Do Classroom Spaces Really Work?
How Classroom Seating Arrangements Affect Students' Individual Academic, Social, and Behavioral Needs.

Megan E. Eash
Intern
Fourth Grade, Ferguson Township Elementary
mee129@psu.edu

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As the first day of school approaches and the warm summer air fills classrooms across the country, thousands of teachers prepare their classroom for the arrival of their new students. They remove tattered newspaper from the bulletin boards, dust off empty bookshelves, and begin to think about the arrangement of their classroom environment. Without taking a glance at the class list of students for the upcoming school year, each classroom teacher begins to hang posters, create bulletin boards, and arrange furniture. Posters and bulletin boards are aligned and realigned to ensure they are visually appealing. Desks are arranged and possibly grouped with the location of the board and traffic flow in mind. Many teachers also take the advice given in The New Teacher’s Complete Sourcebook. In a chapter entitled, “Prepare the Classroom Environment,” the author explains, “thinking about how you want to teach will help you determine what classroom setup will work best for you” (Murray 41). Many teachers believe that by placing the students’ desks into sets, or groups of three to five students, they are creating an environment conducive to cooperative learning. This is especially true in the elementary setting, where most teachers value cooperative learning skills. In kindergarten and primary grades, teachers create lessons that ask students to complete tasks with fellow students. Therefore, by placing the students’ desks into small groups, often facing each other, the teacher is creating an environment that directly reflects his or her teaching style.

With this idea in mind, the teacher then places other items around the classroom. She might choose to have a group meeting area with a carpet, beanbag chairs for students to use during reading time, etc. The teacher then begins to add decorations to make the classroom look more inviting to the students. Once all of the furniture is in place and the classroom is properly decorated, the teacher glances at the class list and quickly places students into the seating arrangement, often focusing only on gender differences. Desks are quickly and randomly assigned to each student and nametags are taped to the desks. While this does not seem individualized and random, how else should a teacher place students, whom she does not know, into seats to benefit their individual needs?
Background Information

Classroom Context

This scenario is similar to my experience setting my own classroom with my mentor, before my fourth grade students’ first day of school at Ferguson Township Elementary, located in a rural section of State College Area School District. My mentor teacher, Jodi Kamin, and I spent two full days prior to the arrival of our students setting up our classroom. We created bulletin boards, aligned posters, organized books, arranged our desks, placed trash cans and tissue boxes, created a job chart, and finally arranged our twenty-three student desks into sets of four or five ensuring students could easily move around the classroom to key areas while having enough personal space. Finally, the very last thing we did was create name tags for each one of our students and place them on top of each of the desks indicating where each student would sit for the first few weeks of school. The only discussion we had about these seating arrangements was ensuring that there were at least two girls in each set so every student would have an opportunity to establish a friendship within our classroom during the first week of school.

With a large focus of the first few weeks of school on community building, the students were not in their seats for an extended period of time. However, once the curriculum officially began, my mentor and I began to create a classroom profile of my students. My fourth grade classroom consists of twenty-three students, eight girls and fourteen boys. Each student can be classified differently according to gender, behavior within the classroom, social relationships (with classmates and adults), and academic ability in various subject areas taught within the classroom. Behavior within the classroom varies on a daily basis. There are several students who exhibit behavioral issues on a daily basis. For example, one girl needs to be reminded to raise her hand to share information with the class. Two boys must be separated at all times to reduce physical contact. Another boy needs to be reminded of proper respect for adults. Two boys and two girls must be reminded to stay on task. There is one girl who needs to have directions explained to her several times because she started the school year speaking very little English. Lastly, one girl and two boys are always are on task and complete most assignments to the best of their ability.
There are two girls and one boy in my classroom that seem to have trouble making social connections to other members of the classroom. One girl cannot speak English very well and exhibits difficulty communicating to other members of the class both during class time and recess. Another girl secludes herself from all other classmates while at recess, often playing alone with toys she brings from home. One boy in the class does not communicate with classmates inside or outside of the classroom.

According to reading ability, there is one boy and one girl who read above grade level, nine boys and five girls who read at grade level, four boys and one girl who read below grade level, one girl who attends English as a Second Language on a daily basis, and three boys who receive learning support.

**Developing Wonderings**

**Choosing an Inquiry Topic**

After the first two weeks of this semester, I realized I should be choosing a topic for my inquiry project, but I had a multitude of questions. It was very difficult to choose just one to explore. However, I did realize that although I would be choosing one topic and formally collect research, I would still be creating other inquiry based questions collecting research, even if I was not formally collecting information.

The first idea I had for an inquiry project was to see if the arrangement of students’ desks within the classroom affected their behavior, as well as their ability to learn. This was a wondering I had since before the students arrived on the first day of school. My mentor and I had placed students into teams randomly since we did not know the personalities, strengths or weaknesses of our students yet. However, beginning in November and December, we attempted to place students into teams based on forming new friendships to establish a sense of community within the classroom. We quickly realized that although we helped create friendships in the process, some students were having difficulty focusing when they were seated with their friends. After talking with my mentor, I took home the class list and began to try new arrangements to seat my students. What would be the best combination? Should I group students according to ability? Should I seat students with their friends? Where will I place students that have trouble following directions? Where will I place students who attend Title One? Does it
matter if the team has boys and girls? Who should I place with my ESL student? I had a million questions about how to do this and I knew as soon as we changed seats changes would need to be made based on interactions between students as well as individual performance.

I chose to group my strong students together because they seem to finish activities early. I thought this would make it easier for me to challenge them through the creation of extra projects and activities. I placed several students so they would be facing forward at all times to try to increase their attention on myself and my mentor while we were giving directions. I thought about pairing a caring student with my ESL student to help her with directions. I also paired two girls in the class who seem to need to make friendships. Title One students were placed at the front of the classroom near each other so extra help could be given easily and readily. The rest of the students were placed based on their ability to get along with other students in their teams. So far these teams have worked well, with the exception of one student who has been placed by himself, outside of a set, as a result of not following directions and being constantly distracted.

After all of this thought, I was pretty sure classroom layout regarding student desks could be a possible topic for my inquiry project. However, after a seminar class in early February, I realized it would be difficult to collect evidence related to this inquiry topic. I thought surveying students would not give me accurate data because my students might give biased answers based on whether their friends were seated in their team. I also thought about monitoring student improvement in various subject areas, but I felt I could not be sure that the improvement was a result of the seating change. Finally, I thought I could monitor behavior improvements through anecdotal note taking. However, at the beginning of February, when so many interns seem sure of their inquiry topic, I was still not ready to choose an inquiry topic.

While I thought about many other topics, I kept returning to the connection between seating arrangement and the affects it had on each of my students individually. While looking through papers from my Educational Leadership seminar, I came across a copy of my Classroom Management Plan. This was the exact moment that I knew my inquiry topic had to be based upon classroom seating and individual student needs.
A Contradiction between Current Beliefs
and my Classroom Management Plan Project

As I looked through the extensive project I was assigned to create as a part of my Educational Leadership class, I realized my beliefs have changed drastically. The Classroom Management Plan Project asks PDS Intern to describe various aspects of our ideal classroom set up when we are first-year teachers. This included a classroom profile, a letter to parents, community building activities, routines and tools, and a drawing with explanations of the physical classroom environment. (See Appendix A for complete copy of Classroom Management Plan Project.) As a part of this project, I spent a great deal of time creating a detailed picture of my ideal classroom environment. I read the textbook for the course, Classroom Spaces that Work by Marlynn K. Clayton and modeled my ideal classroom based upon the book’s description of essential aspects of an elementary classroom layout, as well as aspects in my own classroom. The detailed picture I created shows the great amount of attention I gave in placing each piece of furniture into my classroom. However, I placed my students’ desks in the same arrangement as they current were in my mentor’s classroom. As a novice teacher, I did not consider altering the seating arrangement.

Once the detailed picture of my ideal classroom layout was complete, I was asked to give a written description of the classroom and justify the necessity of each item, as well a providing a reason for its placement. My Classroom Management Plan Project, written in December 2004, explains my beliefs about classroom environment stating,

Every child spends a majority of his/her day in school within their assigned classroom. This classroom must be a safe environment where children can express their ideas and establish a place in the community. The presence and placement of all objects within a classroom is essential. Every piece of furniture within the classroom must reflect the specific needs of the students who will be in the classroom for the school year. Therefore, the placement of the furniture in the classroom should reflect the types of activities the children will be involved in during the school day while maintaining space for traffic flow. Overall, the classroom environment should provide each child with his/her own space to store supplies and work independently as well as multiple places for students to gather in small
and large groups to participate in cooperative learning activities.

While I still held this belief when developing my wonderings for my inquiry project, I felt a large section of my classroom management plan contradicted my beliefs. A large concern I had while creating this plan was enough desk space for students, as well as grouping students to emphasize cooperative learning and group work. I believed seating students in groups of four or five, would allow them to work with their peers when a lesson allowed them to do so, and work individually the rest of the school day. My concern with the seating of my students did not give any reference to the importance of placing students based upon their own individual needs. This excerpt from my classroom management plan gives a detailed explanation of my beliefs involving student seating in December, 2004.

These desks will be arranged in groups of four or five in the front of the classroom. This is important because in my classroom students will be engaged in a lot of cooperative learning activities. However, by seating the students at individual desk they will be able to perform work independently when necessary and also have a place for personal storage. The desks are arranged in groups of four or five because I find in my classroom that students work best when groups are no larger than five. The desks are also placed at the front of the classroom so they can all see information written on the portable dry erase board.

This excerpt shows my beliefs in December, 2004 related to classroom seating arrangement were primarily focused on separating group and individual work. I do not mention the importance of placing individuals into a seat that will benefit their individual needs.

It was not until I looked over this project in early February that I realized I created my ideal classroom environment based upon my own needs as a teacher, without paying attention to the individual needs of each of my students. I simply created the seating arrangement and then placed students into the plan based upon what would be most conducive to my teaching style, instead of evaluating their individual needs and then creating my classroom layout.
Clearly Developed Wonderings

As a result of the direct contradiction between my Classroom Management Plan and my current beliefs regarding students seating, I chose my inquiry topic. Although I did not officially begin my inquiry project until February, once I chose my topic I noticed I was already working on my inquiry topic, even though I was not formally collecting data. In September, my mentor and I placed our students into sets randomly and would move students if a group of students were off task during lessons. By October, I was frustrated that my students did not listen while I was teaching a lesson. I brainstormed ideas to gain their attention through various classroom management strategies such as proximity, verbal cues, non-verbal cues, lighting changes, etc. However, I could not understand why they would continue to talk to their group members while I was teaching.

I quickly realized that placing students into groups in an attempt to help them make connections and friendships with other students in the classroom was not beneficial to our classroom as a whole. We were losing a great deal of instructional time as a result of these seating arrangements. However, it did not occur to me to change the entire seating arrangement. Instead, my mentor and I brainstormed groups of students that we thought would work well together when group work was assigned. We did not extensively discuss the best seat for each student when individual seatwork was the focus of the lesson. Our conversations often circled back around to the same few students. These students were the ones we placed into the seating arrangement first, often in the front of the room by our desks, because they would easily become off task. We felt by seating them in close proximity of our desks, we would eliminate their need to talk out of turn.

I noticed when my mentor and I were creating new seating arrangements, we were giving justifications related to the academic, social, or behavioral needs of many of our students before placing them in a seat within the prearranged sets of student desks we established in August. Creating a seating arrangement often took me about hour because I kept erasing student names and placing them in other seats based on what I thought would benefit them as an individual academically, behaviorally, or socially.

My purpose for my inquiry research project was to determine the individual needs of my students and help them succeed academically, socially, or behaviorally within the
classroom, by placing their desks in an optimal situation. I have seen improvements in one of these specific areas with several of my students, while changing their seating within the current arrangement in my classroom. Therefore, I began my inquiry project wondering if there was another seating arrangement that would benefit all or a majority of my students’ individual needs.

I began my project with the following wondering:

How can I arrange the arrangement of the desks in my classroom to fit the behavioral, academic, and social individual needs of my students?

From this question stemmed the following related sub questions:

Does seating arrangement make a difference in student success?

Will I be able to create a classroom layout that benefits all of my students?

Does the entire classroom layout affect student achievement?

This topic truly intrigued me and I find it is very important for many reasons. First, I noticed I was already implementing changes in seating arrangement in my classroom based on individual academic, behavioral, and social needs and I wanted to begin collecting evidence to see if there were possible correlations. Second, I had developed new beliefs regarding classroom layout since the creation of my Classroom Management Plan Project I created in my Educational Leadership class. Third, I knew there was very little professional literature or research on the topic and I found this alarming. Finally, my PDA and Jim Nolan encouraged me to explore the topic because they were intrigued by the topic as well. I knew this would be a very difficult topic to research since very little professional literature was available on the topic. Consequently, I feel my topic is not only important to me as an educator in establishing my own beliefs and recognizing correlations between seating arrangement and the individual needs of my students, but the topic is something I feel other educators should be informed about as well.
Too often teachers complain their students are off task or talking at inappropriate times. However, they continue to place their students into seating arrangements that foster these occurrences. How can a teacher expect students not to talk to classmates when they are seated facing each other in sets? How many of us would be able to refrain from talking to our friends during a presentation if we were seated in the same manner? Very few of us could claim total silence. At least I know I would not be able to hold my tongue. It is because of the above-mentioned reasons that I feel it is important to explore this topic through an inquiry-based project in an attempt to discover possible correlations between my students’ individual needs and their placement in our seating arrangement. Students spend a great deal of time in the classroom, and I feel as an educator it is necessary to thoughtfully plan out each aspect of my classroom layout, including where the desks are placed and which student will be seated in each particular desk.

**Research**

**What Others Know and Think about the Correlation between Seating Arrangements and Individual Student Needs**

Once I developed my wonderings, I began my search for professional literature related to this topic, as well as ask other teachers what they thought about the topic. Immediately I ran into a bit of a brick wall. While this topic was of great interest to me, I found it very difficult to find any literature on the specific topic. I began my search at Pattee-Paterno Library on Penn State University campus. The most difficult part of my research was brainstorming topics to type into the search engine to find articles related to student seating and individual need (seating arrangements, seating, classroom layout, student seating, classroom management, special education, etc.). I searched for articles related to seating arrangements and found quite a few articles. However, all of the articles directly related seating arrangement to classroom management and my inquiry was not limited to classroom management.

Another step I took to find research on my inquiry topic was spending an entire day at a local bookstore searching for any book with a chapter related to student seating. I took the pile of books and searched through the table of contents and indexes of each book for anything the author had to say about a possible correlation between seating
arrangement and students’ academic, behavioral, or social needs. After about 3 hours, I was not able to find any chapters or sections of any books that focused solely on the correlation between seating arrangements within classrooms and academic, behavioral, or social needs of students. While many authors provided sample classroom layouts for optimal use for community building, group work, and individual work (all behavioral/management issues), no author mentioned the affects the arrangement may have on individual students socially (See Appendix B for notes on the contents of these resources). One similarity I did find among all of the chapters supports the idea of frequently changing student seating and assigning students a seat. *The Everything New Teacher Book* suggests changing seating arrangements monthly to “move [students] into the seats that will afford them the greatest opportunities to learn” (Kelly, 76). While Kelly does not continue to explain how to arrange seats to give students an opportunity to learn, she alludes to the fact that all student performance in the classroom is affected by the placement of the desk in the classroom.

*How to Organize Your Classroom* provided sample arrangements to be used depending on the type of lesson that will be taught in the classroom. Similarly, *The Unauthorized Teacher’s Survival Guide*, contained a chapter entitled, “The Classroom Environment,” which suggested five different types of classroom set ups: traditional (rows), three clusters (three groups of eight to ten students), four clusters, semicircle (two semicircles facing each other), and cooperative learning circle (group of desks facing each other) (Warner, 35). The author then continued to explain that while creating a seating arrangement, you should “check the following items: You can see all the students from the front of the classroom; you have enough space to walk; The students can see you, as well as the chalkboard, maps, and so on; You can move freely among the individual students” (Warner, 36). While this chapter gave me some ideas for classroom seating arrangements in my classroom that might affect behavioral issues, it did not provide me with the information I needed when thinking about arrangements affecting academic, behavioral, and social needs of my students.

Frustrated with the research process, I questioned my PDA, Jim Nolan, as well as all of the interns teaching in my elementary school. We brainstormed a list of possible words I could type into the search engine on the Penn State Library system, but I had
tried all of the suggestions. Another intern found me an article she came across regarding classroom management and seating arrangements she came across while conducting her own research entitled, “Do Seating Arrangements and Assignments = Classroom Management.” This article from *Education World* discussed how the “physical arrangement of the classroom can have an impact on classroom discipline and the effectiveness of instruction” (Dunne, 1). The author claims the key to classroom management is seating arrangement and since there are advantages and disadvantages for each seating arrangement, teachers need to find the one that works best in their classroom. This article gave me some evidence I would later use in creating my claims (See Claims section on page 19).

I decided to email the head of the education library at Penn State and ask him for some suggestions (See Appendix C). I informed him of my inquiry topic and the words I tried typing into the search engine. Within a few days, one of his employees returned my email with a list of possible articles related to my topic (See Appendix D). I took this extensive list and searched for the articles on ERIC, an electronic compilation of articles from educational magazines. I looked at the abstracts for each of the articles listed and found there was not one article on the list that directly addressed the topic I chose for my inquiry project. Although Penn State did not have a full-text version of any of the articles, the abstracts did provide me with a few facts and claims that I used to support my own claims once I finished collecting evidence in my classroom. Although these articles could be ordered for about ten dollars per article, I knew I could not justify the amount of money, based on the information I might have gained and the limited budget I have as an intern.

In one article entitled, “A Naturalistic Study in Proxemics: Seating Arrangement and its Effect on Interaction, Performance, and Behavior,” found that “seating arrangements do affect classroom behavior and that there is a relationship between pretested IQ scores and reactions to the various seating arrangements.” (Rubin, abstract).

Another article entitled, “Rows versus Tables: The Effects of Two Classroom Seating Arrangements on Classroom Disruption Rate, On-Task Behavior and Teacher Behavior in Three Special School Classes,” found on-task behaviors doubled when students were seated in rows as opposed being seated in groups. Similarly several other
articles on ERIC found similar results when comparing student on-task behavior and seating arrangements. Yet I needed information on how it would affect other aspects of learning.

Finally, I found one articles involving the social actions of students related to seating arrangements. The article entitled, “Some Effects of Seating Position on Social Perception,” did not have an abstract available. Overall, most of what experts had to say about my topic was directly related to classroom management or student behavior. Although none of these articles, or books dealt directly with my inquiry topic, they were helpful in the formation of my claims.

My Inquiry Plan

Carrying out Inquiry in my Classroom

My overall initial plan for carrying out my inquiry project followed the format I created as a part of my inquiry brief. I decided to place each student into one of three categories (academic, social, behavioral) based on the individual need I felt needed the most attention and then place each student into a seat based on that need. I planned to use anecdotal notes, grades, and samples of student work to keep track of student progress. I also planned to compare these pieces of evidence for each two-week period for each child in my classroom. I thought the project would take 6-8 weeks, beginning in the first week of February. Finally, I planned to change the seating arrangement of my students’ desks every other Monday, making a new seating arrangement every two weeks, giving me a total of four different seating arrangements.

As my inquiry project began, the details of my inquiry project changed slightly. While I initially planned on changing the seating arrangement every two weeks, I found some seating arrangements needed to be changed sooner or later than the two week time frame. Reasons for these changes included weather related events such as snow days and late arrivals, which prevented me from collecting the amount of evidence I wanted from a particular seating arrangement. Other reasons for an early or delayed change in the seating arrangement were related to the impact I felt the arrangement was having on students. For example, my mentor and I found the students were off task too much and it
was very difficult to move around the classroom when the students created the classroom seating arrangement.

Another change I made to this initial plan was narrowing my focus to seven students instead of attempting to collect data on all twenty-three students. I found after the first two weeks it was too difficult to collect evidence about twenty-three students. Therefore I chose to select seven students; two students with academic needs (students 2 and 3), two students with behavioral needs (students 1 and 22), one student with social needs (student 23), and two students whom I felt would perform well no matter where their seat was placed within the classroom (students 9 and 20). For the duration of my inquiry project I focused on these individual students by taking anecdotal notes and collecting pieces of sample pieces of work.

**Planning of each Arrangement**

Since my students have been seated in the same arrangement for about five weeks, I thought that before I change their seats I should survey them (See Appendix E for layout of seating arrangement prior to my inquiry project.) However, I wasn’t really sure what I wanted to know from them. I knew I wanted to change the seating arrangement in my classroom to benefit my students’ academic, social, and behavioral needs, but I didn’t know how I would decide what each of their needs were or the first arrangement I should make. I decided in the survey to first ask if each student enjoyed his or her seat in the classroom (See Appendix F for a copy of the survey given to each student during each of the five seating arrangements.) I decided to give them a scale from 0-5 (0 meant they didn’t like their seat and 5 meant they loved their seat). I knew if my students didn’t have a scale to degree to which they liked their seat, I would receive many yes or no answers which wouldn’t tell me the degree that they enjoyed their seat. However I also wanted to know why they did or didn’t like their seat. I wanted this to be an open-ended question because I don’t think I could have created a list of answers that would incorporate all of the answers my students would have to the questions I was asking. I also asked students how well they thought their seat helped them to not talk to their classmates, listen to the teacher, follow directions, and work well with other students. Once again, I asked my students to rate each of these questions on a scale from 0-5 (0 meant it their seat didn’t help at all and 5 meant their seat helped a lot.)
Since academic, behavioral, and social needs was the focus of how I placed each student’s seat, I wanted to ask students questions about their current seat based on those needs. Behaviorally, many students in my class have trouble listening to directions, talking to members in their team, becoming distracted easily, and not focusing on the teacher. I had noticed earlier in the school year that some students perform better behaviorally when there are minimal visual distractions. These students were placed in seats facing away from the rest the students or directly facing the teacher. In the survey I wanted students to make a list of things they saw when they were seated facing forward. I also wanted to focus on three key behavioral issues in our classroom: not talking, listening to the teacher, and following directions. Many times I will give directions to my students and they will ask me what they should be doing right after I finish. I have included information on each arrangement I implemented in my classroom because I based each arrangement on the previous seating arrangement. This was not planned ahead of time, but I analyzed each arrangement and made decisions based on my analysis.

**Planning the First Arrangement (student choice)**

When thinking about the first arrangement I would place my students into as a part of my inquiry project, I talked with my mentor, PDA, and Jim Nolan. We brainstormed various arrangements I should try over the eight weeks I would be implementing my inquiry project and collecting data. I was interested to find out how the would set up the classroom if they were the teacher. I feel my students are aware of their needs and I thought they might be able to place their desk in a location within the classroom to reflect their individual needs. Therefore, I decided to allow my students to place their desk anywhere in the classroom. I felt I should involve my students in the process of choosing their own seats to see if they would determine their own academic, social, and behavioral needs.

As I planned the activity I wondered how the students would behave when they were given the opportunity to choose their seat. I also wondered if they would choose a seat they felt was best for them. Would they choose a seat with all of their friends? How would they arrange the seats in the classroom? Would it be complete chaos or would the seating arrangement work better than the one we currently has in our classroom? Also, as
we began our Voyages of Discovery unit, we need the students to work in teams. How would I have students work in teams, if I chose a seating arrangement that placed them in rows or uneven groups?

My mentor suggested I explain my inquiry project to my students and make my expectations clear before I allow my students to place their desks around the classroom. We discussed how they choose a seat when they come to the carpet so they can pay attention, participate, and not be tempted to talk to their neighbor. I told them this was also important when choosing a place to put their desk within the classroom. After leading a discussion with my students about how they should choose a seat within the classroom to help them improve their own individual goals, I gave the students two minutes to move their desk anywhere within the classroom. Once their desks were in place I had to slightly adjust their decisions to ensure there was space for traffic flow to the door of the classroom, to the trash can, and to the bathroom (See Appendix G for the seating layout created by my students.)

**Planning the Second Arrangement (rows)**

After two days, I decided to change the seating arrangement, placing my students’ seats in rows. My reasoning for this was that they have been very talkative lately and I felt that placing them in rows would reduce the amount of talking. Also, very few of them have ever been placed in seating arrangements other than sets, so it would be something new for them. Finally, many of the students suggested rows as an option for seating on the survey I gave them. Before I placed each student into a seat in the seating arrangement I created, I carefully rated each student on a scale from zero to five academically, behaviorally, and socially (See Appendix H for list of student ratings academically, behaviorally, and socially). Then I placed them into the seating arrangement I made of five rows. Behaviorally and socially, if the area was not a concern they received a zero, but if it was a great concern they received a five. Academically, if the student was strong they received a five and a zero if they had a great academic need (See Appendix I for the layout of my students’ seats in rows).

While doing this I was careful to place students with high academic needs toward the front of the classroom or in one of the end rows so they had a clear view of the board, have close proximity to the teacher, and their desk would be easily accessible if they
needed extra attention. I also placed Title One students in areas that were easily accessible to our paraprofessional, my mentor, or me if the students needed extra attention. I also wanted these places to not be in the way of other students’ view of the board. Next, I placed students with behavioral needs into the seating arrangement, often placing them closer to the front of the classroom so they could easily focus on the board and the teacher with minimal distractions. Some students weren’t seated next to each other because I knew they would be off task. Finally, I placed students into the seating arrangement based on who I knew would not be distracted or tempted to talk a great deal during the school day.

Planning of Third Arrangement (rows of three)

While contemplating my next seating arrangement, my mentor begged me to keep the row arrangement. The drastic change we both noticed among our students regarding on task time and talking was great. Therefore, in a discussion with my mentor and PDA, I decided to keep the row format, but condense the seats in order to make it easier to travel around the classroom. After analyzing the data I collected from the rows seating arrangement, I felt rows help students stay on task. For the third seating arrangement I chose to place students into rows of three (See Appendix J for the seating arrangement of my students in rows of three). By placing them into small sets, I attempted to fix some of the problems with rows such as individual space, accessibility to areas of the classroom, traffic flow around the classroom, and a group meeting area when working in teams. Once again I took into account each student’s behavioral, academic, and social needs while placing them into the seating arrangement I created.

Planning of Fourth Arrangement (Six sets created by third party)

As my inquiry project was coming to a close, I wanted to create one more seating arrangement before I stopped formally collecting data related to each of my students’ academic, social, and individual needs. I wanted to put students back into sets randomly, without paying attention to their individual needs I identified as their teacher. I began this process by creating an arrangement of six sets. I chose to place the desks into six sets because my class just began our last unit of study, Pennsylvania, which focuses classroom activities and lessons on six regions of the state. I then attempted to place each of my students randomly into the sets I created, but I kept thinking about their individual
needs during the placement. I quickly came to the realization I could not put aside my knowledge of each students’ needs. I decided a third party, who was unaware of my students’ individual needs would be more able to create a unbiased, randomly assigned seating arrangement. My roommate offered to perform this task for me. First I gave her a class list and had her randomly assign each student a number one through six. Then I had her randomly assign each group to one of the six sets I created in my classroom (See Appendix K for seating layout created by a third party). The next day I arranged the desks in my classroom according to the arrangement my roommate created.

**Collection of Data**

Before I began collecting data, I assigned each one of my students a number to ensure confidentiality of the student in the presentation of my inquiry project. Each day I wrote down anything I noticed about my students academically, behaviorally, or socially. I began collecting this data for all twenty-three of my students, but found it to be rather difficult of give detailed notes on all students. Therefore, after the first seating arrangement, I narrowed my data collection to seven students. These seven students included two students with academic needs, two students with behavioral needs, one student with social needs, and two students whom I felt did not display a need academically, behaviorally, or socially.

I also created a student survey where students were asked a series of questions using a five-point scale, zero meant the seating arrangement does not help and 5 meant the seating arrangement helps a lot. These questions asked students to rate how their seat helps them not talk to other students, listen to the teacher, follow directions, work with others, and work on the individual goals they set at parent-teacher-student goal setting conferences. The survey also asked the students to rate how they liked their seat in the classroom and give a reason why or why not, as well as make a list of things that they see in the classroom when the are facing forward.

Finally, I collected sample student work from activities where the students were asked to complete the assignment individually during a given period of time. These pieces mostly included spelling journals, since spelling was often teacher directed and individually based. I also collected a few writing samples from the seven students when they were given a writing task to complete individually.
Analysis of Data

This inquiry project supplied me with a great deal of evidence. Before and after I changed the seating arrangement within my classroom, I wrote notes about the affects I saw or things I noticed about my class as whole. These journal entries were sent to my PDA as a weekly reflection. I found entries very useful in the writing of this paper.

The very first thing I did while analyzing this data was to separate it based on each of the four seating arrangements my students’ desks were placed in during the nine weeks of my inquiry project. This included the data I collected from the seating arrangement my students’ desks were in prior to my inquiry project, the arrangement my students created themselves, the two arrangements I created, and the arrangement a third party created. First I looked at the anecdotal notes I created for each individual seating arrangement after each seating arrangement was complete and made notes about trends I saw regarding the academic, behavioral, social actions of my class as a whole. Then I took these notes and compared them across each of the seating arrangements, noting differences in student achievement and behavior.

Next, I analyzed the student surveys I gave my students before I changed their seating arrangement. I compiled a list for each of the seating arrangements of reasons the students liked and did not like their current seat. Then I found the average value for each survey question for each group of twenty-three surveys given based on the seating arrangements I created in my classroom (See Appendix L for average values for each question given by my students for each of the seating arrangements implemented in my classroom). I compared the average number I calculated for each of the seating arrangements for each survey question in an attempt to find possible correlations.

Once I analyzed the evidence I collect across the five seating arrangements, I also analyzed the data using seven individual students. I compiled the evidence I collected from each of the seating arrangements from the seven students and looked at the difference related to their individual needs across the five seating arrangements. This included comparing anecdotal notes, values on student surveys, and pieces of student work from each of the five seating arrangements. Using these pieces of evidence I looked for differences in student behavior, academic performance, and social interaction across the seating arrangements.
What I learned

Claims and Evidence

After analyzing the data I collected across the five seating arrangements, I can make two claims, using evidence I collected in my classroom and professional literature, related to the affects of seating arrangement and the academic, behavioral, and social needs of my class as a whole.

Claim One: When faced with the opportunity to choose a seat within the classroom, only some students will evaluate his own needs and choose a seat that will help him perform to the best of his ability.

The very first seating arrangement I implemented in my classroom, when I allowed my twenty-three students to place their desk anywhere the classroom. The seating arrangement the students created was rather unconventional (See Appendix G for seating arrangement created by my students). Although I had given my students directions and set my expectations for how each student should place his or her desk in the classroom, where the most opportunity for success was possible, a majority of my students ignored my directions and chose to place their desks among their friends. As I reflected on the first two days of my inquiry project on February 12, 2005, I wrote the following:

A majority of students chose one or two friends that they wanted to sit with. While I did predict that students would choose to sit with their friends, I did not think some students would choose the friends they did. I also didn’t predict that more than half of the boys in my class would choose to form a set in the middle of the classroom. When I questioned my students the next morning I found that this was the first priority of a majority of my class. Many students said that they chose someone they wanted to sit with and then moved to the area of the classroom where they thought they should place their desk.

Seven boys moved into the center of the room and created a set. When I asked them why they chose to place their desks that way they said they all wanted to sit together, but no girls wanted to sit with them. Two boys chose to place their desks with their backs to the front board. I wondered why they would do this when my mentor and I
often write on that board and not the one located in the back of the room. After questioning my students I found out that their first priority in choosing a seat was to sit near a friend and then make sure they could see the board. Only a few students actually considered their own needs, even after our discussion about how to choose a seat in the classroom to meet individual needs.

Classroom Management expert Fred Jones states, “Unless the teacher takes responsibility for assigning students to seats that will facilitate discipline and instruction, students will always do just the opposite” (Dunne, 3). This was the case in my classroom regarding some students. All students, with the exception of students 19, 3, 21, 5, 2, 22, and 12, considered friendship while choosing a place for their desk. Reasons for seat choice included, “I wanted to sit with [student 10 and 6]” (student 11), and “I wanted to sit with my friends” (student 6 and 17). (See Appendix M for a complete list of student reasons in seat choice). Jones continues his claim by stating, “When students as a group are given the freedom to sit wherever they want, they will always choose the location for themselves that is to the teacher’s greatest possible disadvantage” (Dunne, 3). While I do not think my students deliberately chose seats to place me at a disadvantage, many did place themselves at a disadvantage by choosing a seat close to friends and facing their desk away from the white board. This did place me at an instructional disadvantage because behavioral issues arose and some students could not see the board well, which made it difficult for me to utilize the board during instruction.

However, a small number of my students chose to seat themselves away from other students because they valued their own individual growth more than socialization with their peers. This directly contrasts Dunn’s statement that students choose to place the teacher at a disadvantage when they are not assigned seats. Students 19, 3, 21, 5, 2, 22, and 12 chose to place their seats in a location, which removed them from the temptation of talking with peers. When I questioned these students as to why they chose to sit alone all of them said that they wanted to sit alone so they could see the board, or so they wouldn’t talk with classmates. Student 22 told me she chose to place her seat as far away from her classmates because she wanted to “make sure she saw the board, but she thought about not distracting others first.” While these students did place their desks in a setting that would benefit them behaviorally and academically, I cannot be sure they
would have placed their seat in the same position if I had not lead a class discussion about how to choose an appropriate seat. Nor can I conclude my students would make the same seat choice at this point in the school year. My evidence from the student choice seating arrangement and Fred Jones’ statements show that evaluating personal needs, and choosing a seat to reflect those needs, are abilities only some of my students possess.

**Claim Two: In my classroom, a seating arrangement placing desks in rows helps my students not talk to classmates, listen to the teacher, and follow direction.**

While rows have a negative connotation when placed in the elementary setting, I found the behavior of all of my students drastically changed during the second seating arrangement. There was a clear behavioral management issue in our classroom related to off-task time and socializing during individualized activities prior to the implementation of rows in my classroom. After organizing the classroom and placing students into rows based on their individual needs, my mentor and I noticed a large decrease in off-task time and socializing while students were asked to engage in individualized work. In my reflection journal on February 19, 2005, I noted that:

> From the moment the students enter the room on the first day of the new seating arrangement, the dynamic of the class drastically changed from the second the students entered the classroom. The class usually takes at least five minutes to come in and get out their homework, a problem my mentor and I have been working on. However, on the first day they came in and there was minimal talking. I also noticed that by standing at various points around the classroom, I could see most of the students work. I noticed the same trend not only in math class, but also in all other classes. There was a lot less talking while the teacher was talking and directions did not need to be repeated several times.

While this portion of my reflection journal gives a brief section of my observations on the first day the seating arrangement was implemented in my classroom, I also had similar anecdotal notes that support my claim (See Appendix N for anecdotal notes taken while my students’ desks were placed in rows). My notes for the individual rows seating arrangement included phrases related to positive improvements in not talking to classmates, listening to the teacher, and following directions such as, “On task all day,”
“More on task time (less talking to neighbors),” “Journal shows directions were followed,” “and No directions repeated.” Phrases that do not show improvements include, “Rushed through spelling,” “Did not turn in spelling journal when asked 3 times,” and “Spelling journal grade greatly decreased.” Although these comments do not support my claim that my students’ ability to listen to the teacher and directions increased and their ability to not talk to classmates has decreased, there are far more occurrences supporting my claim present in my anecdotal notes I took related to individual rows.

Not only was I able to note these changes in my anecdotal notes for the time period my students’ seats were placed in rows, but I was also able to collect evidence from several of my students to support my claim that rows are conducive to individualized learning. One of these pieces includes a student survey (See Appendix L for chart of average ratings for each survey question during each seating arrangement.) On this survey, students rated the degree to which they liked their seat on a scale from zero to five (zero meaning they do not like it and 5 meaning they love it). The average rating for this question while students were seated in individual rows was 3.18. Reasons for not liking the seat include responses such as, “I am squished,” “I am in the back,” “I can’t sit with my friends.” Reasons for liking the seat include, “I can listen better,” “I like how I concentrate,” “I am close to the board,” and “It helps me listen.” My students’ average rating for the same question while they were seated in rows of three. Reasons for not liking their seat placement in the rows of three include responses such as, “I don’t have a lot of space,” “I am in the back,” “I can’t sit with my friends.” Reasons for liking the seat include, “It helps me listen,” “I am close to my friends,” “I am sitting next to people how [sic] I can work with,” and “I can listen well.”

The survey also shows that my class as a whole feels sitting in rows helped them not talk to classmates, listen to the teacher, and follow directions. This is evident when the average ratings my students gave on the survey while seated in rows are compared to the averages ratings they gave on the same survey in all of the other seating arrangements. The average rating my students gave involving their ability to not talk to classmates was a 2.28 (existing sets), 3.78 (rows), 3.47 (rows of three), and 2.65 (third party created sets). The difference in my students’ opinions of their ability to not talk
among the three seating arrangements shows individual rows and rows of three help my students not talk to classmates.

The average rating my students gave involving their ability to listen to the teacher was 2.28 (existing sets), 3.82 (rows), 4.13 (rows of three), and 3.00 (third party created sets). The difference among the three values shows rows of three and individual rows help my students listen to the teacher more easily when seated in individual rows.

Finally, the average rating my students gave involving their ability to follow direction was 3.52 (existing sets), 3.86 (rows), 4.17 (rows of three), 3.09 (sets created by third party). The difference among the three values shows rows of three and individual rows help my students follow directions more easily when seated in individual rows.

The student survey and my anecdotal notes support my claim that in my classroom, rows help my students not talk to classmates, listen to the teacher, and follow directions.

While I was able to make two claims about the affects of seating arrangements on my class as a whole, after analyzing the data collected from the seven students I selected across each of the five seating arrangements, I discovered I had a great deal of inconclusive evidence involving the affects of seating arrangements on the academic and social needs of my students. However, I was able to make one claim involving the affect of the seating arrangements implemented in my classroom and my students’ behavioral needs.

Claim Three: Some students’ behavior in the classroom is directly affected by the placement of their desk within the classroom seating arrangement.

During the first two weeks of inquiry project, I took notes on anything I noticed about all twenty-three of my students’ academic, social and behavioral needs. However, I realized this was a very difficult task and narrowed my focus to seven students. After analyzing student surveys and anecdotal notes, I can conclude the behavior of student nine and student twenty is not affected by the placement of their seats within my fourth grade classroom. Regardless of their seat position within the classroom, these two students continued not to present a problem behaviorally no matter where their seat was placed within the classroom. Not once during the duration of my inquiry project were these students reprimanded for talking to classmates at inappropriate times, not listening to the teacher, or not following directions. My anecdotal notes support this statement.
For each of the four seating arrangements I implemented during my inquiry project, there is not one phrase that suggests either of these students were talking to classmates at inappropriate times, not listening to the teacher, or not following directions.

My second piece of evidence supporting my claim is the anecdotal notes I took on student twenty-two, as well as her student surveys, which indicate her beliefs about the affect of her seat on his ability to not talk to classmates, listen to the teacher, and follow directions. My anecdotal notes on student twenty-two when she was seated in a row, in a seat reflecting her behavioral need show the improvement on task behavior, reduction in the number of times talking without raising her hand and talking to classmates, and increase in following directions (See Appendix N for my anecdotal notes on student twenty-two when my students’ seats were placed in rows). Phrases included, “more on task time (less talking to neighbors),” and “no directions repeated.” While there were several occurrences when student twenty-two was reprimanded for speaking out of turn or not listening to directions, there was a noticeable improvement in her behavior regarding following directions, not speaking out of turn, and listening to the teacher during the row formation.

Student twenty-two’s own reflection on her behavior also supports my claim. (See Appendix O for chart of student twenty-two’s survey ratings for each seating arrangement.) This chart shows student twenty-two feels she is better able to not talk to classmates, listen to the teacher, and follow directions when seated in a row then when seated in any of the other seating arrangements I implemented during my inquiry project. She states she likes sitting in rows because, “It helps me listen.” While rating the sets seating arrangement created by a third party she stated, “I don’t like it because I can’t listen very well.” My anecdotal notes on student twenty-two, as well as her survey ratings clearly support my claim that the classroom seating arrangement affects some students’ behavior.

My third piece of evidence, which supports my claim, is the anecdotal notes I took on student one, which indicate the correlation between his behavior and the placement of his seat. My anecdotal notes on student one, when he was placed into a row in a seat with his behavioral needs in mind, indicate an improvement in his completion of assignments and on task time during individualized activities (See Appendix N for my
anecdotal notes when students were seated in rows). These notes include phrases such as, “on task during seatwork,” “on-task all day,” “no directions repeated.” While some of the comments on my anecdotal notes show student one still needed directions repeated once or twice, throughout the two week period of the row arrangement, my mentor and I noticed a great improvement in his on-task behavior and listening skills, as well as a reduction in the amount of time he spent talking to classmates.

However, I cannot support my claim that some students’ behavior in the classroom is directly affected by the placement of their desk within the classroom seating arrangement using with student one’s. After compiling student one’s ratings for each survey question during each seating arrangement (See Appendix P for chart of student one’s survey ratings for each seating arrangement), I did not discover a pattern among the ratings student one gave on each survey regarding changes in his behavior during each arrangement.

Finally, Lam and Wheldall’s article, “Rows versus Tables,” in Educational Psychology: An International Journal of Experimental Educational Psychology supports my claim that some students’ behavior is directly affected by the placement of their desk within the classroom. The study, “Investigated the effect of rows versus table (clustered desks) seating arrangements in three classrooms with children having emotional learning difficulties. Results showed on-task behaviors doubled as conditions changed from desk clusters to rows. Rate of disruption was three times higher in the desk cluster seating arrangement” (abstract). This study shows there is a positive correlation between on-task behavior and rows for the participants of the study.

Although I did not measure rates of disruption, I did notice a great difference in the behaviors of students one and twenty-two, which is shown through my anecdotal notes and student surveys. However, my anecdotal notes did not show a difference in the behaviors of students nine and twenty. While the behavior of students one and twenty-two was affected when seated in rows, the behaviors of students nine and twenty were not measurably affected. Therefore, these pieces of evidence support my claim that some students’ behavior in the classroom is directly affected by the placement of their desk within the classroom seating arrangement.
Conclusions and Future Directions

Implications for the Future and New Wonderings

Inquiry has a large impact on my future as an educator. Each day I spend in the classroom, I find that I am continuing to collect evidence related to my students' individual needs based upon the seating arrangement of the classroom. Although I have formally stopped collecting evidence, I notice that many of my students are still affected by where they sit within the classroom. Inquiry is something that should be a part of every classroom, practiced not only by the students, but the teacher as well. Although I may not create a formal inquiry project each year in my classroom, this inquiry project has shown me the importance of developing my own wonderings, implementing changes, collecting evidence, and constantly assessing student progress.

From the implementation of this inquiry project have stemmed related wonderings I now have involving student seating as well as academic, behavioral, and social needs. Many of which result from the inconclusive data I collected during the implementation of my inquiry project. Although I attempted to collect data to assess the affects of seating arrangements on the social needs of one of my students, I did not find enough evidence in the classroom or during my research process to justify any claims. While I have seen Student 23 become more social as the school year progresses, there is not a direct correlation between this change and the seating arrangements I implemented.

Also, although I attempted to collect evidence to discover the affect of seating arrangement on the academic needs of Students 2 and 3, no correlation can be found between the grades my students received and the corresponding seating arrangement. I feel could not make any claims on these two individuals because they both spend a great deal of time working at a circular table, located in the back of the room, with our Paraprofessional. Therefore, a majority of the evidence I collected was produced in this location and not at the students’ actual seats. I also did not have any professional research to use as a basis for claims I may have formed. While several articles I came across in my research process linked student behavior and academic performance, I was not focusing on the behaviors of Students 2 and 3 during the nine weeks of my inquiry.
process. Therefore, I do not have any evidence from the classroom showing a correlation between the seating arrangement and their behavior.

Finally, after creating multiple seating arrangements in my classroom and having a third party create a seating arrangement, I would like to conclude that teachers subconsciously place their students into a seating arrangement in an attempt to provide each student with the best opportunity for success, however, since I only implemented one seating arrangement that I did not create, I do not have enough evidence to form that claim. All of these pieces of inconclusive evidence are wonderings I still have within my current classroom. They will also be wonderings I will continually come back to in the future as I am given a new class list each year.

After engaging in this inquiry project, my wonderings have also moved to include student performance and participation based on their own decisions of placement within the classroom setting. For example, I now wonder if the seat a student chooses, while participating in morning math, affects his participation. I also wonder what other factors influence my students’ individual needs. This project has also taught me the importance of assessing my own performance in the classroom overall, as well as regarding individual lessons I have developed and taught. As a result of the PDS program and the implementation of this inquiry project, I have learned the importance of constant reflection. By reflecting upon my own abilities as a teacher, as well as my students individual needs I was able to attempt to create a seating arrangement that was conducive to my own teaching style as well as the individual needs of my twenty-three students.

This inquiry project has supplied me with many implications for the future, not only as a first year teacher, but each year as I layout my classroom and create my students’ seating arrangement. While the arrangement of desks within a classroom seems trivial, it directly affects the entire classroom dynamic. As my inquiry project came to a close, I realized I may never find an answer to my overall driving question: How can I arrange the arrangement of the desks in my classroom to fit the behavioral, academic, and social individual needs of my students? I have come to question whether there really is a way to meet the needs of all of my students within a seating arrangement. Also, as the school year progresses, a student’s needs change, and before I am ready to settle on an arrangement that benefits a majority of my students, the school year is over. Then, I must
begin the entire process again with a new group of students. As a teacher, it is essential that I give every student in my classroom an opportunity to succeed. This summer I will be faced with my first challenge as a first year teacher, as I set up my own classroom contemplating the best placement of my students’ desks. Like many teachers I will randomly assign seats. Once I have an opportunity to evaluate each of my students’ needs I will begin the process of placing them into a desk to maximize each students’ opportunity for success academically, behaviorally, and socially. I am still not sure if there is one particular seating arrangement that is conducive to learning. What is an effective seating arrangement? Is it one that fosters cooperative learning or individualized learning? This question remains and will remain next year and for years to come. I have found that through the implementation of this inquiry project, I have more wonderings now then when I began. Inquiry is an ongoing process that began for me with the implementation of this project and will continue in my own classroom year after year.
Appendix A

Classroom Management Plan Project

Description of Physical Environment

Every child spends a majority of his/her day in school within their assigned classroom. This classroom must be a safe environment where children can express their ideas and establish a place in the community. The presence and placement of all objects within a classroom is essential. Every piece of furniture within the classroom must reflect the specific needs of the students who will be in the classroom for the school year. Therefore, the placement of the furniture in the classroom should reflect the types of activities the children will be involved in during the school day while maintaining space for traffic flow. Overall, the classroom environment should provide each child with his/her own space to store supplies and work independently as well as multiple places for students to gather in small and large groups to participate in cooperative learning activities.

Upon arrival in my classroom, students will immediately hang their coats and book bags on their designated hook. This student closet will be located directly next to the door so they can immediately hang up their things without walking around the classroom and disturbing other students who have already arrived. The lunch count display will also be located near the door so that students can immediately order their lunch after they hang their things in the student closet. By placing the lunch count near the door students will be reminded to order their lunch before they go to their seat.

Near the student closet there will be a counter with bins of supplies for each team of students. The bins will include markers, crayons, scissors, glue sticks, and tape. On the counter there will also be a sink for student to wash他们的 hand everyday before they leave for lunch. Hand washing is important to reduce the amount of germs within the classroom, which will help reduce sickness and absences from school. At the sink there will be a paper towel and soap dispenser. There will also be a bathroom located in the back corner of the classroom for students to use. A bathroom in the classroom increases instructional time during the school day because students do not need to leave the classroom in order to use bathroom facilities. It will be located in the back part of the classroom so students will not disturb other classmates.

There will be two closets for teacher storage located in the front and back of the classroom with enough space to store items needed to decorate the classroom in upcoming units. This closet will include various shelves and storage bins which will be clearly labeled so I can find items easily when they are needed. I will also have a large desk and multiple file cabinets located at the front of the classroom where I can store files of students, personal supplies, and unit related material. Along the far wall I will have several baskets (one for each subject area) to store papers and materials need for each subject during the week. At the beginning of the week I will organize these items into the baskets so they can be easily found throughout the week.

There will be a large carpeted area in the back of the classroom where the students can gather for group discussions. The area will be carpeted so that students will be comfortable while participating in group discussions. There will be a calendar with removable numbers, a dry erase daily depositor, play money, a dry erase clock, dry erase
markers and a number line to count the total number of days the students have been in school. All of these items will make up the calendar math activities the students will participate in every morning. They will all be laminated so they can be written on using dry erase markers. This allows them to be reused every month as well as for many years without duplicating them. Each morning students will be asked to multiply the number day of the month by a value using mental math. As a class we will keep track of these values through the school year. The students will use the play money to keep track of these values by depositing them into boxes indicating various monetary place values. Overall the calendar math will help the students practice their mental math skill on a daily basis even when they are not receiving formal mathematical instruction. The calendar is placed near the carpet area so that all students can see the calendar while seated on the carpet and actively participate. Near the carpeted area there will be a dry erase board where my students or I can write when we are gathered on the carpet as a class. Dry erase boards will be used in my classroom because it is neater than chalk.

Near the carpeted area there will be a large book case that is short enough to allow students to see all of the books contained on every shelf. The shelves will be labeled according to genre as well as by author. This will help students easily find a book they wish to read during silent reading time if they have completed the one in their desk. This bookshelf is located near the carpet because students can choose to read their books on the carpeted area if they wish.

Near the large carpeted area there will be a computer station with five computers, a printer and a smart board. These computers will face the windows so that the teacher can easily see the screens of all five computers. The smart board can be used to demonstrate how to use various websites, organize information for the students, and allow students to use the smart board while they are gathered on the carpet or seated at the computers. There are five computers because five will be the largest number of students in a group when students are involved in cooperative learning groups or rotating in stations. There will also be a round table with five chairs at the correct height for students and one chair at the correct height for me. This table will be located toward the back of the classroom so that I can meet with individual students or a group of students without disrupting students working independently or in small groups in the front of the classroom.

In my fourth grade classroom each student will have his/her own desk that is adjusted to the proper height. The desk will be large enough to store all of the books, folders, school supplies, etc. the students will need throughout the day. These desks will be arranged in groups of four or five in the front of the classroom. This is important because in my classroom students will be engaged in a lot of cooperative learning activities. However, by seating the students at individual desk they will be able to perform work independently when necessary and also have a place for personal storage. The desks are arranged in groups of four or five because I find in my classroom that students work best when groups are no larger than five. The desks are also placed at the front of the classroom so they can all see information written on the portable dry erase board. The dry erase board is portable so that I can move it around the classroom into an ideal position within the classroom for all students without taking space on the walls which can be used for bulletin boards or displays of student work. This portable dry
erase board is also essential if the students are gathered on the back carpet area of the classroom.

Bulletin boards will be located throughout the classroom to display unit related items and student work. Student work will also be displayed on hanging string located above the height of the teacher. By displaying student work this way it will increase the space in the classroom available for other pieces of furniture. Trash cans, tissue boxes, pencil sharpeners, and outlets are placed around the classroom where I feel students will be able to access them easily without disrupting other students.

Overall, my ideal classroom will be student friendly by incorporating furniture that is the proper height for my students and organized to allow traffic flow around the classroom. The arrangement of the furniture will also allow students to work independently, in small groups, and as a class. It will be welcoming and make students feel safe. When students feel they are a part of a community they produce quality work. This classroom sketch directly reflects my beliefs about teaching.

My classroom management plan directly reflects my ideas about teaching. Based on the profile of my fourth grade class, I have created community building activities, routines and tools, an informational letter to parents of my students, and a classroom environment that directly reflect my current teaching philosophy. By communicating with parents I will establish a support system for each of the students within my classroom consisting of his/her parents and myself. By organizing community building activities, I will transform my classroom of twenty-three students into a community of learners. By establishing routines and tools early in the school year, I will establish expectations making my students responsible for managing the classroom as well as their own learning. Finally, through a careful placement of various furniture and items within my classroom, my students will view my classroom as a safe environment and easily work independently, in small groups, or as a class.
Appendix B


This book contained a chapter entitled, “The Classroom Environment,” with four types of classroom set ups: traditional, three clusters, four clusters, semicircle, and cooperative learning circle.


No chapter on arrangement of student desks.


No chapter on arrangement of student desks.


Paragraph on set up of student desks based on grade level. Younger students should be seated close together and older students farther away.


Chapter entitled, “Prepare the Classroom Environment.” Chapter discusses space for desks and materials. No reference to student needs in placement of seats.


No chapter involving student seating.


Chapter entitled, “Setting up Classroom Space,” discusses seats facing the blackboard in rows.
Dear Dr. Herb,
As a part of the PDS program, I am currently working on an inquiry project involving student seating within the classroom and academic, behavioral, and social needs. I have attempted to find research on this topic through the Penn State electronic reserve as well as Lias. However, I cannot find any information on this topic. I have found some articles on seating arrangements, but none on how to place students based on their individual needs. While searching I have used words such as seating arrangements, student motivation, individual needs, and classroom management. I was wondering if you could make any suggestions as to another way to find research on this topic. I would appreciate any feedback you can give me.

Thank you,
Megan Eash
Appendix D

ERIC #: ED169587
Title: The Relationship between Classroom Seating Preference and Student Personality Characteristics.

ERIC #: ED422129
Title: Increasing Student On-Task Behavior through the Use of Specific Seating Arrangements.

ERIC #: EJ040333
Title: Some Effects of Seating Position on Social Perception

ERIC #: ED383121
Title: Teaching Diverse Learners in Inclusive Settings: Steps for Adapting Instruction.

ERIC #: ED143047
Title: Seating Choice, Status, and Impact on Self Concept.

ERIC #: ED403247
Title: Classroom Organization and Management Program. Revalidation Submission to the Program Effectiveness Panel, U.S. Department of Education.

ERIC #: EJ228839
Title: Classroom Seating Location, Student Grades, and Attitudes: Environment or Self-Selection?

ERIC #: ED331777
Title: Classroom Organization and Management Program (COMP). Submission to the Program Effectiveness Panel.

ERIC #: EJ183094
Title: Classroom Seating Arrangements: Instructional Communication Theory versus Student Preferences

ERIC #: ED085790
Title: A Naturalistic Study in Proxemics: Seating Arrangement and its Effect on Interaction, Performance, and Behavior.

ERIC #: EJ369520
Title: Rows versus Tables. II. The Effects of Two Classroom Seating Arrangements on Classroom Disruption Rate, On-Task Behaviour and Teacher Behaviour in Three Special School Classes.
Appendix F

1. On the scale below rate how you like where you sit in the classroom.

\[
\begin{align*}
0 & \quad 1 & \quad 2 & \quad 3 & \quad 4 & \quad 5 \\
I \text{ don't like it} & \quad & I \text{ love it}
\end{align*}
\]

2. Why or why don’t you like your seat?

3. Make a list of the things you see when you are seated facing forward.

4. On the scale below rate how well you think your seat helps not talking to team members.

\[
\begin{align*}
0 & \quad 1 & \quad 2 & \quad 3 & \quad 4 & \quad 5 \\
it \text{ does not help} & \quad & it \text{ helps a lot}
\end{align*}
\]

5. On the scale below rate how well you think your seat helps you listen to the teacher.

\[
\begin{align*}
0 & \quad 1 & \quad 2 & \quad 3 & \quad 4 & \quad 5 \\
it \text{ does not help} & \quad & it \text{ helps a lot}
\end{align*}
\]

6. On the scale below rate how well you think your seat helps you follow directions.

\[
\begin{align*}
0 & \quad 1 & \quad 2 & \quad 3 & \quad 4 & \quad 5 \\
it \text{ does not help} & \quad & it \text{ helps a lot}
\end{align*}
\]

7. On the scale below rate how well you think your seat helps you work with others.

\[
\begin{align*}
0 & \quad 1 & \quad 2 & \quad 3 & \quad 4 & \quad 5 \\
it \text{ does not help} & \quad & it \text{ helps a lot}
\end{align*}
\]

8. On the scale below rate how well you think your seat helps you work on your individual goals we set at our goal setting conference.

\[
\begin{align*}
0 & \quad 1 & \quad 2 & \quad 3 & \quad 4 & \quad 5 \\
it \text{ does not help} & \quad & it \text{ helps a lot}
\end{align*}
\]
Appendix G
## Appendix H

### Student Ratings

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<thead>
<tr>
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<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
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2/9/05

19 A-4 | B-3 | C-5 | D-3 | E-3

20 A-3 | B-0 | C-2 | D-0 | E-0

21 A-2 | B-0 | C-0 | D-0 | E-0

22 A-3 | B-2 | C-0 | D-0 | E-0

23 A-5 | B-0 | C-0 | D-0 | E-0

24 A-5 | B-0 | C-0 | D-0 | E-0

25 A-4 | B-0 | C-0 | D-0 | E-0

26 A-4 | B-0 | C-0 | D-0 | E-0
Appendix I
Appendix J
Appendix K

Seating Arrangement 3/21

Student:
1 - 2
16 - 6
3 - 1
14 - 5
5 - 8
2 - 6
18 - 4
7 - 5
12 - 4
19 - 3
4 - 5
10 - 6
6 - 4
11 - 3
8 - 1
20 - 2
9 - 2
21 - 4
22 - 3
23 - 5
17 - 3
16 - 1
13 - 5

1
2
3
4
5
6
3
2
1

14 3
11 17
19 22
10 3
15
11 17
15
23 13
7 4
6 12
18 21
8 19
20 16

Appendix L

Average Ratings on Questions 1, 4, 5, 6, 7, and 8 on Student Surveys

<table>
<thead>
<tr>
<th>Arrangement</th>
<th>Existing sets</th>
<th>Rows</th>
<th>Rows of three</th>
<th>Sets created by third party</th>
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</thead>
<tbody>
<tr>
<td>Question #1 (How well do you like your seat?)</td>
<td>2.68</td>
<td>3.18</td>
<td>3.31</td>
<td>2.48</td>
</tr>
<tr>
<td>Question #4 (How well does your seat help you not talk to classmates?)</td>
<td>2.28</td>
<td>3.78</td>
<td>3.47</td>
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<tr>
<td>Question #5 (How well does your seat help you listen to the teacher?)</td>
<td>3.47</td>
<td>3.82</td>
<td>4.13</td>
<td>3.00</td>
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<tr>
<td>Question #6 (How well does your seat help you follow directions?)</td>
<td>3.52</td>
<td>3.86</td>
<td>4.17</td>
<td>3.09</td>
</tr>
<tr>
<td>Question #7 (How well does your seat help you work with others?)</td>
<td>2.95</td>
<td>3.40</td>
<td>3.26</td>
<td>2.83</td>
</tr>
<tr>
<td>Question #8 (How well does your seat help you work on your individual goals?)</td>
<td>No rating</td>
<td>3.81</td>
<td>3.26</td>
<td>2.91</td>
</tr>
<tr>
<td>Total Average for all survey questions</td>
<td>11.95*</td>
<td>18.45</td>
<td>18.21</td>
<td>14.61</td>
</tr>
</tbody>
</table>

*20 total survey points
Appendix M

Chosen seats  2/8/04

8 close to board (glasses), with each other facing forward, near door
9 " facing board, all alone, moved together
13 " in a circle, one couldn't see
14 " moved away from group to see board
15 " away from window (always open)
18 " In front of room, near board
19 Away from others, no distractions, near line
20 With 7, in front
21 Together in a group with boys (no girls want to join)
22 Didn't want to distract others
10 With 4
5 In front, pay attention, close to board
3 Alone to stay out of trouble
11 Sit w/ 10 and 6
16 Sit w/ friends
17 Sit w/ friends
2 Sit w/ friends
Would you change seats?

16. Move into seat w/ 23 and 15 instead of sitting in a row
20. Face board
7
19. Move closer to the board
12. With other students

Why is setup hard for teachers?
- Getting around classroom
- Group projects
- Calling students to line up
- Passing out papers

Students were informed their seat would be changed about once a week or two to find a seat in the classroom that works well for him/her.

Overall ways they chose seats
- Majority (friends first) - all but
- Board location
- Distractions
## Appendix N

### Anecdotal Notes During Row Arrangement (2/9-2/21)

<table>
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<th>Academic</th>
<th>Behavioral</th>
<th>Social</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>2/14-improvement in journal</td>
<td>2/9-on task during seatwork</td>
<td>2/14-out of seat a lot during class party talking to classmates</td>
</tr>
<tr>
<td></td>
<td>2/21-spelling grade greatly decreased</td>
<td>2/10-directions repeated</td>
<td>2/18-recess (4 square with girls)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2/13-on-task all day</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>2/14-did not turn in journal when asked 3 times</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>2/18-no directions repeated</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>2/9-seatwork completed with para</td>
<td>2/11- missed recess for off-task behavior during writing</td>
<td>2/9- not chosen to partner read</td>
</tr>
<tr>
<td></td>
<td>2/14-wrote five complete sentences during writing (great improvement)</td>
<td>2/13- pulled one peg</td>
<td>2/14-no socialization with others during class party (seated alone at desk)</td>
</tr>
<tr>
<td></td>
<td>2/21-rushed through spelling</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>2/9-seatwork completed with para</td>
<td>2/11-misbehavior in cafeteria</td>
<td>2/14-only socializes with student 17 during class party</td>
</tr>
<tr>
<td></td>
<td>2/14-received 100% on spelling review (blocks provided)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>2/11-created lengthy and complete piece of writing</td>
<td>2/9-on task during seatwork</td>
<td>2/11-participates very little in group discussions</td>
</tr>
<tr>
<td></td>
<td>2/14-received an A in spelling journal (not a new pattern)</td>
<td>2/13-works on cursive book when finished with assigned work</td>
<td>2/16-does not provide answers based on opinion (only fact)</td>
</tr>
<tr>
<td></td>
<td>2/21-receives an A in spelling journal</td>
<td>2/18-takes out book to read when finished with seat work</td>
<td>2/18-recess (plays with only student 8)</td>
</tr>
<tr>
<td>20</td>
<td>2/11-sentences in piece of writing include many run-on sentences</td>
<td>2/9-on task all day</td>
<td>2/11-disagreement over who will be his partner during reading</td>
</tr>
<tr>
<td></td>
<td>2/14-received B+ on journal</td>
<td>2/13-asks teacher what to do when finished with seatwork</td>
<td>2/18-recess-plays baseball with classmates</td>
</tr>
<tr>
<td>22</td>
<td>2/14-improvement in spelling of fourth grade no excuse words</td>
<td>2/9-reminded to raise hand to speak 3 times</td>
<td>2/12-asked by teacher to “get a tissue”</td>
</tr>
<tr>
<td></td>
<td>2/21- journal shows directions were followed</td>
<td>2/11-pulled 2 pegs</td>
<td>2/14-socializes with teachers during class party</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2/18-more on task time (less talking to neighbors)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>2/21-no directions repeated</td>
<td></td>
</tr>
<tr>
<td>23</td>
<td>2/14-sentence structure improving, but tense of verbs still incorrect</td>
<td>2/9-on task all day</td>
<td>2/12-volunteers during opening</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>2/18-plays with student 15 at recess</td>
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</table>
Appendix O
Student Twenty-Two’s Ratings on Questions 1, 4, 5, 6, 7, and 8 for each Seating Arrangement

<table>
<thead>
<tr>
<th>Arrangement</th>
<th>Existing sets</th>
<th>Rows</th>
<th>Rows of three</th>
<th>Sets created by third party</th>
</tr>
</thead>
<tbody>
<tr>
<td>Question #1 (How well do you like your seat?)</td>
<td>3 (I am distracted [sic] easily [sic]).</td>
<td>4 (It helps me listen.)</td>
<td>5 (It helps me listen [sic].)</td>
<td>3 (I don’t like it because I can’t listen very well.)</td>
</tr>
<tr>
<td>Question #4 (How well does your seat help you not talk to classmates?)</td>
<td>2</td>
<td>4</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Question #5 (How well does your seat help you listen to the teacher?)</td>
<td>3</td>
<td>5</td>
<td>5</td>
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</tr>
<tr>
<td>Question #6 (How well does your seat help you follow directions?)</td>
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<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Question #7 (How well does your seat help you work with others?)</td>
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<tr>
<td>Question #8 (How well does your seat help you work on your individual goals?)</td>
<td>No rating</td>
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</tr>
<tr>
<td>Total Average for all survey questions</td>
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*20 total survey points
### Appendix P

**Student One’s Ratings on Questions 1, 4, 5, 6, 7, and 8 for each Seating Arrangement**

<table>
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<tr>
<th>Arrangement</th>
<th>Existing sets</th>
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<th>Rows of three</th>
<th>Sets created by third party</th>
</tr>
</thead>
<tbody>
<tr>
<td>Question #1 (How well do you like your seat?)</td>
<td>2 (_____ will not stop blabbering to _____.)</td>
<td>4 (It helps me listen better.)</td>
<td>4 (I can listen better, but sometimes I talk.)</td>
<td>4 (It has my friends in it and they help me work better.)</td>
</tr>
<tr>
<td>Question #4 (How well does your seat help you not talk to classmates?)</td>
<td>2</td>
<td>3</td>
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*20 total survey points
Bibliography


