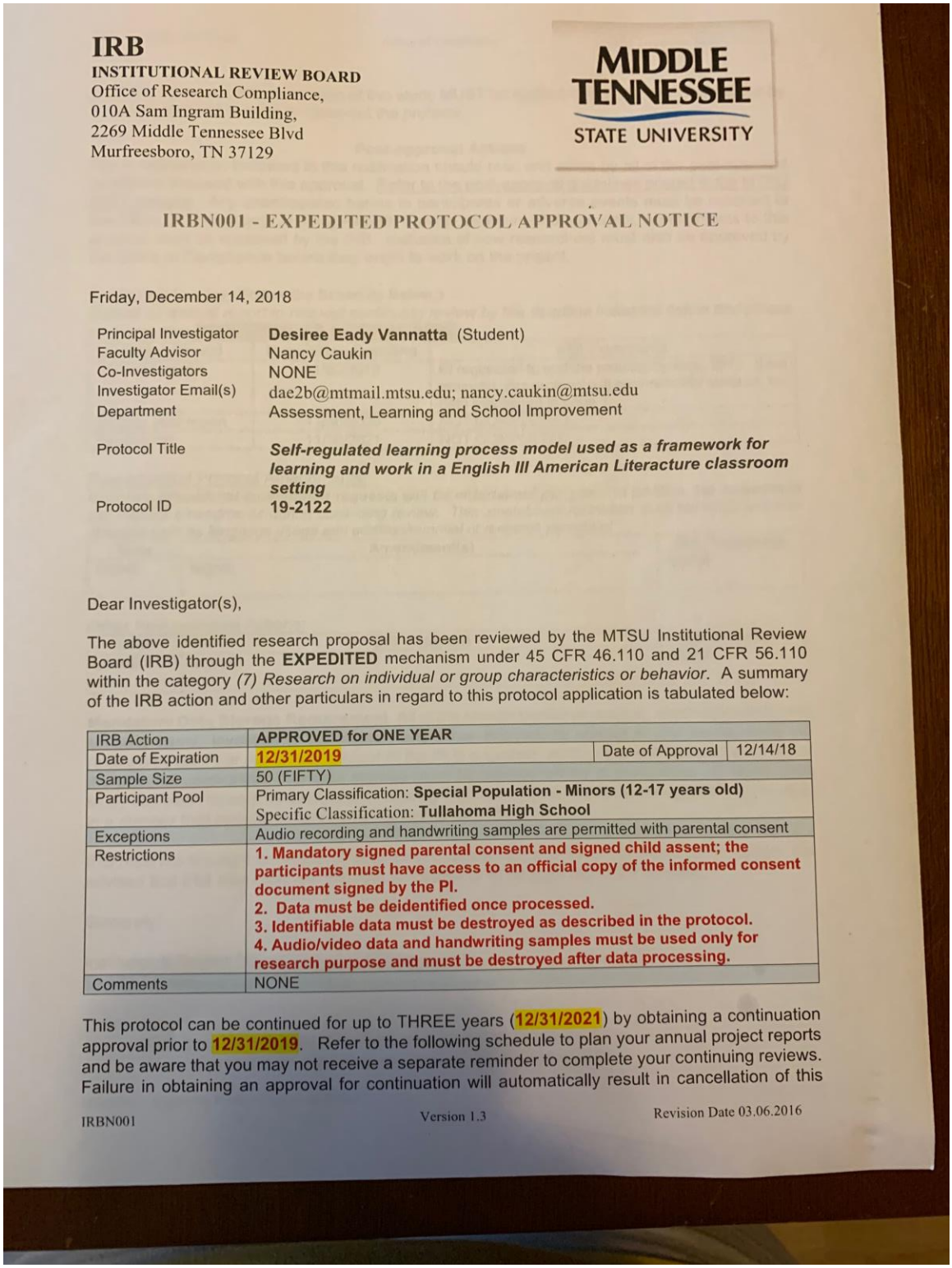
| | • Interesting: When I asked one group why they no longer asked the teacher for help they said that they understood each other better because they were the same age.<br>• Post-Interviews<br>• Due date extended 1 day to give time for revision<br>• Consistent data collected from 17 students over the course of the project |

# Appendix K

## Expedited Protocol Approval Notice



**IRB**
**INSTITUTIONAL REVIEW BOARD**
Office of Research Compliance,
010A Sam Ingram Building,
2269 Middle Tennessee Blvd
Murfreesboro, TN 37129

MIDDLE TENNESSEE STATE UNIVERSITY

## IRBN001 - EXPEDITED PROTOCOL APPROVAL NOTICE

Friday, December 14, 2018

| | |
|---|---|
| Principal Investigator | **Desiree Eady Vannatta** (Student) |
| Faculty Advisor | Nancy Caukin |
| Co-Investigators | NONE |
| Investigator Email(s) | dae2b@mtmail.mtsu.edu; nancy.caukin@mtsu.edu |
| Department | Assessment, Learning and School Improvement |
| Protocol Title | ***Self-regulated learning process model used as a framework for learning and work in a English III American Literacture classroom setting*** |
| Protocol ID | **19-2122** |

Dear Investigator(s),

The above identified research proposal has been reviewed by the MTSU Institutional Review Board (IRB) through the **EXPEDITED** mechanism under 45 CFR 46.110 and 21 CFR 56.110 within the category *(7) Research on individual or group characteristics or behavior.* A summary of the IRB action and other particulars in regard to this protocol application is tabulated below:

| | | | |
|---|---|---|---|
| IRB Action | **APPROVED for ONE YEAR** | | |
| Date of Expiration | **12/31/2019** | Date of Approval | 12/14/18 |
| Sample Size | 50 (FIFTY) | | |
| Participant Pool | Primary Classification: **Special Population - Minors (12-17 years old)**<br>Specific Classification: **Tullahoma High School** | | |
| Exceptions | Audio recording and handwriting samples are permitted with parental consent | | |
| Restrictions | **1. Mandatory signed parental consent and signed child assent; the participants must have access to an official copy of the informed consent document signed by the PI.**<br>**2. Data must be deidentified once processed.**<br>**3. Identifiable data must be destroyed as described in the protocol.**<br>**4. Audio/video data and handwriting samples must be used only for research purpose and must be destroyed after data processing.** | | |
| Comments | NONE | | |

This protocol can be continued for up to THREE years (**12/31/2021**) by obtaining a continuation approval prior to **12/31/2019**. Refer to the following schedule to plan your annual project reports and be aware that you may not receive a separate reminder to complete your continuing reviews. Failure in obtaining an approval for continuation will automatically result in cancellation of this

protocol. Moreover, the completion of this study MUST be notified to the Office of Compliance by filing a final report in order to close-out the protocol.

**Post-approval Actions**

The investigator(s) indicated in this notification should read and abide by all of the post-approval conditions imposed with this approval. Refer to the post-approval guidelines posted in the MTSU IRB's website. Any unanticipated harms to participants or adverse events must be reported to the Office of Compliance at (615) 494-8918 within 48 hours of the incident. Amendments to this protocol must be approved by the IRB. Inclusion of new researchers must also be approved by the Office of Compliance before they begin to work on the project.

Continuing Review (**Follow the Schedule Below:**)

*Submit an annual report to request continuing review by the deadline indicated below and please be aware that* **REMINDERS WILL NOT BE SENT.**

| Reporting Period | Requisition Deadline | IRB Comments |
|---|---|---|
| First year report | 11/30/2019 | PI requested to end the protocol by May, 2019. If not renewed, this protocol will automatically close on the date mentioned in page 1. |
| Second year report | 11/30/2020 | NOT COMPLETED |
| Final report | 11/30/2021 | NOT COMPLETED |

Post-approval Protocol Amendments:

***Only two procedural amendment requests will be entertained per year.*** *In addition, the researchers can request amendments during continuing review. This amendment restriction does not apply to minor changes such as language usage and addition/removal of research personnel. .*

| Date | Amendment(s) | IRB Comments |
|---|---|---|
| NONE | NONE. | NONE |

Other Post-approval Actions:

| Date | IRB Action(s) | IRB Comments |
|---|---|---|
| NONE | NONE. | NONE |

**Mandatory Data Storage Requirement**: All of the research-related records, which include signed consent forms, investigator information and other documents related to the study, must be retained by the PI or the faculty advisor (if the PI is a student) at the secure location mentioned in the protocol application. The data storage must be maintained for at least three (3) years after study has been closed. Subsequent to closing the protocol, the researcher may destroy the data in a manner that maintains confidentiality and anonymity.

IRB reserves the right to modify, change or cancel the terms of this letter without prior notice. Be advised that IRB also reserves the right to inspect or audit your records if needed.

Sincerely,

Institutional Review Board
Middle Tennessee State University

Quick Links:

Click here for a detailed list of the post-approval responsibilities.
More information on expedited procedures can be found here.