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**THE EFFECTS OF IMPLEMENTING HETEROGENEOUS WRITING GROUPS
IN A FIFTH GRADE CLASSROOM**

by
Jennifer L. Cady

A Thesis

Submitted to the
Department of Teacher Education
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In partial fulfillment of the requirement
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at
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Thesis Chair: Susan Browne, Ed.D.

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Dedications

I would like to dedicate this thesis to everyone who made the Collaborative Education program possible. Thank you for allowing me to be one of the lucky ones to get involved in such a great program.

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Without the guidance and support from my friends and family, this thesis would not be possible. The endless discussions that I have had with them about the ideas were so helpful in the evolution of my thesis. My gratitude must also be extended to my cooperating teacher, who allowed me to implement my teacher research in her classroom. I not only had an extremely beneficial experience in this classroom, but developed a friendship that I know will extend past student teaching.

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Abstract

Jennifer Cady

THE EFFECTS OF IMPLEMENTING HETEROGENEOUS WRITING GROUPS IN A FIFTH GRADE CLASSROOM

2010/11

Susan Browne, Ed.D.

Master of Science in Teaching in Collaborative Teaching

The purpose of this study was to examine how heterogeneous grouping, particularly in writing, would impact the learning and social community in a fifth grade inclusion classroom. The students were given writing prompts that enforced the use of collaborative writing. Qualitative data was collected through the use of student artifacts, student surveys, student interviews, and a teacher researcher journal. After analyzing this data, it was revealed that heterogeneous writing groups can lead to improved writing amongst all students. It was also revealed that working collaboratively with peers led to a correlation with positive social interactions and constructive revelations from the students. Collaborative peer groups, particularly grouping students who are of mixed abilities, can also help teachers to develop a positive learning community for the students. It was also identified, that in this particular study, student surveys became a major focus in identifying the students' needs in the classroom, which could help teachers to aid the students. Using this type of teaching approach, which targeted students of all abilities, can change the dynamic in a teacher's classroom. Using heterogeneous writing groups in the elementary school setting has tremendous amounts of implications for new teachers who are attempting to identify ways to motivate all students to better their writing.

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Chapter I

Scope of the Study

Introduction

Roger sat quietly in a listening position, with his eyes following his fourth grade teacher as she walked around the room. His hands were folded on the table, his back was straight, and both feet were on the floor. He kept glancing back and forth between the teacher, and the young boy sitting next to him. The teacher asked the class to take out their math journals, and begin working on page 27. Roger immediately turned around, grabbed the math journal and flipped to the correct page. He gripped his pencil tightly, and waited for the boy sitting next to him to do the same. The teacher gave the directions to the pairs of students around the room. "Austin," Roger said, "I'll do the first one because I have shorter hair." Roger immediately began working on the first problem, instructing Austin on how he was coming to his findings. "Great job, Roger!" Austin exclaimed. "Now I'll do the next one." Roger nodded his head enthusiastically, and watched as Austin worked out the problem. "Wait, Austin," Roger said, "I am not really sure how you got that number. Can you show me again?" This motivated, hard-working student continued to discuss the math problems with Austin.

Surprisingly, Roger was in internal suspension two days before this occurrence. His constant disrespect and need for attention was something the teacher could not handle. Having nineteen other students in her classroom, Roger's bad behavior and inability to do his class work without making a ruckus was a continuous problem. Roger was infamous; he was the one student that none of the teachers wanted to have. He was

the daily topic of discussion in the faculty room. He started out the 2010 school year with no merits because of his previous bad behavior, which led him to not being able to do any extra activities within the school. He sat alone in his prior classrooms because he was too disruptive to the other students. He had attempted to run away from the school last year. All of the students knew him and admired him for his “bad boy” persona. This admiration either came from fear or from the knowingness that no matter how much one of them had acted up, their actions would never compare to Roger’s.

So, what was the big change that had occurred in Roger’s life that caused him to suddenly become a better student? His home life had not changed; Roger’s parents were drug addicts who are no longer a part of his life, and he now lives with his deceased grandmother’s ex-boyfriend. This man, who Roger calls “dad,” is still an unstable force in his life, constantly denying Roger’s behavioral and academic issues in the classroom. Roger’s need for attention also had not changed; he was still making noises during transition times and vying for the attention of his peers. No other factors in his school life had changed, except for one positive implication: Roger’s seat was moved so he sat at a table with Austin. Austin is one of the most advanced students in the classroom, with the best behavior. He is extremely well-behaved, always saying his “excuse me’s,” “may I’s” and “thank you’s.” Austin exuberates determination and enthusiasm.

Roger’s prior seat was next to another boy who did not seem to care about his schoolwork. Roger’s changing of seats was actually my idea after thoroughly observing his poor behavior and work ethic. I thought that a more motivated student may inspire Roger to do his own work more effectively. Evidently, it was working. At the time, I was

unsure of the reasoning behind Roger's positive changes in the classroom. I thought it was interesting and was ecstatic to see the reinforcement that Austin was providing Roger, but I did not think much else of it. Eventually, I began to wonder why Roger was excelling in his social and academic skills, and if it was possible that simply having Roger work with a more advanced student caused that change.

Being Collaborative Education majors, we learn how to collaborate with other teachers. We do not, however, learn the importance of student collaboration. Studies have shown that collaborative teaching is an effective way to teach students within the classroom (Hertz-Lazarowitz & Miller, 1992). Does this also apply to student-to-student interaction? When students work collaboratively, does each one grow as a learner? As teachers, we tend to learn from one another and play off of each other's ideas and teaching styles. Does this also apply to students?

Story of the Question

Darrel walked into the classroom on Monday morning in his usual slow swagger. He stumbled in on time, at 8:25am. He was supposed to get working on his morning journal as soon as he enters the classroom, but just like every other day, he has to be reminded at least five times to begin. Darrel constantly moved at a painfully slow pace; it would take him nearly ten minutes to just even retrieve his journal, and then he would just sit at his desk stare into space.

I approached Darrel approximately fifteen minutes after he had entered the classroom and asked him if he had gotten started on his journal. Darrel looked up at me, his bright brown eyes glowing. He had a huge smile on his face, and replied, "But Ms.

Cady, I don't know what to write!" The students are able to write about whatever they would like to in their journals, so I asked him what he had done that weekend, and he replied that he did not know. Eventually, I was able to find out that Darrel had gone to the park with his cousins, so I informed him that he should write about that. Darrel agreed that this would be a good topic, and he picked up his pencil. The time was 8:45am.

At 8:50am, Darrel was still sitting at his desk with a blank journal and a blank stare. I approached him once again and said to him, "Darrel, you don't even have the date on the paper yet! What have you been doing?" Darrel once again looked up at me with those bright eyes and that huge smile, "I don't know what to write!" I informed Darrel that he needed to get started, but by that point it was too late. It was time for the class to go to keyboarding. Darrel had not been able to ruin his streak of not completing his journal before keyboarding once throughout the entire first semester of school.

Fast-forward to 10:45am: Darrel and Julius were assigned to work together on a writing assignment. They were asked to determine all of the ways diamondback-terrapins could be used mathematically. The teacher instructed the students to identify the shapes that might be found on the turtle shells, and to delve into other mathematical fundamentals that could be used based on the turtles. The students had to write down all of their ideas, and then were asked to do a writing assignment incorporating all that they knew about the diamondback terrapins, including how they could be used mathematically.

The intriguing part about this assignment was not just the fact that students were asked to incorporate mathematics and science into writing. It also was not the fact that the

teacher brought in actual baby diamondback terrapins for the students to observe and analyze. The part that was most interesting to me was the way the fourth graders were working together, particularly Darrel and Julius.

This was Darrel's second time seeing this lesson being conducted; he had been retained after the previous year due to academic struggles. Darrel was apathetic about school work, and did not seem to be motivated enough in the classroom. As evidenced by his lack of journal-writing, it was obvious that Darrel was not motivated enough to write, even when the topic interested him. Julius, on the other hand, would write pages upon pages in his morning journal. He would write about wanting to cure cancer, what he would do if he won \$1,000,000, and the importance of having a close family. The two students could not be more opposite from one another; Julius had an outgoing personality, and Darrel was extremely reserved. However, when the two students were grouped together, something interesting happened.

The students were to alternate their writing by sentence, and miraculously, Darrel and Julius were doing it. Darrel was even coming up with ideas about the diamondback terrapins, and informing Julius of them. He would tell Julius what he wanted to write, and Julius would help him write it. Julius would pull out dictionaries and thesauruses in order to help advance Darrel's writing, and Darrel's motivation to write seemed to be at an all-time high. Darrel was extremely invested in the writing, and even smiled every time Julius handed him the pencil. The group did not need to be given any reminders to begin writing, and none of the teachers had to give any ideas to Darrel about what to write. This was very different from the student that had been observed earlier during morning

journal. What was it that caused Darrel to be motivated to write? It did not seem to be the subject matter, because Darrel was also extremely excited about playing with his cousins over the weekend. However, a switch had been flipped somewhere, and I wanted to know why.

What was it about this particular assignment that caused Darrel to be motivated to write? I could not see any changes in his excitement level. In fact, Darrel's least favorite subject happened to be mathematics, so I could not fathom what caused him to want to write about math. I began to look at the pair of students more closely, and all of a sudden I had an *a-ha!* moment. Darrel and Julius, just like Austin and Roger, could not be any more different academically and socially. The impact of being grouped heterogeneously seemed to have a large impact on all of the students. After observing Austin and Roger working together heterogeneously in math, I had concluded on my own that this grouping seemed to work well. Albeit it was easy to find many teachers who used heterogeneous grouping with mathematics, it was much more difficult to find any teachers who also believed it was important to use heterogeneous grouping in writing assignments. Many of the students in the classrooms that I had observed in seemed to not want to engage in the writing process. I therefore decided it would be beneficial to further research the implications of heterogeneous grouping during writing.

Purpose of the Study

Despite the fact that writing seems to be embedded into all different academic subjects, there is still often a lack of student motivation to write. Unfortunately, writing is extremely important in elementary school classrooms, particularly due to the extremities

with the state's standardized testing. Studies have found that writing in the classroom has become a national problem, not just limited to the particular school in which I had done my Clinical Internship I (Nagin, 2003). Because of state testing and the No Child Left Behind Act, teachers are finding it crucial to help students improve their achievement in the classroom, regardless of the students' capabilities. With everything being taught to the test these days, it becomes increasingly difficult for teachers to come up with new strategies to help build their students' achievement in writing. A *Newsweek* article published in 1975 stated that America had encountered a national writing crisis; various strategies have been implemented, but to no avail. (Nagin, 2003).

The question then becomes: What can be implemented into elementary school writing programs in order to motivate the students? The answer simply may be the implementation of collaborative heterogeneous writing groups. As seen in the next chapter, various researchers have all agreed that heterogeneous grouping is beneficial to the students because they are able to engage in learning with students of different abilities, thus leading to the expansion of knowledge and encouragement of good cooperative behavior. From my observations, writing is now taught on a product-based instruction, due to the desire to pass the standardized testing requirements for the state. Because of this, so many students seem to be suffering with the process of writing, as well as in motivation to write. For this reasoning, my main examination for this thesis is determining what happens when collaboration is implemented in the writing classroom.

According to the National Assessment of Education Progress (NAEP), many American students are struggling as writers (Baker, Gersten, and Graham, 2003). In "The

Nation's Report Card: Writing 2002," seventy-two percent of American fourth graders scored either at or below the basic writing level; thus, only twenty-eight percent were writing at the proficient or advanced (Nagin, 2003). Nagin (2003) also found that sixty-nine percent of fourth graders spend only ninety minutes or less per week on writing assignments. It then becomes no surprise that so many students are below basic writing levels. The importance of this is to figure out *why* writing is so low, and *how* teachers can implement writing in a way that students seem to enjoy it.

A review of the relevant literature as seen in Chapter Two points to a great deal of information about using heterogeneous groups in the classroom, but not as much research has focused on heterogeneous groups and writing. This particular study will therefore focus on the use of heterogeneous grouping to teach writing in a 5th grade classroom. The students will have the opportunity to learn content through the traditional modes of learning, as well as through the use of heterogeneous grouping. Through the use of various writing prompts, the students were able to work together and were encouraged to write. After completing a variety of lessons, the students will be asked to reflect on their learning and overall effectiveness of using heterogeneous groups in the classroom. It will be important to gain student insight for future use.

Some research (Hertz-Lazarowitz & Miller, 1992) has been conducted on co-writing and helping roles, but much of classroom practice and most research are conducted on co-responding. However, the objective of this study is to develop an understanding of how students who have mixed abilities are able to work together during the writing process. This topic is particularly important and can contribute to the field of

education because writing in heterogeneous groups is a unique process, and often overlooked within the classroom. However, this form of learning holds great benefits for the students in the classroom. This will add to the limited amount of research that has been done on implementing heterogeneous group work in writing. It will hopefully inspire teachers to look at what they can do to modify their curriculum to incorporate peer collaboration into their academics.

Anticipated Limitations of the Study

As I prepare to conduct a study of heterogeneous writing groups, I understand that there are many limitations to my study. In order to completely conduct and implement a research design based on heterogeneous groups in writing instruction, I will need time to collect data, instruct and model for the students, and then recollect data. Through my own research, I have found that most studies dealing with heterogeneous grouping do not also discuss a writing aspect, but rather mathematical and scientific aspects. The studies that discuss heterogeneous grouping tend to deal with researchers who are able to devote hours a day analyzing the data of the students. I am fully aware that as a student teacher, I will not have as much time at my disposal to completely implement every aspect that I will want to.

The schedule of the school may also cause limitations to my study. I am aware that being a teacher consists of being extremely flexible, and that problems are constantly surfacing and the schedule is always changing. Student absenteeism may also have a major limitation to my study, particularly if and when I decide to focus on student dyads. Due to the nature of this research being qualitative, it is necessary to have all students

present to fully analyze pre- and post-data. However, it is not realistic to expect all students to be present at all times, meaning I may need to explain and re-explain information to students, as well as alter my plans for the day. However, it is a given that student absenteeism and time will constantly be factors in the study of teacher research.

Organization of this Thesis

Throughout the remaining four chapters of this thesis, the idea of heterogeneous grouping will be defined as it applies to this research, particularly in writing. In the next chapter, existing literature about heterogeneous groups, with an emphasis on the process of writing, will be examined. The following chapter will highlight previous studies and conclusions that were reached regarding the studies. The chapter provides the different types of collaborative writing, as well as which types seem to be best implemented in my own classroom.

Chapter II

Review of the Literature

Introduction

Chapter II presents a review of the literature regarding the importance of cooperative learning for students in elementary education classrooms, as well as the role the teacher plays in the establishment of social constructivism and cooperative learning groups. These become important to discuss in order to find a proper implementation in writing.

Social Constructivism

Social constructivism is a widely debated topic for teacher research because of the implications it places on the students' learning. Social constructivism is defined as the focus on an individual's learning that takes place because of their interactions in a group setting; social context plays a large role in cognitive development (Hertz-Lazarowitz & Miller, 1992). "Social constructivist views are based on the idea that knowledge is constructed by interactions of individuals within the society and that all thought is social in nature" (Hertz-Lazarowitz & Miller, 1992). Jean Piaget is one of the first researchers to delve into the idea of social constructivism, incorporating the interactions of other people into a child's development. Lev Vygotsky (1978) also developed a social constructivist theory, suggesting that children need learning environments containing guided interaction, but an allowance of reflection and the ability to change their thought-process and communication. Social interaction allows children to gain increasingly more exposure to expert vocabularies (Vygotsky, 1978). Since thought development is

determined by language, the importance of writing increases (Hertz-Lazarowitz & Miller, 1992).

Collaboration should be shaped in childhood in order to help instill sociological values at an early age (Vygotsky, 1978). Learning precedes development, and thought develops from society to the individual. The zone of proximal development was developed by Vygotsky (1978) in order to show the importance of the concepts of a learning environment consisting of children, learning, and interaction. Thus, collaborative group work is extremely important to Vygotsky's studies. Vygotsky's (1978) social constructivist theory also suggests that communication, critical thinking, and sharing knowledge are very important aspects to development (Hertz-Lazarowitz & Miller, 1992).

Understanding is deemed to be a social artifact that can only be kept through socialization (Hertz-Lazarowitz & Miller, 1992). "Knowledge, then, is not based on an objective reality that can be measured and quantified but rather is consensually formed through social interaction" (Hertz-Lazarowitz & Miller, 1992, p. 17). The internalization of the social interaction causes a movement from between individuals to within an individual; thus, learning occurs within the zone of proximal development (Hertz-Lazarowitz & Miller, 1992; Vygotsky, 1978). The zone of proximal development is defined as "the distance between a child's actual developmental level as determined by independent problem solving and the level of potential development as determined through problem solving under adult guidance or in collaboration with more capable peers." (Vygotsky, 1978, p. 86).

Student Experience with Social Constructivism

An important aspect of social constructivism is the peer collaboration in the community. By offering students more chances for academic peer discussion, many researchers have found the feeling of community has also increased (Hale & City, 2002; Barab, Dodge, Thomas, Jackson, & Tuzun, 2007; Weber, Maher, Powell & Lee, 2008). Many recently conducted studies focus on social constructivism during the use of student discussion within the classroom setting (Hale & City, 2002; Barab, Dodge, Thomas, Jackson, & Tuzun, 2007; Weber, Maher, Powell & Lee, 2008; Corden, 2001; Dyson, 2004; Reznitskaya, Anderson & Kuo, 2007). By increasing students' ability to have discussions, motivation, collaboration, and problem solving skills also increase (Dyson, 2004; Corden, 2001). Reznitskaya, Anderson & Kuo (2007) found that student discussion also helps to build respectful negations and debates, persuasive oral skills, reasoning skills, and increases the students' thought processes. Students are able to transfer their knowledge between one another, as well as build a foundation for oral communication; this suggests that discussion plays an essential role in the synthesis of new ideas and deeper understanding (Anderson & Kuo, 2007; Corden, 2001). Corden (2001) also suggests that group discussions allow students the opportunity for self-determination, perseverance, and self-regulation.

Nystrand (1996) conducted a three year study that focused on 2,400 students in 60 different classrooms. The study focused on using classroom discussion for instruction. Nystrand found that the average teacher only allows three minutes out of every hour for students to discuss ideas with peers and the teacher (Nystrand, 1996). Nystrand also found that most of the three minutes was not actual discussion, because the students were

given questions with predetermined answers (Nystrand, 1996; Corden, 2001). Nystrand (1996) argued that teachers who value student discussion create higher achieving learners, who are able to retain information and process at a more in-depth level.

Listening to the Classroom

Katherine Schultz provides a framework for teaching across differences in her book *Listening*. Schultz (2003) identifies four different frameworks of listening: listening to know particular students; listening to the rhythm and balance of the classroom; listening to the social, cultural, and community contexts of students' lives; and listening for silencing and acts of silencing. Each of these has an implication on teacher research, particularly social constructivism.

Schultz (2003) states that in order to be successful, a teacher must really listen to all of his or her students, and understand and accommodate their needs. Schultz (2003) defines the rhythm and balance of a classroom as "the underlying pattern of talk and activity" (p. 45). By fostering a positive community based on peer collaboration, the rhythm and balance of the classroom could change (Schultz, 2003). Student interactions have a large impact on social constructivism, and by listening for the rhythm and balance of a classroom, teachers can identify benefits.

Collaborative group work may also allow a student who is being silenced to get to know others (Schultz, 2003). "Listening for silence suggests a close examination of conversation, curriculum, and school structures for openings that invite all voices and perspectives into the classroom" (Schultz, 2003, p. 139). Students generally feel more comfortable in small groups, rather than large group settings. By listening to the needs of the silenced students, they can be placed with students who may bring out different sides

of them. Student interaction and socialism are only some of the gains of peer collaboration (Corden, 2001).

Cooperative Learning and Heterogeneous Grouping

The students play a crucial role in cooperative learning. In order to fully understand the research, it is necessary to define what the researchers have found social cooperative learning to mean. Cooperative learning is a different form of student learning that has come into effect as a response to the traditional curriculum-driven environment that is facing schools (Cohen, 1986). In these environments, students are placed into heterogeneously structured groups, based on abilities, in order to grow as learners. A heterogeneous group is one in which a teacher groups the students based on their learning and social abilities; this is done in order to help the students meet a broad range of needs (Hertz-Lazarowitz & Miller, 1992). Teachers have constantly been reinforcing that lecture is not an effective way to teach students. The most appropriate way to learn is to actually teach the subject matter yourself (Hertz-Lazarowitz & Miller, 1992). In cooperative learning, the students become the teachers. Each student helps to teach an area of content to other students within their groups. The students in the group will collectively process and attempt to solve the problem, and requires a shared understanding and responsibility within the subject.

Heterogeneous Grouping Defined

Heterogeneous is defined as: consisting of dissimilar or diverse ingredients or constituents (*Merriam-Webster Online Dictionary*, 2008). Grouping heterogeneously means that the students must be grouped by varying intellectual abilities in order to learn from one another, both academically and socially (Daniel, 2007). Similarly to

heterogeneous, cooperative learning is when the students work together in mixed achievement levels in order to learn cooperatively (Ediger, 2000).

Schools are constantly under more pressure to raise the standards of their students, while helping to develop a curriculum that is cohesive to all students (Davies, Hallam & Iverson, 2003). However, some students are placed in homogeneous groups for their entire schooling, which does not allow them to interact and learn from various learners (Baines, Blatchford & Kutnick, 2002). Teachers generally have students sitting in groups, and many teachers enjoy having students work with others. Therefore, it becomes questionable as to how to group the students.

Benefits of Heterogeneous Grouping

By grouping students heterogeneously, they are able to work with students of different ability levels. This allows students to be able to learn with a variety of different learners and in different educational settings (Richardson & Hines, 2002). Unfortunately, grouping students homogeneously is almost like a form of segregation. The students become confined to the same learning levels and generally work with the same people from year to year. It does not give the students time to expand as learners, as well as expand socially. Students really do learn from each other in heterogeneous groups. The lower-level students are able to learn from the teachings of their higher-level peers, while the higher-level peers are able to advance from teaching problems that they know. Students are encouraged to use each other as resources throughout the grouping, thus allowing the teacher to be able to pinpoint problems more easily (Elbaum, Moody & Schumm, 1999). By working in groups with mixed abilities, all of the students are able to achieve equally.

Lyle's 1999 study points out that children believed that their group work has helped them with their reading. Lyle also concludes that students thought that this was a valuable way of working. He also states that the students felt that they had learned new ways of engaging in different skill sets through interactions with their peers (Lyle, 1999). An important point that Lyle made is that since the students are able to become both teachers and students for their groups, that the social experiences from the collaboration are a large effect on the students' cognitive development regardless of their learning abilities. The students are able to become peer tutors to the other members in their group, thus strengthening their own knowledge of the subject matter. Many researchers also point out how heterogeneous grouping is beneficial for the students' futures, since they are required to interact with members who have different social and academic skills.

Student Experiences with Heterogeneous Grouping

Ediger (2000) found that students fully enjoy working with others in the classroom. Cooperative learning groups can range in size from a dyad to a somewhat larger group and can consist of different genders and ages, but students must be from differing abilities. It must be ensured that the teacher designs the group, so it has a good mix of low-level, mid-level, and high-level learners.

Students, in particular, have had many positive experiences when being grouped heterogeneously. Shields (2002) conducted a study with fifth grade students who had been working in heterogeneous groups. The results found stated that students in this class were observed to have a greater academic self-confidence, as well as the belief that they had lower teacher expectations, less teacher feedback, and less homework. The students, therefore, felt that the teachers were not being as hard on them in the classroom; the

stress was placed on independence and group work within the classroom, rather than just academic achievement. Many regular and special education teachers believe that each student benefits from cooperative learning, and the lower-level students especially are able to learn from the higher-level students when they are placed together in a heterogeneous group (Moody, Vaughn, & Schumm, 1999).

In an interview of two groups of primary school students, Lyle (1999) found that all of the students felt that they had offered and received assistance from their other group members; the students also pointed out that they felt that this assistance helped to develop their academic skills. Lyle also found that the students felt that they were helping each other learn while they helped to teach each other the subject matter. Lyle points out that the contribution of each of the students can be “extended, challenged, or modified” by the student interactions within the groups. Heterogeneous groups are also able to reduce the competition in the classroom, provide positive role models for the lower-level students, allow the students to work at their own paces, and provide a sense of community for the students (Hallam, 2002). Ediger (2000) also founded that students seem to be achieving at a higher level while they are in heterogeneous groups, as compared to when they worked with students of the same ability. When all the students are grouped together homogeneously, it becomes obvious to the students in the room who the lower-level students are. This can lead to bullying and hardships for the students in the classroom. With heterogeneous grouping, a teacher can make it look as if the students in the groups were just selected randomly, rather than the students knowing that they had been grouped by achievement. Besides just the interactions that students may have within the

heterogeneous groups, Lyle (1999) had also found that the interactions that the students do have may help to foster literacy development.

Researchers have also begun to bring out the concern that grouping homogeneously is not conducive to all learners because it seems to provide achievement for only some of the groups. Hallam (2004) found that some lower-level students may have damaging effects from homogeneous grouping since it does not seem to help raise the standards of the students. Also, students on the higher-level learning scales seem to feel left out or under acknowledged because the lower-level students will generally get the most help from the teacher (Hallam, 2004). By grouping heterogeneously, the teacher shares his or her input equally around the classroom, wherever it seems to be needed the most. The students, therefore, do not feel that some groups are getting attention over other groups.

Research has indicated that heterogeneous grouping has had a more positive effect on children than homogeneous grouping has (Hertz-Lazarowitz & Miller, 1992). When students are in homogeneous groups, they do not seem to collaborate or function as well as in heterogeneous groups (Hertz-Lazarowitz & Miller, 1992). The students also do not seem to face the potential of being bullied or ridiculed for their differences in abilities. The heterogeneous groups fully seem to work together in order to help their neighbors do well in the classroom. Regardless of their learning ability, each student is able to contribute something positive to their own heterogeneous group. The students are working together to achieve the same goal, so they all become one unit that helps one another advance. As students grow older, they will constantly be placed in groups based on nothing in particular; heterogeneous grouping takes them away from the standard

students that they work with, and helps them to relate to people of various abilities (Hertz-Lazarowitz & Miller, 1992). Chan (2001) founded that the engagement and resolution of conflicts with their peers helped students learn better. By engaging in conflict and finding resolutions, students are able to explain, justify and question themselves in the learning process. They are also able to adopt different points of view from their own, thus leading to a sense of higher-level thinking.

A study by Burris, Heubert, and Levin examined the effects of heterogeneously grouped middle school math students. Their findings were that the students were more likely to complete advanced math courses, including students of low-level learning, low socioeconomic status, and minorities. In relation to prior homogeneous grouping, the abilities of the high-level learners seemed to remain the same, if not increase during the heterogeneous grouping. Burris, Heubert, and Levin also found that the rates of participation and test scores had improved in mathematics after the heterogeneous groups had been implemented.

Research has found that students are able to learn from one another through a social context (Hertz-Lazarowitz & Miller, 1992). Cooperative learning has continuously been researched, and researchers suggest that students are able to achieve more by working with other students than they are able to achieve by working individually (Hertz-Lazarowitz & Miller, 1992). Similarly to social constructivism, students saw an increase in their self-esteem, cooperation abilities, and work ethics through the use of cooperative learning (Hertz-Lazarowitz & Miller, 1992). By being grouped heterogeneously, students were able to work with others who they may not have worked with in the past. Students also felt that cooperative learning was a benefit to them because it provided a safe spot

for them to share their opinions and find solutions, thus no longer silencing them in the classroom (Schultz, 2003). Students were less likely to feel bullied in cooperative learning groups, because the students seem to find a sense of belonging within their groups (Hertz-Lazarowitz & Miller, 1992; Schultz, 2003). Cooperative learning, therefore, is not only beneficial to the students in academics, but it is socially beneficial as well. The students seem to become better all-around achievers when they are able to work with their peers of different abilities.

Using Heterogeneous Group Work in Writing

Nagin (2003) found that almost fifteen percent of elementary school students do not even have the ability to write at the most basic level. This clearly indicates a desperate need for the nation to find some way to better implement writing instruction. However, the issue with this is inadequate pre-teacher training programs that do not put a focus on writing. Teacher certification programs tend to require instructional courses on the subjects of mathematics, science, reading, and social studies, but lack courses on writing (Nagin, 2003).

Using heterogeneous group work in writing is something that is not often seen in classrooms. In order to fully understand heterogeneous group work in writing, it is necessary to look at the different types. Saunders (1989) created dimensions of peer interaction in writing; these terms have implementations for heterogeneous group work. Saunder's dimensions are the following: "co-writing," in which peers are collaborating on every task; "co-publishing," in which individuals create a collaborative text based on individual texts; "co-responding," in which individuals are interacting only through the process of revision after a text is already completed; and "helping," in which peers help

one another during the writing process (Hertz-Lazarowitz & Miller, 1992). Research has been conducted that focuses on students' revision; it has been concluded that when peers respond to and edit writing, students can help one another improve their writing through response (Hertz-Lazarowitz & Miller, 1992). Albeit, the intent of this study is to develop an understanding of the aspects of "co-writing," "co-publishing," and "helping," as these are not as widely reviewed.

Daiute conducted a study of third, fourth, and fifth graders who wrote collaborative stories in a classroom. The study found that the children engaged in critical thinking by engaging in a "playful talk" prior to the writing process. The playful talk is defined as trying out concepts, role playing, and using imagery. After engaging in playful talk, the students would engage in a more controlled talk, where they planned, evaluated, labeled and controlled the writing process. The students' individual writing improved measurably, as well as an increase of elaboration of characters, plot, and imagery. Damon and Phelps (1989) state that improvement occurs when there is a balance between the playful talk and the controlled talk. Saunders (1989) agrees that co-writers engage in a planning phase full of spontaneity and wide-ranges, and then reach a collaborative consensus during the composition phase, involving discussion and debate.

Peer Interaction

Three different types of peer interaction were discovered: peer tutoring, cooperative groups, and peer collaboration. In order to fully rank these scenarios, Damon and Phelps (1989) developed a system based on the equity and mutuality of student role, interactive structure, and task. By relating these tasks to writing, the roles can be looked at based on the students' degree of ownership of the text, as well as the dynamics of

relationships between the peers (Damon & Phelps, 1989). Therefore, role, interactive structure, and task are interdependent in defining the equality and mutuality of peer tutoring, cooperative groups, and peer collaboration.

The roles of the students are referred to as the relationships between the active participants based on who has knowledge and power. Damon and Phelps (1989) refer to the degree of control over the roles of writing and interaction as "equality." Peer response, therefore, has a low equality ranking because one student has ownership over their text, while the other student solely responds during the revision process. When the roles change to that of peer tutoring, the student who has the greater knowledge becomes the one with more authority because he or she may influence changes.

Interactive structure uses "mutuality" to refer to the amount and sources of interaction. The interaction changes when the tasks and the roles of the members within the group change. The mutuality changes to a higher ranking when all members of the group seem to be contributing to the interaction most of the time. The ranking becomes lower when one member tended to be the dominant participant.

The third dimension, task, is very important because of the relationship between the group members' interactions and the roles. The relationship of the group members themselves also becomes key, because the task of editing a text is profoundly different than constructing one together.

In a study conducted in a fourth and fifth grade classroom, students were placed in pairs or small groups around the class. The teacher, Ms. Brooks, circulated around the room and asked questions, provided suggestions, and kept the students on task. The students were given a teacher-designated topic of writing about the Museum of Natural

History; however, the students were given the freedom to use a variety of different genres to develop their writing. Three different types of group activities were created: peer tutoring, cooperative learning, and peer collaboration.

Peer Tutoring

Peer tutoring occurs when a pair of students is asked to individual assignments. Each student is responsible for creating their own paper, so each student seems to have ownership over his or her own text. Because of this, if one student is recognized by both the teacher and another student as being the more knowledgeable one, then that student will have influence over the other student's writing. Damon and Phelps (1989) then conclude that the roles of peer tutoring are of "low equality" because one child is perceived to be more knowledgeable than the other. The interactive structure is also low in mutuality, since one student is more dominant than the other. Although it seems that the lower ability student is contributing very little, the interaction is still there. While the lower ability student gains more academic help, the more knowledgeable student also gains by being able to articulate and reconstruct his or her own knowledge.

The examination of peer tutoring is provided by Rogoff (1986), who concludes that there are five steps that must be followed for the interaction to fit. The first of these is creating a bridge from what is already learned to what needs to be learned. By the more knowledgeable student questioning the lower ability student, a bridge begins to be created. The lower ability student should then ask the higher ability student questions; through modeling his or her own thinking, the higher ability student can teach the lower ability student the appropriate ways of response. The second step is to provide a structure for problem solving. If a problem arises in the writing process, then the higher ability

student will generally provide a solution to suggest how to fix the problem, such as going to the library for more information on a topic. The third aspect of the plan is to transfer responsibility from the higher ability student to the lower ability student, thus creating a bit more equity and credibility in the group. The fourth facet of the plan is for both of the members to participate equally in the problem solving process. The last step is to ensure that the interaction can be tacit and explicit, by the higher achieving student explaining what to do and the appropriateness of the text.

Cooperative Groups

Cooperative groups are also generally formed in five dimensions. These dimensions are teacher-imposed task and structure, task interdependence, individual accountability, use or nonuse of competition, and reward interdependence. Task interdependence and individual accountability are important because it helps to foster discussion and contribute to ownership. Not using competition or rewards within peer interactive groups is also important because they tend to foster extrinsic motivation, individual achievement, and a limited discourse amongst group members. In order to create a truly cooperative climate, the students should be engaging with one another and working together toward a common goal, not competing or fighting for rewards.

Cooperative groups are especially important because they provide a joint authority for the students; it allows for group decision making, as well as individual accountability. Even when a student is not confident with their work, they may ask their peers for feedback, but they have the final say in their individual assignment. Since each student tends to share responsibility for the group roles, as well as his or her own text, equality and mutuality are usually high in cooperative groups. The students continue to

work together throughout the entire writing state, asking one another questions and making decisions together. Thus, the interaction in these types of groups is rather high. Since no student is seen as the more knowledgeable one, the equality of the students is evident as they are capable of helping the others in the group.

Peer Collaboration

Peer collaboration is when the students are to create one paper, which contains both of their input. The students exhibit a high degree of collaboration throughout each phase of the writing process. Equality exists throughout; authority and ownership are both equal parts of the process for the students. Each child is deemed capable of helping the other, and interaction is at a high because the students are working closely together. Thus, there is a high degree of equality and mutuality, as well as interaction. Even when students' ideas clash at the beginning of the process, the students work together to find a mutual space, and contribute ideas, make suggestions, and bring different textual skills to the writing process. The learning process is deemed to be collaborative because the students were conducting "mutual tasks in which the partners work together to produce something that neither could have produced alone" (Forman & Cazden, 1986, p. 329). Students are also capable of asking the entire class for their input, thus inviting even more collaboration into the process. The students are able to have debates with one another about the appropriateness of the subject, as well as their understandings of concepts related to the task. The students become an audience to one another, as well as help to generate details, locate promising topics, and provide moral support to help create a piece of text that they can both be proud of.

Conclusion

As this literature review proposes, heterogeneous grouping implemented effectively in the classroom can have great benefits to children, both socially and academically. Research on heterogeneous grouping has found that students' achievement level can grow drastically, as well as their social interactions. Research has also found that most teachers do not allow for heterogeneous grouping in their classrooms, and writing is not frequently used. However, there are many benefits to using heterogeneous group work, particularly in writing. This concept can be incorporated in a variety of ways in an academic setting. Unfortunately, many teachers do not use this type of learning in the classroom, but rather overlook it for more individualized writing prompts.

This study hopes to show the impacts of using heterogeneous writing groups in a fifth grade classroom. A variety of strategies will be used in order to help facilitate the study. The next chapter of this thesis will delve into the design of my research study, which is centered upon the existing research of incorporating heterogeneous group work into a writing classroom.

Chapter III

Methodology and Research Design

Introduction

This chapter begins by examining the research paradigm used in this study and the methods of data collection and analysis. It concludes with a description of the context and participants of study.

Research Design

Teacher research is based on a systematic and intentional inquiry (Cochran-Smith & Lytle, 2009). Cochran-Smith and Lytle (2009) also refer to teacher research as inquiries that teachers use to examine their own assumptions by gaining an insight through questioning and data. Specifically, a teacher research paradigm is qualitative. The purpose of using qualitative research is to help the teacher-researcher understand the students and improve the curriculum to meet their needs (Hubbard & Power, 1999). Qualitative research also focuses on observing the students in their natural environment and identifying their own specific needs (Hubbard & Power, 1999).

Teachers can play very specific roles in qualitative teacher research because they are a constant in the environment, rather than an outside observer (Cochran-Smith & Lytle, 2009). Cochran-Smith and Lytle (2009) argue that this has a major impact on a research study because teacher-researchers become more invested in the outcome of the research since it directly relates to their students and their classroom. Through the use of surveys, discussions with students, student artifacts, and a teacher research journal, I was able to conduct my own qualitative data. The use of a survey has helped me gather

information about how students feel about working with others, as well as how they feel about the writing process. This survey was conducted pre- and post-project, in order to interpret any changes the students may feel. Analysis of the students' direct quotes, written answers and artifacts, as well as written observations from the teacher-researcher journal will be conducted to interpret the qualitative data.

Context

The qualitative research study will be conducted in a fifth grade mainstream classroom. The school is located in southern New Jersey in the Deptford Township School District. The Deptford Township School District serves students in pre-kindergarten through twelfth grade. Deptford Township is located in Gloucester County, New Jersey. The school district educates over 4,400 students through the use of six elementary schools, one middle school, one high school, and one special needs school. Deptford Townships borders Deptford Township borders Bellmawr, Gloucester Township, Mantua Township, Runnemede, Washington Township, Wenonah, West Deptford Township, Westville, Woodbury, and Woodbury Heights.

The school I conducted my study in is a 2-6 elementary school, serving 409 students (education.com). At the time of my study, there were 27 students in the class. Nine of the students were mainstreamed for social studies and science, but were pulled in during Language Arts lessons for the benefit of this study. There were eleven students who had Individualized Education Plans, which led to many different learning abilities within the classroom. Thus, this classroom contained many different academic levels and needs, making it a fine setting for a study based on heterogeneous grouping.

Because of the nature of this study, the whole class, using both special and general education children, was focused on. My intention was to include the entire class, and parental approval was achieved. I felt it was important to include the entire class in this study because the main component to this research pertained to the different abilities of students. There was a wide variety of skill levels in the classroom, including Specific Learning Disabilities and Communication Impairments. Therefore, I was faced with the task of how to group these students appropriately.

In addition to the different skill levels within this specific classroom, there was also a wide range of familial backgrounds and cultures. In the 2009-2010 school year, 27% of students were eligible for free or reduced lunch. The school was 80% white, 15% black, and 4% Hispanic (“Oak Valley in Wenonah, NJ...”). While the school had a somewhat even 47:53 female to male ratio, in my specific placement, the ratio was a very uneven 5:22. I was interested to see if a child’s background would have any effect on this study. Before implementing my qualitative research study, I asked my cooperating teacher the impact of writing in the classroom. As per the curricula of the district, writing was supposed to be focused on each day. However, I quickly observed that it was not possible to have a set writing time each day, given everything else that was in the Language Arts curricula. Therefore, a major focus of the study became just how to implement more writing into the curricula, without impeding on needs of the school and the students. Writing tends to be more individualized, so incorporating group work would be important to fit in.

Methodology

Sources of Data The research design for this study is of a qualitative nature. Quantitative data is based heavily on statistical and mathematical data, whereas qualitative research is much more subjective and introspective (Hubbard & Power, 1999). In order to collect the most accurate and unbiased data possible for this research study, a variety of different approaches were utilized.

For this study, many different data collection methods will be used, including the use of surveys, discussions between students, students' projects and artifacts, and my own teacher research journal. Before any of the sources of data were collected, there was an introductory letter distributed to the students and their parents/guardians to inform them of the project that would be conducted. This letter also requested their written permission for the student to be a participant.

Student Surveys A very important part of this study is the surveys that the students will be filling out. These surveys will be filled out confidentially so that students can evaluate their group member's contribution, or lack thereof, to the project. The surveys ask the students to identify the group member they are discussing, and give the students a rating scale of a 1 (rarely/never), 2 (occasionally/sometimes), or 3 (all/most of the time) on the following criterion: did an equal share of the work, contributed to ideas/planning, was positive and helpful, and contributed to overall project success. The students then had to identify a word or phrase to describe this person as a group member, as pertaining to working in collaborative groups. The student surveys also called for the students to write their favorite and least favorite parts about working with groups on the

back of their survey. I reminded the students that, since this was done confidentially, I would not know who wrote what, so they could be as honest as possible.

Student Discussions I also conducted a variety of different discussions with the students about the writing groups. These discussions were kept extremely informal as to gauge what the students were thinking about the study. I asked a variety of students to tell me their favorite and least favorite parts of the study, as well as how they felt about working with other people. The students were very open and honest about the study, and identified what they enjoyed and wished could improve.

Student Artifacts Student artifacts will also be a data source that will be extremely helpful to the analysis of this study. Throughout the unit, students have created artifacts that illustrated how their writing and social skills developed over time. Students worked together in varying groups of different sizes. Students were able to work together, and then reflect on the process. Student artifacts became a very necessary part of the data analysis of this project. Without this data source, the teacher researcher would not be able to identify academic changes that the students may have had, as well as analysis of the students' quality of writing.

Teacher Research Journal The last form of data collection used is a journal that is kept by the teacher-researcher. Through this journal, I was able to record my thoughts, observations, analyses, questions, and feelings in regards to what is being witnessed in the classroom before, during, and after the project has been conducted. As a teacher-researcher, I felt it necessary to have kept a research journal documenting my observations and reflections on this study. In the journal, I have recorded what interactions I observed throughout the different writing groups. I have also observed any

prompting and conversations that I had witnessed between the children. It also became important to observe the students' interactions while they were not in writing groups, as will be detailed later in this thesis. This data was coded and categorized and utilized in chapters four and five.

Looking Ahead

Chapter four will discuss the results of the surveys, student discussions, student artifacts, and the teacher-researcher journal. Chapter five will present the implications of the study and recommendations for further study in the field of heterogeneous grouping in writing.

Chapter IV

Data Analysis

Introduction

Chapter four analyzes data for this study undertaken to answer the key research questions, “What happens when fifth graders are placed in heterogeneous writing groups? How do we score the students writing? How important is student feedback?” A review of the multiple data sources seems to suggest that there was a positive effect on the academics and social traits students of all abilities when they were placed in writing groups. The data suggested that there were four main themes of changes throughout the implementation of the study. These changes were in academics, social interactions, learning communities, and likeability of writing.

Revisiting the Study

As stated in chapter three, I conducted my research using multiple data sources. I began by observing the classroom setting, and in particular observing the interaction between the 11 students with IEPs and the 16 students without IEPs. Nine of these students with IEPs went to a resource room for Language Arts and Mathematics. Therefore, the full class only interacted during Social Studies, Science, and special subjects. It then became a struggle for me to figure out how to group these students so they could work collaboratively.

My first step was to decide if I would be using the entire class for this study, or just the students that I would be having for ten weeks for Language Arts. I decided, for the benefit of this study, it was best to have the groupings as heterogeneous as possible. As a result, I asked the resource room teacher and my cooperating teacher if it would be

possible if I did some collaborative lessons with the students pertaining to writing. Both of the teachers agreed with this, particularly because I decided that it would be best to base my writing prompts on the New Jersey Assessment of Skills and Knowledge standardized state test, hereby after referred to the NJ ASK. As discussed in my literature review in chapter two, state standardized testing plays such a large role in how teachers teach today. Consequently, many students do not enjoy writing. I wondered that if I could combine the NJ ASK testing skills with heterogeneous writing, if the students may enjoy writing a bit more.

After fulfilling my focus, I was faced with the dilemma of how to group the students. Collecting individual writing samples would not have been beneficial, because this analysis was solely based on collaborative writing. I decided that I would group the students based on my observations of their academic skills. This dealt with a combination of the students had IEPs for learning disabilities, what students scored advanced proficient on the NJ ASK test the prior year, what students were in the gifted and talented program, and how the students were scoring on their current Language Arts tests.

Before any of the groupings began, I had a discussion with the students about how they would lose points off their grade if they complained about who their partner(s) were. The students and I then discussed respect for each other, and how when they get older, they will not always be best friends with the people they are partners with. The students provided a verbal understanding of this rule, and therefore none of the students complained about who they were grouped with.

After assessing this data, I would group the students in either dyads or triads for certain writing prompts. The following details the changes that the data suggested after the implementation of heterogeneous writing groups in a fifth grade classroom:

Analysis of Social Constructivism through Student Work

Many of the students did very well academically. One of the main questions that I had when developing this study was if there was improvement for *all* students, since much of the literature reviewed in chapter two suggested that only lower ability students improved from heterogeneous groups.

The Zone of Proximal Development: Higher Students Teaching Lower

Students Keifer and Cody were one of my favorite groups to observe. Keifer was a transfer student from Philadelphia, who was not very friendly with the other students, but was extremely intelligent. Cody, on the other hand, was the lowest student in the classroom. In fifth grade, Cody was reading at a second grade level. To fully emphasize the impact of the heterogeneous writing groups, I am including a writing prompt that Cody did on his own before he was grouped with Keifer.

The speculative writing prompt asked the students to describe an adventure that Katie and Pablo went on after school one day.

Cody's writing prompt (typed exactly as written):

Katie and Pablos adventure

Katie and Pablo left school they where. Looking forwar to this day for a long time.

They whontid to have a slepovore. then ther goin to the park with pablos dog. They they whent home for school the next day. Then in the morning they got rodey for school they whet to sunday school for three hours. Then when school was over they were bothe doing ther home worke then they eat diner at the end of the day the were Pablo's mom pick him up from Katie's huoues. Then they pland a nothe adventure for next weekend.

Based on the NJ ASK testing standards, this prompt probably would have scored a 1, which is the lowest possible score. Although Cody wrote a decent amount, he had many grammatical mistakes that a fifth grader should have corrected. His writing was also extremely off-topic, as the prompt only asked for what Katie and Pablo would be doing after school that day. However, as evidenced by the following, Cody's writing while he was grouped with Keifer improved drastically:

Prompt: A child woke up one morning to get ready for school. When the child walked out the front door, something was different. Write a story about the child, what was different, and what the child does next.

Prewriting:

Character: Ben

Setting: time – 1998

place – Heinz Field

Problem: A child woke up and something was different

Solution: He likes what happened to him

Writing Sample:

It was 1998 and a kid named Ben visited Heinz Field every day. Ben lived in South Carolina. He went to Mayfair Elementary. One day Ben woke up and was a Steelers player. He was a quarterback. Ben thought it was a dream. He got tackled and said, "Now I know it's not a dream." Ben was wearing a black and yellow uniform. "This is so awesome!" Ben said.

"Bring...2 minutes left in the 2nd quarter," said the official. Ben was shocked. He was living the dream of being a Steelers quarterback. They were facing the eagles.

At the end of the game the Eagles and Steelers were tied 60-60. So they had to play another game. After that game the Steelers won 60-59.

Then Ben went back home. When he woke up he was in school. But I will tell you that story another time.

This is just one example of improvement that I witnessed in lower ability students in academics. While I was observing Keifer and Cody, Keifer was constantly correcting Cody's writing. A large issue that Cody had in his individual sample was that he did not go back and proofread his work. He would sway off topic, and Keifer would bring him

back to the correct topic. This writing sample, although by no means perfect, was a large improvement for Cody. Even during the prewriting, Cody was more attentive. Keifer also had Cody go back through the checklist that was on the board for speculative writing in order to ensure they reached all of the checkpoints.

While walking through the classroom and observing the students' interactions, it became obvious that the lower achieving students seemed to be relying on the higher achieving students for help. Jaden, one of the lower students, was constantly relying on Brent, one of the higher students, for spelling and grammatical help. This seemed to be a common occurrence throughout the classroom. Many of the lower students, although they had great ideas for the prompts, had trouble finding the correct wording for what they wanted to say. They relied on the higher level students for many of the mechanics of writing.

I had the expectation that the lower ability students would be learning a great deal from the higher ability students. The data suggests that this was true in this classroom setting; the higher ability students, in a lot of cases, became the teachers and worked as peer tutors for the lower ability students.

Lower Students Teaching Higher Students Kristie and Olive were paired together, and were writing a speculative prompt about the principal making a new school rule that upset all of the students. The prompt called for a description of the new rule, why the children were upset by it, and what happens next. Kristie and Olive wrote a very strong writing sample, identifying all of the main points on the speculative writing checklist. However, when contemplating what to name the principal, Kristie was confused on whether it should be *Mrs.*, *Ms.*, or *Miss*. Kristie, one of the strongest writers

in the class, asked Olive, who had a reading level of a second grader, which one they should use. Olive thoughtfully waited and said that since they were using an unmarried woman as their principal, it should be *Miss*. Kristie began writing it down, when Olive turned to me and said, “Miss is spelled without a period, right?” I glanced down at what Kristie and Olive were writing, and Kristie had placed a period at the end of *Miss*. I told Olive that she was correct; there should not be a period at the end of *Miss*. I took a step back so I could hear what would happen next, when Olive said to Kristie, “See, I told you. No period at the end of it.”

I was already impressed that Olive was the one correcting Kristie, and became even more so when Kristie and Olive were discussing the solution to their problem. Collaboratively, the girls decided that their problem would be that the students were upset because the principal cut back recess time. Olive then came up with the solution that the students in the story should “negotiate to get a better time for learning and recess.” I told the girls that I was impressed with their use of the word *negotiate*. Kristie proudly said, “Thanks! Olive came up with it!”

Shawn and RJ were paired together for another writing sample. Shawn had scored below proficient in his writing on the NJ ASK test the previous year, while RJ had scored advanced proficient and was in the LEEP program at the school. However, interestingly enough, Shawn was prompting RJ for most of the writing sample. RJ would write a sentence down on the paper, and Shawn would tell him how to reword it. At one point during the story, RJ did not know another event to add into the story. Shawn came up with an idea, and RJ exclaimed, “Oh great idea Shawn! I never thought of that!”

When contemplating the possible effects of heterogeneous writing groups, I was afraid that the higher ability students would not learn as much from it. From my observations around the classroom, the data suggested that the higher ability students were learning a great deal from their group members. All of the students worked together for better brainstorming ideas, and I witnessed many of the lower ability students correcting the mechanics and the grammar of the higher ability students. The higher ability students were also gaining an insight into different ideas for their writing that, as many of them mentioned, they would not have thought about if they were not grouped with that particular group member.

Social Interactions

“Carl, do you want to play kickball with us at lunch?” asked Dwayne on Thursday afternoon. Carl’s face immediately brightened up and the two boys began talking excitedly about how they were going to beat the other team. This seems like a standard conversation in a fifth grade classroom, but when the background becomes more known, this conversation would probably strike many people as being odd. Ten days before this interaction, Carl and Dwayne got into a physical altercation after school after Carl began making fun of Dwayne for being a mixed race.

Three days earlier, Dwayne and Carl were paired together in a heterogeneous writing group. Dwayne, a student of average abilities, and Carl, a student with an IEP for a learning disability, were different in many ways besides academics. I knew that with this pairing, I would really have to watch their interactions. I began observing Carl and Dwayne very closely, and recording their interactions in my teacher research journal. While Carl and Dwayne thrived, to my surprise, during the writing portion, it was their

interactions *after* working together that really pushed me to look for these results in the rest of the students.

Carl and Dwayne were not the only students to have positive changes in their social interactions. When thinking about the possible effects of implementing heterogeneous writing groups, I was not expecting there to be many changes in social interactions. The classroom was full of rambunctious boys who were always vying for one another's attention. After implementing this study, I noticed that the students seemed to respect one another more. When one student was speaking, all of the students would pay full attention to him or her. The students were kind to each other, and without even being prompted, would help each other with the rest of their subjects. While working on a math lesson after the implementation, which was of no relation to this thesis, the students began asking if they could work together after they finished a problem to compare their answers. The students began to enjoy each other's company, and value the opinion of their peers. They were constantly asking peers to look over each other's work, and began to ask other students to play outside of the classroom.

Learning Community

One unanticipated result that the data suggested was the honesty of the students. This honesty helped to build a greater community where the students felt that they could share more. The concept of the learning community seemed to improve drastically. Teaching the students how to work in groups also had an impact on the classroom's learning community. The students, in turn, were more open with each other and extremely honest in their surveys and conversations.

While analyzing the data, one key point kept arising. Particularly through the use of student surveys and student discussions, I began to see that the amount of honesty in the classroom had improved tremendously. While I was student teaching in my placement, there had been 3 cases of theft, and 2 cases of items breaking in the classroom. None of the students had admitted to any of these. The classroom had many liars in it, even over silly things like dropping a pencil on the floor. I began to wonder if it would even be influential to use student feedback for this thesis. Would the students be honest? Did the students really help with the analysis of this thesis?

After giving the students surveys and having discussions with them, as well as throughout observing their actions, I came to the realization that the students had actually revealed a great amount of insight into thesis. When given Student Peer Evaluation Sheets, where the students had to evaluate their group members, I was afraid that the students would rate their friends higher than people they were not as close with. However, as the table on the next page details, the students were very honest in their peer evaluations.

Student Peer Evaluation Sheet			
CATEGORIES	1 (rarely/never)	2 (occasionally/ sometimes)	3 (always/most of the time)
Did an equal share of work	IIIIIII (7)	IIIII IIIII II (12)	IIIII IIIII IIIII IIIII IIIII II (27)
Was positive and helpful	IIIIIII (7)	IIIII IIIII IIIII (15)	IIIII IIIII IIIII IIIII IIIII I (26)
Contributed to ideas and planning	IIIIIIIII (9)	IIIII IIIII III (13)	IIIII IIIII IIIII IIIII IIIII I (26)
Contributed to overall project success	IIIIIIIII (9)	IIIII IIIII IIIII (14)	IIIII IIIII IIIII IIIII IIIII (23)

The students were then asked to list positive and negative traits about working in groups.

The following two pages details what the students had listed as positive, and what the students had listed as negative.

POSITIVE THINGS ABOUT GROUP WORK
more brainstorming (III)
More ideas (IIIIIIIIII)
Better with 2 people (III)
Easy (III)
I like it a lot
Quicker (III)
Takes less time for the prewrite
“I will like to keep working with him.”
Vivid imagery
Less people have to write (II)
It is fun!
More helpful to understanding/spell words (II)

NEGATIVE THINGS ABOUT GROUP WORK	
People would disagree in groups of 3 (III)	Some people play around (II)
Cluttered ideas	Some bad handwriting
One person might want to write the whole paper	Only had 2 paragraphs
Had to make sure that everyone was working	Harder with 3 people (III)
More people have to write	Might talk with a friend
People will argue (III)	Little off-topic (II)
Not enough time (II)	Some people won't work
Didn't let me write	Not everybody got a turn to write
Can get confusing	Nothing bad about it (III)

Nearly all of the students who were asked about the positives of group work, whether through student discussions or student surveys, said they enjoyed the group work because they liked how they could get more ideas and there were better opportunities for brainstorming.

Analysis of Data Based on Student Responses about Working in Groups

When students are asked to evaluate group work, how much can they tell you and how many show they know what they are talking about? Was using student feedback worthy to this thesis? It was imperative to further break down the data that I had received from the students in order to evaluate the answers to these questions.

In order to fully detail if the students understood what was being asked of them, I first listed all of the feedback that the students had given. In a survey of how students rated their peers, 51 were collected. Of those 51, 14 were negative, and 37 were positive. The students were to use words or phrases to describe their peers on the survey. The following page details the full list of the phrases that the students had come up with to describe the rest of their group members.

How the Students Described Their Group Members	
POSITIVE PHRASES ABOUT PEERS	NEGATIVE PHRASES ABOUT PEERS
funny (III)	little helpful
helpful (IIIIIIII)	talkative
good thinker	off-topic (II)
good worker	wouldn't let us write
did most of the work	lazy (II)
pays attention most of the time	needs to be helping more
nice (II)	needs to think of more ideas
participating	writing hog
contributing	rude
decent	playing around
kept handing us ideas	hard to work with
good member	kept fighting with us
great writer (III)	
great ideas	
hard worker (II)	
steady worker	
positive	
great (II)	
smart	
worked together	

When using the previous table for analysis, it becomes important to go back through the phrases to detail which phrases demonstrate that the students had an understanding of writing and group work. Therefore, words describing a student's personality should not be used in order to fully analyze whether or not the students understood this survey. The following table details words that are helpful to the analysis of this thesis.

How the Students Described Their Group Members - Revised	
POSITIVE PHRASES ABOUT PEERS	NEGATIVE PHRASES ABOUT PEERS
helpful	talkative
good thinker	off-topic
good/steady/hard worker	wouldn't let us write
did most of the work	lazy
paid attention most of the time	needs to be helping more
participating	needs to think of more ideas
contributing	writing hog
kept handing us ideas	playing around
great writer	hard to work with
great ideas	kept fighting with us
worked together	

The students, therefore, had almost an equal amount of positive and negative things to say about their group members. The data suggests that the majority of the students understood what was being looked for in the surveys; the students were honest about their peers, whether they were contributing or not to the collaborative writing piece. Due to this, I have concluded that student feedback is a very worthwhile part of a heterogeneous group process. The students helped with the analysis of the effects of heterogeneous group work. By using this type of survey with the students, a teacher is able to determine the success of the projects and the groups.

Analysis of Increase in Student Likeability in Writing

During an informal conversation about student likeability towards writing prior to this thesis, only five out of 27 students said that they thoroughly enjoy writing. When I asked those five students why they enjoyed writing, they proclaimed that it was a chance to be individuals and come up with their own ideas. I then asked the students if they enjoyed writing when they were given a prompt; all five of the students had the same answer. If the prompt was interesting to them, they said, they enjoyed writing about it; however, for the most part, the students enjoyed free-writing.

When I informed the students that we would be doing some writing samples based on the NJ ASK speculative and expository prompts, it was suffice to say that the students were not very pleased. These prompts, they complained, tended to be “boring, hard to write about, and not fun.” I handed out a prompt to the students that said the following:

Your principal is considering a new dress code requiring all students to wear uniforms. State whether you think this is a good policy. Support your answer.

I heard numerous groans around the classroom. I handed out a sheet of paper to the students and told them that they would be prewriting on the same page the prompt was on. A look of boredom overcame the students. I said to them, “Before you begin writing, we’re going to change this up a little bit. I want you to write this with a partner.” I began telling the students who their partners were, and the students seemed to be a bit confused. I asked them why they thought I might have them write in groups and a few hands shot up immediately.

“Oh, I know Miss Cady! It’s better to work with another student because they can help us critique our writing,” shouted out Brent.

“It will help us come up with some more brainstorming ideas,” said Reg.

“They might help us think of some things we haven’t thought about!” exclaimed Jenni.

I told all of the students that they were correct, but there might be some challenges to this, as well. I informed them that they would tell me what they liked and did not like about working in groups on another day, and that they should get prewriting, and eventually writing. Smiles seemed to go through the classroom, even with groups of students that did not seem to enjoy each other’s company.

Brent, one of the highest achieving students in the classroom, raised his hand and waved me over. “Miss Cady,” he whispered. “I really like this... we don’t normally get to write with other people. Normally it’s an individual thing. It almost seems taboo!” I looked around the classroom and could see that most of the other students shared in Brent’s excitement. While I had received many cons about the whole process, most of the students enjoyed writing with their peers. When I came into the class one day to teach the

students about responding to quotes, one student immediately raised his hand. “Will we get to write this response with a partner?” he asked excitedly. I told him that, no, we would be moving to writing individual responses. The majority of the class began to groan. I witnessed those same bored faces that I had seen when I was beginning this process, before I had informed the students they would be writing in groups.

The students, I had witnessed, were beginning to enjoy writing. From that point on, whenever the students had a writing assignment, they were asking if they could work with another person. The students did not even care who they had worked with, but they genuinely had fun when they were working with someone else. I was surprisingly able to use this technique as a reward for the students when I was finished with the implementation. After having discussions with my cooperating teacher, she informed me that the students were still asking her to do work in groups even when I had left the classroom.

Listening to the Needs of the Students

In *Listening*, Schultz (2003) founded a framework for teaching across differences. Considering this study dealt with heterogeneous group work, it was beneficial to look at three of the pieces of framework in order to really “listen” to the differences throughout the classroom to meet the needs of all of the learners. “Listening to Know Particular Students” is one of the pieces that Schultz identifies, and through the use of these writing prompts, this became an important piece for my thesis. By using the students’ writings, and identifying what they chose to write about, it became easy to see what the students enjoy writing about. Therefore, a teacher can then identify what the students like and create prompts that they will enjoy.

Schultz' framework also discusses listening to the "rhythm and balance" of the classroom, which is essential in creating a classroom community. Through the use of student discussions and surveys, it was easy to understand what the students needed in their learning community. Schultz states on pages 42 and 43, "Concentrating my attention on teaching them as individuals, I forgot – or did not know how—to focus on listening to them as a group." Schultz identifies the importance of whole group discussion, rather than always having students work as individuals. By listening to the students all together, I was able to see what the students needed in this study.

Lastly, Schultz discusses listening for acts of silencing throughout the classroom. Through the use of writing prompts, and allowing students to work in small groups, none of the students seemed to be silenced. Their voices were constantly heard throughout their writing, and many of the more quiet students opened up during the small group discussions. Through the use of Schultz's framework, it became easy to analyze the dynamic of the classroom.

Summary of Data Analysis

Through the use of student artifacts, student discussions, student surveys, and my teacher researcher journal, the data suggested a variety of different effects from heterogeneous grouping. As Hertz-Lazarowitz and Miller (1992) stated, social constructivism is the focus on an individual's learning based on their interactions in a group setting. The data collected for this thesis suggests that the lower leveled students' zones of proximal development have increased through the academic use of peer collaboration.

Research also suggested that an important aspect of social constructivism was peer collaboration in the community (Hallam, 2002). When teachers offered students more chances for academic peer discussion, the feeling of community had also increased (Hale & City, 2002; Barab, Dodge, Thomas, Jackson & Tuzun, 2007; Weber, Maher, Powel & Lee, 2008). As suggested through my own data, this event the peer collaboration led to a higher sense of a learning community, as well as an increase in student interaction throughout the classroom.

In *Listening*, Schultz (2003) found that in order to be a successful teacher, it is necessary to really listen to the needs of his or her students to accommodate their needs. By having student discussions and student surveys, and by analyzing the data of the student artifacts, the students made it clear that they enjoyed using group work in the classroom. The student surveys also helped to describe what the students would need help in, as well as how the teacher could possibly improve the well-being in the classroom. Ultimately, my research suggests that using heterogeneous writing groups in the classroom setting was a beneficial experience that could be advantageous for other teachers to implement in their own classrooms. The major findings were that heterogeneous writing groups led to academic improvement in the students, positive change in the social interaction and learning community of the classroom, as well as an increase in the likeability of writing.

Chapter V

Summary, Conclusions, and Implications

Restatement of Findings

This teacher research examined “What happens when fifth graders are placed in heterogeneous writing groups? How do we score the students writing? How important is student feedback?” Based on the review of the multiple data sources, the study found that using heterogeneous writing groups is extremely beneficial for a multitude of reasons. After the implementation of my study in a fifth grade classroom, I analyzed a variety of qualitative data sources in order to understand the impact of heterogeneous writing groups. After a review of my teacher research journal, conversations with students, student surveys, observations, and reviews of student work, I found that heterogeneous group work in writing can play a significant role in the learning and educational classroom community. There were four main themes that were evidenced from my data analysis.

First, there were academic changes in the students that were witnessed by observing social constructivism. The students displayed various achievements in their zones of proximal development. The levels of achievement were not biased towards one academic group; higher level learners, average level learners, and lower level learners all made great strides in writing based on this implementation.

Secondly, I was able to discover that not only did my students learn to work well together in a group, but the classroom community was also strengthened. I was able to discover that after using this approach, the students were continuously asking if they could work in groups together. The students began to work together as a class for the first

time since I had entered the classroom. The learning community in the classroom was strengthened tremendously, as students felt more comfortable voicing their opinions in class and were comfortable giving critiques to their peers.

Similarly to the learning community being strengthened, the social interactions between the students had changed. Students were beginning to ask other peers to get involved in other activities unrelated to the implementation of the thesis. They were nicer to each other, and honesty seemed to improve in the classroom. The honesty created a way for the teacher to utilize student opinions in the classroom, regarding what the students needed in order to become better learners in groups. Through the use of student surveys and discussions, the teacher was able to grasp what the students liked about the process, and what they thought were hardships.

The last theme that emerged from the implementation of this thesis was that the students seemed to be more engaged in their learning and were eager to write in groups again. The students were genuinely excited about working together, and were even asking to utilize this strategy when I was no longer in the classroom. The students became more engaged in the writing process, and were disappointed when the implementation of the project was finished, and they had to work individually again.

Ultimately, I discovered that using heterogeneous writing groups in the classroom can help to develop the students' social constructivism and can have a positive impact on various areas within the classroom.

Conclusions

Based on my findings and on the research that I have conducted prior to writing this thesis, I have learned a great deal about the importance of heterogeneous group work

in writing classrooms. As the research presented suggests, heterogeneous writing groups can have many benefits in the classroom. Heterogeneous grouping research indicates that that since students are able to become both teachers and students in their groups, the social experiences from the collaboration have a large effect on all students' cognitive development regardless of what their learning abilities are (Lyle, 1999). In my personal qualitative study, I found that students were able to show this through the improvements in their writing abilities and the changes in social interactions throughout the classroom.

According to some researchers, increasing students' ability to have discussions in the classroom leads to an increase in motivation (Dyson, 2004; Corden, 2001). This was evidenced within my study, where students were displeased with the writing process when they were forced to write individually. When the students were permitted to work in groups, they felt that it was a reward, and were therefore intrinsically motivated to write. The students listed some cons to working in groups, particularly if they were with someone they disagreed with, but overall, the majority of students really enjoyed working in groups.

Finally, as Hertz-Lazarowitz and Miller (1992) suggested, the most appropriate way to learn is through teaching the subject matter yourself. In the heterogeneous groups, the students became the teachers, thereby helping the students in their groups to learn. The students had to collectively process and attempt to develop a story to the writing prompts, which required a shared understanding and responsibility within the subject.

Implications for the Field

After the conclusion of the implementation of this study, I have witnessed a variety of implications that might be valuable to other teachers. Based on the data that I

have gathered throughout this experience, I have found that students are not very motivated to write. The students value having fun while they are working, and providing the “reward” of working with other students had the students thinking that they were having fun. This was able to promote further engagement in other projects where students were working together, as well as a motivation to write.

Listening to the students became particularly necessary in this study. Through the use of student discussions and student surveys, the students were really able to give their say about the study. I did not expect many of the students to give their friends bad ratings or negative descriptive phrases, but the students were actually brutally honest. When I asked one of the students, Pete, how he felt working with his best friend, Pete explained that he thought his friend was not a good worker and he thought that the two of them would talk too much about unrelated issues. I would recommend to any teacher who is attempting to implement this in their own classroom to ensure that the groups do not have many talkative students in them.

This activity also gave students who generally did not do well in writing a chance to excel. In Chapter IV, I explained Cody and Keifer, and how Cody’s achievements in writing improved. Although he had a lot of prodding from Keifer, Cody felt extremely proud of his work. When I asked Keifer and Cody to read their story to the rest of the class, Cody’s face brightened. He had finally had a sense of accomplishment in writing.

The New Jersey school system, and educational systems throughout the nation, is now based so highly on standardized testing. Therefore, teachers tend to lecture students in order to have them “understand” as much material as possible. Many teachers will only practice writing when the testing is about to occur, which leads students to believe that

writing is only necessary for the state standardized tests. By taking the NJ ASK testing prompts, and allowing them to do something unconventional, such as working in groups to complete a prompt, allowed them to have fun during their writing. Incorporating this idea into other subjects that the students may not see as particularly “fun” would allow the students to great creative with their peers, while learning at the same time.

Differentiating instruction is especially important in classrooms where the students are either mainstreamed or in inclusion. Many teachers struggle to meet the needs of all learners, but through the use of heterogeneous grouping, the more advanced students can help to improve the lower students’ zones of proximal development. This type of writing also helps all students to succeed, particularly if they are of lower abilities. The social constructivist theory allows the students to learn through interaction and communication. A study by Nystrand (1999) concluded that the average teacher was only allowing three minutes out of every hour for students to have discussion. When the research just keeps getting stronger that student interactions are necessary for higher development, teachers must stop and ask themselves how often they allow their students to collaborate in the classroom.

This method of teaching writing allows for students of all abilities and backgrounds to get to know each other. It was further evidenced in my own research that the social interactions between the class, as well as the classroom learning community, improved drastically after the implementation of this study. Based on my research, and that of this study, I can conclude that using heterogeneous writing groups is an extremely effective instructional method. When it is utilized correctly, it can encourage academic growth, and assist in building a positive learning community.

Limitations of the Study

While I was conducting this qualitative teacher research, I had found several factors that caused limitations to my study. Due to the fact that this was implemented in my student teaching placement, I only had a few weeks to conduct my study. If I could have conducted a longer study, I would have preferred to do so. It would have been beneficial to really get to see the long term effects of the heterogeneous grouping, particularly because after only a few weeks, the dynamics of the classroom had changed so drastically.

The classroom that I was student teaching in also only had limited time for writing. Each week, the students were only writing for about 45 minutes. However, in the curriculum, the students should have been writing that much per day. Therefore, I had to figure out how to fit extra writing time into the curriculum when there were already so many other things getting left behind. Since this was not my classroom, I could not completely alter the course of the day in order to implement my thesis whenever I wanted to. Using writing as my subject also limited my analysis for heterogeneous grouping, but strengthened the ability to analyze one specific subject.

Because study dealt with the use of lower and higher level students, it became an issue at first as to how to achieve this. As earlier explained, I had to ask permission for the lower level students to be able to come into the general education classroom for Language Arts in order to achieve better results for the study. I also did not have many higher level learners in the classroom; when I entered, I had found 11 students with IEPs, and only two students who had achieved advanced proficient on the Language Arts section of the NJ ASK. I was faced with a challenge of how to properly achieve

heterogeneous groupings when there were many more lower level students than higher students.

Suggestions for Further Research

I question what my study may have looked like had I been able to implement it for a longer period of time. By having to squeeze it into the curriculum, rather than having it as a fundamental part of the curriculum ahead of time, it placed limitations on my study. I would like to see what would have happened if this study was implemented in a classroom that had heterogeneous writing groups placed into the curriculum from the beginning.

As a result of the above limitations, my first suggestion would be to conduct heterogeneous groups for a longer period of time. It would be beneficial to see just how much changed in the classroom throughout the study. I was only able to see the short-term results of implementing writing groups, so I would be interested to see if there were more superior impacts. I would definitely love to implement this in my own classroom, so I could research the long-term effects in the classroom.

As I was analyzing my data, I came up with a very important question: How does student feedback impact a teacher's teaching style? Since my teacher research was limited due to time restraints, this was something I was not able to put much research into. If more time was available to complete this study, I would have liked to incorporate more student surveys as to get more beneficial data to analyze. I would also like to conduct a study on how helpful student feedback is to a teacher, and if teachers utilize student feedback appropriately. I think that the students had very insightful things to say

about heterogeneous grouping, and would therefore be an asset to any future studies on the subject.

At the conclusion of this study, I was left with another question: Although using heterogeneous writing groups was extremely beneficial to the students and the classroom community in my particular student teaching placement, is this also true in other classrooms? I was left with many unanticipated results while conducting this study, such as the positive changes in social interactions between the students. However, although the dynamic of my student teaching classroom had changed, it is not suffice to say that every classroom will have the same effects after implication. Therefore, I would like to implement this study in other classrooms in order to see if the results would be replicated, or if they would vary.

It would also be beneficial to see what would happen if my study were replicated in a different classroom with a different teacher who does not have my personality. I also wonder how this study would be different if it were conducted with students who were not in fifth grade, or in a classroom of students who had more positive ideas about writing in the first place. Through further research and implementation, many of my questions have the ability of being answered. Though this particular study has ended my research on heterogeneous writing groups in a particular fifth grade classroom, I think that this is really just the beginning. I plan on continuing my work with heterogeneous writing groups in my future classroom, and making it a daily and integral part of the students' education.

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