To the Graduate Council:

I am submitting herewith a thesis written by Donna Jean Habib entitled "The Effects of Classroom Seating on Student Attitude Toward Leaning" I have examined the final paper copy of this thesis for form and content and recommend that it be accepted in partial fulfillment of the requirements for the degree of Master of Science, with a major in Human Resource Development.

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The Effects of Classroom Seating on Student Attitude Toward Learning

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I had no idea upon entering this program of study that this would turn out to be such an eye opener to who I really am as a person, parent, educator, and learner. At this point in my life I feel that I am where I should and want to be, and that is a great accomplishment and a definite feast in our human quest. I would like to extend my thanks to Dr. Sharon Bartley, Dr. Randal Pierce, and Dr. Vickie Stout. Fortunately, Dr. Stout was assigned as my advisor on the first day I entered this program as an undergraduate. I have learned a lot from her, but what comes to mind most is the ability to work with smiling grace under tremendous pressure and with a stupendous vocabulary. Again, I extend my thanks, appreciation, and admiration.

ABSTRACT

The purpose of this study was to determine and reach a conclusion on the reasons behind student/teacher seating in a specific way and the effect of seating arrangement on student attitude toward learning. The study answered many questions that deal with the seating arrangements at Farragut High School in Knox County Schools. The respondents included a sample of the 1,316 students and 9 teachers enrolled in the Business/Marketing department for the full year (fall and Spring) of 2002, from Farragut High School in Knoxville, TN. Each respondent reported on his/her attitude toward seating arrangements and the reasons why teachers assigned seating in one manner versus another. Major conclusions of the study were:

1. Teachers assign seats most of the time in the Classroom.

2. Teachers have definite preference for students who sit in the front row.

3. Teachers do not want students to sit beside their friends in the classroom.

4. Male students prefer to sit beside good students

and in the back rows of the classroom. They do not believe that seeing the teacher or the board affects their attitude toward leaning.

5. Male students reported that sitting in the back rows of the classroom indicates low self-esteem.

6. Female students prefer to sit in the front rows, in order to see the teacher, and the board.

7. Freshmen students believe that they pay more attention in the classroom if they sit in the front of the classroom or beside their friends.

8. Students enrolled in Basic Business courses tend to believe that (a) students pay better attention in the classroom if students are sitting in the front rows, and (b) those students who sit in the back of the classroom wish to be ignored.

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Chapter I

Introduction

A quote by Plato comes to mind, namely, "The beginning is the most important part of the work." What occurs the beginning of every school year? The students walk in a class and simply pick a seat. Is it as simple as that—or is it? Do teacher and student preferences play a role in where and how students are seated? Does where students sit influence their attitudes toward learning? Do teacher attitudes mirror student attitudes towards seating?

According to Dunne (2001) classroom management experts and experienced educators agree that the decisions teachers make about whether students will be allowed to select their own seats and about the physical arrangement of the classroom can have an impact on classroom discipline and the effectiveness of instruction.

At the onset of her graduate teaching internship experience, the researcher considered (a) what might be the most advantageous way of seating students, and (b) how seating arrangements advantage and disadvantage students and teachers. Many factors are

important, including: the size of the class, the shape and design of the classroom, the furniture, the ease of getting into and out of chairs, the location of the teachers desk, and the proximity of student seats one with another. According to Lavender (1999), where a student sits is not as important as who the student chooses to sit near in the classroom.

Does student seating affect students' attitude toward learning? According to Mehrabian (1982), students who had a choice to seat themselves in the classroom chose to sit next to their friends. This may be to facilitate their friendships, relationships, or simply to communicate attraction to that person. This study determines and compares the seating arrangements used by teachers and students in the Business Department at Knox County's Farragut High School in Knoxville, Tennessee. This study is primarily concerned with teacher and student attitudes toward seating arrangements and how students are affected and motivated by their seating arrangement.

This chapter is composed of a Statement of the Problem, Statement of the Purpose, Definition of Terms, Research Questions, and Hypothesis, Rationale for the

Study, Assumptions, Delimitations, Limitation and Summary.

Statement of the Problem

A paucity of research exists on teacher and/or student designated seating arrangements and its effect on student attitudes toward learning. Further study is needed to determine the most advantageous way of seating students.

Statement of the Purpose

The purpose of this study was to determine teacher and student attitudes toward classroom seating arrangements.

Definition of Terms

The following terms were necessary in researching the sources of teacher- and student-designated seating arrangements.

Attitude - refers to a state of mind or a feeling; disposition.

Class period - period students were attending when they completed the survey.

Course - course students were enrolled in when they completed the survey.

Farragut High School - a large urban secondary school in Knox County, Tennessee.

Learning - the act, process, or experience of gaining knowledge or skill.

Seating arrangement - refers to the physical configuration of seats in the classroom.

Students - refers to students in the Knox County, Knoxville, Tennessee, and Farragut High School Business and Marketing Department.

Teachers - refers to teachers in the Business Department in Farragut High School.

Research Questions

Using teacher and student self-reporting as a foundation, this study answered the following questions:

1. Who are the Spring 2002 students and teachers involved in the Farragut High School Business program?
2. Who determines the seating arrangements?
3. What methods(s) or pattern(s) are used when seating students?
4. What are student and teacher attitudes about the influence that seating arrangement selections have on learning?

5. Why do students and teachers choose and prefer certain seating arrangements?

Hypothesis

1. No significant differences exist among ***student attitudes*** toward seating arrangements based on **(a) gender, (b) grade classification, (c) class period,** and **(d) courses.**

Rationale for the Study

Josef Albers once said, "Good teaching is more a giving of right questions than a giving of right answers," and so this study posed many questions about seating arrangements in the hope of finding the right answers.

Classroom seating patterns continue to be an under-explored topic of student behavior. According to Camfield (1980), most teachers permitted students to sit where they preferred, but 22 percent of teachers never permitted students to choose their own seating. In other words, almost one fourth of the students never get to sit where they wish in the classroom. Is student seating arranged without much thinking, or are multiple considerations taken into account so that logic and reason ground or support seating arrangement decisions?

Seating arrangement in high school appears to be equally important to the students as well as to the teachers. Observational studies of classroom participation have revealed that student contributions to class discussions begin more frequently in certain areas of a classroom than others (Totusek& Staton-Spicer 1982). Teachers who are aware of the effects of seating on the interaction as well as on the attitudes of students appear to understand how seating arrangements influence classroom management and to the learning experience in general.

According to Dunne (2001), many teachers recommended assigned seating to let students know who is the boss. "Unless the teacher takes responsibility for assigning students to seats that will facilitate discipline and instruction, students will always do just the opposite." Jones (2000) further explained in his book *Tools for Teaching* "When students as a group are given the freedom to sit wherever they want in a classroom, they will always choose the location for themselves that is to the teacher's greatest possible disadvantage." Teachers of like attitude may be better equipped to deal with the seating dilemma.

Not everyone agrees with Jones. Phil Clinton, principal of the Anglo-American School of Moscow in Russia viewed seat assignment differently. During a listserv debate last year about whether teachers should assign or should not assign students to specific seats, Clinton objected to assigning students' seats (Dunn 2001). Adams and Biddle (1970) examined interaction patterns in different grades and discovered an "action zone" common to most of the classes. Pupils seated in the action zone are more prone to participate and interact with the teachers. Educators who are aware of this "action zone" will be able to utilize it to maximize the interaction between students and their teachers. Koneya (1976) and Adams (1969) found that when given a choice of seats, high verbalizers chose to sit in the middle area of a classroom while low verbalizers had a tendency to sit outside this zone.

According to Camfield (1980) assigned seating facilitates the task of taking roll. Jones (2000) added that the bottom line is that a good classroom seating arrangement is the cheapest form of classroom management. "It's discipline for free."

Schwebel and Cherlin (1975) found that teachers assign children to seats "made on two decision: to what part of the room to assign them and next to whom they should sit. Questioning revealed that the teachers were selecting children's neighbors in a way which would aid them in maintaining behavioral standards in the classroom" (p. 545).

Assumptions

The following assumptions were formulated in the present research of identifying motivational sources:

1. Questionnaire respondents answered the survey questions accurately and honestly.

2. Questionnaire respondents were the best sources to identify their own attitudes towards seating.

Delimitations

The following delimitation was formulated in the present research of assigned and random seating or student-selected seating.

- This study measured the attitudes of those students enrolled for the spring 2002 semester in the ten core courses in the Business Department at Farragut High School.

- This study did not consider the effects of class size.

Limitation

The following limitation was formulated in the present research of assigned and random seating by students and teachers.

* This study was limited to students in the Business/Marketing Department at Knox County's Farragut High School in Knoxville, Tennessee.

Summary

Seating students in the classroom should require critical thinking in order to reach the maximum advantage of reaching out to each and every student present in the classroom. The researcher encourages readers of this study to consider Sir Francis Bacon's (1561-1626) admonishment, "Read not to contradict and confute, nor to believe and take for granted, but to weigh and consider."

CHAPTER II

Review of Literature

A comprehensive literature review resulted in the identification of numerous research studies about teacher- and student-selected seating arrangements. Innovations in seating arrangements cannot be made quickly as they require funding as well as the right size of class and student. The following review of literature discusses the different writings and research concerning (a) seating arrangement, (b) classroom organization, (c) student attitudes, and (d) teacher attitudes. Each section shows how the information in the research aids this study to be useful to teachers who are interested in understanding how assigned and random seating influence or affect student's attitudes and learning in the classroom.

Seating Arrangement

Assembling the seating of students in classrooms across schools is not as simple as many may think or assume. Many of the seating arrangements used in contemporary classrooms reflect much thought, debate, and scientific consideration. While Ross (1982) encouraged teachers to rearrange furniture as often as necessary to

coincide with various teaching methods, Cuban, (1984) Mayher and Brause, (1986) discussed the lack of change in the classroom over a century. They talk about the rows of desks being bolted to the floor facing the blackboard and teacher's desk, during the early 1900's. They go on to report that while the change from such stationary furniture to movable chairs and desks might have been the greatest tangible change, the expected educational reform did not necessarily accompany this innovation in redesigning and repositioning the furniture, or student seating in the classrooms.

Classroom management expert, Fred Jones, author of *Tools for Teaching* (2000), suggested that the typical classroom arrangement, with students' desks lined up in neat rows, makes it easy for custodians to do their jobs but tough for teachers to freely walk among their students' desks. Walking among the students' desks enables teachers to equally monitor and watch everyone in their classrooms, a task that is very important and helps to facilitate the learning experience. Others might argue that factors which promote such constancy include the idea that schools are a form of social control, and as such, rows reinforce a teacher's authority and provide

the uniformity expected by society (Wengel, 1992).

Many times, researchers try to come up with the best way to seat a classroom, or the best way to arrange desks and furniture. Yet, most related research falls short of conclusively recommending a "best" or "better" arrangement. Instead, researchers opt for declaring a particular seating arrangement as the "best" or "better" for a specific topic, course, or learning strategy.

According to Wengel, (1992) if the seating arrangement is to be effective, then it must be versatile enough to allow for the variety of activity, which occurs in today's classroom--meaning that teachers in the classrooms must be flexible in changing the students or the furniture at different times in the year in accordance to what is being taught. Finally Walberg (1969) declared that if students can be characterized by choice of classroom seating, the social psychology of the classroom could be better understood, which is what the present study proposed to determine.

Reviewing the literature in this section helped the researcher to understand the evolution of classroom seating arrangements and how teachers view seating arrangements. The literature shed some light regarding

research done in this area and assisted the researcher in clarifying how the present research adds to related research. The present study further explains the effects and the importance of seating arrangements in the classroom.

Classroom Organization

Many factors and variables go into the organization of a classroom. Wall hangings, posters, maps, board(s), and furniture are just some of the variables that affect the organization of a classroom. According to Whaley (1995) when placing each student in just the perfect spot in the classroom, a degree in not only interior design, but also engineering, would come in handy.

The organization or arrangement of seats often fits the needs of the teachers without much regard to individual students (Wengel 1992). The practice of such arrangements can prove harmful on the overall comfort level as well as the organization within the classroom. Constructionists point out that interaction is crucial to learning (Newman); therefore, careful arrangement of seating can contribute to desirable interaction. Students should be seated in a manner that will encourage communication. Dykman and Reis (1977) suggested that some

students select seats that facilitate privacy. Yet on a contradictory note, a study conducted by Wulf (1977) shows that whether students had a choice in their seating or not, they would actually tend to behave (specifically in response and achievement) as if they had actually sat in their favored position.

Creativity, imagination, and ingenuity are needed for fashioning effective classroom design. According to Whaley (1995) creativity can cover cracked floor tile, paint-chipped walls, and stained cabinets. Imagination is required in order to transform a dreary shell of a room and turn it into a garden of delights. Ingenuity is needed in order to put every student in the right spot. According to Whaley (1995) it is true that moving desks and assigning seats can be quite tedious and downright scary, but once the best arrangement has been made, life in the classroom becomes that much easier. Lastly, according to Wengel and Marni (1992) it only takes about 1.4 minutes to make a major rearrangement of more than 75% of the classroom furniture. Teachers can easily afford to put that much time in redesigning and reshuffling desks in their classrooms.

The literature in this section helped to point out the difficulty in organizing a classroom, beginning with the wallpaper and ending with society's future, the student. The present study furthers the understanding of the complexity of designing the perfect classroom.

Student Attitudes

High school students are very interested in the way that they are seated, and knowing why a student chooses and defends a certain position in the seating arrangement can give important clues to the students' attitude and way of learning in the classroom. According to Lavender, (1999) knowing why a student chooses and protects a certain position in the seating arrangement of a classroom can offer teachers a clue to facilitating the cognitive and social growth of that student, which can further aid understanding student attitudes toward assigned seating or their desire to seat themselves in specific areas or particular seats of the classroom.

Studies show that students react to different seating patterns that teachers introduce in the classroom. According to Bleekman and Tegan (1995), when one student was asked about sitting in a large circle, he replied, "we can see each other's faces to talk with each

other. I like this better than "normal" classrooms because it's more relaxed and less formal." The student uses the term "normal" for the way students are seated in the classrooms. This should be an incentive for today's teachers to change the "normal" into a more "relaxed" or "less formal" way of seating our students. Students who feel more relaxed in a classroom have a more comfortable attitude toward the teacher and subject, and thus have a better chance at succeeding.

Becker, Sommer, Bee, and Oxley, (1973) found that students perceived other students who sat in the front of classrooms as more interested in the class and as having a better chance of getting a good grade than their peers who chose to sit farther back in the class. Schwebel and Cherlin (1972) found that those students liked the instructor more than did their classmates and perceived the instructor as being like himself or herself. Students who attend Farragut High School appear to have the similar attitudes. When interviewed, the majority of the young adults felt that students who sit in front either want to make a better grade, like the teacher, or simple want the teacher to assume that they like her/him or the subject being taught.

Educators need to understand and value the attitudinal differences among students seated in the various regions of a classroom in order to maximize the teaching experience. A study by Dykman & Reis (1979) suggested that students possessing personality traits pinpointing feelings of vulnerability and inadequacy showed a marked tendency to be located in the rear and far-side regions of the classroom. The study also showed that students with positive self-concepts tended to sit in the front of the classroom. Teachers who are aware of the reasons behind students choosing particular seats can aid those students to learn more by reevaluating where they sit. So teachers can seat a student with a negative attitude next to a student with a positive and open attitude. In other words, teachers who notice where students sit can shift them where one of the students who always sits in the back of the room can sit next to a student who repeatedly sits in the front of the classroom.

Adams (1969) added to this line of thinking by suggesting that students minimize the risk of interacting with the teachers and other students by distancing themselves in seats that reduce the probability of

inclusion. In other words, some students' intentionally sit in exacting seats so as to avoid interacting with teachers and other students. Knowledge of this practice will induce teachers to notice and change the seating arrangements in their classes to accommodate all the students at some time during the semester.

The literature in this section highlights the complexity of the students' emotional and psychological state, and its direct link to their seating in the classroom.

Teacher Attitudes

Interpreting teacher and student attitudes toward seating arrangements or student motives for choosing specific seats is not easy. According to Daly and Suite, (1981) classroom participation relates to positive teacher impression of students. Students who sit in the front rows are more verbal and so are perceived more favorably by teachers for participation. Daly and Suite concluded that the seats students choose within a classroom can have important effects, at least, on the initial impression students make on teachers, and resultant teacher attitudes

toward students.

A study by Schwebel and Cherlin (1972) showed that as students' physical distance from the instructor increases, their (the students') success decreases. Schwebel and Cherlin further indicate that an association exists between students' success and teachers' attitudes and judgments of them due to the seating preference.

Informal interviewing of teachers in the Business Department at Farragut High School revealed, that without a doubt, teachers' attitudes are affected by where students choose to sit when they sit voluntarily. While most teachers preferred to have a seating chart, some allowed students to sit where the students wished. Teachers generally agreed that they use the seating charts as a punishment and reward incentive, and that they move students who talk excessively or who do not answer questions when asked during class time.

Teachers were asked if their attitudes were more positive toward students who sat in the front seats versus those students who sit in the back of the classroom. Most teachers communicated that students who sit in front seem more interested in the subject or have a genuine love for the subject, teacher, or learning.

Still other teachers indicated that students who sit in the front may be forced to do so because they know that they need to make a good grade, they can't see well, they don't hear very well, or simply that they get easily distracted.

Teachers at Farragut informally expressed their concern over the mobility of their classroom. In order to be able to change seats to accommodate different activities or topics, classrooms need to be designed to facilitate change easily. As Poysner suggested (1983), current and future teachers need to be taught strategies for designing effective classroom physical environments in education courses and in-service workshops. Teachers who spend time discovering new and innovative ways to rearrange the classroom benefit themselves as well as the students. Change of scenery seems to do a lot of good for everyone—teachers and students.

This section of the literature review clearly showed that teachers are influenced by where students sit or choose to sit. The current study emphases the importance of teachers realizing that where a student sits should not affect the teachers' judgment.

Summary

The literature review synthesizes how seating of students is a serious and important factor in school systems. Students seating arrangements potentially affect student attitudes and how students approach learning. The present study furthers the knowledgebase in the teaching field and helps to answer some of the questions teachers face at the beginning of every new term or semester.

CHAPTER III

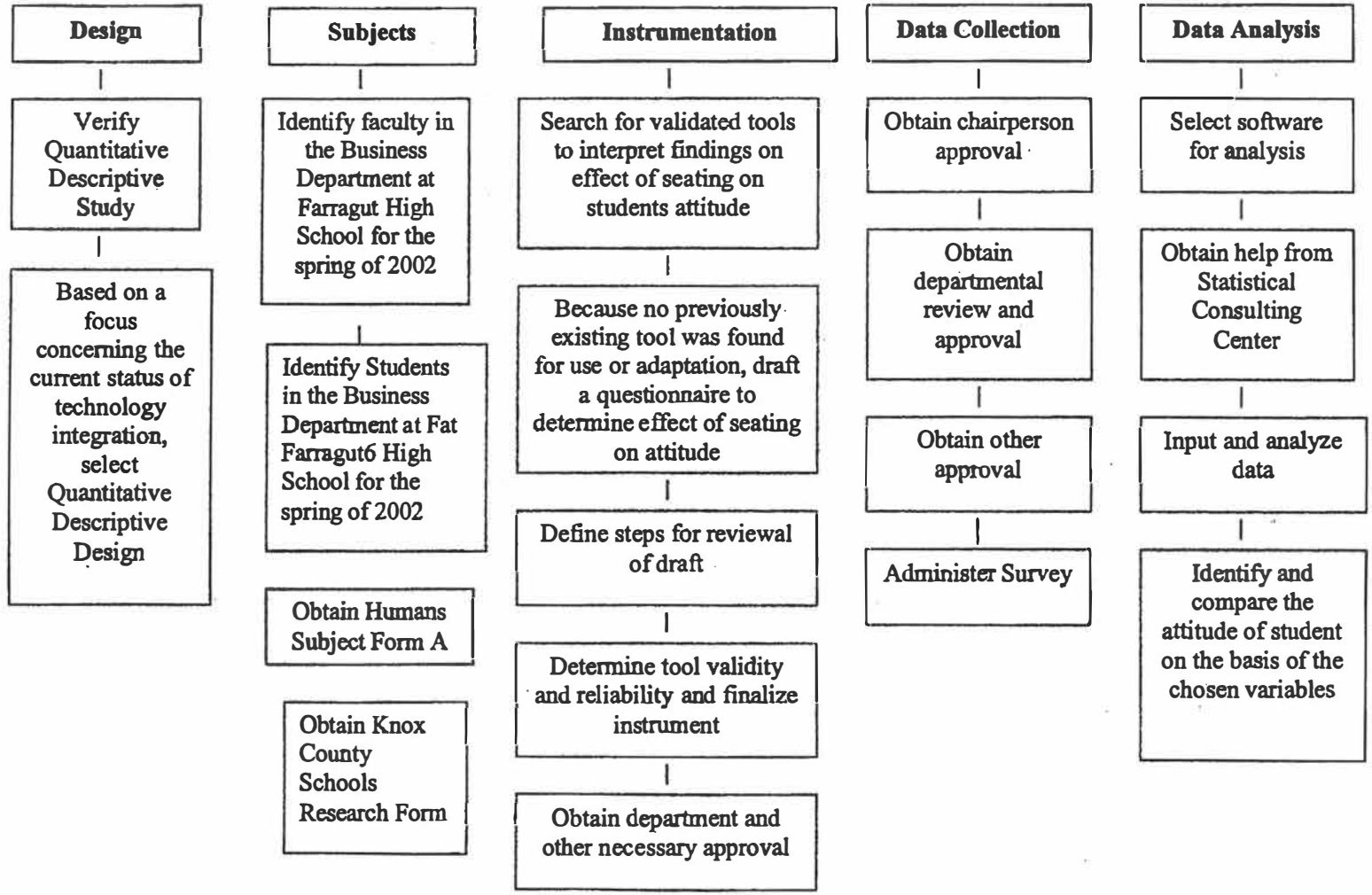
Methodology

A survey of the Business teachers as well as the students enrolled in the Knox County School System, Business and Marketing Department at Farragut High School, during the spring semester of 2002 was used to identify the following: (a) students' attitudes towards their seating arrangements as assigned by either themselves or their teachers, and (b) the reasons behind teachers and/or students assigning seats in a particular space or way. The sections in the Methodology consist of Design, Subjects, Instrumentation, Data Collection, Data Analysis and Summary. Figure 1 shows the Methodology Conceptual Framework on which this research study was based.

Design

The quantitative descriptive research method was chosen for this study to determine the effect of seating arrangement in the classroom on students' attitudes towards learning. This method was chosen (a) to help with investigation of a number of variables, (b) to facilitate the collection of numerical data, and (c) to describe performance in quantitative terms.

Figure 1. Methodology Conceptual Framework



According to Gay and Airasian (2000), quantitative variable are ones that exist on a continuum that ranges from low to high, or less to more. Ordinal, interval, and ration variables are all quantitative variables. Since the present study described the attitudes of students toward seating arrangement in the classroom, then the quantitative descriptive approach was ideal and the correct way to tackle this research.

Subjects

According to Gay & Airasian (2000), survey participants should be picked using an appropriate sampling technique that keeps in mind that the selected research participants must be able and willing to provide the desired information to the researcher. After considerable deliberation, the best respondents to this study include the sample of students and faculty in the Knox County Schools, Business and Marketing Department at Farragut High School. This sample was a part of the population which included about 1316 students and 9 teachers who were enrolled in both the fall and Spring semesters. The sample used in this study was about half of the above number.

The teacher and student subjects in the Business and

Marketing Education Department answered a survey that was presented to them during the week of May 14-18, 2002; data collected occurred at what was the most mutually convenient time for the researcher, the students, and the faculty.

Instrumentation

A literature review to locate an instrument that would be suitable for the purpose of this study was conducted, and an instrument was not found. A search of the Mental Measurement Yearbook did not reveal a survey that suited the purpose of this study. Subsequently, a survey was designed to determine student and teacher attitudes and to compare the attitudinal tendencies of the students and teachers toward learning on the basis of their seating arrangement. Appendixes A and B contain the examples of the surveys used for this study.

A lot of factors go into the construction of the right survey. According to Wilson & Corlett (1990) when one administers a survey to a respondent, one is implicitly asking him or her to reconstruct from memory the environment or the problem area of interest, and then to pluck from it the information or opinions that

required. Gay & Airasian (2000) state that most criticisms of surveys are related not to their use but to their misuse. One has to be very careful constructing surveys that answer three questions:

1. What are the results supposed to show?

2. What level of accuracy is required?

3. What additional data will be required to link thissurvey with other people's work? (Wilson and Corlett 1990)

Gay & Airasian (2000) recommend constructing a survey that is attractive, brief, and easy to fill out. Since the majority of the subjects for the present study were students, then the survey had to be to the point, simple, and short, without sacrificing the accuracy of the information being collected. Gay & Airasian (2000) further recommend: (a) write items that make sense; (b) avoid leading questions; and (c) avoid or carefully word items that are potentially controversial or embarrassing.

The first part of the student survey contained items pertaining to student demographics, namely: (a) gender, (b) class period, (c) grade level, and their current course. Question one asked respondents to indicate their gender; male or female. Survey question two asked

respondents to indicate their current class period. Survey questions three asked respondents to indicate their grade level, and survey question 4 asked respondents to indicate the course in which they completed the survey.

In the second part of the students' instrument, respondents were asked to reply to 23 statements concerning their attitudes toward seating arrangements in the classroom. The researcher used a five-point Likert scale to facilitate the quantitative research method and allow the researcher to analyze the data mathematically.

The second instrument addressed teachers' attitudinal sources. The first section, composed of six questions relating to (a) teaching in general, (b) experience teaching specific courses, (c) previous seating arrangement (d) current seating arrangement, (e) changing seating arrangement, and (f) the use of computers was used to obtain specific information about the respondents in order to come to conclusions. Survey question one asked respondents to indicate number of years teaching. Survey question two asked respondents to indicate the number of years teachers have taught a specific course. Survey questions three asked respondents

to indicate predominant seating arrangement used when teacher was in high school. Survey question 4 asked respondents to indicate the predominant seating arrangement teacher is currently using. Survey question 5 asked for the frequency of changing seating arrangement during each course. Survey question 6 asked how the use of computers affects students seating arrangements in classroom.

In the second part of the students' instrument, respondents were asked to reply to 23 statements concerning their attitudes towards seating arrangements in the classroom. The researcher decided to use a five-point Likert scale to facilitate the quantitative research method and allow the researcher to analyze the data mathematically.

The researcher obtained human subjects approval from her graduate program committee members, the University of Tennessee Institutional Review Board, and Knox County Schools. A copy of the Human Subject, University Form A Approval Form appears in Appendix C. Data collection was accomplished through the administration of the approved student and teacher survey instruments.

Data Collection

One set of surveys was made available to students in the Business/Marketing Department at Farragut High School during the week of May 13-17, 2002. Based upon the official enrollment in each course, student surveys were distributed to the teacher of record for the courses taught spring semester 2002 in Farragut High School's Business and Marketing Department. Each teacher distributed the surveys to students in attendance during the week of May 13-17, 2002. Each student completed only one survey. In every course students were instructed orally and in writing to complete a maximum of one survey. If students completed the survey in another class, they were instructed to return the blank survey sheet back to their teacher.

The teacher survey was also administered to teachers in the Business/Marketing Department at Farragut High School during the week of May 13-17, 2002. The teachers submitted their completed surveys directly to the researcher, and teacher confidentiality and anonymity were maintained. Gay & Airasian (2000) state that the collection of data is doing more than just collecting data. The process of data collection interacts with the

processes of data interpretation and analysis. Wilson & Corlett (1990) state that the purpose of data collection is ultimately data interpretation. Writing down observational comments while collecting the data will further enhance and enrich the data analysis, ultimately all this information will be able to shed new and different insights to the study.

Data Analysis

One of the hardest tasks associated with conducting research is the analysis of data. The researcher began this phase after the collection of data from the respondents. Four hundred and fourteen (414) student surveys were collected, but only 411 were entered into the Microsoft Excel spreadsheet, due to three students omitting their demographic information. The demographic variable with respect to gender, period, grade and course were assigned the following values:

Gender

female=1 male=2

Class Period

1st period=1 2nd period=2 3rd period=3

4th period=4

Grade Classification

freshman=1 sophomore=2 junior=3

senior=4

Course

Technology-Based Courses = 1

[*Keyboarding*, *Document Creation/Desktop Publishing*, *Web Page Design*]

Marketing Courses = 2

[*Marketing and Management Principles I* and *Sport and Entertainment Marketing*]

Basic Business Courses = 3

[*Accounting* and *Principles of Business*]

After the data were entered into and Excel spreadsheet file, the data were dumped and transformed into the SPSS program for analysis.

The researcher decided to use the Pearson chi-square for analysis purposes based upon the nature of the collected research data and because the researcher proposed comparing categorical (nominal) outcome data from different groups. Suitability of the Pearson chi square was confirmed by the researcher in consultation with Michael Newman of the University of Tennessee, Statistical Consultation Services. Subsequently, data

compiled from the student and teacher surveys were analyzed using Pearson's Chi-Square.

Summary

This chapter detailed the methodological steps taken in performing the current research project. Graphic representation of these steps has been referenced in Figure 1, which detailed the processes for determining the study's design, subjects, instrumentation, data collection and data analysis.

CHAPTER IV

Data Analysis and Findings

This chapter encompasses the descriptions of the data analysis and the resultant findings for the 411 student respondents as well as the 8 teacher respondents who successfully completed the survey instruments. The independent variables for this research were teacher and student attitude toward seating with additional analysis of the basis of selected independent demographic variables.

Students were asked to reveal demographic information including gender, period classification, grade level, and course. Students were also asked to report the impact that each of 23 source statement had on their attitudes toward seating in the classroom.

Teachers were asked to reveal teaching information including, total number of years teaching, predominant seating arrangement used and the frequency of changing classroom seating arrangements.

Data were examined and analyzed to (a) reveal pertinent student demographics, (b) answer the research questions, and (c) test the hypothesis. As demonstrated by the stated hypothesis, the researcher stated that

no significant differences exist among ***student attitudes*** toward seating arrangement based on (a) **gender**, (b) **class period**, (c) **grade classification**, and (d) **course**.

This chapter is composed of subject profiles, who determines seating arraignments and predominant arrangement, teacher and student attitudes towards seating arrangement.

Subject Profiles

The researcher's ***Research Question 1*** was

Who are the Spring 2002 students and teachers involved in the Farragut High School Business Program?

Data collected and analyzed in response to this question yielded the following results.

Student Profile

The distribution of student respondents, based on gender, appears in Figure 2. The number of student respondents was split almost equally between females and males with 211 or 51.3% and 200 or 48.7% respectively.

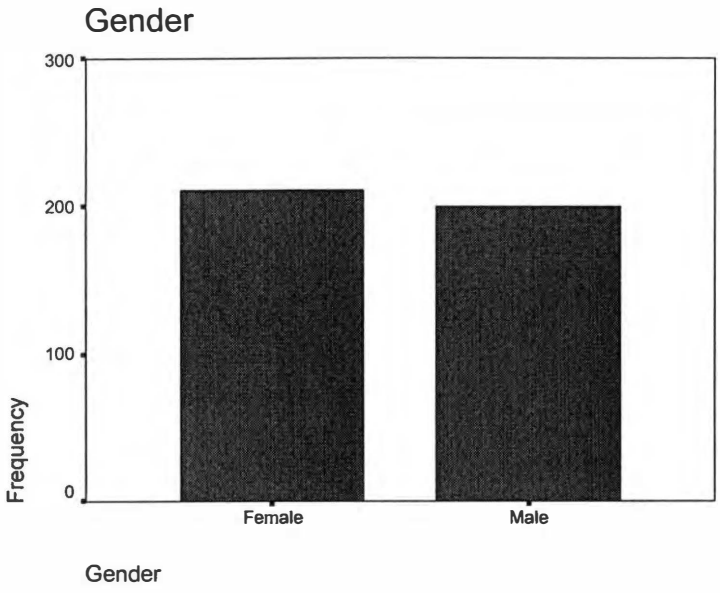


Figure 2

Student respondent profile based on gender

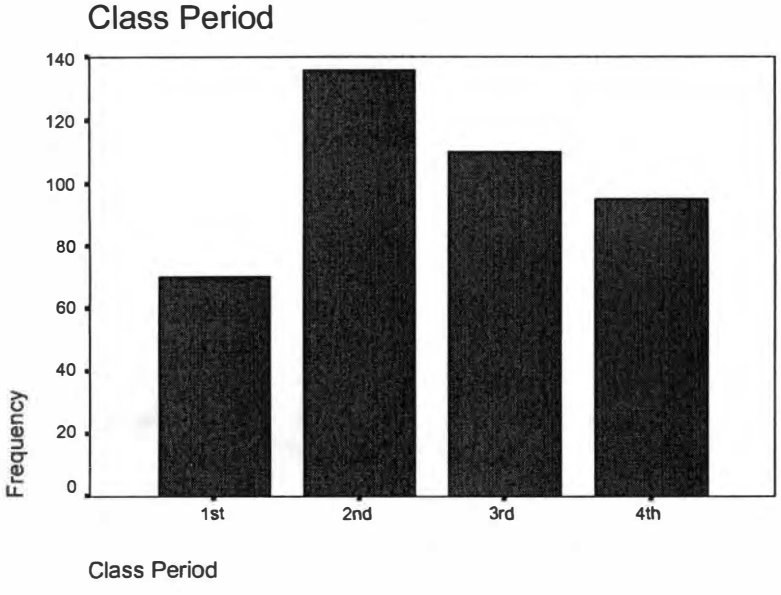


Figure 3

Student respondent profile based on class period

Figure 3 depicts the respondents according to class period. The distribution of respondents in the four 90-minute periods came with a heavy concentration on the 2nd period with 136 or 33%, and the lowest percentage and concentration on the 1st period with 70 or 17%. Many teachers, who had a 1st class period, failed to give out survey s at the beginning of the day and were more likely out give them out later in the school day.

The distribution of student grade classifications ranging from freshman to senior level is shown in Figure 4. The most concentration reflects freshmen students with 232 or 56.3% and the least concentration in seniors, with 44 or 10.7%. Freshmen are required to take Keyboarding and Principles of Business is a prerequisite to Marketing and other business courses at Farragut High School.

The distribution of the courses that students were enrolled in is shown in Figure 5. The highest concentration with 210 or 51.1% in Basic Business courses (Accounting and Principles of Business), the lowest concentration was with 30 or 7.3% in the Marketing class.

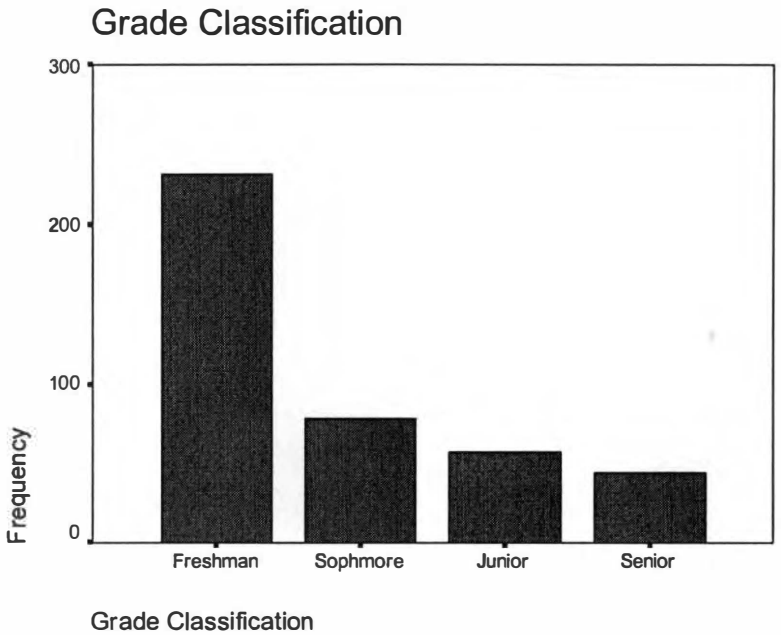


Figure 4

Student respondent profile based on grade classification

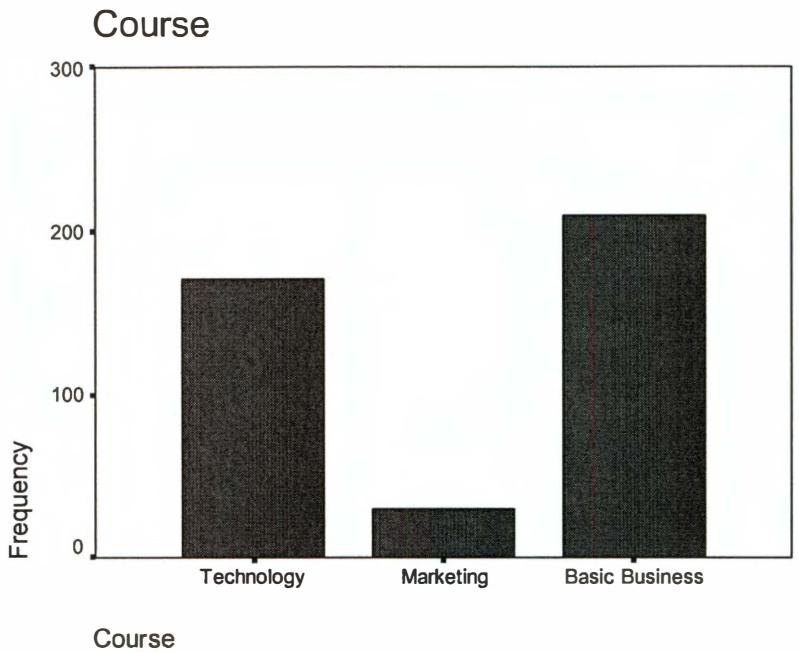


Figure 5

Student respondent profile based on course

Teacher Profile

The teacher survey, teacher attitudes toward seating arrangements in class, was used in this research. The survey consisted of 6 questions pertaining to teaching. Appendix A contains the teacher survey. The information included, (a) teaching in general, (b) experience teaching specific courses, (c) previous seating arrangement (d) current seating arrangement, (e) changing

seating arrangement, and (f) the use of computers. The small teacher population and sample used in this study limited the analysis of data; of the 8 teacher respondents 3 or 37.5% had taught 3 or fewer years, and 2 or 25% had taught more than 15 years. In terms of years of experience teaching specific courses 3 or 37.5% had taught the same courses, and 3 or 37.5% had taught the same course 4-6 years.

In response to this question student survey respondents included an almost equal distribution of females and males (approximately 200 of each), most of whom were freshmen studying basic business or technology at a time other than first period. In response to this question teacher survey respondents included 8 of the 9 teachers in business and marketing department at Farragut High School; a majority of these teachers were either new teachers or experienced teachers with more than 15 years teaching experience.

Who Determines Seating Arrangements and predominant Arrangement

Research Question 2 asked

Who determines the seating arrangements?

Teacher survey item 4 asked **what is the predominant seating arrangement you use in your classroom?** Data analyzed revealed that 7 or 87.5% of the 8 teachers, who completed the survey, stated that they assign seating. The teacher respondents assign seating 75% of the time in the classroom, while students get to select their seating in 25% of the time.

Research Question 3 asked

What method(s) or pattern(s) are used when seating students?

Teacher survey item 3 and 5 respectively state **what was the predominant seating arrangement used when you were in High School?** And **how frequently does the seating arrangement change in each of the courses you teach?** Analyzing the data revealed that the majority of teachers were assigned seating when they were in High School. Six or 75% of teachers were assigned seating when they were in High School, versus 2 or 25% that chose their own seating.

Interesting was the fact that the same outcome was depicted (teachers assign seating 75% of the time in the classroom, while students get to select their seating in 25% of the time). Another noteworthy point was that one teacher who stated that she was allowed to choose her own seating in High School opted to assign student seating rather than allow students to choose their own seating. Data analysis also revealed that 3 or 37.5% of teachers change seating arrangement each semester, another 3 or 37.5% change each grading period, and 2 or 25% of teachers change when they encounter discipline problems.

Five or 62.5% supplied additional comments about how the use of computers affect student seating in their classroom. The comment included the following: (a) Some students like to "hide" behind their computer, (b) desks will be moved to allow students to use portable equipment, (c) I believe with computers, assigned seating is necessary. If a students changes settings or alters things you need to know who is responsible, (d) students have directories and assigned seating after the 2nd day of class. I ask them to find a computer station and stay there if possible, and (e) space is limited if students must sit where they can view the TV/VCR or computer.

In response to this question the majority of teacher respondents assigned seating in their classrooms alphabetically, and the majority of the teachers seated students as they were seated when the teachers attended school.

Teacher and Student Attitudes towards Seating Arrangements

Differences among teacher attitude toward seating arrangement

Research Question 4 asked

What are student and teacher attitudes about the influence that seating arrangement selections have on learning?

In the examination of the results of the individual statements in the teacher survey (items 1 through 23), the researcher will discuss in more detail statements 1,2,5,19,20, and 23 due to the significance in the answering.

Table 1 shows that 6 or 75% of the teachers completing the survey either strongly disagreed or disagreed that **students learn better in classes in which they are allowed to choose where they sit.**

Table 1

Teacher respondent profile based on statement 1 in teacher survey

Students learn better in classes in which they are allowed to choose where they sit

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	1	12.5	12.5	12.5
	Disagree	5	62.5	62.5	75.0
	Undecided	1	12.5	12.5	87.5
	Agree	1	12.5	12.5	100.0
	Total	8	100.0	100.0	

Table 2

Teacher respondent profile based on statement 2 in teacher survey

Students pay more attention to the teacher when they sit beside their friends

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	3	37.5	37.5	37.5
	Disagree	4	50.0	50.0	87.5
	Undecided	1	12.5	12.5	100.0
	Total	8	100.0	100.0	

Table 2 shows that 7 or 87.5% of the teachers strongly disagreed or agreed with the statement that **students pay more attention to the teacher when they sit beside their friends.**

Table 3 illustrates an interesting percentage. Teachers are split exactly 4 to 4 or 50% to 50% on the statement that **students only sit in the front of the classroom when they are interested in the subject.**

Table 4 shows that 7 or 87.5% of teachers agreed that **students who sit in the front of the classroom pay more attention.**

Table 3

Teacher respondent profile based on statement 5 in teacher survey.

Students only sit in the front of the classroom when they are interested in the subject

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	1	12.5	12.5	12.5
	Disagree	3	37.5	37.5	50.0
	Undecided	3	37.5	37.5	87.5
	Agree	1	12.5	12.5	100.0
	Total	8	100.0	100.0	

Table 4

Teacher respondent profile based on statement 8 in teacher survey

Students who sit in the front of the classroom pay more attention

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	1	12.5	12.5	12.5
	Disagrree	1	12.5	12.5	25.0
	Undecided	2	25.0	25.0	50.0
	Agree	4	50.0	50.0	100.0
	Total	8	100.0	100.0	

Table 5

Teacher respondent profile based on statement 19 in teacher survey

Teachers like to assign students to specific seats to remember their names

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Agree	5	62.5	62.5	62.5
	Stongly Agree	3	37.5	37.5	100.0
	Total	8	100.0	100.0	

Table 5 shows that 6 or 75% of teachers disagreed that **teachers like to assign students to specific seats to remember their names.**

In response to the question the majority of teachers disagree that seating arrangement influencing student attitudes toward learning. The researcher will discuss student attitudes later in this chapter.

Research Question 5 asked

Why do students and teachers choose and prefer certain seating arrangements?

Referring the reader back to Table 2 shows that 6 or 75% of the teachers completing the survey either strongly disagreed or disagreed that **students learn better in classes in which they are allowed to choose where they sit.**

The response of the teachers further illustrated that teachers do not believe that students learn better if they assign their own seats and therefore are more prone to seat their students themselves.

Differences among student attitude toward seating arrangement.

This section of the Data Analysis depicts respondent data supportive of answering and testing Null Hypothesis One,

H_{01}: No significant differences exist among student attitudes toward seating arrangement based on (a) gender (b) grade classification, (c) class period, and (d) courses.

After thoughtful deliberation, the researcher decided to use Pearson's χ^2 to test the null Hypothesis$_{01}$ with the understanding that if Pearson's χ^2 tested significant (the probability of obtaining a larger value than that obtained from the sample is less than 0.05), then evidence exists for a dependence of the columns and the rows. Such dependence would result in rejecting the null hypothesis

Differences based on gender

In the examination of the results of the individual statements in the student survey (items 1 through 23 in Appendix B), the researcher decided to discuss in more detail statements 3, 4, 6, 7, 15, 22, and 23 since the data yielded a statistically significant difference.

Tabular information for statement 1, 2, 5, 8-14, 16-20, and 21 appear in appendix D.

In Table 6 results show that 32 or 15.2% of the females as opposed to 48 or 24% of the males strongly agree to the statement **I pay better attention to the teacher when I sit beside good students.** The chi-square test summarizes the discrepancy between what is observed and what we expect under the null hypothesis. Since the computed value of χ^2 =11.965 with df=4, and p = .018.

Table 6

Student respondent gender profile based on statement 3 in student survey.

Crosstab

			I pay better attention to the teacher when I sit beside good students					
			Stongly Disagree	Disagree	Undecided	Agree	Strongly Agree	Total
Gender	Femaile	Count	8	39	50	82	32	211
		% within Gender	3.8%	18.5%	23.7%	38.9%	15.2%	100.0%
	Male	Count	14	25	55	58	48	200
		% within Gender	7.0%	12.5%	27.5%	29.0%	24.0%	100.0%
Total		Count	22	64	105	140	80	411
		% within Gender	5.4%	15.6%	25.5%	34.1%	19.5%	100.0%

In Table 7 results show that 14 or 6.6% of the females as opposed to 39 or 19.5% of the males strongly agree to the statement **I pay more attention when I sit in the back of the classroom.** The chi-square test summarizes the discrepancy between what is observed and what we expect under the null hypothesis. The computed value of χ^2 =19.793 with df=4, and p = .001.

Table 7

Student respondent gender profile based on statement 4 in student survey

Crosstab

			I pay more attention when I sit in the back of the classroom					
			Stongly Disagree	Disagree	Undecided	Agree	Strongly Agree	Total
Gender	Femaile	Count	24	56	66	51	14	211
		% within Gender	11.4%	26.5%	31.3%	24.2%	6.6%	100.0%
	Male	Count	19	32	69	41	39	200
		% within Gender	9.5%	16.0%	34.5%	20.5%	19.5%	100.0%
Total		Count	43	88	135	92	53	411
		% within Gender	10.5%	21.4%	32.8%	22.4%	12.9%	100.0%

Table 8 shows that 94 or 44.5% of the females as opposed to 68 or 34% of the males agree to the statement **I pay more attention in the class when I can see the teacher.** The chi-square test summarizes the discrepancy between what is observed and what we expect under the null hypothesis. The computed value of χ^2 =10.370 with df=4, and p = .035.

Table 8

Student respondent gender profile based on statement 6 in student survey.

Crosstab

			I pay more attention in the cbs when I can see the teacher					
			Stongly Disagree	Disagree	Undecided	Agree	Strongly Agree	Total
Gender	Femaile	Count	4	22	32	94	59	211
		% within Gender	1.9%	10.4%	15.2%	44.5%	28.0%	100.0%
	Male	Count	13	16	35	68	68	200
		% within Gender	6.5%	8.0%	17.5%	34.0%	34.0%	100.0%
Total		Count	17	38	67	162	127	411
		% within Gender	4.1%	9.2%	16.3%	39.4%	30.9%	100.0%

Table 9 depicts that 105 or 49.8% of the females as opposed to 81 or 40.5% of the males agree to the statement **I pay more attention in class when I can see the board.** The chi-square test summarizes the discrepancy between what is observed and what we expect under the null hypothesis. The computed value of χ^2 =10.547 with df=4, and p = .032.

Table 9

Student respondent gender profile based on statement 7 in student survey.

Crosstab

			I pay more attention in class when I can see the board					
			Stongly Disagree	Disagree	Undecided	Agree	Strongly Agree	Total
Gender	Femaile	Count	1	14	30	105	61	211
		% within Gender	.5%	6.6%	14.2%	49.8%	28.9%	100.0%
	Male	Count	9	20	33	81	57	200
		% within Gender	4.5%	10.0%	16.5%	40.5%	28.5%	100.0%
Total		Count	10	34	63	186	118	411
		% within Gender	2.4%	8.3%	15.3%	45.3%	28.7%	100.0%

Table 10 reveals that 23 or 10.9% of the females as opposed to 44 or 22% of the males strongly agree to the statement **I don't care where I sit in the classroom.** The chi-square test summarizes the discrepancy between what is observed and what we expect under the null hypothesis. The computed value of χ^2 =15.405 with df=4, and p = .004.

Table 10

Student respondent gender profile based on statement 15 in student survey.

Crosstab

			I don't care where I sit in the classroom					
			Stongly Disagree	Disagree	Undecided	Agree	Strongly Agree	Total
Gender	Femaile	Count	20	48	40	80	23	211
		% within Gender	9.5%	22.7%	19.0%	37.9%	10.9%	100.0%
	Male	Count	27	48	31	50	44	200
		% within Gender	13.5%	24.0%	15.5%	25.0%	22.0%	100.0%
Total		Count	47	96	71	130	67	411
		% within Gender	11.4%	23.4%	17.3%	31.6%	16.3%	100.0%

Table 11 illustrates that 73 or 34.6% of the females as opposed to 94 or 47% of the males strongly agree to the statement **teachers should allow students to sit where they wish.** The chi-square test summarizes the discrepancy between what is observed and what we expect under the null hypothesis. The computed value of χ^2 =7.884 with df=4, and p = .096.

Table 11

Student respondent gender profile based on statement 18 in student survey.

Crosstab

			Teachers should allow students to sit where they wish					
			Stongly Disagree	Disagree	Undecided	Agree	Strongly Agree	Total
Gender	Femaile	Count	6	10	44	78	73	211
		% within Gender	2.8%	4.7%	20.9%	37.0%	34.6%	100.0%
	Male	Count	5	12	34	55	94	200
		% within Gender	2.5%	6.0%	17.0%	27.5%	47.0%	100.0%
Total		Count	11	22	78	133	167	411
		% within Gender	2.7%	5.4%	19.0%	32.4%	40.6%	100.0%

Table 12 depicts that 87 or 41.2% of the females as opposed to 50 or 25% of the males disagree to the statement **students who sit in the back of the classroom want to be ignored.** The chi-square test summarizes the discrepancy between what is observed and what we expect under the null hypothesis. The computed value of χ^2 =15.598 with df=4, and p = .004.

Table 12

Student respondent gender profile based on statement 21 in student survey.

Crosstab

			Students who sit in the back of the classroom want to be ignored					
			Stongly Disagree	Disagree	Undecided	Agree	Strongly Agree	Total
Gender	Femaile	Count	80	87	34	7	3	211
		% within Gender	37.9%	41.2%	16.1%	3.3%	1.4%	100.0%
	Male	Count	84	50	44	15	7	200
		% within Gender	42.0%	25.0%	22.0%	7.5%	3.5%	100.0%
Total		Count	164	137	78	22	10	411
		% within Gender	39.9%	33.3%	19.0%	5.4%	2.4%	100.0%

Table 13 shows that 87 or 41.2% of the females as opposed to 50 or 25% of the males disagree to the statement **students who sit in the back of the classroom have low self esteen.** The chi-square test summarizes the discrepancy between what is observed and what we expect under the null hypothesis. The computed value of χ^2 =15,598 with df=4, and p = .004.

Table 13

Student respondent gender profile based on statement 22 in student survey.

Crosstab

			Students who sit in the back of the classroom have low self-esteem					
			Stongly Disagree	Disagree	Undecided	Agree	Strongly Agree	Total
Gender	Femaile	Count	80	87	34	7	3	211
		% within Gender	37.9%	41.2%	16.1%	3.3%	1.4%	100.0%
	Male	Count	84	50	44	15	7	200
		% within Gender	42.0%	25.0%	22.0%	7.5%	3.5%	100.0%
Total		Count	164	137	78	22	10	411
		% within Gender	39.9%	33.3%	19.0%	5.4%	2.4%	100.0%

Table 14 portrays that 53 or 25.1% of the females as opposed to 28 or 14% of the males disagree to the statement **students who sit in the back of the classroom have low self esteen.** The chi-square test summarizes the discrepancy between what is observed and what we expect under the null hypothesis. The computed value of χ^2 =13,556 with df=4, and p = .009.

Table 14

Student respondent gender profile based on statement 23 in student Survey.

Gender * Teachers should move talkative students to different seats Crosstabulation

			Teachers should move talkative students to different seats					
			Stongly Disagree	Disagree	Undecided	Agree	Strongly Agree	Total
Gender	Femaile	Count	8	53	58	64	28	211
		% within Gender	3.8%	25.1%	27.5%	30.3%	13.3%	100.0%
	Male	Count	21	28	63	61	27	200
		% within Gender	10.5%	14.0%	31.5%	30.5%	13.5%	100.0%
Total		Count	29	81	121	125	55	411
		% within Gender	7.1%	19.7%	29.4%	30.4%	13.4%	100.0%

Differences based on class period

In the examination of the results of the individual statements in the student survey (items 1 through 23 in Appendix B), the researcher decided to discuss in more detail statements 12 and 17 since the data yielded a statistically significant difference. Tabular information for statement 1-11, 13-16, 18-22, and 23 appear in appendix D.

Table 15 illustrates that 37 or 52.9% of students from the 1st period, 62 or 45.6% of students from 2nd period, 49 or 44.5% of students from 3rd period, 30 or 31.9% of the students from the 4th period disagreed with the statement **Teachers do not call on students who sit in the back of the classroom.** The chi-square test summarizes the discrepancy between what is observed and what we expect under the null hypothesis. The computed value of χ^2 =25.469 with df=12, and p = .013.

Table 15

Student respondent class period profile based on statement 12 in student survey.

Crosstab

			Teachers do not call on student who sit in the back of the classroom					
			Stongly Disagree	Disagree	Undecided	Agree	Strongly Agree	Total
Period	1st	Count	20	37	11	2		70
		% within Period	28.6%	52.9%	15.7%	2.9%		100.0%
	2nd	Count	37	62	23	12	2	136
		% within Period	27.2%	45.6%	16.9%	8.8%	1.5%	100.0%
	3rd	Count	29	49	18	7	7	110
		% within Period	26.4%	44.5%	16.4%	6.4%	6.4%	100.0%
	4th	Count	26	30	31	5	2	94
		% within Period	27.7%	31.9%	33.0%	5.3%	2.1%	100.0%
Total		Count	112	178	83	26	11	410
		% within Period	27.3%	43.4%	20.2%	6.3%	2.7%	100.0%

Table 16 demonstrates that 7 or 10% of students from the 1st period, 14 or 10.3% of students from 2nd period, 29 or 26.4% of students from the 3rd period, 8 or 8.4% of the students from the 4th period agreed with the statement **Teachers should change the seating arrangements every week.** The chi-square test summarizes the discrepancy between what is observed and what we expect under the null hypothesis. The computed value of χ^2 =25.810 with df=12, and p = .011.

Table 16

Student respondent class period profile based on statement 17 in student survey.

Crosstab

			Teachers should change the seating arragements every week					
			Stongly Disagree	Disagree	Undecided	Agree	Strongly Agree	Total
Period	1st	Count	21	22	14	7	6	70
		% within Period	30.0%	31.4%	20.0%	10.0%	8.6%	100.0%
	2nd	Count	38	45	30	14	9	136
		% within Period	27.9%	33.1%	22.1%	10.3%	6.6%	100.0%
	3rd	Count	38	22	16	29	5	110
		% within Period	34.5%	20.0%	14.5%	26.4%	4.5%	100.0%
	4th	Count	29	32	22	8	4	95
		% within Period	30.5%	33.7%	23.2%	8.4%	4.2%	100.0%
Total		Count	126	121	82	58	24	411
		% within Period	30.7%	29.4%	20.0%	14.1%	5.8%	100.0%

Differences based on grade classification

In the examination of the results of the individual statements in the student survey (items 1 through 23 in Appendix B), the researcher decided to discuss in more detail statements 2 and 4 since the data yielded a statistically significant difference. Tabular information for statements 1, 3, 5-22, and 23 appear in appendix D.

Table 17

Student respondent grade classification profile based on statement 2 in student survey.

Crosstab

			I pay more attention to the teacher when I sit beside my friends					
			Stongly Disagree	Disagree	Undecided	Agree	Strongly Agree	Total
Grade	Freshman	Count	5	57	75	66	29	232
		% within Grade	2.2%	24.6%	32.3%	28.4%	12.5%	100.0%
	Sophmore	Count	6	28	26	7	11	78
		% within Grade	7.7%	35.9%	33.3%	9.0%	14.1%	100.0%
	Junior	Count	6	13	17	14	7	57
		% within Grade	10.5%	22.8%	29.8%	24.6%	12.3%	100.0%
	Senior	Count	3	17	12	5	7	44
		% within Grade	6.8%	38.6%	27.3%	11.4%	15.9%	100.0%
Total		Count	20	115	130	92	54	411
		% within Grade	4.9%	28.0%	31.6%	22.4%	13.1%	100.0%

Table 18

Student respondent grade classification profile based on statement 4 in student survey.

Crosstab

			I pay more attention when I sit in the back of the classroom					
			Stongly Disagree	Disagree	Undecided	Agree	Strongly Agree	Total
Grade	Freshman	Count	17	44	71	62	38	232
		% within Grade	7.3%	19.0%	30.6%	26.7%	16.4%	100.0%
	Sophmore	Count	11	16	26	15	10	78
		% within Grade	14.1%	20.5%	33.3%	19.2%	12.8%	100.0%
	Junior	Count	7	12	24	10	4	57
		% within Grade	12.3%	21.1%	42.1%	17.5%	7.0%	100.0%
	Senior	Count	8	16	14	5	1	44
		% within Grade	18.2%	36.4%	31.8%	11.4%	2.3%	100.0%
Total		Count	43	88	135	92	53	411
		% within Grade	10.5%	21.4%	32.8%	22.4%	12.9%	100.0%

Table 17 shows that 57 or 24.6% of freshmen, 28 or 35.9% of sophomores, 13 or 22.8% of juniors, 17 or 38.6% of seniors disagreed with the statement **I pay more attention to the teacher when I sit beside my friends.** The chi-square test summarizes the discrepancy between what is observed and what we expect under the null hypothesis. The computed value of χ^2 =27.356 with df=12, and p = .007.

Table 18 depicts that 62 or 26.7% of freshmen, 15 or 19.2% of sophomores, 10 or 17.5% of juniors, 5 or 11.4% of seniors agreed with the statement **I pay more attention when I sit in the back of the classroom.** The chi-square test summarizes the discrepancy between what is observed and what we expect under the null hypothesis. The computed value of χ^2 =25.835 with df=12, and p = .007.

Differences based on course

In the examination of the results of the individual statements in the student survey (items 1 through 23 in Appendix B), the researcher decided to discuss in more detail statements 4, 6, 8, 10, 16, 18, 19, and 21 since the data yielded a statistically significant difference.

Tabular information for statement 1-3, 5, 7, 9, 11-17, 20, 22, and 23 appear in appendix D.

Table 19 portrays that 34 or 19.9% of students enrolled in Technology courses, 3 or 10% of students enrolled in Marketing courses, 55 or 26.2% of students enrolled in Basic Business courses agreed with the statement **I pay more attention when I sit in the back of the classroom.** The chi-square test summarizes the discrepancy between what is observed and what we expect under the null hypothesis. The computed value of χ^2 =16.155 with df=8, and p = .040.

Table 19

Student respondent course profile based on statement 4 in student survey.

Crosstab

			I pay more attention when I sit in the back of the classroom					
			Stongly Disagree	Disagree	Undecided	Agree	Strongly Agree	Total
Course	Technology	Count	23	37	57	34	20	171
		% within Course	13.5%	21.6%	33.3%	19.9%	11.7%	100.0%
	Marketing	Count	4	10	13	3		30
		% within Course	13.3%	33.3%	43.3%	10.0%		100.0%
	Basic Business	Count	16	41	65	55	33	210
		% within Course	7.6%	19.5%	31.0%	26.2%	15.7%	100.0%
Total		Count	43	88	135	92	53	411
		% within Course	10.5%	21.4%	32.8%	22.4%	12.9%	100.0%

Table 20 reveals that 69 or 40.4% of students enrolled in Technology courses, 18 or 60% of students enrolled in Marketing courses, 75 or 35.7% of students enrolled in Basic Business courses agreed with the statement **I pay more attention in class when I can see the teacher.** The chi-square test summarizes the discrepancy between what is observed and what we expect under the null hypothesis. The computed value of χ^2 =17.338 with df=8, and p = .027.

Table 20

Student respondent course profile based on statement 6 in student survey.

Crosstab

			I pay more attention in the class when I can see the teacher					
			Stongly Disagree	Disagree	Undecided	Agree	Strongly Agree	Total
Course	Technology	Count	6	22	24	69	50	171
		% within Course	3.5%	12.9%	14.0%	40.4%	29.2%	100.0%
	Marketing	Count		4	4	18	4	30
		% within Course		13.3%	13.3%	60.0%	13.3%	100.0%
	Basic Business	Count	11	12	39	75	73	210
		% within Course	5.2%	5.7%	18.6%	35.7%	34.8%	100.0%
Total		Count	17	38	67	162	127	411
		% within Course	4.1%	9.2%	16.3%	39.4%	30.9%	100.0%

Table 21 demonstrates that 52 or 30.4% of students enrolled in Technology courses, 4 or 13.3% of students enrolled in Marketing courses, 56 or 26.7% of students enrolled in Basic Business courses disagreed with the statement **students who sit in the front of the classroom pay more attention.** The chi-square test summarizes the discrepancy between what is observed and what we expect under the null hypothesis. The computed value of χ^2 =20.124 with df=8, and p = .010.

Table 21

Student respondent course profile based on statement 8 in student survey.

Crosstab

			Students who sit in the fornt of the classroom pay more atteniton					
			Stongly Disagree	Disagree	Undecided	Agree	Strongly Agree	Total
Course	Technology	Count	16	52	36	39	28	171
		% within Course	9.4%	30.4%	21.1%	22.8%	16.4%	100.0%
	Marketing	Count	1	4	8	10	7	30
		% within Course	3.3%	13.3%	26.7%	33.3%	23.3%	100.0%
	Basic Business	Count	31	56	59	49	15	210
		% within Course	14.8%	26.7%	28.1%	23.3%	7.1%	100.0%
Total		Count	48	112	103	98	50	411
		% within Course	11.7%	27.3%	25.1%	23.8%	12.2%	100.0%

Table 22 depicts that 67 or 39.2% of students enrolled in Technology courses, 13 or 43.3% of students enrolled in Marketing courses, 67 or 31.9% of students enrolled in Basic Business courses disagreed with the statement **I only sit in the front of the classroom when I like the teacher.** The chi-square test summarizes the discrepancy between what is observed and what we expect under the null hypothesis. The computed value of χ^2 =22.386 with df=8, and p = .004.

Table 22

Student respondent course profile based on statement 10 in student survey.

Crosstab

			I only sit in the front of the classroom when I like the teacher					
			Stongly Disagree	Disagree	Undecided	Agree	Strongly Agree	Total
Course	Technology	Count	31	67	31	34	8	171
		% within Course	18.1%	39.2%	18.1%	19.9%	4.7%	100.0%
	Marketing	Count	2	13	12	3		30
		% within Course	6.7%	43.3%	40.0%	10.0%		100.0%
	Basic Business	Count	51	67	62	21	9	210
		% within Course	24.3%	31.9%	29.5%	10.0%	4.3%	100.0%
Total		Count	84	147	105	58	17	411
		% within Course	20.4%	35.8%	25.5%	14.1%	4.1%	100.0%

Table 23 illustrates that 41 or 24% of students enrolled in Technology courses, 8 or 26.7% of students enrolled in Marketing courses, 66 or 31.4% of students enrolled in Basic Business courses disagreed with the statement **where I sit affects the grade I make in the class.** The chi-square test summarizes the discrepancy between what is observed and what we expect under the null hypothesis. The computed value of χ^2 =15.929 with df=8, and p = .043.

Table 23

Student respondent course profile based on statement 16 in student survey.

Crosstab

			Where I sit affects the grade I make in the class					
			Stongly Disagree	Disagree	Undecided	Agree	Strongly Agree	Total
Course	Technology	Count	35	41	50	32	13	171
		% within Course	20.5%	24.0%	29.2%	18.7%	7.6%	100.0%
	Marketing	Count	1	8	13	8		30
		% within Course	3.3%	26.7%	43.3%	26.7%		100.0%
	Basic Business	Count	48	66	45	38	13	210
		% within Course	22.9%	31.4%	21.4%	18.1%	6.2%	100.0%
Total		Count	84	115	108	78	26	411
		% within Course	20.4%	28.0%	26.3%	19.0%	6.3%	100.0%

Table 24 portrays that 68 or 39.8% of students enrolled in Technology courses, 7 or 23.3% of students enrolled in Marketing courses, 92 or 43.8% of students enrolled in Basic Business courses strongly agreeed with the statement **teachers should allow students to sit where they wish.** The chi-square test summarizes the discrepancy between what is observed and what we expect under the null hypothesis. The computed value of χ^2 =16.482 with df=8, and p = .036.

Table 24

Student respondent course profile based on statement 18 in student survey.

Crosstab

			Teachers should allow students to sit where they wish					
			Stongly Disagree	Disagree	Undecided	Agree	Strongly Agree	Total
Course	Technology	Count	2	10	33	58	68	171
		% within Course	1.2%	5.8%	19.3%	33.9%	39.8%	100.0%
	Marketing	Count	2		12	9	7	30
		% within Course	6.7%		40.0%	30.0%	23.3%	100.0%
	Basic Business	Count	7	12	33	66	92	210
		% within Course	3.3%	5.7%	15.7%	31.4%	43.8%	100.0%
Total		Count	11	22	78	133	167	411
		% within Course	2.7%	5.4%	19.0%	32.4%	40.6%	100.0%

Table 25 shows that 94 or 55% of students enrolled in Technology courses, 19 or 63.3% of students enrolled in Marketing courses, 101 or 48.1% of students enrolled in Basic Business courses agreed with the statement **teachers like to assign students to specific seats to remember their names.** The chi-square test summarizes the discrepancy between what is observed and what we expect under the null hypothesis. The computed value of χ^2 =17.098 with df=8, and p = .029.

Table 25

Student respondent course profile based on statement 19 in student survey.

Crosstab

			Teachers like to assign students to specific seats to remember their names					
			Stongly Disagree	Disagree	Undecided	Agree	Strongly Agree	Total
Course	Technology	Count	7	10	20	94	40	171
		% within Course	4.1%	5.8%	11.7%	55.0%	23.4%	100.0%
	Marketing	Count			7	19	4	30
		% within Course			23.3%	63.3%	13.3%	100.0%
	Basic Business	Count	5	17	51	101	36	210
		% within Course	2.4%	8.1%	24.3%	48.1%	17.1%	100.0%
Total		Count	12	27	78	214	80	411
		% within Course	2.9%	6.6%	19.0%	52.1%	19.5%	100.0%

Table 26 depicts that 71 or 41.5% of students enrolled in Technology courses, 19 or 63.3% of students enrolled in Marketing courses, 60 or 28.6% of students enrolled in Basic Business courses agreed with the statement **students who sit in the back of the classroom want to be ignored.** The chi-square test summarizes the discrepancy between what is observed and what we expect under the null hypothesis. The computed value of χ^2 =17.874 with df=8, and p = .022.

Table 26

Student respondent course profile based on statement 21 in student survey.

Crosstab

			Students who sit in the back of the classroom want to be ignored					
			Stongly Disagree	Disagree	Undecided	Agree	Strongly Agree	Total
Course	Technology	Count	18	71	43	28	11	171
		% within Course	10.5%	41.5%	25.1%	16.4%	6.4%	100.0%
	Marketing	Count	2	19	4	4	1	30
		% within Course	6.7%	63.3%	13.3%	13.3%	3.3%	100.0%
	Basic Business	Count	31	60	58	47	14	210
		% within Course	14.8%	28.6%	27.6%	22.4%	6.7%	100.0%
Total		Count	51	150	105	79	26	411
		% within Course	12.4%	36.5%	25.5%	19.2%	6.3%	100.0%

Chapter V

Summary of Findings, Conclusions, Recommendations, and Implications

The final chapter of this thesis reports a summary of findings, conclusions, which emanate from those findings, recommendations for further research, and implications for educational professionals with regard to classroom seating arrangements conducive for learning.

Summary of Findings

This section contains a recap of the researcher's findings, arranged on the bases of responses for the 5 research questions and the testing of results for the researcher's one null hypothesis.

Research Question 1 asked

Who are the Spring 2002 students and teachers involved in the Farragut High School Business Program?

In response to this question student survey respondents included an almost equal distribution of females and males (approximately 200 of each), most of whom were freshmen studying basic business or technology at a time other than first period. In response to this question

teacher survey respondents included 8 of the 9 teachers in business and marketing department at Farragut High School; a majority of these teachers were either new teachers or experienced teachers with more than 15 years teaching experience.

Research Question 2 asked

Who determines the seating arrangements?

In response to this question the researcher found that over 80% of the teachers assigned seating.

Research Question 3 asked

What method(s) or pattern(s) are used when seating students?

The majority of teacher respondents assigned seating in their classrooms.

Research Question 4 asked

What are student and teacher attitudes about the influence that seating arrangement selections have on learning?

In response to the question the majority of teachers disagree that seating arrangement influes student attitudes toward learning. The researcher will discuss student attitudes later in this chapter.

Research Question 5 asked

Why do students and teachers choose and prefer certain seating arrangements?

The response of the teachers further illustrated that teachers do not believe that students learn better if they assign their own seats and therefore are more prone to seat their students themselves.

In response to the testing of

H_{01}: No significant differences exist among student attitudes toward seating arrangement based on (a) gender (b) grade classification, (c) class period, and (d) courses.

On the basis of gender, the researcher found significant differences for student responses to six of the survey items. These six and their accompanying chi square values, degrees of freedom, and probability values were as follows:

Survey Statement No. 3

I pay better attention to the teacher when I sit beside good students.

(computed value of χ^2 =11.965 with df=4, and p = .018

(based upon Table 6, p. 45)

Survey Statement No. 4

I pay better attention when I sit in the back of the classroom.

(computed value of χ^2 =19.793 with df=4, and p = .001

(based upon Table 7, p. 46)

Survey Statement No. 6

I pay more attention in the class when I can see the teacher.

(computed value of χ^2 =10.370 with df=4, and p = .035

(based upon Table 8, p. 47)

Survey Statement No. 7

I pay more attention in class when I can see the board.

(computed value of χ^2 =10.547 with df=4, and p = .032

(based upon Table 9, p. 48)

Survey Statement No. 15

I don't care where I sit in the classroom.

(computed value of χ^2 =15.405 with df=4, and p = .004

(based upon Table 10, p. 49)

Survey Statement No. 18

Teachers should allow students to sit where they wish.

(computed value of χ^2 = 7.884 with df=4, and p = .096

(based upon Table 11, p. 50)

Survey Statement No. 21

Students who sit in the back of the classroom want to be ignored.

(computed value of χ^2 =15.598 with df=4, and p = .004

(based upon Table 12, p.51)

Survey Statement No. 22

Students who sit in the back of the classroom have low self-esteem.

(computed value of χ^2 =15.598 with df=4, and p = .004

(based upon Table 13, p. 52)

Survey Statement No. 23

Teachers should move talkative students to different seats.

(computed value of $\chi^{2=}$13.556 with df=4, and p = .009

(based upon Table 14, p. 53)

Consequently, the null hypothesis was rejected on the basis of gender for each of these six student survey statements. For the remaining 17 items, namely, items number 1, 2, 5, 8-19, and 21, the null hypothesis was accepted.

On the basis of class period the researcher found significant differences for student responses to two of the survey items. These two and their accompanying chi

square values, degrees of freedom, and probability values were as follows:

Survey Statement No. 12

Teachers do not call on students who sit in the back of the classroom.

(computed value of χ^2 =25.469 with df=12, and p = .013

(based upon Table 15, p. 54)

Survey Statement No. 17

Teachers should change the seating arrangements every week.

(computed value of χ^2 =25.810 with df=12, and p = .011

(based upon Table 16, p. 55)

Consequently, the null hypothesis was rejected on the basis of class period for each of these two student survey statements. For the remaining 21 items, namely, items number 1-11, 13-16, 18-22, and 23 the null hypothesis was accepted.

On the basis of grade classification the researcher found significant differences for student responses to two of the survey items. These two and their accompanying chi square values, degrees of freedom, and probability values were as follows:

Survey Statement No. 2

I pay more attention to the teacher when I sit beside my friends.

(computed value of χ^2 =27.356 with df=12, and p = .007

(based upon Table 17, p. 57)

Survey Statement No. 4

I pay more attention when I sit in the back of the classroom.

(computed value of χ^2 =27.835 with df=12, and p = .007

(based upon Table 18, p. 58)

Consequently, the null hypothesis was rejected on the basis of grade classification for each of these two student survey statements. For the remaining 21 items, namely, items number 1, 3, 5-22, and 23 the null hypothesis was accepted.

On the basis of course the researcher found significant differences for student responses to eight of the survey items. These eight and their accompanying chi square values, degrees of freedom, and probability values were as follows:

Survey Statement No. 4

I pay more attention when I sit in the back of the classroom.

(computed value of χ^2 =16.155 with df=8, and p = .040

(based upon Table 19, p. 59)

Survey Statement No. 6

I pay more attention in class when I can see the teacher.

(computed value of χ^2 =17.338 with df=8, and p = .027

(based upon Table 20, p. 60)

Survey Statement No. 8

Students who sit in the front of the classroom pay more attention.

(computed value of χ^2 =20.124 with df=8, and p = .010

(based upon Table 21, p. 61)

Survey Statement No. 10

I only sit in the front of the classroom when I like the teacher.

(computed value of χ^2 =22.386 with df=8, and p = .004

(based upon Table 22, p. 62)

Survey Statement No. 16

Where I sit affects the grade I make in the class.

(computed value of χ^2 =15.929 with df=8, and p = .043

(based upon Table 23, p. 63)

Survey Statement No. 18

Teachers should allow students to sit wher they wish.

(computed value of χ^2 =16.482 with df=8, and p = .036

(based upon Table 24, p. 64)

Survey Statement No. 19

Teachers like to assign students to specific seats to remember their names.

(computed value of χ^2 =17.098 with df=8, and p = .029

(based upon Table 25, p. 65)

Survey Statement No. 21

Students who sit in the back of the classroom want to be ignored.

(computed value of χ^2 =17.874 with df=8, and p = .022

(based upon Table 25, p. 66)

Consequently, the null hypothesis was rejected on the basis of course for each of these eight student survey statements. For the remaining 15 items, namely, items number 1-3, 5, 7, 9, 11-17, 20, 22, and 23 the null hypothesis was accepted.

Conclusions

Based on the findings in the Spring of 2002 at Farragut High School in the Business/Marketing classes, the following conclusions were reached:

1. Teachers assign seats most of the time in the

Classroom, which matches or is congruent with Wengel's writing 1992), a teacher usually has total control in the classroom seating arrangement.

2. Teachers have definite preference for students who sit in the front row. According to Good and Brophy (1977) 70% of classroom interaction exists between the teacher and the immediately available students, those in the front of the room.

3. Teachers do not want students to sit beside their friends in the classroom.

4. Male students prefer to sit beside good students and in the back rows of the classroom. They do not believe that seeing the teacher or the board affects their attitude toward leaning.

5. Male students reported that sitting in the back rows of the classroom indicates low self-esteem. According to Armstrong, Hudon & Davis, (1991) high self-esteem scores are associated with sitting in the front of the classroom only for men.

6. Female students prefer to sit in the front rows, in order to see the teacher, and the board.

7. Freshmen students believe that they pay more

attention in the classroom if they sit in the front of the classroom or beside their friends.

8. Students enrolled in Basic Business classes tend to believe that (a) students pay better attention in the classroom if students are sitting in the front rows, and (b) those students who sit in the back of the classroom wish to be ignored.

Recommendations for Further Research

The findings of this research are limited due to the relatively narrow scope of the investigation. However, there are clear recommendations that have surfaced as a result of careful scrutiny of the significant and salient points of this study. This researcher's recommendations for both the researcher and educators interested in seating arrangements in the classroom include:

- Further research which allows for in-depth questioning of students and teachers using selected items from both the student and teacher survey.
- Further research is needed to determine whether teacher demographics affect teacher attitudes toward seating arrangements in the classroom.

- Further research is needed involving student attitudes toward seating arrangements in the classroom.

- Further research is needed to determine whether student gender, grade classification, period, or course affect student attitudes toward seating arrangement in the classroom.

- An interview technique might be employed in addition to the survey instrument to further ascertain and define student attitudes toward seating arrangements in the classroom.

- Similar research should be conducted in a variety of educational locations and settings to improve the ability to generalize the findings.

Implications

The following implications have been revealed through the conduct of this study and provide food for thought as teachers and other educational professionals attempt to enhance or facilitate classroom learning.

First, teachers need to recognize that a preference for teacher-assigned seating may not consistently enhance student attitudes toward learning subject matter content taught in the teacher's classroom. Granted, teacher

assigned seating is efficient and can serve a myriad of purposes, but student differences are important to take into account and to accommodate. Teachers have to be aware that an inherent bias exits with seating students alphabetically.

Second, when allowing students to choose their own seating, teachers have to keep in mind that allowing students to often change seats is recommended in order to accommodate and augment the different student attitudes toward seating arrangement. There is a gender difference in preferences and attitudes in accordance with where students wish to be seated in the classroom. For example, while females prefer to see the teacher and the board, male students do not believe that seeing the teacher or the board affects their learning experience. Teachers who are aware of gender differences and attitudes can better direct students on how and why they should choose specific seats for maximum learning experience.

Third, courses that the students are enrolled in have an effect on seating arrangement in the classroom. Students enrolled in Basic Business classes, which are mostly lecture based, believe that where they sit has more effect on their grades than those students enrolled

in Technology classes, which are not mostly lecture based. Teachers who are aware of how students attitude towards seating arrangements change in accordance with what courses they are enrolled in, can better benefit and enhance learning for the students.

Fourth, it is good to change the seating of students more frequently in order to accommodate the different attitudes of the students and teachers toward seating arrangements.

Fifth, teachers need to search for creative alternative arrangements for getting more students to sit in the front rows of the classroom at some point during the semester in order to boost learning.

REFERENCES

References

Adams, R. S. (1969). *Location as a feature of instructional interaction*. Merrill Palmer Quarterly, 15, 309-321.

Adams, R. S. & Biddle, B. J. (1970). *Realities of Teaching; Explorations with Video Tape,* N. Y.: Holt, Rinehart & Winston.

Armstrong, S., Hudon, C., Davis, S. F., Neufeldt, D. E., & Roberts, S. (1991). *The relationship Between Seating Preference And Level Of Self-Esteem*. Paper presented at the annual meeting of the Association for Psychological and Educational Research in Kansas,Lindsborg, KS.

Bartlett, John. (1956). *Familiar Quatation*. Little , Brown& Company. New York. NY.

Becker, F. D., Sommer, R., Bee, J., & Oxley, B. College Classroom Ecology, Sociometry, 1973, 36, 514-525.

Bleekman, D. & Tegan, M. B. (1995). *Disciplining the Developmental Writer*. Paper presented at the Annual Meeting of the Conference on College Composition and Communication (46th, Washington, DC, March 23-25).

Camfield, A. C. (1980). *Teaching style and classroom seating arrangements in East Tennessee middle*

schools (Dissertation presented for the doctor of Education Degree). University of Tennessee, Knoxville.

Cuban, L. (1984). *How Teachers Taught: Consistency and Change in American Classroom 1890-1980*. New York; Longman. Dykman, B. V., & Reis, H. T. ((1979). *Personality Correlates of Classroom Seating Position*. Journal of Educational Psychology, 71, 346-354.

Daly, J. A., & Suite, A. (1981). *Classroom Seating Choice and Teacher Perceptions of Students*. Journal of Experimental Education, 50, 64-69.

Dunne, D. W. (2001, April). *Classroom management*. Education World.

Gay, L., & Airasian, P. (2000). Educational Research: *Competencies for analysis and application* (6th ed.) Upper Saddle River, NJ; Prentice-Hall, Inc.

Good, T. L. & Brophy, J. E. (1977). *A realistic approach*. Educational psychology, 45, 10-36.

Jones, F. (2000). *Tools for Teaching*. New York: Fredrick Jones & Associates, Incorporated.

Koneya, M. *The relationship between verbal interaction and seat location of large groups*. Unpublished

doctoral dissertation, University of Denver, 1973.

Lavender, C. (1999). Educational research: *Classroom Seating and Student Anxiety*. Wake Forest University,Winston-Salem, NC.

Mayher, J. S., & Brause, R. S. (1986). *Learning Through Teaching: Is your Classroom Like Your Grandmother's?* Language Art, 63, 617-620.

Mehrabian, A. *Silent Messages*. Belmont, Californiz; Wadsworth Publishing Company, 1981.

Owen, S. V. (1978). *Seating Patterns and Student Ratings*. ERIC Document (ED157923).

Poysner, L.R. (1983). *An examination of the classroom physical environment*. ERIC document (ED251954).

Ross, R. P. (1982). *The Design of Educational Environments*. ERIC Documen(ED2214250).

Schwebel, A. J., & Cherlin, D. L. (1972, June). *Physical and Social Distancing in the Teacher-Pupil Relationships*. Journal of Educational Psychology, 63(6), 543-550.

Totusek, P. & A. Staton-Spicer (1982). *Classroom Seating Preference As A Function of Student Personality*. Journal of Experimental Education 50; (3) 159-163.

Walberg, H. (1969). *Physical andPpsychological Distance*

in the Classroom. The School Review, 77, 64-70.

Wengel, M. (1992). *Seating Arrangements: Changing With the Times*. (ED15 788 Field Project) Research/Technical (ERIC Document Reproduction Service No. ED348153).

Whaley, K. W. (1995, March). *It Pays to Keep Your Sense of Humor*. Learning, 24-26.

Wilson, J. R., & Corlett, E. N. (1990). *Evaluation of Human Work: a Practical Ergonomics Methodology* (1st ed.). Great Britain: Taylor & Francis Ltd.

Wulf, K. M. (1977). *Relationship of Assigned Classroom Seating Area to Achievement Variables*. Educational Research Quarterly, 2, 56-62.

APPENDICES

APPENDIX A

STUDENT SURVEY INSTRUMENT

Student Attitude Towards Seating Arrangements in Class

(If you have already completed one of these forms in another class, do not complete this survey again; instead, give it back to your teacher.)

Please circle the response that best complete each of the following statements.

a. **Gender:** *Male* *Female*

b. **Class Period** in which this survey is completed *First* *Second* *Third* *Fourth*

c. **Grade Level** *Freshman* *Sophomore* *Junior* *Senior*

In the space provided, please identify the name of the **course in which you complete this survey.**

_____

Please provide information about your attitudes about and preferences for seating arrangement in class. Using the five-point scale ranging from **Strongly Disagree** to **Strongly Agree**, please indicate your level of agreement with each of the following items.
Please bear in mind that this survey is anonymous. Thank you for your cooperation.

1-Strongly Disagree **2-Disagree** **3-Undecided** **4-Agree** **5-Strongly Agree**

1. I learn better in classes in which I am allowed to choose where I sit.	1	2	3	4	5
2. I pay more attention to the teacher when I sit beside my friends.	1	2	3	4	5
3. I pay better attention to the teacher when I sit beside good students.	1	2	3	4	5
4. I pay more attention when I sit in the back of the classroom.	1	2	3	4	5
5. I only sit in the front of the classroom when I am interested in the subject.	1	2	3	4	5
6. I pay more attention in the class when I can see the teacher.	1	2	3	4	5
7. I pay more attention in class when I can see the board.	1	2	3	4	5
8. Students who sit in the front of the classroom pay more attention.	1	2	3	4	5
9. I do not like to sit beside my friends in the classroom.	1	2	3	4	5
10.I only sit in the front of the classroom when I like the teacher.	1	2	3	4	5
11.Teachers do not call on students who sit in the front of the classroom.	1	2	3	4	5
12.Teachers do not call on students who sit in the back of the classroom	1	2	3	4	5
13.Teachers like students who sit in the front of the classroom.	1	2	3	4	5
14. Students who sit in the front of the classroom want to make good grades.	1	2	3	4	5
15. I don't care where I sit in the classroom.	1	2	3	4	5
16. Where I sit affects the grade I make in the class.	1	2	3	4	5
17. Teachers should change the seating arrangements every week.	1	2	3	4	5
18. Teachers should allow students to sit where they wish.	1	2	3	4	5
19. Teachers like to assign students to specific seats to remember their names.	1	2	3	4	5
20. Students who sit in the front of the classroom interact with the teachers.	1	2	3	4	5
21. Students who sit in the back of the classroom want to be ignored.	1	2	3	4	5
22. Students who sit in the back of the classroom have low self-esteem.	1	2	3	4	5
23. Teachers should move talkative students to different seats.	1	2	3	4	5

APPENDIX B

TEACHER SURVEY INSTRUMENT

Teacher Attitudes Toward Student Seating Arrangements in Class

As part of my master's degree program I am completing research about teacher and student attitudes to student seating arrangements.

Please note that all responses are anonymous and confidential; therefore, do not write your name on this survey.

Your completion and submission of this form constitute your informed consent to participate in this research. Thank you for taking time to complete this survey.

Please circle the response which best completes each of the following survey items.

1. Total number years of teaching experience –

   0-3 years 4-6 years 7-10 years 11-15 years >15 years

2. Number of years of experience teaching the courses you currently teach.

   0-3 years 4-6 years 7-10 years 11-15 years >15 years

3. What was the predominant seating arrangement used when you were in high school?

   *assigned seating *student-selected seating

4. What is the predominant seating arrangement you use in your class room?

   *assigned seating *student-selected seating

5. How frequently does the seating arrangement change in each of the courses you teach?

   *daily *weekly
   *each grading period *each semester

Please use the comment space for responding to the following question.

6. How does the use of computers (even portable equipment) affect the student seating arrangement in your classroom?

Comments:_____

Please provide information about your preferences for seating arrangements in classroom. Using the five-point scale ranging from **Strongly Disagree** to **Strongly Agree**, please indicate your level of agreement with each of the following items. Please bear in mind that this survey is anonymous. Thank you for your cooperation.

1-Strongly Disagree 2-Disagree 3-Undecided 4-Agree 5-Strongly Agree

:udents learn better in classes in which they are allowed to choose where they sit.	1 2 3 4 5
:udents pay more attention to the teacher when they sit beside their friends.	1 2 3 4 5
:udents pay better attention to the teacher when they sit beside good students.	1 2 3 4 5
:udents pay more attention when they sit in the back of the classroom.	1 2 3 4 5
:udents only sit in the front of the classroom when they are interested in the subject.	1 2 3 4 5
:udents pay more attention in the class when they can see the teacher.	1 2 3 4 5
:udents pay more attention in class when they can see the board.	1 2 3 4 5
ıdents who sit in the front of the classroom pay more attention.	1 2 3 4 5
:udents do not like to sit beside their friends in the classroom.	1 2 3 4 5
ıdetns only sit in the front of the classroom when they like the teacher.	1 2 3 4 5
achers do not call on students who sit in the front of the classroom.	1 2 3 4 5
achers do not call on students who sit in the back of the classroom	1 2 3 4 5
achers like students who sit in the front of the classroom.	1 2 3 4 5
:udents who sit in the front of the classroom want to make good grades.	1 2 3 4 5
:udents don't care where they sit in the classroom	1 2 3 4 5
'here students sit affects the grade they make in my class.	1 2 3 4 5
eachers should change the seating arrangements every week.	1 2 3 4 5
eachers should allow students to sit where they wish.	1 2 3 4 5
eachers like to assign students to specific seats to remember their names.	1 2 3 4 5
:udents who sit in the front of the classroom interact with the teachers.	1 2 3 4 5
:udents who sit in the back of the classroom want to be ignored.	1 2 3 4 5
:udents who sit in the back of the classroom have low self-esteem.	1 2 3 4 5
eachers should move talkative students to different seats.	1 2 3 4 5

APPENDIX C

FORM A APPROVAL FORM

THE UNIVERSITY OF TENNESSEE

Department of Human Resource Development
310 Jessie Harris Building
Knoxville, TN 37996-1900
Telephone: (865) 974-2574
Fax: (865) 974-2048
http://hrd.he.utk.edu
hrd@utk.edu

MEMORANDUM

TO: Donna Habib, HRD Graduate Student

FROM: Dr. Michael Lane Morris, Interim Department Head, Human Resource Development, and Chair of the Subjects Review Committee

DATE: May 7, 2002

RE: Form A - Certification for Exemption from IRB Review for Research Involving Human Subjects

Your request pursuant to your recent Form A (Certification for Exemption from IRB Review for Research Involving Human Subjects) has been approved by UTK's Office of Research for a period of up to one year. Please note that if the research project has not been completed within the one-year period you must submit a new Human Subjects Form in order to continue the project.

As the HRD Department's Human Subjects Review Chair, please feel free to contact me if you have any questions.

C: Ms. Brenda Lawson, UTK's Office of Research
Dr. Vickie Stout, Professor
HRD Office File

Form A

IRB#_____

Certification for Exemption from IRB Review for Research Involving Human Subjects

A. Principal Investigator(s) and/or CO-PI(s):

Donna Habib
Dr. Vickie Stout

B. Department:

College of Human Ecology
Human Resource Development

C. COMPLETE MAILING ADDRESS AND PHONE NUMBER OF PI(s) and CO-PI(s):

Donna Habib	508 Lost Tree Lane Knoxville, TN 37922	865/671-0096
Dr. Vickie Stout	1215 West Cumberland Ave. 310 Jesse Harris Building Knoxville, TN 37996	865/974-6389

D. TITLE OF PROJECT:

Student Attitude Towards Classroom Seating Arrangements

E. EXTERNAL FUNDING AGENCY AND ID NUMBER:

N/A

F. GRANT SUBMISSION DEADLINE:

N/A

G. STARTING DATE:

May 2002

H. ESTIMATED COMPLETION DATE:

June 2002

I. RESEARCH PROJECT:

a. Objective(s) of Project:

The purpose of this study is to determine and come to a conclusion on the reasons behind teachers/students seating in a specific way and its effect on the student's attitude towards leaning.

b. Subjects:

The participants of this study will include all of the business teachers/all the students enrolled in business classes at Farragut High School in the spring of 2002.

c. Methods or Procedures:

After the researcher acquires appropriate approval with the Knox County School System and Farragut High School Administration, the teacher and student survey will be administered to all the students and teachers during the spring semester of 2002.

Descriptive statistics will be employed to analyze the raw data, such as Microsoft Excel and SOSS software. The committee chairperson will also guide the researcher through the analysis to achieve optimum results and the researcher will seek additional counsel from the statistical services at The University of Tennessee, Knoxville.

The researcher will ensure all records will be kept confidential. The records will be stored in a locked cabinet belonging to Dr. Vickie Stout, an Associate Professor in the Department of Human Resource Development in the College of Human Ecology at the University of Tennessee, Knoxville. Data will be made available only to persons conducting the study.

d. Category:

Paragraph 2-research involving survey or interview procedures-entitles this research effort to exemption, per 45 CFR 46.101 (b) from review by the Institutional Review Board. The probability and magnitude of hard or discomfort anticipated in the research are not greater in and of themselves than these ordinarily encountered in daily life or during the performance of routine physical or +psychological examination or tests.

J. CERTIFICATION: The research described herein is in compliance with 45 CFR46.101(b) and presents subjects with no more than minimal risk as defined by applicable regulations.

	Name	Signature	Date
Principle Investigator	Vickie J. Stout	Vickie J. Stout	4-30-02
Student Advisor/ Committee Chair	DONNA HABIB	Donna Habib	4/30/02
Dept. Review Committee Chair	Sharon J. Bartley	Sharon J. Bartley	5-6-02
APPROVED: Dept. Head	Michael Lane Morris	Michael Lane Morris	5/3/02

APPRNDIX D

TABLES WITH NO SIGNIFICANT DIFFERENCES

Differences based on gender

In the examination of the results of the individual statements in the student survey (items 1 through 23 in Appendix B), the researcher decided not to discuss in more detail statements 1, 2, 5, 8-14, 16-20, and 21 since the data yielded no statistically significant difference.

Crosstab

Count

		I learn better in classes in which I am allowed to choose where I sit					
		Stongly Disagree	Disagree	Undecided	Agree	Strongly Agree	Total
Gender	Femaile	2	20	52	70	67	211
	Male	2	16	32	66	84	200
Total		4	36	84	136	151	411

Crosstab

Count

			I only sit in the front of the classroom when I am interested in the subject					
			Stongly Disagree	Disagree	Undecided	Agree	Strongly Agree	Total
C	Gender	Femaile	46	80	45	28	12	211
G		Male	56	56	45	27	16	200
	Total		102	136	90	55	28	411
T								

Crosstab

Count

		Students who sit in the fornt of the classroom pay more atteniton					
		Stongly Disagree	Disagree	Undecided	Agree	Strongly Agree	Total
Gender	Femaile	20	61	54	53	23	211
	Male	28	51	49	45	27	200
Total		48	112	103	98	50	411

Crosstab

Count

		I do not like to sit beside my friends in the classroom					
		Stongly Disagree	Disagree	Undecided	Agree	Strongly Agree	Total
Gender	Femaile	105	75	23	5	3	211
	Male	104	63	23	6	4	200
Total		209	138	46	11	7	411

Crosstab

Count

		I only sit in the front of the classroom when I like the teacher					
		Stongly Disagree	Disagree	Undecided	Agree	Strongly Agree	Total
Gender	Femaile	39	86	52	29	5	211
	Male	45	61	53	29	12	200
Total		84	147	105	58	17	411

Crosstab

Count

		Teachers do not call on students who sit in the front of the classroom					
		Stongly Disagree	Disagree	Undecided	Agree	Strongly Agree	Total
Gender	Femaile	58	94	46	11	2	211
	Male	52	79	44	15	10	200
Total		110	173	90	26	12	411

Crosstab

Count

		Teachers do not call on student who sit in the back of the classroom					
		Stongly Disagree	Disagree	Undecided	Agree	Strongly Agree	Total
Gender	Femaile	50	100	40	16	5	211
	Male	62	78	43	10	6	199
Total		112	178	83	26	11	410

Crosstab

Count

		Teachers like students who sit in the front of the classroom					
		Stongly Disagree	Disagree	Undecided	Agree	Strongly Agree	Total
Gender	Femaile	18	58	59	59	17	211
	Male	28	40	60	49	23	200
Total		46	98	119	108	40	411

Crosstab

Count

		Students who sit in the front of the classroom want to make good grades					
		Stongly Disagree	Disagree	Undecided	Agree	Strongly Agree	Total
Gender	Femaile	20	61	67	51	12	211
	Male	34	52	60	39	15	200
Total		54	113	127	90	27	411

Crosstab

Count

		Where I sit affects the grade I make in the class					
		Stongly Disagree	Disagree	Undecided	Agree	Strongly Agree	Total
Gender	Femaile	38	62	56	44	11	211
	Male	46	53	52	34	15	200
Total		84	115	108	78	26	411

Crosstab

Count

		Teachers should change the seating arrangements every week					
		Stongly Disagree	Disagree	Undecided	Agree	Strongly Agree	Total
Gender	Femaile	65	64	41	29	12	211
	Male	61	57	41	29	12	200
Total		126	121	82	58	24	411

Crosstab

Count

		Teachers should allow students to sit where they wish					
		Stongly Disagree	Disagree	Undecided	Agree	Strongly Agree	Total
Gender	Femaile	6	10	44	78	73	211
	Male	5	12	34	55	94	200
Total		11	22	78	133	167	411

Crosstab

Count

		Teachers like to assign students to specific seats to remember their names					
		Stongly Disagree	Disagree	Undecided	Agree	Strongly Agree	Total
Gender	Femaile	4	16	39	116	36	211
	Male	8	11	39	98	44	200
Total		12	27	78	214	80	411

Crosstab

Count

		Students who sit in the front of the classroom interact with the teachers					
		Stongly Disagree	Disagree	Undecided	Agree	Strongly Agree	Total
Gender	Femaile	7	53	52	86	13	211
	Male	14	37	58	72	19	200
Total		21	90	110	158	32	411

Differences based on class period

In the examination of the results of the individual statements in the student survey (items 1 through 23 in Appendix B), the researcher decided not to discuss in more detail statements 1-11, 13-16, 18-22, and 23 since the data yielded no statistically significant difference.

Crosstab

Count

		I learn better in classes in which I am allowed to choose where I sit					
		Stongly Disagree	Disagree	Undecided	Agree	Strongly Agree	Total
Period	1st	1	5	9	29	26	70
	2nd	1	13	33	46	43	136
	3rd	2	11	23	34	40	110
	4th		7	19	27	42	95
Total		4	36	84	136	151	411

Crosstab

Count

		I pay more attention to the teacher when I sit beside my friends					
		Stongly Disagree	Disagree	Undecided	Agree	Strongly Agree	Total
Period	1st	3	17	21	19	10	70
	2nd	3	43	47	24	19	136
	3rd	8	33	33	24	12	110
	4th	6	22	29	25	13	95
Total		20	115	130	92	54	411

Crosstab

Count

		I pay better attention to the teacher when I sit beside good students					
		Stongly Disagree	Disagree	Undecided	Agree	Strongly Agree	Total
Period	1st	7	11	19	23	10	70
	2nd	6	23	37	49	21	136
	3rd	5	18	26	32	29	110
	4th	4	12	23	36	20	95
Total		22	64	105	140	80	411

Crosstab

Count

		I pay more attention when I sit in the back of the classroom					
		Stongly Disagree	Disagree	Undecided	Agree	Strongly Agree	Total
Period	1st	5	11	26	18	10	70
	2nd	16	34	39	30	17	136
	3rd	13	27	36	22	12	110
	4th	9	16	34	22	14	95
Total		43	88	135	92	53	411

Crosstab

Count

		I only sit in the front of the classroom when I am interested in the subject					
		Stongly Disagree	Disagree	Undecided	Agree	Strongly Agree	Total
Period	1st	22	20	14	10	4	70
	2nd	30	51	34	14	7	136
	3rd	27	35	26	15	7	110
	4th	23	30	16	16	10	95
Total		102	136	90	55	28	411

Crosstab

Count

		I pay more attention in the class when I can see the teacher					
		Stongly Disagree	Disagree	Undecided	Agree	Strongly Agree	Total
Period	1st	4	8	10	23	25	70
	2nd	8	16	20	58	34	136
	3rd	3	8	17	49	33	110
	4th	2	6	20	32	35	95
Total		17	38	67	162	127	411

Crosstab

Count

		I pay more attention in class when I can see the board					
		Stongly Disagree	Disagree	Undecided	Agree	Strongly Agree	Total
Period	1st	3	5	12	31	19	70
	2nd	4	11	20	61	40	136
	3rd	2	8	17	53	30	110
	4th	1	10	14	41	29	95
Total		10	34	63	186	118	411

Crosstab

Count

		Students who sit in the fornt of the classroom pay more atteniton					
		Stongly Disagree	Disagree	Undecided	Agree	Strongly Agree	Total
Period	1st	12	29	12	12	5	70
	2nd	15	32	40	33	16	136
	3rd	14	29	23	29	15	110
	4th	7	22	28	24	14	95
Total		48	112	103	98	50	411

Crosstab

Count

		I do not like to sit beside my friends in the classroom					
		Stongly Disagree	Disagree	Undecided	Agree	Strongly Agree	Total
Period	1st	38	23	5	3	1	70
	2nd	62	52	19	2	1	136
	3rd	55	37	11	4	3	110
	4th	54	26	11	2	2	95
Total		209	138	46	11	7	411

Crosstab

Count

		I only sit in the front of the classroom when I like the teacher					
		Stongly Disagree	Disagree	Undecided	Agree	Strongly Agree	Total
Period	1st	17	26	16	9	2	70
	2nd	24	48	40	18	6	136
	3rd	24	40	22	20	4	110
	4th	19	33	27	11	5	95
Total		84	147	105	58	17	411

Crosstab

Count

		Teachers do not call on students who sit in the front of the classroom					
		Stongly Disagree	Disagree	Undecided	Agree	Strongly Agree	Total
Period	1st	12	31	14	8	5	70
	2nd	35	65	29	6	1	136
	3rd	34	43	22	9	2	110
	4th	29	34	25	3	4	95
Total		110	173	90	26	12	411

Crosstab

Count

		Teachers like students who sit in the front of the classroom					
		Stongly Disagree	Disagree	Undecided	Agree	Strongly Agree	Total
Period	1st	7	20	20	15	8	70
	2nd	14	35	38	35	14	136
	3rd	12	23	32	32	11	110
	4th	13	20	29	26	7	95
Total		46	98	119	108	40	411

Crosstab

Count

		Students who sit in the front of the classroom want to make good grades					
		Stongly Disagree	Disagree	Undecided	Agree	Strongly Agree	Total
Period	1st	9	28	16	13	4	70
	2nd	19	35	41	34	7	136
	3rd	14	27	36	22	11	110
	4th	12	23	34	21	5	95
Total		54	113	127	90	27	411

Crosstab

Count

		I don't care where I sit in the classroom					
		Stongly Disagree	Disagree	Undecided	Agree	Strongly Agree	Total
Period	1st	10	18	13	19	10	70
	2nd	12	36	27	49	12	136
	3rd	15	20	13	34	28	110
	4th	10	22	18	28	17	95
Total		47	96	71	130	67	411

Crosstab

Count

		Where I sit affects the grade I make in the class					
		Stongly Disagree	Disagree	Undecided	Agree	Strongly Agree	Total
Period	1st	12	25	16	12	5	70
	2nd	25	38	34	30	9	136
	3rd	21	30	33	21	5	110
	4th	26	22	25	15	7	95
Total		84	115	108	78	26	411

Crosstab

Count

		Teachers like to assign students to specific seats to remember their names					
		Stongly Disagree	Disagree	Undecided	Agree	Strongly Agree	Total
Period	1st	4	3	16	41	6	70
	2nd	5	11	23	72	25	136
	3rd	2	8	20	53	27	110
	4th	1	5	19	48	22	95
Total		12	27	78	214	80	411

Crosstab

Count

		Teachers should allow students to sit where they wish					
		Stongly Disagree	Disagree	Undecided	Agree	Strongly Agree	Total
Period	1st	3	2	7	23	35	70
	2nd	2	7	30	43	54	136
	3rd	5	8	23	35	39	110
	4th	1	5	18	32	39	95
Total		11	22	78	133	167	411

Crosstab

Count

		Students who sit in the front of the classroom interact with the teachers					
		Stongly Disagree	Disagree	Undecided	Agree	Strongly Agree	Total
Period	1st	5	16	16	27	6	70
	2nd	6	31	40	53	6	136
	3rd	6	21	30	42	11	110
	4th	4	22	24	36	9	95
Total		21	90	110	158	32	411

Crosstab

Count

		Students who sit in the back of the classroom want to be ignored					
		Stongly Disagree	Disagree	Undecided	Agree	Strongly Agree	Total
Period	1st	10	27	13	17	3	70
	2nd	20	57	30	25	4	136
	3rd	9	40	28	22	11	110
	4th	12	26	34	15	8	95
Total		51	150	105	79	26	411

Crosstab

Count

		Students who sit in the back of the classroom have low self-esteem					
		Stongly Disagree	Disagree	Undecided	Agree	Strongly Agree	Total
Period	1st	33	18	12	3	4	70
	2nd	58	54	16	7	1	136
	3rd	43	29	27	8	3	110
	4th	30	36	23	4	2	95
Total		164	137	78	22	10	411

Differences based on grade classification

In the examination of the results of the individual statements in the student survey (items 1 through 23 in Appendix B), the researcher decided not to discuss in more detail statements 1, 3, 5-22, and 23 since the data yielded no statistically significant difference.

Crosstab

Count

		I learn better in classes in which I am allowed to choose where I sit					
		Stongly Disagree	Disagree	Undecided	Agree	Strongly Agree	Total
Grade	Freshman		19	47	81	85	232
	Sophmore	2	8	19	24	25	78
	Junior	2	3	10	19	23	57
	Senior		6	8	12	18	44
Total		4	36	84	136	151	411

Crosstab

Count

		I pay better attention to the teacher when I sit beside good students						
		Stongly Disagree	Disagree	Undecided	Agree	Strongly Agree	Total	otal
Grade	Freshman	9	38	62	77	46	232	232
	Sophmore	5	12	19	29	13	78	78
	Junior	5	6	16	16	14	57	57
	Senior	3	8	8	18	7	44	44
Total		22	64	105	140	80	411	411

Crosstab

Count

		I only sit in the front of the classroom when I am interested in the subject					
		Stongly Disagree	Disagree	Undecided	Agree	Strongly Agree	Total
Grade	Freshman	59	80	43	33	17	232
	Sophmore	22	22	20	9	5	78
	Junior	13	19	15	7	3	57
	Senior	8	15	12	6	3	44
Total		102	136	90	55	28	411

Crosstab

Count

		I pay more attention in the class when I can see the teacher					
		Stongly Disagree	Disagree	Undecided	Agree	Strongly Agree	Total
Grade	Freshman	14	22	34	96	66	232
	Sophmore	2	7	16	26	27	78
	Junior		5	11	22	19	57
	Senior	1	4	6	18	15	44
Total		17	38	67	162	127	411

Crosstab

Count

		I only sit in the front of the classroom when I like the teacher					
		Stongly Disagree	Disagree	Undecided	Agree	Strongly Agree	Total
Grade	Freshman	58	77	52	35	10	232
	Sophmore	13	33	20	8	4	78
	Junior	6	24	18	7	2	57
	Senior	7	13	15	8	1	44
Total		84	147	105	58	17	411

Crosstab

Count

		I do not like to sit beside my friends in the classroom					
		Stongly Disagree	Disagree	Undecided	Agree	Strongly Agree	Total
Grade	Freshman	124	80	22	4	2	232
	Sophmore	39	22	13	3	1	78
	Junior	27	18	5	4	3	57
	Senior	19	18	6		1	44
Total		209	138	46	11	7	411

Crosstab

Count

		Teachers do not call on student who sit in the back of the classroom					
		Stongly Disagree	Disagree	Undecided	Agree	Strongly Agree	Total
Grade	Freshman	75	96	40	14	6	231
	Sophmore	18	33	21	4	2	78
	Junior	11	28	13	4	1	57
	Senior	8	21	9	4	2	44
Total		112	178	83	26	11	410

Crosstab

Count

		Students who sit in the fornt of the classroom pay more atteniton					
		Stongly Disagree	Disagree	Undecided	Agree	Strongly Agree	Total
Grade	Freshman	25	70	56	56	25	232
	Sophmore	13	22	20	16	7	78
	Junior	3	11	18	15	10	57
	Senior	7	9	9	11	8	44
Total		48	112	103	98	50	411

Crosstab

Count

		Teachers do not call on students who sit in the front of the classroom					
		Stongly Disagree	Disagree	Undecided	Agree	Strongly Agree	Total
Grade	Freshman	67	100	44	13	8	232
	Sophmore	20	28	21	6	3	78
	Junior	11	26	15	4	1	57
	Senior	12	19	10	3		44
Total		110	173	90	26	12	411

Crosstab

Count

		Teachers like students who sit in the front of the classroom					
		Stongly Disagree	Disagree	Undecided	Agree	Strongly Agree	Total
Grade	Freshman	25	50	70	63	24	232
	Sophmore	10	25	23	12	8	78
	Junior	6	12	16	20	3	57
	Senior	5	11	10	13	5	44
Total		46	98	119	108	40	411

Crosstab

Count

		Students who sit in the front of the classroom want to make good grades					
		Stongly Disagree	Disagree	Undecided	Agree	Strongly Agree	Total
Grade	Freshman	38	56	74	47	17	232
	Sophmore	6	30	24	13	5	78
	Junior	5	14	20	16	2	57
	Senior	5	13	9	14	3	44
Total		54	113	127	90	27	411

Crosstab

Count

		I don't care where I sit in the classroom					
		Stongly Disagree	Disagree	Undecided	Agree	Strongly Agree	Total
Grade	Freshman	29	59	35	75	34	232
	Sophmore	6	15	16	29	12	78
	Junior	8	14	9	15	11	57
	Senior	4	8	11	11	10	44
Total		47	96	71	130	67	411

Crosstab

Count

		Teachers should change the seating arrangements every week					
		Stongly Disagree	Disagree	Undecided	Agree	Strongly Agree	Total
Grade	Freshman	65	73	50	29	15	232
	Sophmore	23	24	14	12	5	78
	Junior	24	12	8	11	2	57
	Senior	14	12	10	6	2	44
Total		126	121	82	58	24	411

Crosstab

Count

		Teachers should allow students to sit where they wish					
		Stongly Disagree	Disagree	Undecided	Agree	Strongly Agree	Total
Grade	Freshman	4	14	37	77	100	232
	Sophmore	3	4	19	24	28	78
	Junior	2	2	11	18	24	57
	Senior	2	2	11	14	15	44
Total		11	22	78	133	167	411

Crosstab

Count

		Where I sit affects the grade I make in the class					
		Stongly Disagree	Disagree	Undecided	Agree	Strongly Agree	Total
Grade	Freshman	58	59	58	41	16	232
	Sophmore	8	26	22	16	6	78
	Junior	13	16	14	13	1	57
	Senior	5	14	14	8	3	44
Total		84	115	108	78	26	411

Crosstab

Count

		Teachers like to assign students to specific seats to remember their names					
		Stongly Disagree	Disagree	Undecided	Agree	Strongly Agree	Total
Grade	Freshman	6	21	42	117	46	232
	Sophmore	4	4	22	35	13	78
	Junior	1	1	9	32	14	57
	Senior	1	1	5	30	7	44
Total		12	27	78	214	80	411

Crosstab

Count

		Teachers should move talkative students to different seats					
		Stongly Disagree	Disagree	Undecided	Agree	Strongly Agree	Total
Grade	Freshman	21	42	65	69	35	232
	Sophmore	3	16	28	23	8	78
	Junior	3	15	16	18	5	57
	Senior	2	8	12	15	7	44
Total		29	81	121	125	55	411

Crosstab

Count

		Students who sit in the back of the classroom have low self-esteem					
		Stongly Disagree	Disagree	Undecided	Agree	Strongly Agree	Total
Grade	Freshman	90	83	44	10	5	232
	Sophmore	30	29	16	2	1	78
	Junior	22	12	14	6	3	57
	Senior	22	13	4	4	1	44
Total		164	137	78	22	10	411

Differences based on course

In the examination of the results of the individual statements in the student survey (items 1 through 23 in Appendix B), the researcher decided not to discuss in more detail statements 1-3, 5, 7, 9, 11-15, 17, 20, 22, and 23 since the data yielded no statistically significant difference.

Crosstab

Count

		I learn better in classes in which I am allowed to choose where I sit					
		Stongly Disagree	Disagree	Undecided	Agree	Strongly Agree	Total
Course	Technology	1	16	41	58	55	171
	Marketing		2	9	6	13	30
	Basic Business	3	18	34	72	83	210
Total		4	36	84	136	151	411

Crosstab

Count

		I pay better attention to the teacher when I sit beside good students					
		Stongly Disagree	Disagree	Undecided	Agree	Strongly Agree	Total
Course	Technology	8	32	39	59	33	171
	Marketing	1	4	9	11	5	30
	Basic Business	13	28	57	70	42	210
Total		22	64	105	140	80	411

Crosstab

Count

		I pay more attention to the teacher when I sit beside my friends					
		Stongly Disagree	Disagree	Undecided	Agree	Strongly Agree	Total
Course	Technology	8	56	53	38	16	171
	Marketing		12	11	2	5	30
	Basic Business	12	47	66	52	33	210
Total		20	115	130	92	54	411

Crosstab

Count

		I do not like to sit beside my friends in the classroom					
		Stongly Disagree	Disagree	Undecided	Agree	Strongly Agree	Total
Course	Technology	83	68	16	3	1	171
	Marketing	13	10	7			30
	Basic Business	113	60	23	8	6	210
Total		209	138	46	11	7	411

Crosstab

Count

		I only sit in the front of the classroom when I am interested in the subject					
		Stongly Disagree	Disagree	Undecided	Agree	Strongly Agree	Total
Course	Technology	39	61	34	26	11	171
	Marketing	3	11	11	4	1	30
	Basic Business	60	64	45	25	16	210
Total		102	136	90	55	28	411

Crosstab

Count

		Teachers do not call on students who sit in the front of the classroom					
		Stongly Disagree	Disagree	Undecided	Agree	Strongly Agree	Total
Course	Technology	51	76	33	7	4	171
	Marketing	4	17	8		1	30
	Basic Business	55	80	49	19	7	210
Total		110	173	90	26	12	411

Crosstab

Count

		I pay more attention in class when I can see the board					
		Stongly Disagree	Disagree	Undecided	Agree	Strongly Agree	Total
Course	Technology	2	16	24	80	49	171
	Marketing			6	17	7	30
	Basic Business	8	18	33	89	62	210
Total		10	34	63	186	118	411

Crosstab

Count

		Teachers like students who sit in the front of the classroom					
		Stongly Disagree	Disagree	Undecided	Agree	Strongly Agree	Total
Course	Technology	21	42	47	42	19	171
	Marketing	1	10	7	10	2	30
	Basic Business	24	46	65	56	19	210
Total		46	98	119	108	40	411

Crosstab

Count

		Teachers do not call on student who sit in the back of the classroom					
		Stongly Disagree	Disagree	Undecided	Agree	Strongly Agree	Total
Course	Technology	44	80	32	10	4	170
	Marketing	5	14	7	4		30
	Basic Business	63	84	44	12	7	210
Total		112	178	83	26	11	410

Crosstab

Count

		Students who sit in the front of the classroom want to make good grades					
		Stongly Disagree	Disagree	Undecided	Agree	Strongly Agree	Total
Course	Technology	23	48	46	42	12	171
	Marketing	2	8	13	7		30
	Basic Business	29	57	68	41	15	210
Total		54	113	127	90	27	411

Crosstab

Count

		Teachers should change the seating arrangements every week					
		Stongly Disagree	Disagree	Undecided	Agree	Strongly Agree	Total
Course	Technology	41	55	35	29	11	171
	Marketing	10	10	6	4		30
	Basic Business	75	56	41	25	13	210
Total		126	121	82	58	24	411

Crosstab

Count

		Students who sit in the front of the classroom interact with the teachers					
		Stongly Disagree	Disagree	Undecided	Agree	Strongly Agree	Total
Course	Technology	5	43	44	66	13	171
	Marketing		6	6	16	2	30
	Basic Business	16	41	60	76	17	210
Total		21	90	110	158	32	411

Crosstab

Count

		Students who sit in the back of the classroom have low self-esteem					
		Stongly Disagree	Disagree	Undecided	Agree	Strongly Agree	Total
Course	Technology	66	61	34	8	2	171
	Marketing	14	9	3	4		30
	Basic Business	84	67	41	10	8	210
Total		164	137	78	22	10	411

Crosstab

Count

		I don't care where I sit in the classroom					
		Stongly Disagree	Disagree	Undecided	Agree	Strongly Agree	Total
Course	Technology	17	41	26	57	30	171
	Marketing	4	5	9	9	3	30
	Basic Business	26	50	36	64	34	210
Total		47	96	71	130	67	411

Crosstab

Count

		Teachers should move talkative students to different seats					
		Stongly Disagree	Disagree	Undecided	Agree	Strongly Agree	Total
Course	Technology	10	34	52	54	21	171
	Marketing	2	5	7	13	3	30
	Basic Business	17	42	62	58	31	210
Total		29	81	121	125	55	411

VITA

Donna Jean Habib was born in Ajloun, Jordan in 1956, the second child of Said Ghezawi and Betty Jean Clark. Ms Habib is the mother of Tarik Habib, a graduate from Johns Hopkins University, and Ahmed Habib, a junior in George Washington University. Ms Habib entered the University of Tennessee upon her son entering Johns Hopkins in order to realize a long awaited dream. Ms. Habib earned a Bachelor of Science in Human Ecology in May 2001. Ms Habib was accepted into the University of Tennessee Graduate School in June 2001 in pursuit of a Business Eduation Teaching License and a Master of Science in Human Ecology, for which this thesis is the final requirement. During the 2001-2002 school year, Ms. Habib served as an Intern in the Business/Marketing Department at Farragut High School in Knoxville, Tennessee.

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