

**The Relationship Between Regents Competency Test Writing  
Scores of Special Education High School Students in a Self-  
Contained Classroom and Special Education High School  
Students in a Mainstreamed Classroom**

**Thesis**

**Submitted to the Graduate Committee of the Department of Education and  
Human Development  
State University of New York  
College at Brockport  
in Partial Fulfillment of the  
Requirements for the Degree of Master of Science in Education**

**by  
Cynthia Marie Brandt**

**State University of New York  
Brockport, New York  
December 1996**

Submitted By:

Cynthia M. Brandt

Approved By:

Arthur E. Smith 3/3/97  
Thesis Advisor Date

Deanna Z. Begg 3/7/97  
Second Advisor Date

Patricia E. Baker 3/13/97  
Director of Graduate Studies Date

## **Abstract**

The purpose of this study was to determine if there was a statistically significant difference in the mean scores of the Regents Competency Test in Writing between special education high school students in a mainstreamed English class and special education high school students in a self-contained English class. To determine this, twenty-five special education students in the eleventh grade were asked to participate in this study. The students were selected from a district in Monroe County in New York State. Fourteen of the students were in a mainstreamed English class. The remaining fourteen students were in a self-contained English class.

All the students in the study were working toward a local diploma. A requirement for a local diploma is passing the Regents Competency Test (RCT) in Writing. All students began preparation in their ninth grade year. In November of their eleventh grade year they were administered the RCT in Writing. The RCT scores of the

students in the mainstreamed class and the self-contained class were subject to  $t$ -test comparisons to see if there was a statistically significant difference.

The findings revealed a calculated  $t$  score of 2.03. Since the critical value of  $t$  with 75 degrees of freedom at the 95% confidence level is  $\pm 2.160$ , the null hypothesis cannot be rejected. This implies that there was not a statistically significant difference between the mean RCT Writing scores of students in the mainstreamed and self-contained group.

## Table of Contents

	Page
Chapter I	
Statement of Problem.....	1
Need of the Study.....	1
Research Question.....	3
Definitions.....	4
Limitations of the Study.....	6
Chapter II	
Review of Literature.....	7
In Favor of Mainstreaming.....	8
In Favor of Self-Contained.....	10
Mainstreamed and Self-Contained Classrooms.....	12
Chapter III	
Purpose.....	15
Research Question.....	15
Subjects.....	16
Instruments.....	16

Procedures.....	17
Analysis.....	18

#### Chapter IV

Purpose.....	19
Null Hypothesis.....	19
Results.....	20
Summary.....	21

#### Chapter V

Purpose.....	23
Conclusions.....	23
Implications for Research .....	25
Implications for Classroom Practice.....	26
References.....	27
Appendix.....	30

## **Chapter I**

### **Statement of Problem**

The purpose of this study was to determine if there was a statistically significant difference in Regents Competency Test in Writing scores between special education high school students in a mainstreamed English class and special education high school students in a self-contained English class.

### **Need for the Study**

The number of children said to require remedial help has increased dramatically in the last two decades. According to Harness and Jerkins (1986) “120,000 children were classified as LD in 1968. Today, the number exceeds 1.3 million” (p. 162). Children with mild learning handicaps currently receive reading instruction in two different contexts: special education classes and regular education classes (Christens, O’Sullivan, Thurlow & Ysseldyke, 1990). Public Law 94-142 states that all students with a disability should be placed in the least restrictive environment (LRE) for learning.

The LRE usually means mainstreaming the students into regular classrooms. This has occurred a great deal over the past few years, yet not much feedback has been obtained at the high school level as to whether students are receiving the best education to make them successful. Which context is more appropriate has been the subject of much debate between special education teachers.

It is thought by some educators that students will receive more individual instruction in a self-contained classroom, helping them to be more successful. In a study conducted by Houck and Rogers (1994), educators expressed concerns that movement toward mainstreaming would cause students with learning disabilities to be unserved or inadequately serviced.

Other researchers believe that the general education classroom setting provides an enriched, normalized learning experience and that classroom teachers can make a variety of adaptations to meet the specific needs of special education students (Schumm & Vaughn, 1991).

The Regents Competency Test (RCT) in Writing is required by New York State. A student must pass this test in order to graduate with a local diploma. This applies to special education students as well



as regular education students. There has not been any research to show if being placed in a mainstreamed classroom prepares students taking the RCT in writing. This study investigated if there is a statistically significant difference in RCT Writing scores between mainstreamed special education high school students and self-contained special education high school students.

### **Research Question**

Is there a statistically significant difference in RCT Writing scores between special education high school students in a mainstreamed English class and special education high school students in a self-contained English class?

## Definitions

**Learning Disabled (LD):** Students who have difficulty with receiving, organizing or expressing data. They may have difficulty listening, thinking, speaking, reading, writing, or doing arithmetic. This results in a severe discrepancy between school achievement and the expected level of achievement. (A Parent's Guide to Special Education: Your Child's Educational Rights in New York State)

**Least Restrictive Environment (LRE):** To the extent appropriate, handicapped students should be educated with non-handicapped students. This is based on the premise that placement of handicapped with non-handicapped students results in improved academic and social development for handicapped students and reduces the stigma associated with being educated in a segregated setting. (Public Law 94-142)

**Mainstreamed Classroom:** It is the conscientious effort to place handicapped children into the least restrictive educational setting which

is appropriate to their needs. This leads to a heavy emphasis on movement of handicapped children into the regular classroom whenever possible. (National Advisory Council of Education Professions Development) In this study the mainstreamed classroom is an English class taught by a regular education teacher.

**Preliminary Competency Test in Writing (PCT):** Given to all New York State students during their eighth grade year to assess students' writing ability. It includes three components: business letter, report, and composition.

**Self-Contained Classroom:** Special education students are placed in a classroom with only other students with the same or similar disability. In this study the self-contained class is a high school English class taught by a special education teacher.

**Special Education:** A continuum of services provided to students classified as having a disability.

**Regents Competency Test in Writing (RCT):** Is given during the students' junior year in New York State high schools if they are trying to receive a local diploma. School use this test to determine if a student has adequate writing skills to graduate with a local diploma. It includes three components: business letter, report, and composition.

### **Limitations of the Study**

[1] This study was conducted with a small testing sample of special education students.

[2] The self-contained students had a special education teacher. The mainstreamed students had a regular education teacher.

[3] The mainstreamed classroom had more students.

## Chapter II

### Review of Literature

The debate over mainstreaming of students with learning disabilities have existed for over five decades (Hodson & Martlew, 1991). Proponents of separate education for this group argue that it may help reduce pressures exerted by both high academic standards and peer rejection. Supporters of mainstreaming argue that there is no evidence to show that putting children with disabilities in special classes improves either their academic performance or school adjustment. Several researchers reported that integrating these students in mainstreaming classes would improve their academic performance as well as confidence in their abilities (Gartner & Lipsky, 1989; Groom & Guralnick, 1986).

## **In Favor of Mainstreaming**

Researchers have looked at both mainstreamed and self-contained classrooms individually. The majority of the research focused on mainstreamed classrooms. Most research supports mainstreamed classrooms as being the best placement for students. Some researchers argue that services outside the regular classroom produce a fragmented approach to learning (Hallahan, Kaufman, Lloyd & McKinney, 1988; Schumm & Vaughn, 1991). Brophy (1986) studied students' opportunity to learn in regular classrooms. His research found that general education studies had been shown to be positively related to students' academic achievement.

It has been a concern that students with a learning disability were not given the opportunities to learn in a mainstreamed setting. Skritic (1980) concluded in his research of middle school students, that teacher - LD student interactions were similar to teacher - non-LD student interactions. Teachers called on and offered assistance to LD and non-LD students with similar results were established in another study by Garden, Greener, Thurlow, and Ysseldyke (1983). They found that time allocated to academic activities, non-academic

activities, or specific subjects for LD and non-LD students did not differ.

Some researchers have gathered information about the tasks students with learning disabilities actually engage in during special and regular education reading classes. Harness and Jerkins (1986) found that students who receive special instruction in self-contained classes spent much time on independent seat work with few explanations and little feedback from the teacher. They found that the students spent minimal time actually reading.

Another observational study focused on instruction for students with learning disabilities within a self-contained class (Leinhardt, Vallecorsa & Zigmond, 1980). The researchers found that students with learning disabilities within a self-contained class spent much of the school day making responses unrelated to academics.

Much research has been conducted regarding the perceptions of parents of mainstreamed preschool children. Several researchers found that parents who had previous experiences with mainstreamed programs held significantly more positive attitudes toward this educational approach (Diamond & LeFurgy, 1994; Green & Stoneman, 1989; Hayden, Peck, Peterson, Richarz & Wandschneider,

1989). Guralnick (1990) found evidence that participation in integrated programs in preschool by a child with a disability provides that child with opportunities for meaningful observational learning and increased social and verbal interactions with more developmentally advanced peers.

Some educators are trying to de-emphasize the differences between various categories of special education students and advocated increased placement of students in the regular education classroom. Hallahan, Kaufman, Lloyd, and McKinney (1988) formulated that services outside the regular classroom produce a fragmented approach to education.

### **In Favor of Self-Contained**

Differences have been found in the type of instruction students with learning disabilities and students without learning disabilities received. One study by Rruelle, Hogue, and Ivarie (1984) revealed that students with learning disabilities received significantly more individual instruction and less entire group instruction. In a study conducted by Christens, O'Sullivan , Thurlow, and Ysseldyke (1990), students with learning disabilities opportunity to learn during reading



instruction in mainstreamed and special education settings were compared. The results concluded that the mean percentage scores for students with a learning disability, for both academic responding time and academic engaged time, appear consistently higher in special education settings than in mainstreamed classes ( $\alpha < .05$ ).

Another area that has been researched involved student perceptions of the teacher's treatment toward them as compared to regular education students. Brattesani, Marshall, and Weinstein (1982) looked at student perceptions of differential treatment in mainstreamed classrooms. They administered a teacher treatment inventory to 234 fourth to sixth graders. Their research suggested that low achievers were perceived as the recipients of more negative feedback and directions from the regular education teacher.

Several researchers have found that regular classroom teachers are inadequately prepared to educate mainstreamed children with disabilities (Durrand & Kearney, 1992; Jerkins, Jewell & Pious, 1990; Johnston, 1990). Bruelle, Hogue, and Ivarie (1984) reported that mainstreaming individuals with learning disabilities into regular classrooms places a major part of the responsibility for that child's

instructional program on the regular classroom teacher. In a study conducted by Algozzine and Williams (1979) regular education teachers reported that they felt they did not have the technical abilities necessary to work with students who had disabilities. Also, they were concerned that these students would take too much time from their responsibility to the students who were not handicapped.

In a more recent study by Durrand and Kearney (1992) questionnaires were sent to chairpersons of 58 postsecondary education departments in New York State. All questionnaires pertained to the education of teachers preparing for regular classroom settings. Their findings did not support the contention that postsecondary schools of education provide sufficient coursework and field experience to prepare general education teachers for mainstreamed classroom settings.

### **Mainstreamed and Self-Contained Classrooms**

As research continued to be conducted on mainstreamed and self-contained classrooms individually, few research studies have looked at them together. A recent search revealed only two studies. The first study was conducted in Israel (Eshel, Gilat, Katz & Nagler,

1994). This study included two parts. The first compared 67 third to sixth grade special education students. Of these students, 33 studied in self-contained classes and the remaining 34 students were enrolled in regular classes. The students were first presented with self-image and classroom climate scales. Then they were tested on math achievement and reading comprehension. The results showed no significant differences in either math achievement or reading comprehension. No significant setting effects were found for self-image scores, however, students in self-contained classes were significantly higher in their academic self-concept than peers in regular classes.

The second part of this study involved 41 ninth to twelfth grade special education students. Of these students 20 were in self-contained classes and 22 were in regular classes. These subjects were given the same tests as in the previous part. From the data gathered, Eshel, Gilat, Katz, and Nagler (1994) reported that student growth was not fostered more readily in self-contained classrooms. They went on to say academic achievement of students in regular classes were generally similar to the attainment of students of self-contained classes.

Adams, Affleck, Lowenbraun, and Madge (1988) conducted a three year study. One group consisted of learning disabled students

assigned to a mainstreamed classroom. A contrast group was composed of special education students in the same district enrolled in a special education classroom. Both groups used the same instructional materials and methods for basic skill instruction. The researchers concluded that there were no significant differences between groups during all three years in either reading or language skills.

## **Chapter III**

### **The Research Design**

#### **Purpose**

The purpose of this study was to see if there is a statistically significant difference in RCT Writing test scores between special education students in a mainstreamed high school English class and special education students in a self-contained high school English class.

#### **Research Question**

Is there a statistically significant difference in RCT Writing scores between special education high school students in a mainstreamed English class and special education high school students in a self-contained English class?

## **Methodology**

### **Subjects**

Subjects for this study were twenty-eight special education students in eleventh grade. The students were selected from a district in Monroe County in New York State. Fourteen of the students were in a mainstreamed English class. The remaining fourteen students were in a self-contained English class.

### **Instruments**

The pretest instrument was the Preliminary Competency Test (PCT) in Writing. The posttest instrument was the Regents Competency Test (RCT) in Writing. Both tests consist of three separate writing tasks: A business letter of complaint, a report based on information given, and a composition.

## **Procedures**

In their eighth grade year all the students in this study were administered the PCT. There was no statistically significant difference between the special education students in the self-contained and mainstreamed English classes.

Upon their arrival into high school these students were placed in a mainstreamed or a self-contained English class. They all were slated for a local diploma, so preparations began as early as their ninth grade year for the RCT in Writing. In November 1996 the students, now in eleventh grade, were administered the RCT in Writing. All students in the study were given the same modifications. The modifications included extended time and directions read and rephrased when necessary. The tests were graded by the three high school English teachers. Each teacher graded a designated section. The scores of the students in the mainstreamed class and the self-contained class were compared to see if there was a statistically significant difference.

## **Analysis**

The RCT in Writing uses a holistic method of scoring. The rater judged the level of writing shown by student's response in light of criteria that reflected the characteristics of an exemplary response to the specific task. This judgment was expressed in terms of a percentage score. After all three part scores were determined, the mean score was established for each student.



## **CHAPTER IV**

### **Analysis of Data**

#### **Purpose**

The purpose of this study was to determine if there is a statistically significant difference in the RCT Writing scores between special education high school students in a mainstreamed English class and special education high school student in a self-contained English class.

#### **Null Hypothesis**

There will be no statistically significant difference in mean RCT Writing scores between the mainstreamed group and the self-contained group in this present study.

## **Results**

### **Interrater Reliability**

To show interrater reliability, the RCT in Writing was graded by three high school English teachers. The following holistic scoring procedure was used. Each teacher was assigned to grade a designated section. The rater judged the level of writing shown by student's response in light of criteria that reflected the characteristics of an exemplary response to the specific task. The judgment was expressed in terms of a percentage score. After all three part scores were determined, the mean score was established for each student.

The difference between the RCT Writing scores of the students in the self-contained classroom and students in the mainstreamed classroom was compared with a  $t$  test to see if there was a significant difference between the mean scores of the two groups. The data are shown in Appendix A and the  $t$  test results are shown in Table 2.

**Table 1**

Mean and t test differences between RCT Writing scores of self-contained and mainstreamed special education students.

	MEAN	NUMBER	STANDARD DEVIATION	CALCULATED t
Self-Contained	77	14	6.51	
Mainstreamed	75	14	7.08	2.03

$$t_{\text{crit}} (75), \alpha < .05 = 2.160$$

The calculated  $t$  score of 2.03 was the result of the analysis. Since the critical value of  $t$  with 75 degrees of freedom at the 95% confidence level is  $\pm 2.160$ , the null hypothesis must be accepted, concluding that there was not a statistically significant difference between the mean RCT Writing scores of students in the mainstreamed and self-contained group. The mean score for students in the mainstreamed group was 75 whereas the mean score for the students in the self-contained group was 77.

## Summary

There was not a statistically significant score difference between the RCT Writing scores of the mainstreamed and self-contained groups.

## **Chapter V**

### **Conclusions and Implications**

#### **Purpose**

The purpose of this study was to determine if there is a statistically significant difference in the mean RCT Writing scores between special education high school students in a mainstreamed English class and special education high school students in a self-contained English class.

#### **Conclusions**

The data reported that the mean RCT Writing scores were not significantly greater for one group over the other. The analysis of these scores led to the conclusion that there was no statistically significant difference.

The results are consistent with those reported by Adams, Affleck, Lowenbraun, and Madge (1988) in which they also looked at mainstreamed and self-contained groups over a three year period. The researchers concluded that there were no statistically significant differences between groups during all three years in either reading of language skills.

Being placed in a mainstreamed setting is believed to help foster social skills for special education students. The findings of this research would support placing special education students in mainstreamed classes. Not only would the students grow academically, but also socially.

It was observed that the students in the self-contained group used more strategies when taking the RCT Writing. There strategies included highlighting when organizing information given for the report and editing. This may have been attributed to the fact that students in self-contained classrooms received more individual attention. The special education teacher had more time to learn the students learning style. This made it possible to teach the students specific strategies that they were lacking. Had the mainstreamed group been exposed to these strategies, its scores may have been noticeably greater than the self-contained group.

### **Implications for Research**

These results support the need for further investigation in the area of mainstreaming special education students in English or keeping special education students in self-contained English classes. A variety of related factors could be considered, such as:

1. Further studies on the methods used in mainstreamed and self-contained English classes.
2. Studies exploring high school students' attitudes toward mainstreamed and self-contained classes.
3. Research that explores how special education students do in other areas mainstreamed and in self-contained classes.

## **Implications for Classroom Practice**

Most research supports mainstreaming students. Through the research that has been conducted, teachers can bring the positive outcomes to their classrooms. What was evident through this research was that regular education teachers need to be given the opportunity for appropriate training. Also, more training is needed to help in the collaboration between special education teachers and regular education teachers. For mainstreaming to be successful everyone involved must work together. This includes teachers, parents, students, and administration.

What must be kept in mind is that all students are individuals. This should have a major influence when student placements are being decided. Not every program is designed for every student. However, modifications can be made to make any program beneficial for all students. Teachers must know their students and what they need to be successful.



## References

- Adams, A., Affleck, J., Lowenbraun, S. & Madge, S. (1988). Integrated classrooms versus resource model: Academic viability and effectiveness. Exceptional Children, 54(4), 339-348.
- Algozzine, B. & Williams, R. (1979). Teacher attitude toward mainstreaming. Elementary Journal, 80(2), 63-67.
- Brattesani, K., Marshall, H. & Weinstein, R. (1982). Students' perceptions of differential teacher treatment in open and traditional classrooms. Journal of Educational Psychology, 74(5), 678-692.
- Brophy, J. (1986). Teacher influence on student achievement. American Psychology, 41(5), 1069-1077.
- Bruell, A., Hogue, D. & Ivarie, J. (1984). An investigation of mainstream teacher time spent with students labeled learning disabled. Exceptional Children, 51(2), 142-149.
- Christens, S., O'Sullivan, P., Thurlow, M. & Ysseldyke, J. (1990). Mildly handicapped elementary students' opportunity to learn during reading instruction in mainstream and special education setting. Reading Research Quarterly, 25(2), 131-146.
- Diamond, K. & LeFurgy, W. (1994). Attitudes of parents of preschool children toward integration. Early Education and Development, 5(1), 131-146.
- Durrand, C. & Kearney, M. (1992). How prepared are our teachers for mainstreamed classroom settings? A survey of post secondary schools of education in New York State. Exceptional Children, 59(1), 6-11.

- Eshel, Y., Gilat, S., Katz, M. & Nagler, C. (1994). Mainstreamed or self-contained classes for students with a mild learning disability: The case of Israel. International Journal of Disability, Development and Education, 41(3), 185-200.
- Gartner, A. & Lipsky, K. (1989). The yoke of special education: How to break it. Rochester, NY: National Center of Education and Economy.
- Graden, J., Greener, J., Thurlow, M. & Ysseldyke, J. (1983). LD and non-LD students' opportunities to learn. Learning Disability Quarterly, 6(3), 172-183.
- Green, A. & Stoneman, Z. (1989). Attitude of mothers and fathers of handicapped children toward preschool mainstreaming. Journal of Early Intervention, 13(4), 292-304.
- Groom, M., Guralnick, J. (1986). Peer interaction in mainstreamed and specialized classrooms: A comparative analysis. Exceptional Children, 54(3), 415-425.
- Guralnick, J. (1990). Social competence and early intervention. Journal of Early Intervention, 14(3), 3-14.
- Hayden, L., Peck, C., Peterson, K., Richarz, S. & Wandschneider, M. (1989). Development of integrated preschools: A quantitative inquiry into sources of resistance among parents, administrators, and teachers. Journal of Early Intervention, 13(2), 6-13.
- Hallahan, D., Kaufman, J., Lloyd, J. & McKinney. (1988). Introduction to the series: Questions about the regular education initiative. Journal of Learning Disabilities, 21(1), 80-92.
- Harness, M. & Jerkins, J. (1986). Reading instruction in special education resource rooms. American Educational Research Journal, 23(2), 161-190.

- Hodson, J., Martlew, M. (1991). Children with learning difficulties in an integrated and in a special school: Comparisons of behavior, teasing and teacher's attitudes. British Journal of Educational Psychology, 61(4), 355-372.
- Houch, C. & Rogers, C. (1994). Concerns about the "full inclusion" of students with learning disabilities in regular education classrooms. Journal of Learning Disabilities, 27(7), 435-453.
- Jerkins, J., Jewell, M. & Pious, C. (1990). Special education and the regular education initiative: Basic assumptions. Exceptional Children, 56(6), 479-491.
- Johnston, N. (1990). School consultation: The training needs of teachers and school psychologists. Psychology in Schools, 27(3), 51-56.
- Leinhardt, G., Vallecorsa, A. & Zigmond, N. (1980). Reading instruction for students with learning disabilities. Topics in Language Disorders, 1(1), 89-98.
- Schumm, J., Vaughn, S. (1971). Making adaptations for mainstreamed students: General classroom teachers' perspectives. Remedial and Special Education, 12(4), 18-25.
- Skritic, T. (1980). The regular classroom interactions of learning disabled adolescents and their teachers. (Research Report No. 8). Lawrence, Kansas: University of Kansas, Institute for Research in Learning Disabilities.

**Appendix**

<b>Treatment A Self-Contained</b>	<b>Treatment B Mainstreamed</b>
<b>Posttest</b>	<b>Posttest</b>
1. 89	1. 85
2. 87	2. 83
3. 83	3. 82
4. 81	4. 81
5. 80	5. 78
6. 80	6. 77
7. 78	7. 76
8. 76	8. 73
9. 76	9. 73
10. 75	10. 72
11. 75	11. 70
12. 70	12. 70
13. 68	13. 67
14. 67	14. 60