

Teaching Environment and Curriculum Best for Students with
Disabilities

A Special Project

Presented to

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Heritage University

In Partial Fulfillment

of the Requirement for the Degree of

Master of Education

S. Jean Davis

2010

FACULTY APPROVAL

Teaching Environment and Curriculum Best for Students with
Disabilities

Approved for the Faculty

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ABSTRACT

The purpose of this research study was to determine whether inclusion or integration is the best learning environment for students with disabilities. Math and reading growth data was collected using MAP testing from fall to spring in two consecutive years. The 2008-2009 year students were completely in an inclusion setting learning at their academic functioning level. The 2009-2010 school year students were integrated in to the general education class room setting learning at grade level curriculum. The data was statistically analyzed by comparing the mean of growth of both years. The results of the study indicated students with disabilities have a profound amount more of growth in an inclusion environment versus integrated environment. The study recommended that inclusion is the best suited environment for students with mild disabilities.

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TABLE OF CONTENTS

	Page
FACULTY APPROVAL.....	ii
ABSTRACT.....	iii
PERMISSION TO STORE.....	iv
TABLE OF CONTENTS.....	v
LIST OF TABLES.....	viii
CHAPTER 1.....	1
Introduction.....	1
Background for the Project.....	1
Statement of the Problem.....	1
Purpose of the Project.....	1
Delimitations.....	2
Assumptions.....	3
Hypothesis or Research Question.....	3
Significance of the Project.....	3
Procedure.....	4

	Page
Acronyms.....	5
CHAPTER 2.....	6
Review of Selected Literature.....	6
Introduction.....	6
Inclusion.....	9
Integration.....	13
Specific Disabilities.....	17
Summary.....	21
CHAPTER 3.....	22
Methodology and Treatment of Data.....	22
Introduction.....	22
Methodology.....	22
Participants.....	23
Instruments.....	23
Design.....	26
Procedure.....	26

	Page
Treatment of the Data.....	28
Summary.....	28
CHAPTER 4.....	30
Analysis of the Data.....	30
Introduction.....	30
Description of the Environment.....	30
Hypothesis/Research Question	31
Results of the Study.....	31
Findings.....	38
Discussion.....	39
Summary.....	39
CHAPTER 5.....	41
Summary, Conclusions and Recommendations.....	41
Introduction.....	41
Summary.....	41
Conclusions.....	43

	Page
Recommendations.....	44
REFERENCES	45

LIST OF TABLES

	Page
Table 1 2008-2009 MAP Scores.....	29
Table 2 2009-2010 MAP Scores.....	31
Table 3 Growth by Subject Area.....	33

CHAPTER 1

Introduction

Background for the Project

Integration or inclusion? Which practice was best for serving students with disabilities in order to provide them with the best education possible? For years, researchers in the special education field went back and forth on what was the best and the most appropriate environment for students with disabilities.

Statement of the Problem

As state wide testing score standards went up special education student's scores did not. Was the integration of students with disabilities into the general education classroom the most effective learning environment?

Purpose of the Project

The author intended to find out what method, inclusion or integration showed higher academic growth. What environment was best for students with disabilities.

Delimitations

The controlled boundaries of the project were to compare two back-to-back years of MAP scores of special education students. The 2008-2009 data came from participating student scores that were in an inclusive classroom setting, and who received instruction and materials at their functioning academic level in both reading and math. This data was compared with 2009-2010 data that came from student scores of the same population, but in this case, students were integrated into the general education reading and math classes, wherein material was delivered at their age level, but with accommodations and modifications made. Scores were calculated to determine the percentage of growth each year from the period of fall to spring. Students were selected based on skill level, with that selection being restricted to students in the resource room setting and sampled similar to average disability eligibility across the United States. For example, if Specific Learning Disabilities affect 55% of the nation's special education population, then the sample the author used has reflected that basis of criteria as closely as possible.

Assumptions

Student growth scores improved regardless of the setting. All students had the amount of modification appropriate to their functioning level and all students exhibited their full potential on the MAP test.

Hypothesis or Research Question

Reading and math were required elements in curriculum across the nation. Based upon observation of classroom related activity in reading and math, the following hypothesis was formed: Students who took inclusion curriculum performed better on MAP testing.

Significance of the Project

If integration demonstrated more academic growth, it would be recommended that other schools in the author's district follow the model, provided integration additionally proved to promote social growth due to general education peer modeling. Students benefitted from the model that has proven to show greater significant growth relative to reading and math, with this being the priority and current focus of the author's district. With positive results, the author

recommended that the school board encourage other schools to convert to the integration model. If the integration model proved to be less effective, then the author informed the administration of the accumulated data and supporting results. The studied data had immense importance because the author's district wanted to see where the highest amount of growth occurred.

Procedure

During the 2008-2009 school year, 35 students of various disabilities were taught in a inclusive resource room with material at their appropriate functioning cognitive level. During the 2009-2010 school year, the same population was taken out of an inclusive environment, introduced into general education classrooms teaching at grade level and provided a curriculum which supported their functioning cognitive level. Reading and math MAP testing were done in the fall and spring of both years of both years and then compared to determine which setting and method had a significant growth rate and which was most beneficial to the student.

Acronyms

ADD. Attention Deficit Disorder

ADHD. Attention Deficit Hyperactivity Disorder

EBD. Emotionally/Behaviorally Disturbed

IDEA. Individuals with Disabilities Education Act

IEP. Individualized Education Plan

LRE. Least Restrictive Environment

MAP. Measure of Academic Progress

NWEA. Northwest Evaluation Association

RIT. Rasch Unit

SLD. Specific Learning Disability

CHAPTER 2

Review of Selected Literature

Introduction

The history of the education of students with disabilities ran parallel to that of other groups in our society who have been excluded from services; for example, women, students of color, and those of minority religions. According to Lipsky and Gartner (1996) the historical stages were:

1. Exclusion by law or regulation. Students with disabilities attended different schools and were never found to be integrated in to public schools, let alone general education classrooms.
2. Formal integration based on judicial and/or legislative requirements. Students with disabilities were mainstreamed into public schools.
3. Progress toward defining the nature of integration based on judicial and/or legislative requirements. Students with disabilities were placed in the least restrictive environment.

Historically in the field of special education began, the few services that were available were offered primarily in segregated settings. Sometimes these services were provided in special schools within a school district, but more often they were provided within a residential school, which in many cases became terrible institutions, and geographically isolated in rural parts of the state. As public school programs became more readily available and mainstreaming was limited, students with disabilities found themselves in separate schools or separate classes, removed from their neighborhood peers. The concepts of least restrictive environment (LRE) and fully inclusive education guided the principle of normalization (Smith, 2004). The result was "most students with disabilities attend neighboring schools and almost half receive more than 79 percent of their education in the general education classroom" (U.S. Department of Education, 2010). The passage of the Education for All Handicapped Children Act of 1975 (PL 94-142) required the educational system to include all students with disabilities in to the classroom setting. Although the law stated that all students with disabilities were to be educated in the least

restrictive environment, two educational systems emerged. One educational system was called regular, and the second educational system was labeled special. For many years the resource room became the most widely used option for students with disabilities. The students were allowed to be mainstreamed with peers only when deemed appropriate by the special education team or when specific educational criteria had been mastered.

The best practices in special education resemble an ever swinging pendulum; inclusion on one side and mainstreaming/integration on the other. Both methods were research-based strategies that have been used throughout schools nationwide and both provided individualized special education program to students with disabilities. These dynamic instructional strategies differed in terms of location, curriculum, instructor and the level of need for modifications that each student required. According to Hocutt, "integration and inclusion are concepts and movements, rather than precisely defined programs" (1996). With the added pressure for special education students to succeed and pass the standards based test as prescribed by the No

Child Left Behind Act, the Washington Assessment of Student Learning, and the newest test, the Measure of Student Progress, schools were trying to devise a way that students with disabilities could succeed in passing these tests. Therefore, in schools across America students were being pulled out of inclusion and integrated in to the classrooms in hopes of being taught with grade level material which resulted in passing the standards based tests that were required.

Inclusion

Inclusion took place in a special education classroom, with other students with disabilities, and with individualized instruction. Inclusion was often looked upon as something of the past. Inclusion had a negative stigma attached to it, and often, one that was untrue.

According to Freeman (2000), advocates of the debate on behalf of inclusion believed that the special education continuum of services offered unique advantages. "They cite such elements as small class size, specially trained teachers, auxiliary services, functional skills curriculum and individualized instructional materials and procedures" (Freeman, 2000). Concerns were expressed about the frustrations

children express when participating in the general education setting and the requirements of adapting and functioning among more academically and socially able students. Special education programs were funded from Federal, state and local resources. With more than 124,000 children currently provided special education services in Washington State alone, full inclusion in a special education classroom was an expensive enterprise (Lipsky and Gartner 1996). Inclusion allowed students in a resource room or life skills classroom to work and develop at a comfortable functioning level through the application of small groups or individual settings. According to Smith (2004) numerous professionals believed that integration did not offer a truly individualized education within the constraint of a general education and curriculum. A child was referred to be tested for special education because they were not meeting the criteria of the grade level curriculum or unsuccessful in the general education classroom. Teachers viewed "the child needs additional support in the general education classroom, supplemental services, or possibly a separate

curriculum in order to have a successful educational experience"

(Turnbull, 2002).

According to Stronge (2007) some older students felt a stigma when in the resource room, an inclusive environment. However, their individual needs were usually met better and the teacher worked closely with the regular classroom teacher to help support the child as much as possible. The resource room tended to be less distracting than the regular classroom setting. Many resource rooms also supported the social needs of their students in the small group setting and provided behavior interventions. Teachers in the resource room had a challenging role as they needed to design all instruction to meet the specific needs of the students they serviced to maximize their learning potential. (Stronge, 2007).

Like all learners, students with special needs were unique individuals with distinct learning preferences and interests. Such diverse needs could not be met to provide an individualized education in the general education classroom (Heacox, 2002). In most cases students were referred initially to special education services because

adequate learning did not occur in the general education classroom. When inclusion models were employed, school personnel needed to collect evidence that individual students are met important IEP objectives. According to Mastropieri and Scruggs (1997), inclusion was a positive option only if it was demonstrated that students with disabilities were learning critical academic, social, and life skills optimally in these environments. According to Smith (2004) educators needed to be very sensitive to how placement decisions that branded students as different and fragmented their daily lives. Removing a child from the general education classroom had serious implications for the present and the future. "Special education placements have often resulted in lower expectations, a less challenging curriculum, and a self fulfilling prophecy of reduced educational outcomes" (Smith, 2004). However, general education placement denied many students specialized instruction with scientifically validated practices such as community based instruction or job related skills.

Integration

According to Hammeken (2005) the practice of educating all children with and without disabilities together in a heterogeneous classroom referred to as integrative schooling. The concept of integration was different from mainstreaming in several ways. Integration allowed the student to exercise their basic right, the right to be educated with their peers. Services provided to the student were within the general education classroom setting, even if the goals of were different from the goals of their peers. With integration the students were removed from the classroom setting only after modifications, strategies, and support were provided in the general education classroom.

A major concern involving the education of students with disabilities was the extent to which they experienced opportunities to interact with their peers without disabilities. "Placement of students with disabilities in the Least Restrictive Environment (LRE) was a major provision of the Individuals with Disabilities Education Act (IDEA) and numerous state initiatives, research studies and an issue of ongoing

debate" (Sawyer, 1994). As defined in IDEA, the LRE provision required that students, to the maximum extent appropriate, were educated with students who did not have disabilities. Removal or separate schooling needed to occur only when the general education curriculum couldn't be modified to accommodate student specific needs.

Advocates of integration cited the social advantages of positive peer modeling on the basis that greater achievements were the result of exposure to peers. "Children that were educated in general education classrooms were thought to display competent skills in language, behavior, flexibility, friendship relationships and positive social acts" (Freeman, 2000). Andrews noted a positive aspect of integration was that students felt less isolated, which was often the result of placement in special education classes, and that integration was a setting that allowed students with disabilities to be an active part in a larger student body (2000). Closing the achievement gap was a large push in today's schools. Administrators nationwide believed the achievement gap was filled if students with disabilities were integrated

in to their grade level curriculum, not necessarily the grade level they have been functioning on.

According to Mastropieri and Scruggs (1997), analysis of existing regular general education classrooms and the ability and willingness of the general education teachers to modify and adapt curriculum and teaching methods suggested that many of these environments were not optimal for students with mild disabilities. It was also true that numerous states did not require special education course work for their teacher certification, and this lack of professional preparation was an important consideration. Hammeken (2005) swayed the opposite direction when she stated "Integration encouraged effective collaboration. No longer is the current educational system fragmented in to two separate systems. In an integrated setting, all members of the educational team worked collaboratively to reach a common goal." Teachers often believed that they had to develop separate assignments for these students when in fact they just needed to modify the task to make it more appropriate.

The primary goal of special education services was to provide services of the skills the student needed to be successful. Resource room teachers often filled the gaps a student was lacking in and their primary goal was to get them back in the general education with their non disabled peers. Integration provided students the opportunity to get help as well as be in the general education setting. Students familiarized themselves with expectations of the general education classroom and participated in academic activities to facilitate their full return to the general education classroom (Mastropieri and Scruggs, 1997).

According to Hammeken (2005), integration improved all educational systems. Integration the modification and strategies directed toward students with disabilities were beneficial to other students in the mainstream as well. These strategies improved and individualized the curriculum for all students.

Integration has helped students gain a sensitivity to and an acceptance of all students. When students with special needs have been included in the general education classroom all student have

benefitted. All students learned to accept one another as contributing members of society regardless of their abilities or disabilities (Friend, 2007).

Specific Disabilities

All students with special needs had diverse learning requirements. One cannot say inclusion or integration was the better choice for special education as a whole. The placement of a student relied solely on their specific disability. According to Richard Sawyer(1994) , "the less severe the disability, the more integration is necessary". Out of the current 14 special education eligibility categories there has been a general movement to serve more students with disabilities within general education classrooms. However, during the same period, some students, most notably students with mental retardation, serious emotional disturbances and severe autism have experienced decreased opportunities for being served in general education classrooms (Sawyer, 1994). Often times students with severe disabilities were a threat to themselves, as well as others and required the care of full inclusion for safety purposes. According to a study done by Hocutt (1996) "Lower

functioning students were more likely to drop out of school altogether when placed in general education." Studies showed that students with non-cognitive disabilities performed better in general education classes. In recent years, eligibility of Emotionally/Behaviorally Disturbed (EBD) increased significantly, with studies indicating that in regard to these children, specialized classes were vital to their success. Alternative programs, schools and practices were imperative for the success of children with EBD (Unruh and Bullis, 2007).

Students with severe disabilities and who were unable to function in the general education classroom or resource room resided in life skill classroom. These students were placed in their least restrictive environment and often times focused more on skills to use in life rather than the academic curriculum their peers were learning. For example, students in the life skills setting often focused being independent, they worked on becoming self sufficient, and how to be vocal about their needs. The life skills program included more instruction on social skills. The program helped develop positive self identities while expanded school options to include learning in the

community. From a young age numerous life skills student strive toward goals of what they would do when they finished high school, they reach toward basic skills to transition them in to the adult world. With such severe disabilities these students needed to be ready for post graduation jobs and skills. Many of these students work for years on mastering basic skills such as learning to write their name, how to use the restroom, and how to voice basic needs and wants (Lovitt, Plavins, & Cushing, 1999).

Students from low socioeconomic backgrounds entered school less ready to learn than students from the highest socioeconomic backgrounds. According to Neuman (2006) "39% of students living in poverty recognize the letter of the alphabet compared to 85% of students from the high socioeconomic level." Often times these were the children at risk for specific learning disabilities. Of all 14 special education eligibility categories, excluding non cognitive disabilities, learning disabilities and health impairment categories were most often served in the general education classroom for full or part of the school day.

With the advent of high stakes testing around the nation many general education professionals feared that they would be held responsible for the students lack of progress in the general education curriculum. The teachers worried that these students at their schools and in their classes resulted in disincentives, such as reduction in the schools budget, bad reports in the press, and poor public image (Smith, 2004).

Many parents, and professionals, particularly those concerned with blind or deaf students felt that the array of placement options needed to include residential schools where deaf and blind students could flourish. The deaf/blind communities took pride in learning, living, and having fun together in school settings and community settings. On the other side of the issue the interpretation that the LRE was legally mandate and an ethical obligation that ensured the right of those with disabilities to be fully included in general education settings (Sailor, 1991).

Summary

A comprehensive view of effective special education best practices showed two approaches: inclusion and integration. Upon examination, there were many factors that supported, as well as refuted the effectiveness of the two approaches. With an apparent need for both strategies, depended upon the individual needs of the special education student, it remained an ongoing challenge for the public education system to determine how to provide the best education possible.

CHAPTER 3

Methodology and Treatment of Data

Introduction

The purpose of this quantitative research study was to compare growth in MAP scores from the 2008-2009 school year where students were not integrated in to the general education classroom, to those of the 2009-2010 school year where students with disabilities were integrated in to the general education classroom. To accomplish this purpose fall and spring MAP scores for both years were gathered to determine if a notable difference in growth was achieved in the special education resource room as compared to the general education classroom.

Methodology

The researcher used a quantitative methodology by comparing the growth from fall to spring MAP scores of two years and documented the growth in points in a chart. The same student data was used for both years.

Participants

The study included 35 middle school students with a wide variety of disabilities, race and ethnic backgrounds. The students were at sixth grade level in the 2008-2009 school year and received special education services in a resource room setting in both reading and math. The same students entered the seventh grade level in the 2009-2010 school year and were integrated in to the general education classroom. Twenty of the participants were male and fifteen of the participants were female.

Instruments

The instrument used to collect the data was the MAP test. The validity and reliability came directly from the NWEA/MAP website (2010). Most of the "documented validity evidence for NWEA tests came in the form of concurrent validity. This form of validity was expressed in the form of a Pearson correlation coefficient." It answered the question, how well do the scores from this test that reference this (RIT) scale in this subject area (e.g., Reading) correspond to the scores obtained from an established test that

references some other scale in the same subject area? Both tests were administered to the same students

“in close temporal proximity, roughly two to three weeks apart.

Again, the greater this correspondence, the greater the correlation coefficient. A strong relationship (strong concurrent validity) is indicated when the correlations are in the mid- .80's.

Correlations with non-NWEA tests that include more performance test items will tend to have slightly lower correlations. Reliability across time was often referred to as test-retest reliability or temporal stability” (Northwest Evaluation Association, 2010).

According to the NWEA homepage the question being answered with this type of reliability was, to what extent does the test administered to the same students twice yield the same results from one administration to the next? Answers to this question were stated in terms of a

“Pearson product-moment correlation coefficient (r). The minimum acceptable correlation is considered to be $r=.80$; $r=1.00$

is a perfect correlation. Traditionally, a span of two to three weeks was used to separate the two test administrations. In fact, common practice keeps the time span short between tests, acknowledging that time acted to erode the resulting correlation coefficients" (Northwest Evaluation Association, 2010).

Reliability across forms typically referred to as parallel forms reliability. Here two tests were considered to be equivalent in every way, except that their items differed. The two tests would have the same number and types of items in the same structure, with the same difficulty levels, measuring the same content within a domain. The question being answered with this type of reliability, to what extent do two equivalent forms of the test yield the same results? Answers to this question were also stated in terms of a

"Pearson correlation coefficient (r). Guidelines for acceptable correlations were difficult here, though $r = .85$ seemed reasonable; especially if the parallel test was given at about the same time and was assumed to be equivalent. NWEA's approach to test-retest reliability posed a more rigorous test of

reliability. What NWEA referred to as test-retest reliability was more accurately a mix between test/retest reliability and a type of parallel forms reliability, both of which were spread across seven to twelve months - a much longer time frame than the typical two or three weeks" (Northwest Evaluation Association, 2010).

The second test (or retest) was not the same test. Rather, the second test was one that was comparable to the first, by its content and structure, differing only in the difficulty level of its items. Given these two factors, several months separating administrations and comparable (but not equivalent) test forms, "it was not unreasonable to expect reliability to drop below $r=.80$ " (Northwest Evaluation Association, 2010).

Design

Fundamental baseline data were collected in the fall of 2008 and 2009 using MAP testing. This study showed the relationship between the growth rate during both years with the implementation of different instruction and curriculum.

Procedure

Multiple steps were needed for this study. Procedures utilized in the study evolved in several phases as follows:

1. Permission to conduct the study from building administrator at least two weeks before starting study.
2. During fall 2008, all middle school students were tested using MAP in a supervised setting in the library computer lab.
3. The first day of testing, students were tested on the math portion. The math portion provided questions that increased in difficulty as the student progressed or decreased in difficulty as the student failed to determine the correct answer. The test continued until a maximum number of problems were missed.
4. Students on individualized education plans for reading were allowed to have the math questions read aloud. Regardless of individualized education plans, the reading portion was not read aloud based on the need to assess the student's reading capabilities.
5. The second day of testing, students were tested on the reading portion. This portion provided questions that increased in difficulty as

the student provided correct answers and decreased in difficulty when the student provided incorrect answers. The test continued until a maximum number of problems were missed.

6. Students were given unlimited time to complete the test.

7. At the conclusion, student's scores were printed out and the librarian assistant provided the teachers with full results of the testing.

8. This same procedure was done in spring 2009, fall 2009 and spring 2010.

Treatment of the Data

Pre test data which was the baseline of fall MAP scores and post test data was the result of data collected during the Spring period and a determination was made to see if abundant growth occurred in either approach by examining the mean amount of growth in both years of data. The data showed if students grew more academically in a specially designed special education classroom or a grade specific general education classroom.

Summary

Chapter 3 provided a description of the research methodology employed in the study using a quantitative approach by comparing fall and spring MAP score of two years. The participants were 35 middle school students that experienced both inclusion and integration in back to back school years. Data were collected in an eight step procedure with the key data instrument used as the MAP test.

CHAPTER 4

Analysis of the Data

Introduction

With the added pressure for special education students to succeed and pass the standards based test as prescribed by the No Child Left Behind Act, the Washington Assessment of Student Learning, and the newest test, the Measure of Academic Progress, schools were trying to devise a way that students with disabilities passed these required tests. Schools were looking to push integration to ensure these higher standards were met. The study was to outline and determine if inclusion or integration enhanced growth.

Description of the Environment

This study took place in a rural community in the Lower Columbia Valley of Washington State. The community was rich in agriculture and thrived on the production of grapes and hops. Overall this school district has just over 3,000 students enrolled. According to the Washington State Report Card (2010) the district statistics were of the population 51.1% was male and 48.9% of the population was female.

Ethnicity in the student body for the 2007-2008 school year consisted of American Indian/Alaskan Native (0.4 %), Asian (0.7%), Pacific Islander (0.1%), Black (0.7%), Hispanic (50.2%) and White (46.7%). The percentage of students that received free and reduced lunch was 59.7% at the middle school level.

Hypothesis/Research Question

Based upon observation of classroom based activity in reading and math, the following hypothesis was formed. Students who took the inclusion curriculum performed better on MAP testing.

Results of the Study

To test this hypothesis the MAP assessment tool was implemented in the fall and spring of two years. In the 2008-2009 school year, the students were in a complete inclusion setting. Table 1 provided student scores for the 2008-2009 school year math and reading, as well as the growth vs. regression from that same year. The bottom average was the mean of growth vs. regression by subject matter. The average mean for math was 2.514 points growth from fall to spring. The average mean for reading was 5.8 points from fall to spring. On

average this set of 35 students grew in both subject areas in the 2008-2009 school year in a resource room, inclusion, setting. To protect the anonymity of the student an alphabetical letter was used in place of their name. The addition sign was used to illustrate a positive growth and the subtraction sign was used to illustrate a regression. The range of the table was the highest growth made in math was +19 and +24 in reading. The lowest range in math was a regression -9 and -9 in reading.

Table 1
2008-2009 MAP Baseline Scores

Student	Fall Math	Fall Read	Spring Math	Spring Read	Growth
a	194	202	193	202	-1/0
b	200	200	213	198	+13/-2
c	184	181	187	188	+3/+7
d	238	202	224	215	-14/+13
e	199	207	199	207	0/0
f	204	194	202	190	-2/-4
g	219	201	226	220	+7/+19
h	220	215	221	216	+1/+1
i	199	192	203	190	+4/-2
j	215	197	227	197	+12/0
k	183	170	183	194	0/+24
l	195	170	195	180	0/+10
m	188	205	192	214	+4/+9
n	182	178	201	194	+19/+16
o	192	193	195	184	+3/-9
p	209	196	211	211	+2/+15
q	191	195	201	198	+10/+3
r	184	175	188	190	+4/+15
s	205	187	209	211	+4/+24
t	190	160	184	164	-6/+4
u	194	207	190	213	-4/+6
v	202	215	203	234	+1/+19
w	215	195	227	206	+12/+11
x	186	201	185	192	-1/-9
y	215	214	216	210	+1/-4
z	207	196	198	201	-9/+5
aa	189	190	205	203	+16/+13
bb	204	201	215	208	+11/+7
cc	213	221	208	221	-5/+0
dd	200	190	202	201	+2/+11
ee	189	187	187	189	-2/+2
ff	195	187	205	186	+10/-1
gg	187	186	183	192	-4/+8
hh	197	185	194	193	-3/+8
					Math 88/35=2.514 Reading 203/35=5.8

In the 2009-2010 school year the students were in a complete inclusion setting. Table 2 showed student scores for that year in math and reading, as well as the growth vs. regression from that same period. The addition sign was used to illustrate a positive growth and the subtraction sign was used to illustrate a regression. The bottom average was the mean of growth vs. regression by subject matter. The average mean for math was 0.914 points growth from fall to spring. The average mean for reading was 1.4 points from fall to spring. This concludes on average these 35 students grew in both subject areas in the 2008-2009 school year in a general education, integration, setting. Although there was overall growth made, the inclusion growth was more than three times more in math and four times more in reading in comparison to the integration model. To protect the anonymity of the student an alphabetical letter was used in place of their name.

Table 2
2009-2010 MAP Scores

Student	Fall Math	Fall Read	Spring Math	Spring Read	Growth
a	200	202	200	201	0/-1
b	218	206	219	220	+1/+14
c	197	176	200	170	+3/-6
d	244	199	250	201	+6/+2
e	222	202	222	202	+0/+0
f	231	190	231	194	+0/+4
g	236	220	240	225	+4/+5
h	224	214	220	210	-4/-4
i	216	196	220	201	+4/+5
j	227	189	220	180	-7/-9
k	194	195	196	197	+2/+2
l	198	193	200	200	+2/+7
m	194	210	201	208	+7/-2
n	200	187	202	201	+2/+14
o	194	209	195	208	+1/-1
p	214	218	219	218	+5/+0
q	197	187	195	192	-2/+5
r	203	178	207	183	+4/+5
s	210	202	210	205	+0/+3
t	189	164	209	175	+20/+11
u	203	216	205	217	+2/+1
v	211	214	202	210	-9/-4
w	237	195	240	200	+3/+5
x	186	193	187	187	+1/+0
y	212	217	212	210	+0/-7
z	205	202	200	198	-5/-4
aa	209	201	208	204	-1/+3
bb	211	215	215	216	+4/+1
cc	198	221	200	226	+2/+5
dd	201	192	200	190	-1/-2
ee	195	186	195	190	+0/+4
ff	196	186	190	187	-6/+1
gg	183	192	180	185	-3/-7
hh	199	202	199	201	+0/-1
					Math 32/35=0.914 Reading 49/35=1.4

Table 3 showed in which classroom setting each individual student had higher success in by subject matter. The bottom of Table 3 showed the total findings by subject matter. Sixteen students had higher growth in inclusion math. Twenty four students had higher growth in inclusion reading. Fifteen students had higher growth in integration math. Ten students had higher growth in integration reading. Four students stayed the same in math. One student stayed the same in reading. Overall, more students had a higher growth in math and reading in the inclusion setting. To protect the anonymity of the student an alphabetical letter was used in place of their name. The addition sign was used to illustrate a positive growth and the subtraction sign was used to illustrate a regression.

Table 3
Growth By Subject Area

Student	2008-2009 math/reading	2009-2010 math/reading	Higher Growth Inclusion	Higher Growth Integration	Same in both
a	-1/0	0/-1	R	M	-
b	+13/-2	+1/+14	M	R	-
c	+3/+7	+3/-6	R	-	M
d	-14/+13	+6/+2	R	M	-
e	0/0	+0/+0	-	-	M, R
f	-2/-4	+0/+4	-	M, R	-
g	+7/+19	+4/+5	M, R	-	-
h	+1/+1	-4/-4	M, R	-	-
i	+4/-2	+4/+5	-	R	M
j	+12/0	-7/-9	M, R	-	-
k	0/+24	+2/+2	R	M	-
l	0/+10	+2/+7	R	M	-
m	+4/+9	+7/-2	R	M	-
n	+19/+16	+2/+14	M, R	-	-
o	+3/-9	+1/-1	M	R	-
p	+2/+15	+5/+0	R	M	-
q	+10/+3	-2/+5	M	R	-
r	+4/+15	+4/+5	R	-	M
s	+4/+24	+0/+3	M, R	-	-
t	-6/+4	+20/+11	-	M, R	-
u	-4/+6	+2/+1	R	M	-
v	+1/+19	-9/-4	M, R	-	-
w	+12/+11	+3/+5	M, R	-	-
x	-1/-9	+1/+0	-	M,R	-
y	+1/-4	+0/-7	M,R		
z	-9/+5	-5/-4	R	M	-
aa	+16/+13	-1/+3	M,R	-	-
bb	+11/+7	+4/+1	M,R		
cc	-5/+0	+2/+5	-	M,R	-
dd	+2/+11	-1/-2	M,R		
ee	-2/+2	+0/+4	-	M,R	-
ff	+10/-1	-6/+1	M	R	-
gg	-4/+8	-3/-7	R	M	-
hh	-3/+8	+0/-1	R	M	-
			M=16 R= 24	M=15 R=10	M=4 R=1

Findings

After analyzing the data provided for the MAP testing, it was determined that the hypothesis of the author can be supported. In the 2008-2009 school year with the special education classroom setting of inclusion, the average growth of a 35 student case study showed math growth occurred on an average of 2.514 on the MAP test and 5.8 on the reading MAP test as shown on Table 1. In the 2009-2010 school year with special education students integrated fully in to the general education classroom, the average growth of a 35 student case study indicated that math growth occurred at an average of 0.914 and reading average 1.4 on the MAP testing as shown on Table 2. These averages were indicative of growth from fall to spring. Student who took inclusion made more than three times more in math and four times more in reading in comparison to the integration model. Statistically students made three times more growth in math and four times more growth in reading with the inclusion model.

Discussion

According to Mastropieri and Scruggs (1997), inclusion was a positive option only if it can be demonstrated that students with disabilities were learning critical academic, social, and life skills optimally in these environments. The findings of the 2008-2009 and 2009-2010 school year MAP scores concurred with Mastropieri and Scruggs. Inclusion showed substantially more academic growth than integration.

The findings of this case study refuted Smith (2004) who stated "special education placements have often resulted in lower expectations, a less challenging curriculum, and a self fulfilling prophecy of reduced educational outcomes." The findings showed the exact opposite that the special education placement had higher growth than the general education class room in reading and math that proved increased educational outcomes.

Summary

In this study, two settings in a two-year period were devised for thirty five special education students participating at middle school

level. The two settings: integration and inclusion were compared to determine which environment students were able to achieve greater academic success. The MAP testing was provided in the fall and spring of each year and an average growth rate was calculated. From the results, the author's hypothesis that inclusion proved to be a more appropriate educational placement was found to be supported and it was determined that a positive growth rate was achieved through the inclusion setting in comparison to the integration setting.

CHAPTER 5

Summary, Conclusions and Recommendations

Introduction

The study compared two groups of middle school students over two consecutive school years. The first year students were taught in an inclusion environment with curriculum at their academic functioning level. The second year students were integrated in to a general education classroom with curriculum at their grade level. Conclusions and recommendations were determined and the results were summarized with regard to the study based on the data gathered and analyzed. The data displayed on the Tables 1, 2, and 3 indicated there was an increase in student MAP scores for both reading and math with regard to special education students that were placed in an inclusive classroom environment. The author's recommendations were explained relative to the conclusions.

Summary

The purpose of the study was to identify the appropriate placement for special education students at the middle school level. Two

placements were used to conduct the study. The first placement was to utilize the inclusive method within a resource room. Students were instructed and functioned at their ability level. The second placement utilized the integrated grade level setting wherein students were instructed and functioned at their their grade level. Both of these settings took place during the course of the school year. The MAP testing was used to compare growth from fall to spring for both reading and math, and in both settings.

The quantitative research method used in the study was determined to be experimental. Data were gathered in the forms of results from the same testing methods, with the same students, in two consecutive years, and with two different learning environments. A mean was found from the growth from fall to spring of each year. The author wanted to determine if students learned and achieved higher scores on MAP testing as the result of inclusion or integration classroom settings.

Conclusions

Data were entered onto Tables 1, 2, and 3 which displayed fall and spring scores in both reading and math. A mean was then calculated and it was determined that an increase in mean was found in the inclusion versus the integration environment. Due to the numeric difference in mean scores between the inclusive environment and the integration environment, there was a clear indication, and arithmetic proof that the most effective environment for special education students was the inclusive resource room. The findings indicated that students not only performed more effectively, but build stronger skills when they receive instruction at their functional level versus their grade level. This data was shown by the progressive nature of the MAP test. When students get answers correct the following question becomes more difficult. When the student gets an answer wrong the following question becomes easier. This data indicated that more growth occurred in the inclusion setting where students were received instruction and academic work on their functioning level versus

students integrated in to the general education level they should be based solely on their age and grade level in school.

Recommendations

Based on the conclusions, the author's recommendation was as follows: All students with mild disabilities should be in an inclusive environmental classroom where they can receive instruction, and academic curriculum at their functioning level. The author also recommends to take in to account the limited scope of this study and recommends that the case study be repeated again with more students and a different group of students.

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