2009

Self-study of teaching practice : metacognitive strategies that enhance student learning

Julia A. Turner
California State University, Monterey Bay

Self-Study of Teaching Practice:

Metacognitive Strategies that Enhance Student Learning

Julia A. Turner

An Action Thesis Submitted in Partial Fulfillment
of the Requirements for the Degree of
Master of Arts in Education

College of Professional Studies
School of Education
California State University Monterey Bay
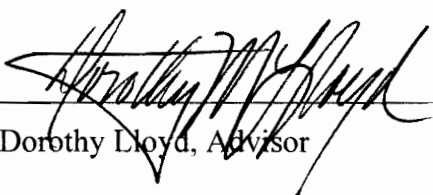**May 2009**

Self-Study of Teaching Practice:

Metacognitive Strategies that Enhance Student Learning

Julia A. Turner

APPROVED BY THE COLLEGE OF PROFESSIONAL STUDIES

APPROVED BY THE GRADUATE ADVISORY COMMITTEE

_____   April 28, 2009
Dr. Carolina Serna, Action Thesis Advisor   Date

_____   April 28, 2009
Dr. Dorothy Lloyd, Advisor   Date

ABSTRACT

This action research examines use of metacognitive strategies to affect students'

achievements and attitudes toward their learning. From teacher observations of students,

students' oral and written responses to metacognitive strategies, teacher journal and data

memos, four findings emerged that answer *how will my use of metacognitive strategies affect*

my students' academic achievements and their attitudes toward learning? Seventeen ninth-

grade English language learners participated in this study. Though ready to use metacognitive

strategies for aiding students with content, I confronted behavior issues for which I had to

focus the metacognitive strategies. Students did demonstrate change in their achievements

and attitudes toward learning in this setting, which encourages my continuing metacognitive

pedagogy as well as sharing this study with colleagues.

ACKNOWLEDGMENTS

TABLE OF CONTENTS

CHAPTER ONE

Introduction and Background

Struggling to decide my thesis topic ceased one day as I walked to my classroom. The Divine spoke *metacognition* to me. That moment cemented my action research to focus on transforming my instruction by employing metacognitive strategies as my modus operandi to enhance my students' thinking about their academic success and attitudes toward learning. I hoped that by routinely metacognizing, students would create metacognitive habits of mind.

Having decided, I recalled my early years of teaching. As a novice, I realized the urgency of my students' recognizing their thought processes, reflecting on what they learned about themselves, realizing their epiphanies, and ruminating introspectively on past successes and/or failures to facilitate present and future achievements. Thus, a mainstay of my curriculum comprised assignments necessitating student self-reflection and self-evaluation.

Throughout my twenty-four years as a high school teacher attending professional development conferences, workshops, and classes, I have learned innovative and tried-and-proven instructional strategies to improve my teaching -- have implemented many.

In my fifteenth year of teaching at a vocabulary strategies workshop, I heard a university professor discuss the word *metacognition* as a higher-order thinking about one's thinking, a self-reflective process taught at the university level. Her continued discussion resonated within me that, unbeknownst to me, metacognition had been my conceptual framework.

To my surprise, I did not find *metacognition* in the dictionary (and I might add that it still eludes the dictionary). Nevertheless, I continued creating opportunities for students to

think about their own thinking. I taught from a metacognitive perspective, however, never shared the term and its ramifications with students.

During that time, I discovered that *the more my students thought about their thoughts and processes, the more thoughts and processes they thought.* This epiphany forced my own metacognition: why not apprise students of metacognition and its benefits? Why keep metacognition a secret? Consequently, for the past decade, I have taught *metacognition*. My students have *knowingly* metacognized, have interpreted its relativity to themselves, and have increased their thinking potential. Students have benefitted from learning the concept of *metacognition*. Research attests to the significance of students learning the term. Explicitly naming the word *metacognition* provides students one of the most important aspects of metacognitive instruction (Pintrich, 2002).

For this action thesis, I scoured literature for a scholarly denotation, finding that originally metacognition, coined by Flavell in 1979, means the "knowledge about and regulations of one's cognitive activities in learning processes" (Veenman, 2005 p.3). More concisely, Martinez (2006) denotes it as "thinking about thinking" (p.1). He extends metacognition as "the monitoring and control of thought" (p.1) and summarizes that "Metacognition is central to conceptions of what it means to be educated" (p.5). "Metacognition is a most powerful predictor of learning" (Wang, Haertel, and Walberg, 1990 p.3 as cited in Veenman, 2006).

Though researchers avow metacognitive processing as vital to learning, ironically few educators, in my experience, have discussed it. However, these researchers validate my metacognitive teaching experiences; they also add breadth and depth to my current understanding. They motivate me to learn as much as I can for my students' sake, who must become the thinkers of the future.

Consequently, the literature inspired me to continue employing metacognitive strategies. They inspired me to create a culture of thinking, a constructivist environment where students continuously metacognize to create metacognitive habits of mind that question, investigate, and challenge assumptions, evaluate and make judgments about learning. In a thinking culture, students actively participate in learning rather than passively receive the content (Tishman, Jay, & Perkins, 1993). I want my students to take responsibility for their learning, to process for themselves, to reflect on their success and/or failure, to recognize their attitudes toward learning.

<div align="center">Rationale for Study</div>

Understanding my desire for students to learn to think focused my action research. Thus, I query: *How will my use of metacognitive strategies affect my students' academic achievement and their attitudes toward learning?*

In the high-tech world in which we live, so much that past generations used their thinking to perform has disappeared. In the 1960s, cashiering in my family's Los Angeles restaurant, I counted change back to the customer from the expended amount to the tendered amount. Now, the cash register does the arithmetic. We used to play communication and strategy games with the family – Scrabble and Monopoly and Life, for example. Now, the latest in hand-held, non-communicative computer games keep young people isolated and mute. Inditing a letter to Great-grandmother held me thoughtfully to share my life with her. Now, text-messaging deletes thought and completes words for the texter. On arithmetic assignments, I had to show work. Currently, my students cannot divide a fraction to determine their percentage, but they can *get* the answer with the calculator -- I have to tell some of them which number to input first.

Does one wonder why youth do not think? In their world, will they not have to think? Will the twenty-first century emerge with mindless repetition as the role of its population?

In schools, teachers compete with the immediacy generation. Teachers struggle to get their students' attention and maintain it, for the students' engagement windows close quickly. Thus, in some classrooms, teachers assign rote work and dittoes, that require little creativity, thinking, self-reflection, or time.

Thinking takes time. Having to cover x-amount of standards, create and align curriculum and pacing guides, teachers may not have the time to allow students to think. The vicious cycle continues. Teachers do not have the time to give students to think, and the students do not think because teachers do not have time to give them to think. One finds it easier and quicker to prescribe learning and call it education.

On the second day of school, the principal delivering the Words of Wisdom discussed *education*, sharing that *educate* comes from the Latin word *educare,* meaning *to draw out.* This etymological denotation spins *educate* in an unusually different direction. As commonly construed, *educate* connotes an outside source transmitting information into the mind of another, but the idea of *drawing out* images the outside source stimulating the inside of the mind of another to come forth. In my teaching, I prefer the latter process. Thus, when my students come to me, accustomed to the teacher-input model, transmission model, they balk at my constructivist-learning expectation of their being responsible to think, self-reflect, self-evaluate.

Students soon decry their dearth of critical thinking ability and the paucity of their being required to think in former years. They ask me why their previous teachers did not expect them to think. I have no answers, but I do have questions. Do teachers teach thinking? Do teachers ask students to self-reflect and self-evaluate? Do teachers consider it second-nature for students to think?

A senior who once confessed the arduousness of thinking for himself pleaded with me, "Just tell me what you want, and I can do it." He had been accustomed to teacher-in-put instruction, such as a behaviorist model purports: give the student the information and ask for it back the same way (Jonassen, 1991 as cited in Bogohossian, 2006). The following year, this young man, a freshman at University of Santa Cruz, returned to thank me for "making me think."

Another force compels me to teach using metacognitive strategies – the social injustice of not equipping students as best as possible. Students' inabilities to think critically perpetuate the achievement gap between minority and majority students. My students, of underrepresented ethnicities in institutes of higher education, enter colleges and universities, however, lacking skills in parity with the majority highly-represented students. However, with honed thinking skills, students can perform at a rigorous level. Consequently, I had deemed it necessary to instruct my students with metacognitive strategies, so they may move forward prepared for university challenges and for leadership roles in the fast-changing twenty-first century.

Reading a student's response reflecting on her first week's learning sealed my decision. Ruminating on her teacher's expectation that students *think*, she innocently stated, "I had never thought of school in the thinking perspective but only in a knowledge perspective." Her comment encapsulates the necessity for metacognition. Because I fear that she represents many students, I choose to create a culture of thinking in my classroom. Using metacognitive strategies will create opportunities for students to think critically about their learning and their learning processes. Using metacognitive strategies, according to research of others, could very probably affect students' academic achievement and their attitudes toward learning.

CHAPTER TWO

Review of Related Literature

Introduction

Researchers laud the criticality of metacognition and its benefits to students' learning. In this review of the literature, first, I will present a theoretical framework of thinking domains: cognitive, metacognitive, and affective. Next, a discussion of the vitality of metacognition in relation to student learning will ensue. However, not all educators agree with the necessity of metacognition to benefit student learning. Thirdly, I will show that metacognition causes students to create meaning for themselves; metacognition exemplifies elements of constructivist learning, which evolved as an alternative to behaviorist learning theory of the 1980s (Bogohossian, 2006), which remains prevalent today. Fourthly, I will introduce four metacognitive strategies. Finally, I will conclude understanding what the research evinces about metacognition, but with the challenge of seeing how my transforming my instructional practices into a metacognitive framework may affect my students' academic achievement and their attitudes of learning.

Theoretical Framework

Cognition, Metacognition, and Affective Modes of Thinking

Literature regarding cognition describes three modes of thinking: cognitive, metacognitive, and affective (Anthony, 1996; O'Malley, Chamot, Stewner-Manzanares, Russo, & Kupper, 1985; Smith, 2000; Smith, Rook, & Smith, 2007). These three possess specific individual tenets of mental processing. In brief, cognition focuses on learning the curriculum, the knowledge, understanding, and application of specific content. Metacognition

is one's thinking about one's thinking (Martinez, 2006). The affective domain involves one's making personal connections to the content (Smith, 2007). Copious studies manifest the benefits of metacognition to stimulate student academic growth, self-responsibility, self-reflection, self-stimulated mental processing, transference of strategies into new situations, and these not only in an academic setting, but in life in general (Anthony, 1996; Blakey, & Spence, 1990; Jacobson, 1998; Martinez, 2006; O'Malley, Chamot, Stewner-Manzanares, Russo & Kupper, 1985; Pintrich, 2002; Smith, 2000; Smith, Rook, & Smith, 2007; Tishman, et al., 1993; Veenman, 2005).

Even with a plethora of research advocating the teaching of and use of metacognitive strategies, opposition, however, exists negating the beneficence of metacognition in their particular studies. Krashen, the well-known language-acquisition theorist, affirms that in his Monitor Model, the instruction of specific learning strategies for the student's conscious use plays no role in language acquisition (as cited in O'Malley, Chamot, Stewner-Manzanares, Russo, & Kupper, 1985). O'Malley et al. (1985), however, found adversely that metacognition did affect students' spoken language; their findings showed that the metacognitive student score on a post-analysis speaking test averaged close to 2+ and the control group scored below 2. The metacognitive group demonstrated organization in speaking, evidenced by their subordinate syntax, their sequencing, their comprehensibility.

Another dissentient poses the lack of guarantee that students left on their own to construct meaning will progress toward accurate knowledge in mathematics (Nodding, 1993 as cited in Anthony, 1996). Echoing Nodding's concern, colleagues admit their hesitancy to allow students to work in groups, to collaborate, and to discover their learning because they get off task, do not focus on the task at-hand, or may learn it all wrong. A colleague told me, "I will have to teach it right. I prefer to keep students altogether and teach." The teacher-directed instruction supports passive learning or behaviorist pedagogy. "In a behavioral

paradigm, learners are told about the world and are expected to replicate its contents"
(Jonassen, 1991 as cited in Bogohossian, 2006, p.717).

Regarding the use of passive learning strategies, data show that in schools with low
achieving and minority ethnic students, teachers regularly use rote memorization work and
dittoes because of their beliefs that the *not bright* students cannot handle the critical thinking
processes (Campbell, 2004). Rote instruction comprises pages and pages of sentence frames
that require the student to write a one or two-word book response. These educators perceive
that really smart kids who can do that kind of stuff -- can metacognize, as a colleague
expressed; however, critical thinking must be for all, not for a few (Campbell, 2004).

An environment with passive learners contrasts a metacognitive environment in
which students engage in their own learning and make meaning for themselves. In
constructivist learning theory, students become primary participants in the classroom, erect
meaning for themselves, engage in self-recognition of acquisition of content (Anthony,
1996). Rather than replicating information, students recreate information in ways potent for
themselves. When one becomes aware of, controls, and manages one's cognitive processing,
metacognition plays a critical role in learning (Anthony, 1996).

Four Metacognitive Strategies

Metacognitive processing predicts extremely powerful learning (Wang, Haertel, &
Walberg, 1990, as cited in Veenman, 2006). Students need to know the word *metacognition*,
its meaning, its strategies, and its significance to their learning (Martinez, 2006).

One strategy, for example, that augments students' capacities for thinking and
processing information, Martinez (2006) calls the *think aloud*. Simply stated, the teacher
models thinking about text. The teacher demonstrates her thinking by speaking aloud and
inditing her thoughts about the text while reading it aloud. Teacher asks questions, notes

diction, relates similar experiences. In short, what the teacher thinks, the teacher speaks -- so the students can learn to *think aloud*. The *think aloud* causes student to engage in self-stimulated mental processing, to recognize one's own ability to make sense of text, to ask questions about text, to give voice to one's thoughts (Martinez, 2006). He further asserts that the processes of *thinking aloud* assist students to internalize purposeful reflection.

Another metacognitive process allows students to plan and self-monitor their own learning. Inventorying what one does not know about a topic as well as what one knows motivates students to plan and regulate how to acquire the missing information. When solely others plan and monitor students' learning, the students' becoming self-directed learners diminishes greatly and stifles their abilities to be successful in the twenty-first century (Blakey & Spence, 1990).

A third metacognitive strategy requires the students to maintain a writing journal, in which they respond to prompts that validate the students' perspectives, and they learn that what they have to say counts (Smith, Rook, & Smith, 2007). In their study, they also found that metacognitive prompts, along with cognitive and affective responses, assisted ethnically diverse students as well as students at-risk.

Debriefing one's learning also promotes metacognition (Blakey & Spence, 1990). Participating in lesson closure activities causes the students to self-evaluate their degree of learning, speak their successes, reflect on how they learned what they learned, which strategies worked for them or did not. Debriefing becomes a vital part of the students' metacognition.

According to these studies, students who consistently practice these and other metacognitive strategies will develop skills far beyond the classroom and that will bode well for them for life. Their academic success will change and their attitudes for learning will change.

Conclusion

Reading of the domains of thinking, I have coined cognitive, metacognitive, affective processing as *The Thinking Triumvirate*. These three complement each other as a critical force for enhancing student learning and achievement with possible ramifications beyond the classroom. When teachers structure instruction with opportunities for students to understand, reflect, ask questions, debrief one's learning, self-manage, self-evaluate, maximum learning ensues. Kabril Gibran (1923) states in his book *The Prophet*, "If he is indeed wise, he does not bid you enter the house of wisdom, but rather leads you to the threshold of your own mind." Gibran illustrates the teacher's task: not giving students wisdom but of assisting students to discover wisdom within their own thinking.

However, as potent as studies show metacognition, often it is missing in high school instruction. For various reasons, educators do not engage their students metacognitively. Not doing so affects not only the here-and-now, but also affects the future. Metacognition does not happen by chance and in a once-in-a-while fashion, but rather, it must abide in the mind and practices of the teacher before it can abide in the minds and practices of students.

Consequently, in this study, the literature has encouraged me to observe, investigate, and transform my instruction to a metacognitive construct so that I may engage my students metacognitively. Monitoring and modifying my instructional practices predicate metacognitive successes germane to my students' improvements. Qualitative research methods guide the investigation of my instruction and the observance whether or not metacognitive strategies play a role vital to student learning. Succinctly, my study will provide answers to my action research question: How will my use of metacognitive strategies affect my students' academic success and attitudes toward learning?

CHAPTER THREE

Methods

Introduction

My self-study caused me to transform my instruction with metacognitive strategies to promote student metacognition to affect their academic success and their attitudes about learning.

Paraphrasing an age-old adage comes to mind. *Give a student a thought, and the student will think for the moment; teach a student to think, and the student will think for a lifetime.* My own metacognizing about my teaching transformed my instruction with medals of metacognition but more importantly enhanced my students' abilities with the mettle of metacognition for life.

To research my objective, that of taking a critical emic perspective at my metacognitive instruction in order to ascertain how metacognitive strategies affect my students' academic successes and attitudes about their learning, I employed qualitative teacher action-research methods. Action research is the systematic inquiry executed by teachers to amass information regarding how they teach and how their students learn however not merely for the sake of new knowledge; but through gained insight, reflection on instructional strategies, and effective change resultant from the findings, teachers make a difference in the education and lives of their students (Mills, 2007).

Pursuing my action thesis, I looked introspectively at my teaching pedagogy with the expectancy of utilizing metacognitive strategies to maximize students' awareness of their learning by reflecting on their successes, reflecting on their attitudes about the learning, and reflecting on their processes of learning. I purposed a holistic metacognitive approach,

intercalating tried-and-proven strategies with newly acquired strategies so that metacognition became the modus operandi of my instruction. As I worked through my investigation, my own metacognizing resulted continuously, which stimulated my action. As the name action thesis connotes, my praxis led me to make changes as I saw necessary in order to teach more efficaciously, which in turn benefited students to construct better meaning for themselves. I engaged in the four foci of action research that Mills (2007) iterates: identification of study focus; collection of data; analysis and interpretation of the data; and development of an action plan.

Inherent in action research, I employed specific qualitative data collection tools and strategies to garner data regarding the affect of my metacognitive teaching strategies on my instructional practices and my students' learning. The tools I used pursuant to my research coincided with those that I routinely use in classroom instruction: teacher notes and reflective journal, lesson plans, monitoring students in cooperative groups, student work, student writings, and conversation with students, to name a few. For my personal metacognizing, I maintained a teacher journal in which I recorded anecdotes regarding the efficacy of metacognitive strategies.

The Setting

Mountainside High School[1], (hereinafter MHS) a traditional comprehensive school with an eight-period day schedule, opened its doors nearly a decade ago. We have a narrowly diverse student population, primarily Latino, with a small percentage of Filipino students, and an even smaller percentage of students of other ethnicities: African-American, Asian,

---

[1] All names are pseudonyms to maintain confidentiality.

Caucasian, and others. The administration, faculty, and staff comprise more diversity than the student body but still with a majority of Latino ethnicity.

All students take a two-period English class in which most teachers instruct in a very teacher-directed mode. Of our student population, a large percentage of students score in the 25th percentile on standardized tests; on report cards, most students fare not well academically, a high percentage of students earning Ds and Fs. Consequently, this year, with the principal's encouragement, we moved forward with a no-tolerance-for-failure concept. A mantra emerged about schooling. School is not about teaching; it is about student learning! Resultantly, we enacted, via teacher-volunteer, an academic intervention before school and/or after school for students who need additional time to succeed.

In my classroom, I engage students in a student-centered environment, involving them in cooperative learning settings, open-ended assignments, choice assignments, cognitive (graphic) organizers, and right-brain creative assignments, to name a few.

My students learn quickly that I expect them to take responsibility for their learning. From the first day of school, I establish an environment in which students must engage in critical thinking. I believe, as Campbell states, that critical thinking must be for all, not for a few (2004).

During this action research, if I discover what I have read about metacognition holds true and if my instruction fosters the benefits of metacognition as I have read that it could, I will establish metacognition as an instructional concept appropriate for all students, not for just a few. Given the fact that student-learning needs to improve at MHS, evinced by test scores and reports card grades, considering a systemic change to create a culture of learning may be beneficial. To that end, I chose to execute this metacognitive study with my students so that I may ascertain the validity of research about metacognition and student learning for myself and my students, as well as for the benefit of my district.

The Participants

At MHS during the Fall of 2008, I had three classes: English 10 Honors, English 12 English Literature and Composition Advanced Placement (AP), and the English-as-a-Second Language class. These students had been accustomed to a very teacher-directed class environment. Their coming into a more student-centered environment, in which the teacher expects students to think for themselves, came as a new experience for them. They had no experience with metacognition and metacognitive strategies.

Thus, all of my students could have benefited from metacognitive instruction; however, of these three classes, I selected the ESL class with whom to execute my research. I chose this class to combat comments that metacognition is for *students who know how to think, for the smart kids.* Therefore, I thought that if my ESL students, who have language-acquisition concerns and as I discovered had serious behavior issues, benefited from metacognitive strategies and learn to metacognize, then all students can benefit from metacognition strategies.

This class of seventeen Latino ninth-grade students, six girls and eleven boys, differed from any I have had in the past. All students were born in the United States and attended American schools since pre-kindergarten, kindergarten, and two since first grade, yet all of them read at sub-third grade reading levels.

Along with their second language far below basic, as designated by the California Standards rubric, students came in with elaborate non-student ideas. They possessed minimal positive classroom decorum. Several nearly did not graduate eighth grade because of negative student issues. Most came in with the attitude that they did not like school. They exhibited little respect for the teacher or any teacher's effort to instruct.

I clearly had my work laid out for me. Nevertheless, with a deliberate concentration on my metacognitive instructional strategies, I expected to raise my students' awareness of their own thinking, to affect their attitudes toward learning, and to promote their academic achievement. Thus, from August through November, we focused on metacognition, and I used qualitative research methods to conduct my study and amass my data.

Procedures

As the first order of business with the students and metacognition, as the literature attest, I introduced the word *metacognition* to the students, defining it, and discussing its purpose. Of course, they had never heard the word before and thought thinking about their thinking made no sense. Regardless, they liked the word because it was different; it was a big word; it piqued their interest. Yet, when I gave them the request letter to ask for parent permission to engage in the study, some of them objected by asking what if their parents did not want to approve. What it came down to was that metacognition sounded like work, and they had little designs on working as they told me a few weeks after the beginning of the year. Despite their protest, all returned the signed parent consent letter.

A next necessity required my creating a repertoire of metacognitive strategies, which would become the basic general fare for instruction. Research, as well as common sense, established the necessity of routinely engaging students in strategies. Having students engage in metacognitive strategies as part of a daily discourse in class created in them language about their own cognition and learning (Pintrich 2002).

Daily Writes

One such strategy, the Daily Writes required students to write for ten minutes responding to a cold prompt. Students began writing when the bell rang and continued until the teacher called time. In these Daily Writes, students reflected on a variety of topics, including but not limited to the following: study habits that encourage academic growth, negative behaviors that inhibit academic success, planning their progress within the upcoming marking period, congratulating themselves for what they had done well, reflecting on what they learned about themselves while doing a particular assignment. These particular topics caused the student to name, reflect, and act (Wink 2005). These types of writings contributed to behavior modification, and students participated in their learning and successes. At the end of each Daily Write, students wrote a Metacognitive Minute response, which engaged them in a dialogical response to themselves; in other words, they responded to themselves about what they had just written and told themselves what they thought about what they had written. Writing to themselves about what they thought stumped them, at first. They said that they usually just write and not think about what they wrote; rarely, did they reread their writing. The Daily Writes with Metacognitive Minutes helped students see what they thought and validated not only what they knew about content but also their self-knowledge, which is a significant exercise for learning. Students who possess self-knowledge can better assess and evaluate their strengths and weaknesses in their learning (Pintrich 2002).

Therefore, I deliberately asked students to reflect on their preparedness for tests or assignments, for example. I asked them to assess their commitment level to performing a task, such as homework. I asked them to discuss how they studied, when and where they studied, why they studied, how they felt they did on the test and why, to name a few. The

focus of such writing drew students into their own learning purposes, and through

metacognition, students became more aware of their strengths and weaknesses so that they

improved from one assignment to the next.

Think- Aloud

The second strategy, the think-aloud, I gleaned from Martinez (2006) during this

study, as earlier discussed. Though I knew the think-aloud strategy and have used it only a

few times in the past years, I used the strategy during my study as a routine instructional

strategy. Specifically, when we began reading a new story, I engaged the students in a think-

aloud, Survey the Text strategy. When we began a new story, I had them to survey the story,

to scan it for details that they could see without reading. They read the captions, titles, and

sub-titles, discussed the pictures, asked questions about what they saw, looked at different

font feature – bold or italicized print, and read the questions.

A think-aloud sounded something like this. On this page, *I see a girl with her head in*

her hand. She looks like she is thinking about something that will make her happy because

she has a half smile and her eyes seem to be looking off into space. I wonder if she is thinking

about moving to the United States because I see the title says a new home. I remember when I

moved to a new home when I was in high school; I wondered what my new school would be

like and if the students would like me and if I would like the new school. Students speculated

about text when we engaged in a Survey the Text think aloud.

Pintrich (2002) says that when students know various metacognitive strategies, they

are apt to use them. He advocates that students who understand the power of metacognitive

strategies transfer them into other situations, classes, and even other environments where the

students may find themselves. Because of this research, students had a better chance of

internalizing a strategy with its repetition. Therefore, I looked for many opportunities and ways for students to use metacognitive strategies on their own. I observed them as they used strategies on their own. If students imbibed the strategies so that the strategies became automatic, such would attest that metacognitive strategies do affect students' attitudes about learning and achievement.

Hoping that this transference would occur, I taught and named the metacognitive strategies we used. In order to ascertain whether students developed metacognitive habits of mind to use metacognition without my prompting them, I observed and listened to their group comments and with me, read what they wrote with regard to their self-evaluation.

The foremost self-regulation strategy emanated from a simple and basic statement -- *Mind your own business. Your job is to take care of yourself, and that is a full-time job.* Though this mantra they have heard continuously since August, this remains a common foible on their part; however, they began taking up the chant for themselves. Occasionally, one will say to me, "Yeah, I know, mind my own business. It's my full-time job."

Data Collection and Analysis

In order to know how my metacognitive instructional strategies affect my students' academic success and attitudes toward learning, I gathered and analyzed the data I received from the strategies I used. I used a holistic approach to metacognitive instruction, meaning, as stated earlier, that metacognition became the paramount mode of instruction. Rather than focusing on a few strategies, I made certain that everyday students engaged in metacognition. I continued to create new strategies as the study and the year progressed. I will herein explicate a few strategies that promoted academic achievement and affected attitudes toward learning. The literature that I read and mentioned in this thesis unequivocally assert that

students involved metacognitively experience academic growth. From the data that I collected and analyzed, I hoped to discover the same.

To facilitate data collection and analysis, my teacher journal in which I maintained recordation of my metacognitive instruction and students' engagement served as my primary source, providing me thick description of what transpired during the day with regard to the metacognitive strategies: the type of strategy, its use, the students' responses. While I annotated the day's metacognitive processes, concurrently, I analyzed my data as I evaluated what I observed. Such analyses I used to inform necessary modifications and/or to suggest generalities that established my findings. This anecdotal record produced cyclic processing, rather than linear processing, because as true of action research, one step taken followed by reflection promotes the next, which predicates either moving forward or back-tracking to modify. Such process itself became my own metacognizing.

Besides gathering my own data via my own teaching journal, observations, and analysis, I gathered information from students by employing qualitative methods such as but not restricted to surveys, observations, student writings, and student evaluations. These activities I routinely used. These student documents provided me feedback regarding the value of the particular strategies that we use. From this feedback, I monitored my instruction accordingly. Students quickly informed when they liked a strategy and how it assisted them.

To obtain information relative to how metacognition strategies and instruction affect my students' thinking about their learning, I observed students' conversations as they worked cooperatively. I listened to how they responded in discussion. I observed their problem-solving without engaging me, for example. Their written responses elucidated their connecting with their own thinking about their learning and how their processing of information changes. I observed how students used metacognitive strategies per my instruction, of course; yet more importantly, I monitored how they used metacognitive

strategies on their own. Surely, the latter limned that metacognitive instruction affected their

attitudes about their learning and could promote their achievement.

At the beginning of the year, I wanted to find out from them general information

about how they think they learn best, how they read a book, how they take notes.

Additionally, I asked from what type of teacher they learn best. Also, I administered a

Reading Strategies Survey at the beginning of the year, August 2008. It questioned students

regarding three areas of reading: global processing and problem solving and support

strategies. The survey provided baseline data with which to compare, evaluate, and analyze

their responses at the end of the semester. I looked to see a change in their thinking about

their learning, perhaps the mention of a specific metacognitive strategy, and/or a comment

about the difference in teaching style. I administered the same reading survey at the end of

the fall semester, December 2008, to ascertain how metacognitive strategies enhanced or not

their reading processes.

With regard to student writing, I used Daily Writes. For Daily Writes, students wrote

for ten minutes in a spiral notebook that stays in the classroom. Periodically, I read their

writings, especially focusing on the metacognitive questions and the *choose your own topic*

prompts. The latter prompt gave me insight into whether the student's choices became more

academic, more thoughtful, or having to do with themes outside of academics. Additionally, at

the end of each Daily Write, students concluded with a Metacognitive Minute, which prior to

this study I called *Reaction*; but because of this study, I renamed. Writing the Metacognitive

Minute, at first, students thought made no sense. They wanted to know why they had to think

about what they thought. They could not understand that they could possibly think about what

they had written. Initially, with guided questions, they were able to respond -- later without

my prompting them. These writings provided me an opportunity to monitor if students chose

to write metacognitively on their own and how their Metacognitive Minutes increased in the depth of thinking.

In conjunction with the Daily Write, I assigned a Daily Write Evaluation. For this strategy, students reviewed their Daily Writes from the previous writings. They selected five that they felt influenced them the most – for whatever reason. Then, they ranked these five from the most influential to the least and then wrote a brief paragraph discussing the value of each Daily Write to them. Students learned that they had something to say and that their thinking counted. I used these evaluations to observe and record anecdotally whether their thoughts progressed from superficiality to analytical responses. Observing this variance throughout the semester gave me insight pertinent to students' attitudinal shifts about their learning.

Another strategy that I used was a cognitive organizer that inquired of them which strategies helped them to learn. The students answered very candidly on these metacognitive evaluations. From this inquiry, students assessed their learning; what worked best for them; and what did not work for them.

As I pursued these data in my classroom, my students, participating in the day-to-day class assignments and instruction, mirrored to me my efficacy as a teacher employing metacognitive strategies. Simultaneously, their engaging in metacognitive strategies also delivered data to me regarding how the strategies promoted students' academic achievement and affected the attitudes about their learning.

Data Analysis

I kept notes of the strategies I used, how I used them, and the students' responses. I used a matrix to organize of these data in a user-friendly format. This spreadsheet made

visible the frequency of a strategy used in instruction. I logged student responses in the matrix. Additionally, I noted which strategies the students liked best or least or which strategies students, voluntarily, used or not used. In addition, in my teacher journal, I wrote anecdotes or student comments that I heard regarding a particular strategy or its affect.

As we read and discussed the stories in the textbook, I expected to see that their levels of critical thinking increased, that their thinking about text went beyond the superficial. What did occur showed up in their test scores on the curriculum reading tests, which improved dramatically during the course of the fall semester. Furthermore, students' written and oral responses let me know which strategies they like as a learning tool and/or teaching strategy.

To document these data, I read carefully their essays, surveys, and other students' writings. I copied them and color-coded them for the specific information I needed as it pertained to the research question: the metacognitive strategy, student achievement, and their attitude. This helped me to separate and analyze the data on an on-going basis throughout the semester. As I created statements of analysis and/or interpretation of data, I added these to the matrix as possible findings or other points of interest to consider later. I paid close attention to the strategies used closer to the curriculum pen-paper tests to ascertain which strategy in particular supported students' review of information. I discovered certain strategies that students enjoyed doing as evidenced by their requests of them, discussed in Chapter 4.

Perusing my data, I coded information as it pertained to my research question, which data related to the specific metacognitive strategy used and how data related to student achievement and/or their affect on student's attitude about learning. With the coded data, I could see commonalities amongst responses and from which I gleaned the findings. From my data, I gleaned four findings..

Finding #1	*My own metacognition led me to ruminate on new specific metacognitive strategies for students to examine their unscrupulous behaviors.*
Finding #2	*Giving students autonomy appears to contribute to the students' achievement and attitude toward learning.*
Finding #3	*Giving students opportunities to succeed on a personal level can translate into opportunities to minimize behavior issues and to focus on academic achievement.*
Finding #4	*Students can candidly articulate the impediments to their success and then can make judicious decisions about what can help them improve, if given the opportunity to do so.*

These themes, addressing the research question, I will discuss in detail in Chapter 4.

Furthermore, from this data and analysis, as certainly as I have gleaned positive findings, most certainly, I have discovered limitations. Yet, despite the limitations, far-reaching possibilities stem from this study; thus, implications of this study abound.

Summary

From this study's data, I have gleaned much about students and their metacognition through the strategies herein addressed which constitute a representation of metacognitive strategies I used during the Fall 2008 semester with my ESL students. Transforming my instruction into a metacognitive pedagogy continues a full-time project that can only improve as I continue building a metacognitive repertoire for the sake of enhancing student achievement and affecting their attitudes about learning.

CHAPTER FOUR

Findings

As I pursued this study from August through November to discover the answer to my research question, I collected data through observations, students' writings, and student conversation; I kept field notes, data memos, and a teacher journal to provide me with thick description in order to store data to focus on answering my research query. *How will my use of metacognitive strategies affect my students' academic achievements and their attitudes toward learning?*

This chapter, arranged by four findings, outlines the results of this study. A discussion of the findings and students' voices accompany each finding. Finding #1: *My own metacognition led me to ruminate on new specific metacognitive strategies that would require students to examine their unscrupulous behaviors.* Finding #2: *Giving students autonomy in the class appears to contribute to the students' achievement and attitudes toward learning.* Finding #3: *Giving students opportunities to succeed on a personal level can translate into opportunities to minimize behavior issues and to focus on academic achievement.* Finding #4: *Students can candidly articulate the impediments to their successes and then can articulate judicious decisions about what can assist them to improve, if given the opportunity.* Lastly, this chapter concludes with student testimonials, written in December 2008, attesting to the significance of metacognition that they discovered after having participated in metacognitive instruction and learning.

Finding #1   My own metacognition led me to ruminate on new specific metacognitive strategies for students to examine their unscrupulous behaviors.

I had not thought my own would be my first occupation; for, after all, my research question asks not what my metacognition would do for me, but what my metacognitive strategies would do for my students. Before I could even hope to affect my ESL students' academics, I had to address negative student behavior, specifically and deliberately. Little had I reasoned having to commit to my own metacognition about negative behavior and not metacognition for curriculum. However, on the very first day of class, my students entered with attitudes and behaviors, the likes of which I had not endured in many years. Their behaviors altered my vision of beginning with metacognitive strategies and observing how they engaged students. Nevertheless, without addressing the behavior issues, I could not hope to create a classroom environment conducive for learning. I found myself exercising adaptive metacognition, which due to variables that arise in a classroom, the teacher must reflect on how to alter her routine in order to affect a more positive outcome (Lin, Schwartz, & Hatano, 2005). Thus, I stumbled upon my first finding. *My own metacognition led me to ruminate on new specific metacognitive strategies for students to examine their unscrupulous behaviors*

In the first couple of weeks, beginning on August 11, student behaviors took many forms: refusing to do the assignments, talking loudly across the room, ignoring my attempts at instruction, leaving their seats at-will to talk to another, throwing spitballs across the room, yelling responses to questions, ignoring classroom procedures. They minded other people's business, interjecting loud, unwarranted and disrespectful comments. They hurled epithets to students talking to me, often calling that student *mentiroso*, a liar. One student even called me *mentirosa*, which garnered a chorus of laughter. Often they repeatedly interrupted my instructional attempts; *this is boring,* they whined. These behaviors would have been terrible

enough from one or two students; however, with these behaviors emanating from a majority of students, chaos reigned everyday, of course, destroying the learning environment.

During the first two weeks, I found myself engaging in my own metacognition. *I kept reminding myself why I chose my ESL class in the first place for the completion of my study – my ESL students could benefit greatly from metacognitive strategies by helping to improve their achievement and affecting positively their attitudes about learning. I kept asking myself, what could I do to change this behavior in the classroom? June is a very long time away; I have to do something now. I cannot suspend students everyday. What am I going to do?*

I employed a theory that I learned decades ago, modeling William Glasser's Reality Theory, (which now I recognize as metacognitive processing, but when I learned Reality Theory in late 80's, metacognition did not exist wholesale). Whenever I could, I engaged students in the Reality Theory protocol to educe from them their articulation about how their behavior hinders or assists their success.

During these first weeks, while I attempted to teach, more often, my job comprised putting-out fires, reaching containment; yet though a fire seemed extinguished, it took only a spark to stoke the embers, and once again, I resumed putting-out fires.

Continuously, I metacognized. *I know that they have not learned the curriculum.*

I had to enact more drastic measures for the sake of, first of all, the few who were coming to class to learn and, of course, for the students who did not know yet that learning would change their lives. Thus, taking a risk, I continued with the curriculum. They would take the first selection test, and we would see what resulted, though I knew the outcome.

Therefore, by the end of the first two weeks, the end created a turning point. We managed to complete the first selection and were ready for the test – ready, because we had completed the chapter -- not because they had learned. My first major metacognition led me to hope that upon seeing their poor test scores, they might rethink their behavior. (*I had no*

real reason to think so because nothing I had done had caused them to reflect, yet I hoped

that their first score in high school might speak to them.)

The results of the first test, as I had predicted, were abominable. Of the sixteen students testing, four passed with mastery: 80% or better. In the following week, I returned the test and shared their failures, at which they joked and laughed. When they finished their gaiety, I talked to them about what we were going to do.

The results of this test are terrible. With all of the unruly behaviors in class during the past two weeks, you could not learn because your minds were not turned-on to learning. I am sure that all of you could have performed better if we did not have the behavior issues. So, here is what I am going to offer you. We can repeat this lesson again, do all of the reading, restudy the vocabulary, focus on the writing again, and then take the test again. Or, we can go on to the next story and continue as if this first test did not happen. I don't want you to yell out an answer now; think about it, and in a few minutes, I will ask for your decision. I permitted them time to caucus.

I had found myself metacognizing how would I get students to think about how their negative behavior affects their learning and that until they realize that behavior and learning directly correlate, neither of us would be successful. I metacognized that learning trumps teaching; if no learning occurs, teaching goes for naught.

In a few minutes following giving the students the choice of forging ahead or repeating the study of the previous two weeks, they responded. Agapito answered. "Mrs. Turner, we want to go back and redo "The Lion King" and take the test again.

Their response surprised me. I thought that they would have chosen to go forward, but what surprised me more, an inkling into what they really wanted as students followed -- their reason for re-studying the lesson.

"We did not learn what we needed to learn, and we need to learn it. We can do better," he continued.

The class followed, "Yeah, we can!"

This decision made the first step, though I still had more work to do. The first two weeks galvanized the thought that no learning would occur until I worked to eradicate the negative behavior. Consequently, my initial strategies focused solely on the students taking a critical look at their behaviors. As I made this determination, I also determined that I must place curriculum in second place temporarily. The irony of my decision, however, revealed that the curriculum *had been* in second place for two weeks and would continue to be in second place the rest of the semester if I permitted the continuance of the two-week motif.

Thus, I determined to develop strategies to attack the behaviors. On the same day that they decided to restudy "The Lion King Goes to Broadway," we held our very first Class Meeting, which became the students' most welcomed strategy. Another strategy that I created I call Quiet Reflection, which engages them immediately as they enter the classroom. I assigned Daily Writes after their ten- minute break and essays every Friday focusing on some aspect of their behavior. I used metacognitive social verbal cues, such as *whose business is it? Sit up; posture is everything*! At times, when one appeared off-task and I questioned the students, the student would plead innocence, "I'm not doing nothing!" I would say to Jacinto, to whom I often made such a comment, "*And*, *that's the problem; you should be doing something."* Throughout the semester, these strategies contributed to the transformed classroom environment. Students learned that behavior and learning connect, learned to have appropriate classroom behavior, to pay attention, and to focus on the curriculum.

As the semester continued, my metacognitive strategies focused more on instruction. Two favored strategies became Think-Aloud and Surveying the Text.

Needing to know what the students wanted as their behavior and classroom environment, I asked them. During the first Class Meeting, I asked them to answer four questions. I needed to know if deep down, they actually desired to be successful. The four questions probed to ascertain the essence of what the students really wanted.

1. What is your expectation of yourself as a student?

2. Does your behavior match what you want?

3. Does your behavior help or hurt your learning?

4. What can you do to improve?

The following Table 1 relates the responses of the specific students who prolonged most of the negative behaviors.

Table 1

 Essay on Behavior Expectations – Do your behaviors match, help, or hurt your learning. What will you do to improve?

Student Expectations	Does behavior match what you want?	Does your behavior help/hurt learning?	What can you do to improve?
Lucia: I want to be a good listener, a good student.	It does not match. I do the opposite. I don't pay attention. I don't follow instructions the first time.	It hurts my learning. I fool around. I don't participate.	I can pay attention. I can ignore dumb comments. I need to pay attention.
Arlo: I want to be a good student.	It is not matching. I am messing up, missing class. I make trouble. I get kicked out of class and get suspended.	It hurts me. I will have a difficult time to graduate. I will disappoint my family. When I get kicked out of class, I am missing what I need to learn for my own good.	I need to prove to the teachers and the principal what is inside me. What I can do is listen and do my work. I want to be somebody in my life.
Agapito: I want to pay attention. I want to be successful in life.	My behavior is not matching because I am getting suspended. I want my behavior to match what I want.	It hurts. Suspension hurts me because I do get into trouble. Others blame me for trouble.	I will stay focused. I will do all the homework.
Tomás: I want to learn everything so I can get to English 9.	My behavior matches; I am respectful	Incomplete	Incomplete
Rogelio: I want good behavior. I want to pass the class. I want to play sports.	My behavior does not match because I am fooling around but improving day by day.	It hurts me [be]cause I am not improving.	I need to get on track, start doing my work, stop listening to others, pay attention to the lesson to pass the class, so I can play sports.
Isidro: I want to be a good student. I do want to have good behavior and not be childish.	They do not match that [well] but okay. My behavior is balanced with what I want.	My behavior helps me to be more active.	I am going to behave and not talk.

Table 1 shows that they knew what positive student behaviors look like, yet doing the positive behaviors came with difficulty. They could articulate what corrects their negative behavior in order to affect their learning. The reality that they knew how to act assisted me. I banked on that they really did want to be successful, that as Agapito states, "[They] want to be successful in life." I contend that given opportunity to focus on what they want for themselves would help transform their behavior.

Knowing that they really did desire to be good students and had goals for their improvement, I continued to focus on behavioral strategies in order to show them that they could meet their goals, but first they had to reckon with their behaviors. Thus, my own metacognition proved the necessity for effecting the transition that we all hoped would take place.

Finding #2   Giving students autonomy appears to contribute to the students' achievements and attitudes toward learning.

One aspect of metacognition, self-regulation, I considered would be a significant place to initiate affecting a difference in the behavior problems. During the first week of school, I assigned the students a Daily Write during the first ten-minutes of class. I chose the Daily Write prompt.

I expected students to come in, retrieve their journals from the crates, and write quietly for ten minutes. Coming in, they did get their notebooks, but they did not sit and begin writing immediately. Instead, they talked with one another close-by and across the room, strolled to the sink for water, laughed and high-fived; but beginning their writing, they did not. Intended as a classroom management tool as well as an instructional strategy, the Daily Write failed in both regards. Engaged in my metacognition for improving behaviors, I decided to change this entrance strategy to a self-motivating as well as self-

regulatory strategy. I changed the ten-minute Daily Write to a ten-minute period of Quiet Reflection, hereinafter referred to as QR.

Like the Daily Write, I employed QR, initially as a classroom management strategy. However, unlike the Daily Write, QR caused them to settle down to work. I explained my expectation that when they entered the classroom, they would sit and settle down.

Quiet Reflection, more than merely a classroom management tool, constitutes a period for productive, independent study. Students must enter and begin the QR within the first minute of class. During this time, students choose what they will work on. I made it very clear to use this time for study. We brainstormed possible activities that they could do during QR: reread the current selection in the textbook, review content that we had previously discussed, read ahead in current lesson, study vocabulary, practice writing, or read their AR (Accelerated Reading – the reading program) book. I further explained that this period *puts them in control* because they choose what they need to do, and as long as they are working, they are learning. I told them that scholars, to use Isidro's terminology, take control of their work and make responsible decisions.

Initially, even though we had catalogued various activities and I had told them that they choose on their own, they could not believe that I meant exactly what I said. A few students asked me if they could read the AR only, or did they also have to do something else? Students would call me to their desk to ask if they could stop reviewing the vocabulary and start reading the AR book. My responses, always the same, put the responsibility back to them. *What do* you *want to do?* Why *do you want to do that? Remember, this is* your *time.*

Later, upon inquiring of them why they would ask me for permission to change their activity, Laura said, "We are not used to having to make our own decisions and doing whatever we want. The teacher always tells us what to do."

Strangely enough, I had just endured a full week of their choosing to do what they wanted to do instead of paying attention to instructions or to assignments, but now given the approval to do whatever they chose in a learning sense, they waffled. However, it did not take long for them to get involved and comply productively.

On second day of QR, I wrote on the agenda, "Begin immediately." As I observed their behavior, most students began working promptly. Two students, however, cleaned out their notebooks; another feigned reading – holding the book opened but just looking at it; still another gazed out the door; another drew pictures; and a fifth fidgeted and rambled through his backpack, who shortly afterward, asked me if he could work in the Grammar Practice book. The others worked silently. Eventually, three of the four lagging students began working. Thus, only one student remained inactive, though quiet, and he kept his eyes on me -- tracking me constantly. When I drew near, he pretended to engage with content. Predicting his soon compliance with this new expectation, I decided not to address his inactivity at that time; for seeing the others working, I surmised, would make a greater impact upon him.

QR succeeded from the start. So, why did QR work then, and why does it still?

As a metacognitive strategy, QR allows the students autonomy to choose. Metacognitive theory advocates students' need for self-management, self regulation. Students intuit, "What is most important for me to do right now?" Ironically, QR played into their psyche. They always did want to do what they wanted to do, so this strategy gave them the opportunity to do so. It resulted positively.

Furthermore, Quiet Reflection coincides with my pedagogical foundation. If the students take responsibility for and actively participate in the decision-making of their learning, benefits ensue. Students come to understand that they chose to learn or not, that they must be personally vested in their learning, that they can make good decisions on their own regarding how they need to spend those ten minutes, and ultimately, when they review, they will participate better in any pursuant discussion and class work. This strategy, resultant from my own metacognition, established my second finding. *Giving students autonomy appears to contribute to the students' achievements and attitudes toward learning.*

When I first began writing the QR assignment on the agenda, I wrote explicitly *Quiet Reflection – 10 minutes of quiet, individual study – review; read ahead; read AR. Start immediately*. I still announced it, encouraged, and reminded students to work. However, what occurred in week four illustrated the students' progress. I merely wrote *Quiet Reflection – 10 minutes* on the agenda. Each day of the fourth week, without announcements or reminders, all students began work immediately and continued doing so until my calling time. Most days, in fact, when time ended, several asked to continue with what they were doing. Now after three months of class, I only write Quiet Reflection on the board, and all engage readily.

During the tenth week, students, in written reflection regarding how metacognitive strategies helped them, wrote how Quiet Reflection helped them focus on learning.

Tomás wrote, *Quiet Reflection is important to me because it helps me in my AR and other things. It helps my attitude because I am quiet and not disruptive.*

Ana stated, *[QR] helps me read and study vocab in the textbook. Quiet Reflection is important to me because I want to read and it helps my reading.* Ana, at the beginning of the year, did not want to read at all. I had to remind her to read everyday.

Still, Araceli wrote, *Quiet Reflection helps me focus on my learning because like if we learn something this day, the next day we could study it again. It is important because it makes me learn more about the same thing or something new.*

David shared, *Quiet Reflection helps me focus because when we come in from lunch, I get to read [AR book] or read the textbook. When I read, it helps me improve my reading by a lot. That way when I need to reach my (AR) goal, I would reach it.* David's reading has improved. His improved in-the-90s scores have changed over the last several books to 100%. He chose to read daily during QR. Concurrently, his textbook exams mastery scores of high 80% improved from previous scores in the 70s, which do not meet mastery.

A final student, Felipe, commented, *I like to read when we are doing [QR] because that way I reach my goal and finish my book. I like to review the stories in the textbook. When we are going to take a test, I review the vocabulary words. That way I pass the test. I think the Quiet Reflection helps me with my learning. It also helps me to pass this class because I read and study for the tests.* I must add that this student consistently did not pass the textbook selection tests; but for the past two tests, he did pass with 80% and above. This is significant because he, a reluctant reader initially, now wants to read. His QR choice to read very probably contributed to his success.

Another evidence of the students' feeling empowered to make autonomous decisions occurred when two students, unbeknownst of the other's decision, decided to sit in a different seat instead of where I had assigned them. Of his own volition, Rogelio asked me if he could sit in a seat where he would be alone.

When asked why, he responded, "I don't want to bother other students, and I don't want them to bother me. I want to be good."

I lauded him for his metacognition, "That is a mature decision you made for yourself." Permitted to move, he remained at his self-determined seat for several days. Then coming to me again, he informed me that he was ready move back to his previous seat, adding that if he caused any problems, he would move again on his own. He did fine.

Tomás, making the same decision to move away from his peers, acted upon his decision differently, however. He moved to another seat without asking me. When I asked him why he had changed his seat, he responded similarly as Rogelio. "I am getting in trouble over there, so I want to sit here."

I praised him for making a metacognitive decision best for him. Though joining his classmates outside of class during the breaks, he distanced himself from them during class. Tomás, in a few days, returned to his original seat, but during the remainder of the semester, he monitored where he sat.

These two students demonstrated the power of giving students autonomy to choose. It appeared that the environment that QR created, that of bestowing to students the responsibility for choosing their own course during the ten-minutes, overflowed conceptually: students accepted responsibility what would be best for them as exemplified by students owning their behaviors and environment.

At the end of the semester, students still use the Quiet Reflection period for their benefit. I observe that the majority of them use QR to read their AR books; those not reading AR, do review their HighPoint textbook, review vocabulary, reread the stories or read ahead. When students enter the room, they begin promptly. I have counted the time as brief as thirty seconds before all are working, sometimes in less time, sometimes more; however, their being engaged has rarely exceeded one minute, the standard set for QR.

More times than not, when I have asked students to finish the page that they are reading, many asked, "I just have a page or two pages to go [with this chapter]. May I finish?"

Again, I must juxtapose December with August. At the beginning of the year, even though they were reading (mostly with low-level intensity), they slapped their books closed before I could finish the instruction: *please*, *finish the page you are reading*. In December, when I announced, *please*, *finish the page you are reading,* they really do finish the page. I have to wait for them to finish reading. Oh, what a problem to have!

 As I reflect on this strategy, I initially employed Quiet Reflection as a metacognitive self-regulation strategy to attain classroom management. I also knew that giving students autonomy in the classroom had the potential of drawing students into the learning. A very rewarding sight, I observed often within the last month of the semester. Not only did students come in and begin work when the bell rang, but often students engaged in QR prior to the bell's ringing.

Observing these significant changes -- their engagement during the QR, their decision-making, and the increase in both AR and HighPoint test scores -- I attest that Quiet Reflection appears to have contributed to the students' attitudes about learning and their academic achievement. Having autonomy to choose their curricular engagement during Quiet Reflection highlights students' empowerment and recognizes the metacognitive ability to elect that which would benefit them. Quiet Reflection, as a metacognitive strategy, played a critical role students' learning.

Finding #3   Giving students opportunities to succeed on a personal level can translate into opportunities to minimize behavior issues and to focus on academic achievement.

Conferencing with a student exemplifies the power of metacognition as self-reflection. During a conference, either I can inform them that I find their behavior unacceptable, that such behavior disrupts the learning environment, how they need to change, and what I will do if such behavior continues; or I, using probing questions, can educe the same information from the students.

The latter protocol I follow when conferencing one-on-one; however, I have also used this concept with all students responding concurrently. Through writing assignments, I manage the *interview process* with multiple students! By asking students to write, I can affect results similar to an extensive interview, however with a major difference: both the students and I always have accessibility to the information for easy reference. A writing strategy I used initially to affect a behavior change: *Daily Writes*.

As earlier mentioned, I assigned Daily Write, hereinafter DW, as the entry assignment to yield at least a couple of benefits. One, as a classroom management tool, it calls the students into the learning setting with a specific task engagement for the first ten minutes. Two, the most important use, it prompts the student to think and write academically, to be successful in a non-threatening way, to voice his/her thoughts without rejection.

The prompts' several categories -- academics, interpersonal and intrapersonal, fun, open choice – access students' prior knowledge of the current curriculum, review students' previous day's learning, allow them to select their own topic, or allow them reflect on their progress. Students can be successful everyday writing the DW.

Generally, the latter prompt I have used at specific times within the semester: at the beginning of the semester, at the five-week and fifteen-week progress report times, at the ends of the quarter and semester. At these intervals, students reflect on what they did well or poorly and how they choose to maintain or alter their academic strategies to affect their desired outcomes. However, initially the DW lost its effectiveness.

As discussed in Finding #2, I learned that the DW following the lunch period did not effect the classroom management or the apt writing that it could. Thus, I needed to alter the protocol. I instituted the Quiet Reflection, which provided students more autonomy following the lunch period and which reaped the same pedagogical outcomes, as the purpose of the DW. Then, the DW period I moved to follow the ten-minute break between periods six and seven. (As mentioned in the Methods Chapter, I have these students all afternoon for three hours – four forty-five minute periods separated by a ten-minute break.)

The ten-minute DW following the break worked very well. I expected them to write at least one full page of writing in their spiral notebook that remains in the classroom. Initially, they complained about not being able to write a full page in ten-minutes, but after a while, the majority of them did write the minimum quota.

However, I observed several gyrations as students attempted to work. They sat idly staring at a blank page. They complained that they did not know what to write. Tomás, in particular, the same student who submitted an incomplete essay, as noted in Table 1 had difficulty deciding his own topic. Occasionally, he asked me to give him a specific topic. Eventually, they did manage to get something on the page. Consequently, I only used the DW following the lunch period for the first week.

Concurrently, having metacognized during the first week that I needed to focus on effecting a positive behavior change, I opted to use the DW as the medium through which I

would work on behavior, have them reflect on successes, and to recall what makes them feel good about themselves.

The second week of class, I issued to the students a spiral notebook in which they would write their Daily Writes. As I had previously done, I reviewed with them the purpose of the DW, the writing expectations, and the scoring of the writing.

Much unlike DW post-lunch lunch break, the DW more quickly engaged students in the writing. Compared to their inability write the DW in its initial agenda position, all but two students wrote at least one page in ten minutes. The two who did not meet the requirement continued to vacillate in the volume of writing needed -- one day a full page and the next not. Consequently, it seemed that the agenda change would create DW as an efficacious metacognitive strategy; thus, I speculated that it could be the strategy to effect the behavioral changes to maximize learning.

Almost immediately, the DW fostered a more positive environment beginning the period. Students worked productively; consequently, I could assign them vital writing topics. I intuited that unsuccessful students, in order to feel good about themselves, to perform positively, and to respect the learning environment, must have opportunities to recall successes. Thus, my DW topics asked them to reflect on successes. In the second week of school, I assigned two DWs. 1) *We all have events that make us proud. Write about a time when you did something that made you feel proud, extremely happy about yourself.* 2) *What have you done today that made you happy about yourself? Why is it important for you to think about this?* Their words in Table 2, unedited, express their understanding of successes.

Table 2 *What event in your life made you proud? What have you done today that makes you happy?*	*Why is it important for you to think about what makes you proud of yourself and happy?*
I graduated from eighth grade. The only time I really felt happy was when I graduated. *I was proud of myself. Was when I was getting diploma at my graduation. I was happy when my parants huged me and sed graduation.* *I had 2.0 GPA at middle school.* *I was failing math, and the teacher wanted a conference with my parents....They never gave up on me. I was student of the month.* *I did something wrong and I learned from it. I told the truth to a cop.* *I really have not done something that really made me happy. Oh, yeah, I made my language teacher nice. That was my bigest thing.* *I participated in class. I bring my book to my classes because when I was in middle I would never listen to my teachers when thy told me to bring my book.* *My math score today was the best from my friends. I missed 16 and one of my friends missed 45.* *I am always happy. I want to stay happy.* *I have not got in trouble today for any reason.* *The techer hasent kick me out of her class.* *I don't feel happy today because I have not done anything today.* *I'm not fooling around like I used to do .I'm acting more serious in Mrs. Turner's class.*	*I need to know what am doing wrong and what am doing rite. I need to improve for the techer that can see that I an inpovig.* *I would like to do more good things so that I can be happy and chang my attitude.* *I think that this is dome because the dont let us more time. I think this is kind of boring about this class. (eventually suspended)* *I dont want to be behain and not graduate. If not ill desopoint my family.* *I could do what I put my mind to.* *It shows me how my life is I think I'm doing great. I don't think Im a lowlife. It gives me sefl-esteem.* *It's important because it makes me* feel confident, important to think.

Before they wrote a student asked me, "What does *proud* mean?" Having the explanation, the students responded. In their responses, I see that they have a narrow view of their successes. Their successes center primarily on graduating middle school, an understandable significant and proud memory for ninth graders. Second, the response to *what have you done today to make yourself happy* illustrates that in five responses, students

phrased their answers in the negative – *I have not got in trouble*, for example. Again, negative thinking comes easily for ninth graders. In addition, not unsurprising, I found that many of them had not answered the part of the prompt asking *why is it important that you think about your successes*. These students exemplify a general truth of students. They can articulate *the what* of a question but stall and omit answering the *why* of a question.

Thus, I focused on DW as an instructional metacognitive strategy. Students' difficulty of answering the *why* in a personal context most likely would accentuate their difficulty answering content *why* questions, as I observed in the first two weeks of class. Inferential questions barred comprehension. Students did little to work their way through the barrier, responding *I couldn't find the answer*. Part of the issue, in the first weeks emanated from their poor behavior, but as the first quarter continued, their lack of probing continued. Thus, the use of DW not only gave them opportunity to practice writing, but it also gave them frequent practice with higher-order thinking skills such as the *why do you think, explain the significance of, how would you have handled . . .* type questions.

To facilitate higher-order thinking, the students responded to their own DW in a Metacognitive Minute. After they wrote for ten minutes, they responded to themselves. At first, they thought it strange to write about what they had just written. *We thought about it once; why do I have to think about it again?*

The Metacognitive Minute responses to why did I write this or what does this mean to me assisted students to think about text in the same manner. Students wrote a Metacognitive Minute on what they had just read. With the constant Metacognitive Minute practice in the DW, responding to inferential questions come with fewer *I don't know* responses. Metacognitive Minute did not eliminate *I don't know* responses to inferential questions, but it did cause students to think more before answering.

During the tenth week of this study, I asked students to explain how the metacognitive strategies had helped them to learn or affected their attitudes about learning. Table 3 shows students' responses, unedited.

In their responses, the students reflect that the DWs helped them change their attitudes about learning. They seem to have internalized the purpose for DWs – to give them opportunities to see positive changes in their thinking about their learning. The metacognition of particular students address the wealth of DWs as a strategy with multiple levels of benefits. In this table, the students articulate the how DWs affect attitudes *(in other words, why is DW significant to them)* much more responsively than at the beginning of the year. I asked why it's important to think about successes.

(Even in March, if I have not written DW on the agenda by the time they enter the room, students ask me why we are not doing Daily Write but sigh relief when I write it.)

Table 3

How do DW's *help you learn?*	How do DW's *affect your attitude about learning?*
The DWs help me to learn more. I could express myself.	*I stop and think about how I act and I acknowledge what I do good.*
What I write comes from my heart. We have a chance of expressing our feelings.	*They help me understand my self-management. They help me think more on what I do.*
I know what I feel, what I think, and it helps me write.	*It helps my writing skills and me because I could write a whole page in ten minutes.*
The DWs help me because I could think about thing I never even thought about.	*I learned a lot about myself. It has helped me on my behavior.*
We learn about something we are going to learn [in the textbook].	*The attitude that it changes is to want to learn more. It is important because it does help to learn more and makes me want to learn.*
They help makes me think.	*It helps me on changing my attitude because I use to get frustrated when I did not know how to write very well.*
They help helps me with my writing.	
They help me in my spelling punctuation commas and sentences.	*The Daily Writes is like my favorite thing from class because almost all the days I come to class I feel like falling asleep but when we start the daily write I feel better even thought sometimes I dont have something to write.*
My favorat is choose your topic because I can write whatever I want.	
	I like to write about me and what I like. Before I did not like to write but now I do and I write more every day. I like to write about myself and how much I like school.
	The Daily Write just let's me settle down.
	It is not important to me that much because I dont now what to put and I get boring.

Rogelio wrote, "The Daily Write just let's me settle down." This supports that DW created a calm atmosphere with which to begin class. Rogelio's honesty echoes the primary purpose of this strategy – as behavior modification tool. This student participated greatly in the initial negative behaviors. At the end of the semester, he took pride in his two and three page DWs. Also, as aforementioned, he chose to change his seat so that he would not bother others or be bothered by others.

In DW strategy, students see themselves and reflect on positives in their lives, which can raise self-esteem. Paul wrote in December, "Before I did not like to write but now I do and I write more every day. I like to write about myself and how much I like school." These words came from a student who early in the year told me that he did not like school, who had truancy issues, and who failed the HighPoint tests. Two of three tests prior to his December reflection, he passed with 80% or better.

I use the DW as a metacognitive strategy to help students academically to give them practice that helps them improve their writing skills. Tomas wrote, "It helps my writing skills and me because I could write a whole page in ten minutes." This student was the one who submitted incomplete work and rarely completed a full page of writing. He realized writing a full DW page helped him to write enough so that he did not submit unfinished essays. (Also, he participated greatly in the negative behavior as well as was the second who chose to sit away from his friends.)

DW, as a metacognitive instructional tool, helped students reinforce content learned and stretched students thinking. "We learn about something we are going to learn [in the textbook]." Lucia wrote, "The DWs help me because I could think about thing[s] I never even thought about." This latter comment illustrates the discovery learning, higher thinking skills in which students must engage in order to be successful.

In recapitulation, *giving students opportunities to succeed on a personal level via Daily Writes played a role in minimizing negative behavior issues and focusing on academic success.* Through the diurnal engagement of Daily Write, students in a non-threatening manner reflect on successes in a variety of ways. As evidenced by observing their time on task and reading their own words, the Daily Writes minimized behavior issues, increased their successes, and stimulated their recognition of the same.

Finding #4   Students can candidly articulate the impediments to their success and then can make judicious decisions about what can help them improve, if given opportunity to do so.

Emerging from my own metacognition prompted by rampant negative behavior at the beginning of the year, Class Meeting on August 26 occurred for the first time and continued monthly. As I wrote the agenda, I wrote *Class Meeting.* I had not previously planned it, had never conducted a Class Meeting. While writing it, I metacognized, *From where did this thought come?* Surprisingly, for Class Meeting, an instant favorite, the students continuously asked. They would have liked it weekly, as they begged. When students walked in and saw Class Meeting on the agenda, they cheered.

I had never conducted a class meeting, had not premeditated the idea even. Nevertheless, I knew my plan: abate the unruly student behavior. On August 26, we participated in our first class meeting. The organization of the meeting was simple. Students responded in writing to specific questions; after writng, each student responded orally – eighteen students, three questions, fifty-four interactions. Surprisingly, all students, even shy students who reticently answered content questions, shared.

I asked the students to respond to three questions for the first class meeting.

- What are strengths of the class?
- What are weaknesses that need to be worked on?
- How have you contributed to the weakness, and what are your next steps?

For the September meeting, students answered the following questions.

- What successes have you seen in the class the last few weeks?
- What have you done that contributed to the success of the class?
- What is your commitment to yourself to continue to be successful?
- How do the metacognitive strategies help you to be more academic?

For the October meeting, they responded to the following question.

- How do the metacognitive strategies help you to learn?
- How do they help to change your attitude about learning?
- Why are they important to you?

For the November meeting, they responded to these questions.

- We have only twenty days left in this semester. What has been your improvement in this class from the beginning of the year?
- What do you need to work on to make sure you improve in four weeks?
- How does the class environment help you learn or hurt your learning?
- How does Mrs. Turner help you learn or keep you from learning?
- Which is more important– that Mrs. Turner teaches or that you learn?

As a self-regulatory metacognitive strategy, the class meeting caused the students to reflect on various issues: their progress, their behaviors, what makes them learn better, what causes them not to learn, what bothers them. The students responding openly and candidly, such as Arlo did, astounded me.

Arlo, who had been suspended (from class and from school) a couple of times admitted, "We were acting disrespectful in the first two weeks because we thought that could get away with it, but we found out that we can't because you are not going to let us."

He embodied conflict. He wrote that he wants to be somebody important in life and that he wants to do well so that he could prove to the principal and his teacher, as well as to

himself, that he can do what he needs to do to be successful. After some weeks, he began to settle down in class; but on the outside of class, he caused major problems.

During this meeting, two students stated that one of the reasons that the class had begun to work better was because the *trouble-makers* had been suspended, and on those days, the teacher could teach, and they could learn. These two students, normally quite shy, spoke boldly that day, even with the *troublemakers* sitting in the Class Meeting circle. The *troublemakers,* likewise*,* acknowledged creating negativity when they shared.

During the class meeting, students divulged that at the middle school they had been in an opportunity class, a class for students who cause problems so they remain in one class because they could not manage changing classes.

We discussed the value of focusing on behavioral issues. I asked them, "Have you ever been asked to think about your behavior and how your behaviors help or hurt your learning?"

They answered that I am the only teacher who has ever asked them to think about their behaviors and how their behaviors affect their learning. In our discussion, I asked, "When you receive a referral, who does the talking? Who tells you what you are doing wrong?"

They answered that when they sit in the Asst. Principal's office, the Asst. Principal reads the referral to them, and they do not say anything about their behavior. They like it that way. They offered that class meeting differs from the Asst. Principal setting because in the class meeting, they have to write and tell themselves and others that they are not doing as they should in class. They are the main party in the discussion, and that is different for them. They participate majorly in the diagnosis. As a metacognitive strategy, self-evaluation plays a critical role in the thinking process.

Regarding their weaknesses, they all responded with what *they* can do to improve themselves, focusing on the what they are doing, listening to the teacher, allowing students to work, not distracting others, doing the work when assigned. When they finished, I commented that all of them had mentioned what they can do and nothing about what the teacher ought to do. Often, they had *blamed* me for their failure. *You are so strict. If you didn't give us so much homework, … If you just let us kickback,…. You never ….* To hear that they responded with what *they* knew they ought to do caused them to stop and think. They understood that success resides in their power.

Students often asked for Class Meeting. I asked, "Why?" *We enjoy talking with everyone and expressing what we think. The first class meeting was great because everyone had the chance to speak; we could be honest and hear what our classmates think. The class meeting helped them to think about being better students.*

In all Class Meetings, all students participated and readily without stalling when their time came, which did not resemble class content discussions. Table 4 reflects the monthly discussions as the students wrote their responses.

Table 4   **Student Responses to Class Meeting Questions**

August	September	October	November	
What is a class strength?	*How have you added to the class success in past weeks?*	*How does Class Meeting help to change your attitude about learning?*	*What has been your improvement since August?*	*What will you do to continue to improve?*
When the troublemakers were gone, we learned.	*I am more on task.*	*We find a resolution for our problems. We know that we cannot get away with bad behavior.*	*I am more confident and not afraid to speak out. The class meeting made the difference.*	*I need to work on my behavior because it is not good. It's not only behavior its attitude too.*
I am thinking about my work.	*following instructions*	*I understand better the things I am learning so my attitude changes because I know what I am talking about.*	*I used to not like to read but I had to. Then, I started liking books and getting into them.*	*I need to start doing my homework because I used to not do it. Now I need to start doing it.*
My behavior is improving.	*passing tests*	*I could tell the class my opinion and they could tell me and it would give me new ideas.*	*I would never read but this year I even read at home.*	*I need to work on my behavior [be]cause without good behavior I don't learn.*
We know that our behavior will get us what we want.	*paying attention and learning*	*I know now that working in groups, I can learn much more.*	*I have to have good behavior in order to learn. Learning is fun.*	*I want to improve so I could go to English 9.*

I notice that as the questions became more complex, students' responses followed suit. The higher-level thinking questions require more soul-searching and candor, supporting the finding that *students can be candid about articulating the impediments of their success and then can make judicious decisions about what can help them improve*. I only have to give them the opportunity to do so.

Speaking in a non-threatening environment seemed to have produced significant metacognition. When they looked at what would help them improve, for example, they spoke of what they knew they could do to change, whether behavioral or academic. They found, as Adan articulated, echoing my contention, if students do not have acceptable student behavior to be a scholar – the academics will not occur in maximum capability.

Consequently, it appears that Class Meeting fulfills multiple metacognitive benefits. It opens conversation amongst the students to share and benefit from listening to one another. It encourages students to speak out in a safe environment, even though they may share a criticism. It creates social justice openness amongst all students regardless of their differences. It causes students to think about their mental processes about the learning environment, about their progress.

Recapitulation

My students' comments to me at the end of this study illustrate their having imbibed the concepts of metacognition; they reflected on their own thinking. A student, when he questioned me about his own comment, exemplified metacognition. The student said, "I feel as old as dust! Mrs. Turner, that's figurative language, huh?" We had been studying figurative language; thus, transferring learning to his own comment shows his self-monitoring.

Another student reflected on his learning. "Mrs. Turner, may I take my test home to show my dad? I am proud of myself for passing this test. I didn't pass the one that we had two stories ago. I got 76%; last time, I got 84%, and this time, I got 86%. I am improving. I like it!" Upon entering the room on another day, he announced, "Mrs., I am going to pass this test. I studied. When I study, the test is easier."

Still another asked, "Mrs. Turner, am I doing good today?"

"Yes, you are. Is that important to you?"

"Yeah, I'm a school scholar!"

These and similar vignettes did not happen in the beginning of the year but occurred frequently as the semester progressed. The power of metacognition swells when students become aware of themselves and their thinking.

Finally, on the penultimate day of the semester, I asked if they thought my use of metacognitive strategies affected their attitudes about learning and/or their achievement. With overwhelming positive responses, the students understood that the metacognitive strategies, the instructional strategies mentioned in the introduction, the Methods chapter, as well as those highlighted herein, aided them positively. Concluding this chapter with students' voices evinces that they feel that my metacognitive instructional strategies made a difference in their academic life.

Student Voices

The first day of school, we came in her class talking and thinking we were going to get away with it. Once we sat down in our seats she was furious and set the rules on us. We were surprised of how she wanted her class to be. Since that day, I realized that I needed to change my ways of acting and my attitude against my teachers. I feel really

smart because every day I learn something new that I might use in my life. I never passed my tests in middle school because I never listened in class but here in Mrs. Turner's class, there is no way [I] can't learn. (This comes from the student, suspended twice in the beginning of the year and one of the ringleaders of the class ruckus.)

The metacognition has helped me to be a good student because when I first came to Mrs. Turner's class, I was just fooling around with my friends. Today I feel relieved because what Mrs. Turner has [taught] me has changed my behavior. (I suspended this student at the beginning of the school year. Of late, he has been like a model student, reading, passing tests, and sharing with me that he reads -- *even* at home.)

Mrs. Turner changed my attitude about learning. When I had my first day of class, I was a very bad kid. The class always used to talk. Mrs. Turner changed it by using metacognition.

Metacognition has helped me be a better student. It made me think about my behavior because when I am about to do something wrong or say something wrong, I think about what would happen if I really do or say something wrong.

Writing metacognition has made me a better scholar because now I am able to think a little faster. That is what makes me achieve to be a good scholar.

When Mrs. Turner gave us the Behavior Essay I really thought about what I was writing and how was my behavior. I realized the more I thought about what I was writing the more I understand it. (Tomas was another student whom I suspended from class a couple of times.)

When Mrs. Turner introduced to me Metacognition Minute, I did not know what it meant so she told us. What it meant [is] to think what you wrote or what you did. My behavior has improved. Because I don't get in trouble as much as I used to. Mrs. Turner has helped me a lot. She inspires me to get good grades. She told us in a way [that] if you

work hard at something you will achieve it. Metacognitive Minute has helped me to think twice. (The student did not realize his pun; metacognition, in fact, is thinking twice, at least.)

> *Metacognition has helped me be a better scholar in many ways like helping me think about everything I do right and wrong. I also have become a better student because at the beginning of the year, I did not really want to learn anything and did not care abut my grades, and from the beginning of the year I feel like I have improved.*

According to the students' thoughts, metacognition has done its work to benefit them. Juxtaposing their comments with the benefits I found in the literature studies, I would agree that metacognition as my instructional pedagogy positively affected my students' attitudes about learning and enhanced their achievement.

Throughout the year, using the strategies highlighted in this chapter along with other metacognitive instructional strategies, such as think-aloud, surveying the text, naming question types, determining patterns in incorrect errors on test, writing original poetry, creating a personal student psyche, teacher-student interaction, the students improved their tests scores dramatically from 25% passing the first test to 100% passing on the last test in December, with an average passing percentage in the 80's. Though initially focused on behavior, we used metacognitive strategies to focus on content in an increasing degree as the semester progressed.

Thus, based on my findings and qualitative methods used to study my research question -- observing my students, reading their writings, hearing their own voices, witnessing their behavioral changes and their academic improvement -- I conclude that my use of *metacognitive strategies for instruction contributed significantly in enhancing my students' achievements and affecting their attitudes toward learning.*

CHAPTER FIVE

Introduction

Having spent the fall semester, August through December, engaging seventeen ESL ninth-grade students in metacognitive strategies, I ended the semester grateful for the benefits that emanated from my use of metacognitive strategies and for the changes that occurred in my students' achievements and their attitudes toward learning.

The purpose of this study focused on an annual problem. I receive students so spoon-fed and literal in their thinking that to ask them to analyze, to speculate, to think critically, and/or to ask how they think confounds them. Many factors, including modes of instruction, student desire, and student behavior, yield their lack of thinking abilities. Regardless of the reason, students come to me oblivious to the necessity of their participating and owning their thinking and learning. By their own admissions, no teacher had ever asked them to articulate their processes of thinking: their preparation for learning, their process for reading, their patterns of errors and what the patterns tell them, what studying looks like, what studying smarter -- not harder -- means, to name very specific metacognitive concepts. Blakey & Spence in their study support metacognitive strategies such as these that require students to plan and self-monitor their own learning so that they ascertain what they know and what they do not know (1990).

These *strange* ideas (strange from the student perspective) did not faze my students, however, because they had other issues. Not only did they lack thinking skills; these ninth graders lacked the desire to learn, evinced by their behaviors, but desired to participate in childish behaviors.

Thus, with these students, I began the journey to ascertain *how my use of metacognitive strategies would affect students' achievements and their attitudes about their own learning.* Shortly thereafter, I confronted serious behavior issues that I had not expected. Though armed with an instructional framework that causes students to engage in their learning, I had to commit to my own metacognition, which limpidly established the double-edged stratagem of metacognition as a process ably thwarting negative behavior issues, as well as the educative framework for content learning.

Continuing this final chapter, I will discuss the findings as they address the research question. Next, I will discuss the relativity of my study to the scholarly literature addressed in the Literature Review. Third, I will articulate limitations of my study. Lastly, I will propose an action plan for integrating my study into educational structures in which I work.

Findings

Emanated from the lack of learning-environment prevalent in the first week, consequently, Finding #1 laid the foundation upon which learning could occur.

Finding #1 *- My own metacognition led me to ruminate on new specific metacognitive strategies for students to examine their unscrupulous behaviors.*

Focusing upon the behavior issue first proffered to me the hope of a successful year. Paraphrasing a familiar aphorism, *I fed two birds with one piece of bread.* According to the various studies, referenced in chapter two, metacognition augments students' academics and their perceptions of learning. I concluded, however, that paramount to learning, must exist an environment in which students attend to instruction: quality student behaviors allow students to imbibe instruction. My first metacognition,

consequently, compelled my own thinking about how I would attenuate negative behaviors in order to establish a positive learning environment. Using metacognitive strategies to stimulate thinking about content to promote student achievement would have failed; instead, I worked first on the latter part of the research question – affect students' attitudes about their own learning. Effecting behavioral changes first would constitute affecting achievement and attitudes about learning. Thus, my plight -- a blessing in disguise – held more positivism than I had imagined.

My students did not come to me with a predilection for critical thinking and assessing and engaging in their own learning, for which various reasons provide support. Notwithstanding the reasons, initially, I committed my instruction to engage my ESL students in metacognition. Through the four months of the research, participating in metacognitive strategies for learning, my ESL students benefitted; both their achievement scores and their attitudes about learning have changed positively. Though metacognition provided the mode of instruction and engagement for students and metacognitive strategies seem to have contributed greatly to the positive outcome of this study, other concurrent factors may have assisted in the results as well, factors such as my communication with parents about their children's behaviors, the referrals, and class suspensions, to name a few. However, knowing that the students who created the majority of the behavior problems received the same interventions in past years, I would submit that the metacognitive mode of instruction as the major difference in the learning environment this year accounts for the difference in achievement and attitude. The three additional findings, emergent from my research, assert the ways in which these improvements occurred.

Finding #2: *Giving students autonomy in the class appears to contribute to the students' achievement and attitudes toward learning.*

Finding #3: *Giving students opportunities to succeed on a personal level can translate into opportunities to minimize behavior issues and to focus on academic success.*

Finding #4: *Students can candidly articulate the impediments to their successes and then can articulate judicious decisions about what can assist them to improve, if given the opportunity.*

Reflecting upon this study's problem and purpose posed initially, I conclude that students feeling a degree of autonomy, finding their successes educationally vital, and evaluating their hindrances and pronouncing their own improvements could emerge stronger thinkers with greater probabilities of maintaining engagement in learning.

Furthermore, my study has imprinted metacognition as the mainstay of my pedagogical framework. Greatly advantageous, setting aside the instructional benefits, a metacognitive framework comes at no monetary cost. It is not a product imposing a financial liability upon the teacher, the school, or the district. It is a way of thinking; it is pedagogy.

Literature

The studies that I read and documented in the Literature Review extol the values of a metacognitive pedagogy and its benefits for students. Numerous studies on all educational levels from elementary to college show that students who self-regulate, self-motivate, and self-evaluate, adjusting their learning based on their mental processes, experience improvement in their understanding and performance of their content. Metacognition stimulates student academic growth, self-responsibility, self-reflection, self-stimulated mental processing (Anthony, 1996; Blakey & Spence, 1990; Jacobson,

1998; Martinez, 2006; O'Malley, Chamot, Stewner-Manzanares, Russo, & Kupper, 1985; Pintrich, 2002; Smith, 2000; Smith, Rook, & Smith, 2007; Tishman, et al., 1993; Veenman, 2003).

In my efforts, limited by my research skill, searching for opposition to the benefits of metacognitive strategies, I found no specific reference relating negativity of a metacognitive pedagogy. Considering metacognition a component of a student-centered instruction, I looked-up a behaviorist environment and drew conclusions about how behaviorists would not find metacognition a worthy instructional strategy. Therefore, finding relatively no negative attributes, I entered my study enthusiastically expecting that I could count on past research to hold true and that I could add my voice to those who had lauded metacognition before I.

In short order, nevertheless, I confronted the behavior issue that inhibited instruction and which, if I had allowed it, would have beleaguered my instruction and the class. I metacognized that temporarily subordinating content instruction and elevating behavior issues as the major focus of instruction would bode far better for the students and for me (Lin, Schwartz, & Hatano, 2005). Even at that point, I searched for articles to assist me with the behavior issues. I looked for articles that combined metacognition and behavior, metacognition and at-risk students, metacognition and classroom management. I did not find articles that dealt with metacognition and behavior in a school setting. Therefore, my study raises the possibility for more research to ascertain how metacognition aids to dissipate negative behavior issues.

Having dealt with negative behaviors ruining a learning atmosphere and knowing that such behavior does not only plague me, I suggest that perhaps my research could augment the mosaic of metacognitive studies with the specific strategies and findings derived from my work. I discovered that metacognitive strategies can effect changes in

students' negative classroom behaviors. Thus, improving behavior can play a vital role in the positive and academic climate of the classroom.

Limitations

Lauding the conclusions of this study, I stand by the benefits of metacognitive strategies as they evolved in my classroom. However, as stellar as my results illustrate the benefits of metacognitive strategies, I concede limitations of this research. One teacher in one classroom does what she can to help her students, and the results of her instruction upon students' achievements and their attitudes about their learning go as far as the door. Though effective in one classroom, to limn metacognition as an instructional pedagogy with maximum benefit for students, one teacher's effort cannot speak for the results of one school. For the ramifications of metacognitive strategies to reap wholesale benefits, the practice of metacognition must create a transformation of instruction not only school-wide but also in a district vertical effort from kindergarten through high school, in every classroom.

Secondly, I also concede that in the brevity of this four-month study with only seventeen students, the majority of my students, the contributors of the major distractions in my class, did not imbibe metacognition as a way of processing their learning beyond my classroom. Throughout the school year, I have observed a class (not for a part of this study but in another capacity) with the majority of my students in it. What I gleaned from my observations provided me another eye into the ramifications of metacognition as a way of thinking. In each observation until the last in February, my students in that class acted in the very manner with which they began the year with me. Clearly, the self-evaluation, modifying, and adjustments that students made in my metacognitive environment did not produce in them strategies pervading their thinking in venues

beyond my classroom. Literature does suggest that transference of these learned strategies could occur; however, in the brevity of four months, these observed incidences show a limitation of this study.

Unfortunately, the reality of metacognitive strategies becoming the pedagogy of the school presents a dim chance. With the variety of teacher instructional practices and beliefs, ranging from a very teacher-directed and behavioral instructional pedagogy to novice teachers straining to maintain classroom management, teachers may tend to dismiss metacognitive strategies. Because metacognition causes students to think about their processes of learning, the pedagogy relinquishes ownership of the learning to the student. For a behaviorist teacher who tells the student what to think about the text and how to give it back in the same fashion, the student-centeredness of metacognition presents could present a problem. Blakey & Spence (1990) admonishes that students in a very teacher-directed environment lose possibilities for success in the 21st century. For the novice teacher struggling to maintain control of the class, giving the students opportunity to discover through their own thinking may not provide the structure that a novice counts on to assist in maintaining a modicum of order in the class.

A teacher once told me *your AP students can do that metacognitive stuff, but I teach regular students who can't do that*. Thinking like this, I do not doubt, represents a mindset of many. Campbell (2004) demands that all students must have opportunity to exercise critical thinking. To decide that some cannot think perpetuates social injustice.

I speculate that the word *metacognition*, because it sounds erudite and esoteric, repels some teachers. Thus, much professional development would need to occur. Students learn the word, and they like knowing the word because they never heard it before; and it sounds important. Martinez (2006) advocates for students to know the word

metacognition and understand how metacognition works. If students can learn the word and learn to metacognize, teachers could learn metacognition, also.

Another limitation that I see stems from the mandate that we have to *cover* the California State Content Standards. Some teachers feel the pinch of having to cover so much in a school year that to give time for students to think and discover their learning, as metacognition necessitates, would impinge upon their instructional time. Thus, status quo maintains ease.

Lastly, a couple of questions come to mind; these I presented as part of the problem. Teachers do *expect* students to think. But, do teachers teach students *how* to think? Do teachers ask students to self-regulate and to self-evaluate? Do teacher consider it second-nature for students to think? Do teachers provide opportunities for students to think? Or do teachers maintain status quo and wish for change?

Action Plan

Despite the limitations, when enlightenment comes, one must either change or not. I am convinced to continue transforming my instruction with metacognitive strategies, for through this study, I witnessed my ESL students' changes in their thinking about school. They responded candidly to questions regarding how the metacognitive strategies benefited them in the first semester of class, such as tabled in chapter four. To this day, the students are no angels; no miracle has occurred; however, an unbelievable difference has transpired this year.

Though I still log disciplinary infractions, though I still contact parents about their child's behavior, and though I still demonstrate tough-love, I do teach. Students do learn. They do read during Quiet Reflection. They do write their goals and objectives. They do evaluate why they met their goal or not. They do participate 100% in Class Meetings.

These ninth grade students, educated in the United States since pre-school (most of them), kindergarten (a few), or fourth grade (a couple) but who still read at third and fourth grade levels manifest a problem in our education system. If we dismiss these students as troublemakers, we disservice them. Thus, social injustice continues. I have heard, "Insanity is doing the same thing in the same way and expecting a different outcome." Strategies used heretofore do not seem to have worked with the students who find school difficult, yet we continue the same thing in the same way and expect a different outcome.

Strategies such as Quiet Reflection, Daily Write, and Class Meeting, which worked to affect behavior changes, exemplify *something different*. Because of no grade level attached to these strategies, teachers may learn to modify them and to appropriate them for their students. In addition, metacognitive content strategies support English language learners. Using metacognitive strategies, students learn to survey text, ask questions about text, summarize text, predict, think aloud, all of which enhance an English language learner's understanding by giving their thoughts voice (Martinez, 2006).

Cognizant of the educative merit of metacognitive strategies, I offer my thesis to the district Curriculum Superintendent for her perusal; as well I offer my expertise to provide professional development to teachers interested in augmenting their instruction with metacognitive strategies. I would relish presenting the pedagogy of metacognition to teachers interested in making a difference in their instruction and raising the participation of their students in their own learning, leading students to the threshold of their mind, watching them enter on their own (Kibran, 1923).

Finally, I do realize that naysayers may denigrate the value of metacognition, for metacognition does not encompass new learning strategies. However, what differs with

metacognition focuses on students realizing the power of the thinking process. For example, teachers may ask students to scan a chapter in the text, but merely as a Do this assignment; the thinking behind the Why survey the story may not come clear to the student without the thinking instruction that complements surveying text. Assigning the student to take notes on a story pales in juxtaposition to asking the student why particular information held significance for him.

Metacognition asks the students to go the next step and focus their thinking about their thinking. This step untaken forestalls a giant step into the furtherance of students who think on their own, who become process thinkers, who fear not asking questions, and who fear not searching the answer. This metacognitive processing predicts powerful learning (Wang, Haertel, & Walberg, 1990, as cited in Veenman, 2006).

In conclusion, to help prepare students for success in the 21st century as contributing members of a socially just democratic society, I will continue to use metacognitive strategies as my mode of instruction, for metacognitive strategies did affect my students' achievements and their attitudes about their learning.

REFERENCES

Anthony, G. (1996). Active learning in a constructivist framework, *Educational Studies in Mathematics*, 31 4 349-369. Retrieved February 9, 2008, from JSTOR database.

Boghossian, P. (2006). Behavorism, constructivism, and Socratic pedagogy, [Electronic Version], *Educational Philosophy and Theory*, 38 6 713-722.

Campbell, D. (2004). *Choosing democracy* (3rd ed). Upper Saddle River: Pearson Education, Inc.

Gibran, K. (1923). *The prophet*. Retrived December 2, 2007, from Northwoods Spiritual Resource Center. http://www.angelfire.com/wi2/ULCds/gibranA.html.

Jacobson, R. (1998). Teachers improving learning using metacognition with self-monitoring learning strategies [Electronic version], *Education* 118 4 579-590.

Lin, X., & Schwartz, D., Hatano, G. (2005). Toward teachers' adaptive metacognition. *Educational Psychologist*, 40, 245-255.

Martinez, M. (2006). What is metacognition? [Electronic version]. *Phi Delta Kappan, 87.9,* 5.

Mills, G. (2007). Action research: A guide for the teacher researcher. (3rd ed.) Upper Saddle River: Pearson Education. Inc.

O'Malley, J. M., Chamot, A. U., Stewber-Manzanares, G., Russo, R., & Kupper, L. (1985). Learning strategy applications with students of English as a second language. [Electronic version]. *TESOL Quarterly*. 19 3, 557-584.

Pintrich, P. (2002). The role of metacognitive knowledge in learning teaching, and assessing. [Electronic version]. *Theory into Practice*. 41 4, 219-225.

Smith, I. (2000). Culture clash in the English as a second language classroom: Russian

    students in America. [Electronic version]. The CATESOL Journal. 12.

Smith, K. S., Rook, J. E., Smith, T. W., (2007). Increasing student engagement using

    effective and metacognitive writing strategies in content areas. [Electronic

    version]. *Preventing School Failure*. 51 3 43-48.

Tishman, S., Jay, E., & Perkins, D. (1993). Teaching thinking dispositions: From

    transmission to enculturation. [Electronic version]. *Theory into Practice, Vol. 32,*

    No. 3, 147-153.

Veenman, V. J K., Van Hout-Wolters, B. & Afflerbach, P. (2006). Metacognition and

    learning: Conceptual and methodological considerations. *Metacognition and*

    Learning, 1 3-14. Retrieved September 22, 2006, from Springer database.

Wink, J. (2005) *Critical pedagogy: Notes from the real world.* Boston: Pearson

    Education, Inc.