1998

A Comparison of Grades of Mainstreamed Learning Disabled Students and Special Education Students

Francine D. Mitcham
Old Dominion University

Follow this and additional works at: https://digitalcommons.odu.edu/ots_masters_projects

Part of the Education Commons

Recommended Citation

This Master's Project is brought to you for free and open access by the STEM Education & Professional Studies at ODU Digital Commons. It has been accepted for inclusion in OTS Master's Level Projects & Papers by an authorized administrator of ODU Digital Commons. For more information, please contact digitalcommons@odu.edu.
A Comparison of Grades of Mainstreamed Learning Disabled Students and Special Education Students

A Research Paper
Presented to the Graduate Faculty
of the Department of Occupational and Technical Studies
at Old Dominion University

In Partial Fulfillment
of the Requirements for
the Master of Science in Education Degree

By
Francine D. Mitcham
July 1998
This research paper was prepared by Francine D. Mitcham under the direction of Dr. John Ritz in OTED 636, Problems in Education. It was submitted to the Graduate Program Director as partial fulfillment of the requirements for the Degree of Master of Science in Education.

APPROVAL BY: Dr. John Ritz
Advisor and Graduate Program Director

Date: 8-7-98
# TABLE OF CONTENTS

| Pages |
---|---|
Approval Page | ii |
Table of Tables | v |
Tables of Figures | vi |
Chapters |
I. INTRODUCTION | 1 |
| Statement of the Problem | 1 |
| Research Goals | 2 |
| Background and Significance | 2 |
| Limitations | 4 |
| Assumptions | 4 |
| Procedures | 4 |
| Definitions | 5 |
| Overview | 5 |
II. REVIEW OF LITERATURE | 6 |
| Problems in Mainstreaming | 6 |
| Teacher Training | 6 |
| Curriculum | 7 |
| Benefits | 8 |
| Consequences | 9 |
| Summary | 9 |
III. METHODS AND PROCEDURES | 10 |
| Population | 10 |
| Instrument | 10 |
| Data Collection | 11 |
| Statistical Analysis | 11 |
| Summary | 11 |
TABLE OF TABLES

<table>
<thead>
<tr>
<th>Table</th>
<th>Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Table 1</td>
<td>Final Grades</td>
<td>12</td>
</tr>
<tr>
<td>Table 2</td>
<td>End-of-Grade Reading</td>
<td>13</td>
</tr>
<tr>
<td>Table 3</td>
<td>Means of Final Grades and Reading Scores</td>
<td>14</td>
</tr>
<tr>
<td>Table 4</td>
<td>t-test Ratio and Significant Level</td>
<td>15</td>
</tr>
</tbody>
</table>
TABLES OF FIGURES

<table>
<thead>
<tr>
<th>Figure 1</th>
<th>Final Grades</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Figure 2</td>
<td>End-of-Grades Reading Scores</td>
<td>14</td>
</tr>
</tbody>
</table>
CHAPTER I

INTRODUCTION

The study of mainstreaming special education and learning disabled children has grown in popularity in the past twenty years. The reason for the increase in research in this area is the passage of legislation that controls special education. Some of the laws include Education for All Handicap Children, American Disability Act and Individual with Disability Act (IDEA).

Prior to the passage of The Education for All Handicap Children, self-contained classrooms were the norm for all disabled children including those with mild disabilities (Wilcox, 1997). In the 1980s the Regular Education Initiative (REI), which advocated placing learning disabled students in regular classrooms, grew in popularity. The supporters for REI pushed for laws to support their concept of inclusion, which led to the passage of IDEA in 1990.

Dare County Public Schools in North Carolina have to abide by all federal legislation including special education to receive federal funds. They have adopted a policy of mainstreaming that includes placing learning disabled students in regular classrooms with their peers. This study will examine the performance of mainstreamed learning disabled students in a sixth grade English class. It will compare their grades while mainstreamed to their grades from special education classes. Also, it will compare their scores on the standardized North Carolina End-of-Grade test in reading for the fifth and sixth grade. It will examine if learning disabled students better benefit from mainstreaming or remaining in special education classes.

STATEMENT OF THE PROBLEM

The problem of this study was to compare the grades of learning disabled students in a
mainstream classroom to their grades in a special education classroom in the subject area of English and language arts. This study will determine if mainstreaming learning disabled students can be beneficial for the student in most cases.

**RESEARCH GOALS**

In order to properly compare the grades of mainstreamed learning disabled students to their grades in special education classes, certain objectives must be met. These include:

1. Determine the grades of the learning disabled students in the regular English class.
2. Determine the grades of the learning disabled students in the special education class.
3. Determine if a significant difference in performance exists between grouping methods.

**BACKGROUND AND SIGNIFICANCE**

Laws for special education can trace their root back to Brown v. the Board Education which states that separate is not equal. However, it was not until the 1970s when legislation specifically addressing special education passed. The first law to pass that included special education was the Vocational Rehabilitation Act in 1973. Section 504 of this act states that handicapped persons shall not be excluded from education.

The passage of the Vocational Rehabilitation Act was the beginning of the reform movement in special education. In 1974 the Pennsylvania Association of Retarded Citizens (PARC) case brought federal spending for special education. Also in 1974 Mills v. the Board of Education stated that schools could not discriminate against the handicapped and they needed to be included in regular classrooms. The culmination of these cases was the passage of the
Education for All Handicap Children Act (PL 94-142), in 1975.

Education for All Handicap Children Act was the first law to include provisions for the least restrictive environment. It was not until the 1980s when the regular education initiative (REI) was developed which took the idea of least restrictive environment one step further. Supporters of REI wanted the elimination of special education classrooms. They wanted regular and special education teachers to work together to educate disabled children in regular classrooms (Greer and Greer, 1995).

The concept of REI blossomed into mainstreaming with the passage of the Americans with Disabilities Act and the Individuals with Disability in Education Act in 1990 (IDEA). The term mainstreaming is not actually used in IDEA but it is implied under the least restrictive environment heading (Huefner, 1994).

Many researchers have studied mainstreaming producing varied results (Taylor and Justen, 1996). One case study with positive results was completed by Zigmond and Baker. Their study focused on mainstreaming learning disabled students, whereas the majority of the research was with students with severe disabilities (Gerber, 1995). One problem with previous studies on mainstreaming and inclusion is that they are not always generalized. The programs that were studied usually received more funding and more support personnel than the normal mainstream classroom (Taylor and Justen, 1996).

Since the validity of many of the studies on mainstreaming is questioned, this researcher finds a need to look at the topic. In this study, like Zigmond and Baker, the researcher will examine mainstreaming learning disabled students. It will compare the grades of mainstreamed learning disabled students to the grades of their peers in special education classes. The comparison will show that learning disabled students, given adequate attention, and the proper modifications,
perform better in mainstreamed classrooms.

LIMITATIONS

The limitations placed on this study include:

1. Only the grades and End-of-Grade scores of learning disabled students will be examined.
2. The classes that will be used are sixth grade English and fifth grade special education.
3. The school system in this study is Dare County Public Schools in North Carolina.

ASSUMPTIONS

Assuming that several factors are in place, such as proper support, the researcher can then suggest several other assumptions. The assumptions made about this study are:

1. The regular teacher has been trained to handle learning disabled students.
2. The curriculum is designed to meet the different skill levels of the students in the regular classroom.

PROCEDURES

After consideration of past research, the researcher decided to compare the grades of mainstreamed learning disabled students to the grades of students in special education classes. This study will be done by obtaining the grades of both the regular English teacher and the special education teacher. The researcher will examine the teaching methods of both teachers by way of a survey. Included in this survey will be questions on how both teachers grade the learning disabled student.
DEFINITIONS

Key terms and ideas need to be defined to better understand this study.

1. FAPE is the acronym for free and appropriate education.

2. Inclusion is placing students with disabilities in regular classrooms with their peers (King-Sears, 1996).

3. Mainstreaming is similar to inclusion. It became the word of choice to describe placing learning disabled students in regular classrooms in the 1990s.

4. Regular Education Initiative (REI) called for the elimination of special education classrooms and included all children with disabilities in regular classrooms.

5. Education for All Handicap Children Act, PL 94-142 (1975), guaranteed special education in the least restrictive environment.

6. Americans with Disability Act (1990) guaranteed equal opportunity in employment and public accommodations.


OVERVIEW

This chapter introduced the reasons and different types of research completed on mainstreaming. The research that will be done in this study is the comparison of grades of mainstreamed learning disabled students to the grades of their peers in a special education class.

In the following chapter there is a review of other research on mainstreaming to highlight the need and importance of this study. Chapter III will include procedures that were taken to complete this research. Chapter IV will include new information discovered from this research. The final chapter will include a summary of the research. It will draw conclusions based on the research and offer recommendation for future research.
CHAPTER II

REVIEW OF LITERATURE

This chapter will review literature concerning mainstreaming learning disabled students. It will review problems in mainstreaming, teacher training and curriculum. It will also review the benefits and consequences of mainstreaming.

PROBLEMS IN MAINSTREAMING

Since the passage of the Education for All Handicap Children Act in 1974, the problem of how to properly mainstream learning disabled students emerged. One problem was each person had their own definition of mainstreaming (King-Sears, 1996). Some people thought mainstreaming meant that all disabled students should be in regular classrooms, whereas others thought mainstreaming was including disabled students in a limited number of regular classes (Wilcox, 1997).

After a school decided on a definition of mainstreaming, they were faced with the problem of implementing their program. The school has to decide how fast they want to implement their program. Another hurdle to overcome in mainstreaming is teacher training and curriculum development.

TEACHER TRAINING

The general classroom teacher is the key to success in mainstreamed education. Most teachers are placed in a mainstreamed environment with little to no training. To overcome this gap in training, the general education teacher needs to cooperate with the special education teacher to
develop a plan to help the students (Sumney, 1996).

Teacher training needs to go beyond classroom management; it should include training on how to manage the special needs of the learning disabled students. Some learning disabled students are not used to the regular classroom environment. They may have outbursts that disrupt the class or get upset if they are not called on (Mahoney, 1997). The two situations mentioned are only the beginning of challenges a teacher in a mainstreamed classroom faces. In order to manage the mainstream classes, new teachers should have some special education training.

Another problem in the mainstreamed classroom is the student to teacher ratio. Since the regular classroom has more students than the special education classes, the learning disabled student will not have the amount of individualized attention they may need. To overcome this difficulty, the teacher needs to learn how to develop lesson plans that encourage academic engagement from all students (Wigle and Wilcox, 1996). The teacher also must know how to use peer tutoring to benefit all of the students.

**CURRICULUM**

In addition to teacher training, the curriculum needs to be modified to fulfill the needs of the mainstreamed classroom. The curriculum should fit a wide range of student needs (King-Sears, 1996). Using a single instructional technique is not effective for all students. Multi-layered curriculum and direct instruction can fulfill the needs of all the students in the mainstreamed classroom.

One approach to curriculum development is known as the continuum. The continuum combines explicit and implicit instructional techniques. The explicit instructional technique is when the teacher provides the knowledge to the class. The teacher takes students through a
lesson until the concept is mastered. In implicit instruction, the teacher serves as a facilitator (Mercer et al., 1996).

The continuum approach to instruction fulfills the needs of all the students in the mainstreamed classroom. The explicit approach could be used with learning disabled students. The implicit approach could be used with other students in the class. The continuum allows for the teacher to move from explicit to implicit teaching as needed for each student.

Another approach that can be utilized in a mainstreamed class is called the Strategies Intervention Model. This program groups intervention techniques into three categories including learning strategies, content enhancement routines and empowerment intervention. The learning strategies' interventions approach focuses on teaching the students the necessary skills to cope in a general classroom. The content enhancement routines were developed to help teachers strengthen their techniques and improve students' understanding. The final intervention is empowerment. This intervention was designed to give students the opportunity to achieve their best.

**BENEFITS**

There are several benefits to mainstreaming learning disabled students. One benefit is the socialization of learning disabled students. The learning disabled student needs to learn what is proper behavior in a regular classroom. Along with this benefit the general student population is better prepared for real world situations since they are exposed to a wide variety of people (King-Sears, 1996). The mainstreamed, learning disabled student may have higher self-esteem since they are no longer segregated from their peers.
CONSEQUENCES

While there are many benefits to mainstreaming learning disabled students, the consequences should not be overlooked. The consequences include low self-esteem, lower grades and a higher drop out rate. Mainstreamed learning disabled students may exhibit a low self-esteem. The drop in self-esteem can be caused by difficulty mastering a subject. Being singled out among regular students could also be a cause for this. Along with self-esteem, the grades of learning disabled students may drop when they are mainstreamed (Taylor and Justen, 1996). This drop can be caused by the lack of one-on-one attention or the loss of any other specialized services students had received in special education classrooms.

SUMMARY

With the push for mainstreamed classes, the problems of inclusive teaching need to be examined. Teacher training and curriculum development are key factors to overcome the problems in the mainstreamed classroom. The benefits and consequences of mainstreaming also need to be examined. Chapter III will discuss the methods and procedures used to gather data for this study. The methods of data analysis will be explained.
CHAPTER III

METHODS AND PROCEDURES

Chapter III contains a description of the methods and procedures used to obtain the needed information for this study. It describes the population of the study and the statistical data to be obtained from a middle school in Dare County, North Carolina. The analysis of how data will be treated is described in detail.

POPULATION

The students included in this study are in an inclusive sixth grade English class at a middle school in Dare County, North Carolina. There are thirty-one students in this class; four students are learning disabled and fifteen students are academically gifted. The remaining students in the class are average students. The group of learning disabled students consists of three boys and one girl, from ages ten to twelve. The mainstreamed students do not attend any special education class. The learning disabled students were in special education class in the 1996-1997 school year.

INSTRUMENT

This study analyzed the students’ final cumulative grades and End-of-Grade reading scores from their special education and mainstream language classes for statistical purposes. The final grades are the cumulative averages from the fifth and sixth grade academic years. The grades are a combination of homework, writing assignment, and tests. The End-of-Grade reading scores are from North Carolina’s standardized reading test. The scores are based on a
two-hundred point scale.

**DATA COLLECTION**

Data for this study was obtained from the English teacher’s grade book from the 1997 to 1998 school year. Scores from the End-of-Grade Reading standardized test were also obtained from the sixth grade teacher. Final grades and End-of-Grade scores were also obtained from the fifth grade special education teacher who taught the four learning disabled students the previous year.

**STATISTICAL ANALYSIS**

The researcher will use a t-test to determine if there is a significant difference between the means of the students’ final grades and End-of-Grade reading scores in the special education and inclusive classroom. This analysis will provide information about the effects mainstreaming has on the learning disabled student.

**SUMMARY**

This chapter presented the methods and procedures used to collect the data for this research study. The final grades and End-of-Grade reading scores of four sixth-grade learning disabled students were collected for statistical analysis. Their grades and End-of-Grade scores from the fifth-grade special education class were collected for statistical analysis and comparison. Chapter IV discusses the findings of the study and data analysis.
CHAPTER IV

FINDINGS

The purpose of this chapter was to present the findings from data collected during the study. The data described was a result of collection of final grades and End-of-Grade reading scores of four sixth-grade learning disabled students in a mainstreamed class compared to their scores in a self-contained special education class.

FINAL GRADES AND READING SCORES

The following data represents the final grades and End-of-Grade reading scores of four sixth-grade learning disabled students who were in a mainstreamed English class. It also represents their grades and scores from a fifth-grade self-contained English class. The grades were from the 1997-1998 and 1996-1997 school years. The scores are from standardized North Carolina End-of-Grade Tests in Reading. Table 1 displays the final grades of the learning disabled students from the 1996-1997 school year special education class and their grades from the 1997-1998 mainstreamed class. All grades are based on a 100 point grading scale.

**TABLE 1**

<table>
<thead>
<tr>
<th>Students</th>
<th>Special Education 1997</th>
<th>Mainstreamed 1998</th>
</tr>
</thead>
<tbody>
<tr>
<td>OB</td>
<td>98</td>
<td>96</td>
</tr>
<tr>
<td>JS</td>
<td>98</td>
<td>95</td>
</tr>
<tr>
<td>LF</td>
<td>95</td>
<td>90</td>
</tr>
<tr>
<td>ZH</td>
<td>95</td>
<td>91</td>
</tr>
</tbody>
</table>
Figure 1 presents the final grades of each student by class in Bar Graph format. This format was chosen for its clarity in presenting relations and comparisons between classes and final grades. Table 2 displays the scores from the End-of-Grade test in Reading of the learning disabled students in a special education class and a mainstreamed class.

**TABLE 2**

**End-of-Grade Reading Scores**

<table>
<thead>
<tr>
<th>Students</th>
<th>Special Education 1997</th>
<th>Mainstreamed 1998</th>
</tr>
</thead>
<tbody>
<tr>
<td>OB</td>
<td>163*</td>
<td>169</td>
</tr>
<tr>
<td>JS</td>
<td>163</td>
<td>171</td>
</tr>
<tr>
<td>LF</td>
<td>156</td>
<td>161</td>
</tr>
<tr>
<td>ZH</td>
<td>153</td>
<td>160</td>
</tr>
</tbody>
</table>

* Scores are out of 200.

The scores are from North Carolina End-of-Grade test in Reading. Figure 2 shows these test scores in a Bar-Chart format for easier interpretation.
STATISTICAL ANALYSIS OF FINDINGS

In order to determine if a significant difference existed between the grades and reading scores from the special education class and the mainstreamed class, the two-tailed statistical t-test method was applied to the data. Additional data required for the t-test calculations will be found in the following tables. Table 3 lists the means of the learning disabled students' final grades and End-of-Grade reading scores in mainstreamed and special education classes. Table 4 lists the t-ratios and significant levels for learning disabled students' grades and scores in mainstreamed and special education classes.

<table>
<thead>
<tr>
<th>Class</th>
<th>Reading Scores</th>
<th>Final Grades</th>
</tr>
</thead>
<tbody>
<tr>
<td>Special Education 1997</td>
<td>158.75</td>
<td>96.5</td>
</tr>
<tr>
<td>Mainstreamed 1998</td>
<td>165.25</td>
<td>93</td>
</tr>
</tbody>
</table>
The resulting calculations from performing the two-tailed t-test and its significant level are listed in Table 4. For this study, data was considered good when statistically significant at the .05 levels.

**TABLE 4**

<table>
<thead>
<tr>
<th>Areas</th>
<th>t</th>
<th>significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Final Grades</td>
<td>1.53</td>
<td>.100</td>
</tr>
<tr>
<td>Reading Scores</td>
<td>1.72</td>
<td>100</td>
</tr>
</tbody>
</table>

**OVERVIEW**

This chapter reported the results of data collection of grades from mainstreamed and special education classes. Statistical analyses of the findings were reported. A summary of the study, with conclusions and recommendations, will be made in Chapter V.
CHAPTER V

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

The purpose of this chapter is to summarize this research study on the comparison of grades of students in mainstreamed and special education classes. Within this chapter are sections on summary, conclusions and recommendations.

SUMMARY

The problem of this study was to compare the grades of learning disabled students in a mainstreamed classroom to their grades in a special education classroom in the subject area of English and language arts. It determined if mainstreaming learning disabled students can be beneficial to the students in most cases.

Four learning disabled students at a Dare County, North Carolina, middle school served as the target population for this study. Their English grades and End-of-Grade Reading scores were collected and the statistical t-test method was applied to the data to determine if a significance difference existed between the grades and scores from mainstreamed and special education classes. The data was obtained from the students’ sixth-grade English teacher and the fifth-grade special education teacher.

CONCLUSIONS

Conclusions can be made from the data collection and interpretation of the statistical findings in relation to the following goals:

1. **Determine the grades of the learning disabled students in the regular English class.**

   The grades of the learning disabled students in the 1997-1998 regular English class ranged
from 90 to 96 on scale of 100. These grades demonstrated that the learning disabled students were able to succeed in a mainstreamed class.

2. **Determine the grades of the learning disabled students in the special education class.**

The grades from the 1996-1997 special education class ranged from 95 to 98 on a scale of 100. Since they achieved higher grades in the special education classroom, it can be assumed that these grades were significantly affected by the one-on-one attention and smaller student-to-teacher ratio.

3. **Determine if a significant differences in performances exist between grouping methods.** Analysis of the data showed a drop in grades for learning disabled students in the regular English and language arts class. However, these same students’ End-of-Grade reading scores improved in the mainstreamed classroom. The drop in grades does not mean that mainstreaming failed. The t-test indicated a significant difference of .100 existed between the performances in the different grouping methods. Several other factors could have caused the grades to drop including student adjustment to the mainstreamed classroom, different teachers’ grading methods, student-to-teacher ratios, and students’ performance.

The drop in final grades in contrast with the improved reading showed that mainstreaming was beneficial for these learning disabled students. The comparison of final grades reflected a level of significance of .100. This level shows a slight difference between the two sample means.

The comparison of the reading scores also reflected a level of significance of .100.

The results showed there was not a significant difference between the learning disabled students’ grades and reading scores, in mainstreamed and special education classes.
RECOMMENDATIONS

Based on the results and conclusions of this study, the researcher suggests the following recommendations:

1. Schools should continue to mainstream learning disabled students. Mainstreaming provides the learning disabled students a chance to be socialized with their peers. It also provides the average student the opportunity to interact with learning disabled students.

2. Mainstreaming learning disabled students should be done on a case by case basis. Every situation is unique; each child has different circumstances that should impact the decision to mainstreamed.

3. Parents should be informed of the benefits and disadvantages of mainstreaming. The collaboration between the parents and educator is essential for the success of mainstreaming. In addition, many parents do not understand the concept of mainstreaming.

4. In conclusion, it is recommended that a study on the affects of mainstreaming should be done with the average students in an inclusive classroom.
REFERENCES


