A Study of Vocational Programs for Handicapped Students in Newport News, Virginia

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A STUDY OF VOCATIONAL PROGRAMS
FOR HANDICAPPED STUDENTS
IN NEWPORT NEWS,
VIRGINIA

A Research Paper
Presented to
The Faculty of the School of Education
Old Dominion University

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

by
William D. Barton

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This research paper was prepared by William D. Barton under the direction of Dr. John M. Ritz in VIAE 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.

APPROVED BY: 

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CHAPTER ONE

INTRODUCTION

Vocational education for handicapped students has been an area of public school curricula that has been sorely neglected for many years. Such programs have been encouraged by federal laws, but only in the last few years has the wording of these laws been more closely examined as to the exact meaning of their content. A phrase frequently heard is "the least restrictive environment." This phrase has received new meaning such that it does not mandate "mainstreaming" for handicapped students. Rather, if it is used in its proper context, it means the environment most conducive to appropriate student learning.

STATEMENT OF THE PROBLEM

Prior to 1977, handicapped students were not provided public vocational training in Newport News. Vocational classes at the early secondary level and the high school level had not provided services to the handicapped student, especially those students who were classified as educable mentally retarded. A broader and more realistic prevocational/career orientation exploratory program was needed which would provide the educable mentally retarded students with a wider range of job interest skills at the early secondary level. The problem of this study was to measure the effects of two years of vocational training in industrial arts for educable mentally retarded students to see if
this training provided direction for more intensive training in specific vocations at the secondary level. This facilitated and simplified the tasks of implementing appropriate training in the high school work/study programs in Newport News, Virginia.

RESEARCH GOALS

Not all handicapped students can successfully fit into mainstream classes, even on a limited basis, and most particularly in shop oriented vocational areas. The research goals of this study were to:

1. Provide proof that handicapped students, especially educable mentally retarded, can be successfully trained, given the proper learning atmosphere, and

2. Provide justification that a separate vocational educational track for educable mentally retarded students should be established where they may compete only with others in their peer group.

If a training program of this nature is established, then the students should attain a high level of competency in a variety of job entry skills and have demonstrated the ability to compete successfully in the job market. In this way, the welfare rolls and penal institutions of our state and communities which are presently filled with frustrated people who want to and should be independent, contributing members to society might be reduced, thus improving the quality of life for these educable mentally retarded individuals.

BACKGROUND AND SIGNIFICANCE

Traditionally, vocational training for handicapped students has been an area of education or training which has been provided only in
schools designed to deal specifically with handicaps, whether the handicap has been physical or has involved some degree of mental retardation (Barton, 1978, pp1,2). The Education for All Handicapped Children Law of 1975 (Public Law 94-142) has been the most significant article of legislation passed by Congress concerning handicapped students. This act required handicapped students to be placed in "the least restrictive educational environment." Essentially, this meant that all handicapped students must be given the same educational rights in all capacities as regular students and provided legal protection including civil rights to insure this.

Historically the main thrust of education for handicapped students has been to strive for a closer academic parity with normal students, with some effort made toward career education. This has usually involved training for menial tasks or tasks that required little, if any, skill. Since the early 1960's this path has been followed with minimal success. Handicapped students with some degree of mental retardation as an example, very seldom achieve language or computational skills beyond the fourth or fifth grade level. This was reflected in their IQ scores, SAT scores, CRT scores, and other more specialized tests used to determine their academic placement (Newport News Public Schools Records, 1970-79).

It was important to address ourselves to those sections of Public Law 94-142 governing the rules and regulations for the handicapped. This section included the wording:

"...to assume that every handicapped child who leaves
school has had career education training that is relevant to the job market."

This same section of legislation also stated:

"State and local education agencies shall take steps to insure that handicapped children have available to them the variety of programs and services available to non-handicapped children, including ... industrial arts, home economics, and vocational education"(CFR, Title 45, Part 121, Section 3A).

Public Law 94-142 also mandated that each handicapped child must have a periodic review of his or her program to insure that educational efforts were directed in the most needed areas. This was called the Individualized Education Program (I.E.P.). This document insured that local school districts would be held accountable for the overall achievements of each handicapped student.

It was also an excellent vehicle to be used for the purpose of directing the achievements of each student to his or her specific skills that best enhanced their opportunities to develop job entry skills.

To serve the needs of these students adequately, special education and vocational education had to become more closely allied. Special educators had been aware of the needs of the handicapped students for years, and vocational educators were only now being confronted with the need for this knowledge. To be more supportive of each other in their endeavors, and to insure proper implementation of P.L. 94-142, it was important that administration, special education, and vocational education work closely with each other to insure that the needs of the students were properly served.
It has been an accepted fact that most handicapped students, especially those with mental retardation, would never achieve a full and complete education because of their limitations. There has been every reason to believe that these students, provided the proper atmosphere for learning/training, could become contributing members of society, fully capable of providing for their own needs.

There has been good reason to believe that there was a need for less emphasis on the academic needs, and a greater need for vocational training which would be much more useful to these students when they leave the school setting. This was not to say that the academics were of no importance. The intent was to show that these areas of learning would better serve the needs of the student if there was a closer alliance with vocational education to serve these needs by a more realistic concentration of efforts with more emphasis on the vocational needs. It was the intent of this study to demonstrate this.
ASSUMPTIONS

The purpose of this study was to measure the effects of two years of vocational training in industrial arts for educable mentally retarded students to see if this training provided direction for more intensive training in specific vocations at the secondary level. The three factors that follow were assumed to be true for this study:

1. Mentally retarded students can work safely and with discipline in a vocational setting.

2. Mentally retarded students can develop, retain, and refine vocational skills in specific areas.

3. Individual vocational skills can be identified early enough in each mentally retarded student to provide adequate time to develop appropriate job entry skills.

It was important to realize that experience in the classroom and laboratory have shown that the vast majority of mentally retarded students were neither emotionally nor educationally prepared for mainstream classes, especially in industrial arts type vocational areas. These classes were too large and there was insufficient time for the individualized attention and patience that was required when training mentally retarded students. The Department of Health, Education, and Welfare funded a study in 1974 dealing with vocational education programs for the handicapped. The results of this study stated:

"Vocational educator's lack of sensitivity and skill in
dealing with the handicapped is a major barrier to integrating the handicapped into regular vocational education programs" (California Education Department, 1974).

Vocational educators were not prepared to accept mentally retarded students into regular classrooms in large numbers. They were not trained to deal with the problems inherent with students who have special needs. Even with appropriate teacher training, the majority of special education students would still require a separate educational track. Provided the proper training atmosphere, especially in vocational subjects, special education students can compete successfully in the main stream when called on to do so as adults in the job market.

In arriving at these assumptions, there were problems of special significance which needed to be considered. These were developed in the limitations.

LIMITATIONS OF THE STUDY

Several limitations were recognized during the course of the study. They were listed as follows:

1. The study was limited to educable mentally retarded students in special education at the intermediate and high school level.

2. The study was limited to students at Huntington Intermediate School, Newport News, Virginia, and students at Warwick High School Gatewood Annex, Newport News, Virginia.

3. The study was limited to those students still in the educational process because records of job placements involving
students who preceded the study reflected only positions of non-skilled employment and were not pertinent to the study. As a result, the assumptions were based on projections from appropriate available data.

PROCEDURES OF THE STUDY

The subject matter of the study was identified two years ago (1977/78) as an area of need which had received little attention. Data had been accumulated during this time to implement the procedures of the study. A daily diary had been maintained on every student who had participated in The Work Study Program, 1977-78, and the Vocational Education Exploratory Program for Handicapped Students, 1978-79, Newport News Public Schools. Information from these diaries had been analyzed and was reported.

Annual evaluations have also been compiled and submitted for publishing. Information from these evaluations was used.

Finally, vocational educators in Newport News have been surveyed to determine the extent of their involvement with special education students, and their attitudes toward the mainstreaming of these students. The results of this survey were used.

To insure that the content of this study was correctly interpreted, it has been necessary to define certain key terms for the sake of clarity. These are included in the following section.
DEFINITION OF KEY TERMS

The following were key terms that dealt with handicapped students as they might be applied to a vocational setting. The key terms were:

1. Mainstreaming - the positive interaction between handicapped and non-handicapped children.

2. Special Education - a subsystem of the total educational system responsible for the joint provisions of specialized and adapted programs and services.

3. Industrial Arts - the broad study of tools, materials, equipment, processes, products and occupations of industry pursued for general education purposes, in the shops and laboratories of schools.

4. Special Needs Students - students who have been designated by experts as having handicaps such as: disadvantages, physical handicaps, social and emotional handicaps, and learning disabilities.

5. Vocational Education - all those activities and experiences through which one learns about a primary work role.

6. Career Education - the totality of experience through which one knows about and prepares to engage in work as a part of his or her way of life.

7. Public Law 94-142 - a Federal legislative mandate providing for a free appropriate educational experience for all handicapped children. It provided that a student be mainstreamed into regular classroom environments, or provided the least restrictive environment.
for the handicapped.

8. Public Law 94-482 - the Education Acts of 1976 - Federal legislation requiring vocational programs in which handicapped learners were enrolled in programs that were planned and coordinated in conformity with and as a part of the child's individualized education program.

9. Individualized Education Program - I.E.P., as stated in Public Law 94-142, Title II, meant a written statement for each handicapped child be developed containing specific goals, short term objectives, and a listing of related services.

10. Public Law 93-112 - The Rehabilitation Act of 1973. This was a civil rights law for handicapped persons and was designed to eliminate discriminative practices based on handicaps.

SUMMARY

Vocational educators were accepting handicapped students into their classrooms and laboratories in limited numbers and with limited success. Public Law 94-142 has been generally interpreted to mean that the majority of handicapped students should eventually be mainstreamed, interpreting this to be the least restrictive environment. Vocational educators were still unprepared to deal with the problems of the special needs student, as well as the additional paperwork of the I.E.P. Even if these things were not true, there was sufficient proof that the best needs of the special student would seldom be served in most mainstream classrooms due to their limited abilities to
learn at a normal pace.

This study was established to measure the accomplishments of a group of educable mentally retarded students who have been provided exposure to a vocational exploratory program at the intermediate school level in a specially designed program. It was also designed to measure the successes and failures of some students who have left this setting and been mainstreamed. All were used as a control group as will be explained in Chapter Three. Finally, this study attempted to analyze teachers attitudes in working with special needs students in a mainstreaming environment. The following chapters will examine related literature dealing with handicapped students, and how this particular study was conducted, with the resultant conclusions.
CHAPTER TWO

REVIEW OF LITERATURE

The problem of this study was to determine that the vocational needs of handicapped students, especially EMR students, could best be met by a separate vocational track, geared to their specific needs. The following paragraphs provided information considered pertinent to the study. The information presented was based on information obtained from literature dealing with vocational education. Most of the literature was written by special educators, or other educators outside the vocational field, but with strong interest in the subject area.

NEED FOR EDUCATION OF THE HANDICAPPED

"The needs of handicapped students, especially EMR students, must be met according to their needs." (Batsche, February, 1978). The Vocational Education Act of 1963 and the amendments of 1968 increased the emphasis on vocational programs. Public Law 94-142 mandated that handicapped students must receive a full, free education, and be integrated with non-handicapped students where it is the least restrictive environment. It has become increasingly apparent that mainstreaming would not serve the purpose, that something more definitive needed to be developed to serve the needs of the handicapped student. "Handicapped students vitally need vocational education; yet they are intentionally excluded from the schools vocational training programs.

Today, teachers and educational systems are becoming realistic about serving the vocational needs of the handicapped student because the law stated it was mandatory by July 1, 1980. The primary thrust has been directed toward mainstreaming. To this time, the following has been proven to be true:

"More than two thirds of the instruction for the handicapped is training not intended to prepare students to compete in the open labor market in a given skill, craft, or trade." (Faulkner, ERIC, 1975).

The Office of Education estimated that ten percent of the school age population has learning handicaps. Something more than mainstreaming was needed to insure that a full free education was assured for these students, especially in the vocational areas.

IMPORTANT LEGISLATION

Phelps and Halloran note several provisions of the act which would have an impact on vocational education:

1. Assurance that individualized, written educational plans will be developed and maintained for each child.
2. A guarantee of complete due process procedures.
3. Assurance that students will be served in the least restrictive educational environment.
4. Assurance of nondiscriminatory testing and evaluation.
INDIVIDUAL EDUCATIONAL PLAN

Public Law 94-142 requires the development and periodic review of an Individualized Education Program (I.E.P.) for each handicapped student. The law holds the local school districts accountable for the development of each child through this instrument.

"The I.E.P. provides an assurance that the achievement of each student will be planned and recorded so that the overall effectiveness of various approaches to educating handicapped can be objectively evaluated." (Hull, Industrial Education, 1977, p. 26-28).

"The role that vocational, industrial and practical arts teachers play in the development and monitoring of the I.E.P. will be determined largely on a matter of local district policy. However, the teacher, special or regular, will have the direct responsibility for implementing the child's I.E.P." (Hull, 1977).

Vocational educators who have handicapped children in their class should expect to be involved in both development and monitoring of the overall plan. To date, some efforts have been made through the use of funded conferences nationwide, i.e., "The Conference on Mainstreaming the Handicapped Student," Virginia Polytechnic Institute and State University, February, 1978, and other regional conferences to train a core of educators in the mechanics of the I.E.P.

Little has been done on the local level to prepare the classroom teacher to deal with this extracurricular burden, and in addition, even less has been done to prepare the classroom teacher to deal with the real problem of handicapped students.
COURT DECISIONS

Civil rights for the handicapped has expanded the need for qualified vocational educators. Landmark court decisions have encouraged the passage of federal legislation as noted in the following:

"In 1971, Pennsylvania Association for Retarded Children vs the Commonwealth of Pennsylvania, the state Supreme Court held that every school age mentally retarded child has a right to a public education." (Tambirin, 1977, p. 16).

In addition,

"In Miller vs the Board of Education of Washington, D. C. in 1972, the Pennsylvania Supreme Court principle was restated and extended that right to all handicapped children; also the court stated that lack of funds was unexcusable." (Tambirin, 1977, p. 16).

TEACHER PREPARATION

Public Law 94-142 rules and regulations for the handicapped Act CCFR, Title 45 part 112.3A includes the wording "to assure that every handicapped child who leaves school has had career education training that is relevant to the job market." To insure this proper training, personnel development for currently employed persons, changes in the nature of the preparation of new teachers and the emergence of new types of professionals is recognized and is provided for in this act. "All education personnel, including teachers, will need to have additional competencies to meet the needs of special needs individuals." (Tambirin, 1977, p. 17).

The General Accounting Office reported that generally only
minimum expenditure requirements were being met in most states for the special needs students. (H.E.W., 1976, P. 29). The General Accounting Office also reported that approximately 80 percent of vocational educators have little or no preparation to work with the handicapped.

In support of this, The Olympus Study reported similar findings for the handicapped. (Olympus, January, 1975).

Special education teachers are prepared to deal with the handicapped. Vocational educators are not. To fully serve the educational rights of the handicapped, this disparity must be corrected. To date, efforts to satisfy this need have been minimal.

The capacity of colleges to prepare specialists in the education of the handicapped has not increased to the point that the anticipated demand for these specialists has been fulfilled. Handicapped students are usually excluded from the regular vocational education programs and are limited to segregated classes offering few career choices.

The main obstacle preventing the mainstreaming of handicapped students in vocational programs is the lack of training of vocational educators in dealing with the handicapped. This lack of needed training has resulted in millions of handicapped individuals being unemployed and heavily dependent of society. "To improve career opportunities for the handicapped, vocational educators should receive additional instruction in how to effectively deal with these students." (H.E.W., p. 28).

The Bureau of Education for The Handicapped has stated that without vocational education many of the millions of handicapped
youth leaving school will be unemployed, on welfare and totally
dependent on society. With vocational education, however, educators
estimate that 75% of the handicapped could gain knowledge of career
education. Consequently, the handicapped person's need for vocational
education has been recognized by the Congress. Federal legislation
requires that ten percent of vocational education grants to states be
directed to programs for the handicapped. The Office of Education
reported that the vocational network served over 12 million individuals
in the fiscal year of 1974, but less than 2 percent of them were
handicapped. The Office of Education estimates that 10 percent of the
school age population have learning handicaps. (H.E.W., p. 29).

Most vocational teachers do not have the training and are
reluctant to accept the handicapped in their classroom. In a funded
study of vocation programs for the handicapped, it was stated:

Vocational educators' lack of sensitivity and skill in
dealing with the handicapped is a major barrier to
integrating into the regular vocational education
program. (H.E.W., p. 31).

In a report to the Congress by the Comptroller General of the
United States in 1976, responses to a questionnaire sent to state
directors of special education stated that few vocational educators
in their state had sufficient training in instructing the handicapped.
The Office of Education reported that in fiscal year 1974...

"about 266,000 teachers were training in vocational
education programs. Approximately 109,000 teachers
had received inservice training, but only 500, less
than half of one percent had received special train-
ing in working with the handicapped students." (H.E.W.,
p. 32).
Many states require that teachers have special certification to
teach vocational subjects to special needs students. However, in most
states there are no additional courses to teach how to educate handi­
capped students. Most states do require that human qualities in the
teacher are of great importance. "There are few programs for training
teachers for the handicapped related to the number of teachers who will
now be required to meet the requirements of recent federal legislation."
(Ala., 1975, p. 4).

An area of prime concern to all teachers with handicapped students
is inservice training. Public Law 94-142 requires that local school
systems provide this training for its teachers. Tony Faiser, Assistant
Supervisor of Special Education for Virginia, has stated that his state
is in the process of developing a comprehensive inservice plan which
will affect all school personnel. The details of this plan are still
under consideration. (Faiser, February, 1978, p. 46). To date, this
plan has not been implemented, and the effective date of the pertinent
legislation is July 1, 1980.

Each preservice teacher should receive some additional training
in the area of Special Vocational Needs Education. The University of
Nebraska has chosen to take this route with very good results. All
vocational students take one or more courses in the area of special
vocational needs. These courses deal with characteristics of special
needs students, program development and implementation, career planning
and selection, and curriculum modification. For additional training,
these students take courses within the Department of Special
LEAST RESTRICTIVE ENVIRONMENT

In 1979, Gary Meers stated that a pilot program had been started in Omaha, Nebraska, where

"special needs students were provided a separate vocational track outside the mainstream, and that initial results far exceeded anticipated projections." (Meers, Barton, February, 1979).

When informed of a similar program in Newport News, Virginia, in its second year, he stated that this "might prove to be the least restrictive environment that will prove most effective for special needs students." (Meers, Barton, February, 1979).

In 1972, a study of employment patterns of the graduates of the Newport News Special Education program showed that of the 28 former students contacted, twenty were employed in jobs with a salary scale ranging from, $0.50 to $3.20 per hour, with the median hourly wage being $1.32. The remainder of those contacted were unemployed and on welfare. (Salnoske, 1972, p. 10). These students received career education, but no vocational training.

In 1976, Salnoske proposed that Newport News develop a separate vocational educational track for educable mentally retarded students, to be implemented in the 1976/77 school year. (Newport News, 1976). The program was implemented in the 1977/78 school year at the Intermediate school level. The followup studies for the two preceding years provide ample justification for the existence of this program, and its further implementation at the high school level. (Barton, 1978, 79, p. 8).
SUMMARY

Federal legislation mandated that handicapped students receive a full free education in the least restrictive environment. Studies have shown that mainstreaming is not the least restrictive environment for the vast majority of handicapped students because vocational teachers are still not equipped to deal with these students' special needs, and, as later study has shown, most handicapped students do not respond productively in the mainstream to adequately satisfy their needs. As further studies have also shown, provided with a separate vocational track where competition was within their handicapped peer group, these same students responded with a skill equal to, and sometimes superior to, normal student achievements.
CHAPTER THREE

METHODS AND PROCEDURES

Since this study was designed to justify a fully implemented vocational education program for educable mentally retarded students, it dealt specifically with those instruments which support this assumption. The information for this study was gathered over the proceeding two years, along with information gathered during the current school year.

POPULATION OF THE STUDY

The population of this study consisted of educable mentally retarded students at the intermediate school level located at Huntington Intermediate School, Newport News, Virginia during the school years 1977/78 to the present. The data used reflected both students in a specially prepared curriculum and students who have been mainstreamed in industrial arts, home economics, business, and art classes.

DATA GATHERING INSTRUMENTS

The need for this study was identified two years ago. During that time, a daily diary had been maintained for each of the students involved in the special program. In addition, information from their Individual Educational Programs had been used. Finally, for these students, the results of two annual evaluations were used.
Since no I.E.P.'s were maintained on the vocational development of the mainstreamed students in vocational subjects (none were required by law), quarterly grade reports and periodic conferences with their vocational teachers were the instruments used to provide a comparison.

All grades assigned to students in the special classes were criterion referenced, and the instruments were competency based. It was felt that the resulting assumptions had been relatively free of bias. This had been assured as much as possible by seeking grading scores from teachers not involved in the teaching process for the students in the special group.

Finally, a questionnaire was sent to all vocational teachers in Newport News, Virginia, to determine the following information (Appendix A):

1. Have you ever taught handicapped students?
2. Were you prepared to deal with their handicaps?
3. Were you required to alter teaching/testing procedures?
4. Are you familiar with the requirements of the various Federal laws relating to handicapped students, specifically Public Law 94-142?
5. Do you feel qualified to teach handicapped students along with your regular students at this time?

These were the key points of the questionnaire, but not the only ones.
COLLECTION OF THE DATA

With the exception of the questionnaire, all necessary data was available in the records retained at Huntington Intermediate School and Warwick High School Gatewood Annex, Newport News, Virginia. The questionnaires were mailed out with stamped and self addressed envelopes for easy return.

DATA ANALYSIS

Since all data gathered from existing records was cumulative and was documented in the annual evaluations (Barton, 1977-79), the information was transcribable. The questionnaires required twenty yes/no answers and one subjective essay answer. Their results were used to prepare recommendations to the school administration, as well as to satisfy the needs of this study.

SUMMARY

The tools used to gather the primary information for this study have been in existence and were a matter of record in the referenced schools. The questionnaire had been used to justify the need for a separate vocational track for special needs students, along with the data available from school records. The information provided from these sources gave all the data necessary to justify the findings that will be made in the following chapter.
CHAPTER FOUR

FINDINGS

This chapter contained the statistical results of the three year study to determine whether a separate vocational education track could be justified for special needs students. Also included was the information gathered from 92 of 110 vocational teachers relating their experiences in teaching special needs students. The historical data gathered from available records was presented first followed by the results of the questionnaire.

GOALS OF THE STUDY

It has been the purpose of this study to satisfy these objectives:

1. Provide proof that handicapped students, especially educable mentally retarded, can be successfully trained, given the proper learning atmosphere, and

2. Provide justification that a separate vocational educational track for educable mentally retarded students should be established where they may compete only with others in their peer group.

1977/78 SCHOOL YEAR

In the 1977/78 school year, the Trade Preparatory Program was offered to 32 students, with a basic curriculum designed around the state guide for Exploring Technology.

Two students were dropped and one was transferred.
Of the remaining twenty-nine, six were failed, recommending retention at grade level. Four students were passed, but were recommended to the Special Education Department for further work in Trade Preparation at the same grade level. The final recommendation of the Special Education Department was that all but ten students be advanced to the next highest grade level, with two students recommended for Adjustive Education and two students partially mainstreamed (Barton, 1978, p. 9).

During the course of this first year, testing was found to be extremely difficult due to the extremely low reading and computational levels of the students. Consequently, all grading, except those areas involving measurement tests, was criterion referenced. Consequent testing procedures were compared with testing procedures of other Industrial Arts teachers to help insure objectivity. The results of the 1977/78 school year were encouraging. Certain factors were required to provide the control which would satisfy the objectives of this study. These requirements were implemented during the following school year.

1978/79 SCHOOL YEAR

The 1978/79 school year started with a change in the name of the curriculum. The Trade Preparatory Program became the Vocational Education Exploratory Program for Handicapped Students. This change simplified placing the program into areas more easily identified with state and federal guidelines.

The Vocational Education Exploratory Program for Handicapped Students was offered to twenty-eight students in the 1978/79 school year. Four were dropped from school for varying reasons, and one was transferred. Of the remaining twenty-three, two were failed due to poor
attendance. Of the remaining twenty-one, all were considered to have achieved the objectives of the course (Barton, 1979, p. 14).

During the second year of this study, fifteen students were returned for a second year of vocational training, and thirteen students were inducted into the program. All classes were integrated with students of both the 8th and 9th grade levels. Peer tutoring was also used for the first time. This will be considered first.

New students entering the program demonstrated considerable immaturity which did not coincide with their chronological age. Three events offset these early problems - strong motivation, stern discipline, and peer tutoring. Of the three, peer tutoring was most effective. Given responsibility, second year students responded surprisingly well, and almost negated the discipline problem. In addition, the second year students demonstrated remarkable recall of previously learned skills, and did not hesitate to share this knowledge with the new students. Of this group of 3 second year students, only two were recommended for a third year retention at grade level. All others were subsequently advanced. It was also noted that these students demonstrated a remarkable improvement in both maturity and responsibility that had not been noted in previous years based on information from Individualized Education Programs (I.E.P.)'s.

Four students who had received the Trade Preparatory Program were placed in regular Industrial Arts classes as adjustive students. One failed due to poor attendance. One failed academically. The remaining two were passed, but with minimum passing scores and without credits.
After consultation with the two teachers who instructed these students, it was determined that their low reading and computational abilities were the decisive factors which determined their low or failing grades.

Three female students were allowed to take an 8th grade Home Economics course in addition to the previously mentioned vocational work. All three failed sewing and homemaking. Two of the three passed cooking. It was determined that two of the three could compete with regular students in areas which did not require reading or measurement, but became withdrawn when required to demonstrate skills in these two critical areas. All three students were recommended for retention at grade level.

At this time it was worthy to note that eleven projects completed by special students were entered in the Industrial Arts Spring Festival. There were four who achieved first place. Four received second place ribbons, and two placed third. One special student received a craftsmans award for a wood project. Additionally, one second place award was mistakenly awarded for an acrylic plastic project in regular competition.

1979/80 SCHOOL YEAR

During the current school year, thirty-two students have been enrolled in the Vocational Education Exploratory Program for Handicapped Students. Twenty of these students were new to the program. Ten were in their second year, and two were in their third year. Four students with two years experience in the program were "mainstreamed" into
regular Industrial Arts classes. Three of these students were also retained in the separate vocational track for handicapped students. The regular Industrial Arts teachers were not informed of their status. A report on the findings of the separately tracked group will be made first.

Twenty eight students are presently enrolled in the Vocational Education Program for Handicapped Students exclusively. There is a marked degree of immaturity in this group, much more apparent than in the previous year. Due to scheduling difficulties, most of the second and third year students were grouped together, making peer tutoring very limited. Motivation and constant positive support became extremely important to these first year students. In addition, new areas of curriculum were introduced for the first time involving carpentry, plumbing, and electrical house wiring.

Twenty students comprise the new group. To date, four are failing due to poor attendance. Two more will fail due to inability to satisfy course requirements. Four students will satisfy marginal requirements, but will be recommended for retention. The remaining ten students will have satisfied course requirements and will be recommended for advancement.

Twelve students are in their second or third year of the program. All are proceeding at or above anticipated criteria.

Four students were placed into regular Industrial Arts classes, with three also receiving additional exposure in the program previously mentioned. Two of the four students are receiving their third year
of Industrial Arts, either in regular classes, or in a combination of both programs. Both students are currently passing with a low C average in the regular classes. One of the two is currently an A student in the vocational program for handicapped students. The remaining two students are receiving both regular and separate vocational programs, and both are passing in all respects, but only with additional assistance in the regular classes. The important point to note here is that the regular Industrial Arts classes have not identified any potential job entry skills for these students. The Vocational Education Exploratory Program for Handicapped Students has identified at least one area of potential job capabilities for each student. Additionally, approximately forty percent of the graded work in the regular program is based on reading and writing assignments beyond the capability of the special students.

It is difficult to assess the actual achievements of the students involved in this separate vocational program except through previously established criteria not involving written tests. Satisfactory project completion is the most effective measurement device to date. As an illustration, ten projects were entered for competition in the Industrial Arts Spring Festival. There were four first places, four second places, two third places, and one Craftsmans Award for a plastic corner shelf. This completes the analysis of the first three years of the program. The remainder of the chapter will analyze the results of the teacher questionnaires.
SURVEY RESULTS

A QUESTIONNAIRE SUBMITTED TO THE VOCATIONAL TEACHERS OF NEWPORT NEWS, VIRGINIA

A questionnaire was prepared and submitted to one hundred ten vocational teachers in Newport News, Virginia. Its purpose was to determine the answers to five basic questions:

1. Have you ever taught handicapped students?
2. Were you prepared to deal with their handicaps?
3. Were you required to alter teaching/testing procedures?
4. Are you familiar with the requirements of the various Federal laws relating to handicapped students, specifically Public Law 94-142?
5. Do you feel qualified to teach handicapped students along with your regular students at this time?

The questionnaire required twenty yes or no answers and one subjective essay response. Since it was necessary to distinguish between educable mentally retarded students and students with other handicaps or learning disabilities, the questions were to some degree repetitive.

There are one hundred ten vocational teachers in the school system. Ninety-two replied to the questionnaire, for a response of eighty-four percent. Table 1 shows the percentage of respondents to the survey by vocational area.
TABLE 1

RESPONSE BY DEPARTMENT

<table>
<thead>
<tr>
<th>Department</th>
<th>Teachers Assigned</th>
<th>Response</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Business Education</td>
<td>40</td>
<td>26</td>
<td>65%</td>
</tr>
<tr>
<td>Industrial Arts</td>
<td>28</td>
<td>21</td>
<td>75%</td>
</tr>
<tr>
<td>Distributive Education</td>
<td>14</td>
<td>9</td>
<td>64%</td>
</tr>
<tr>
<td>Home Economics</td>
<td>22</td>
<td>18</td>
<td>82%</td>
</tr>
<tr>
<td>Industrial Cooperative</td>
<td>6</td>
<td>5</td>
<td>83%</td>
</tr>
<tr>
<td>Training</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No Program Indicated</td>
<td>18*</td>
<td>13</td>
<td>72%</td>
</tr>
</tbody>
</table>

* Not included in count of teachers assigned.

There was not sufficient time for followup requests, so it was felt that the response and percentage by department was significant and satisfactory for this study.

Table 2 shows how many teachers have taught handicapped students.
TABLE 2

HAVE YOU EVER TAUGHT PHYSICALLY OR MENTALLY RETARDED HANDICAPPED STUDENTS

<table>
<thead>
<tr>
<th>Teachers Assigned</th>
<th>Response</th>
<th>Yes</th>
<th>No</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Business Education</td>
<td>40</td>
<td>26</td>
<td>13</td>
<td>13</td>
</tr>
<tr>
<td>Industrial Arts</td>
<td>28</td>
<td>21</td>
<td>11</td>
<td>10</td>
</tr>
<tr>
<td>Distributive Education</td>
<td>14</td>
<td>9</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Home Economics</td>
<td>22</td>
<td>18</td>
<td>15</td>
<td>3</td>
</tr>
<tr>
<td>Industrial Cooperative Training</td>
<td>6</td>
<td>5</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>No Program Indicated</td>
<td>18</td>
<td>13</td>
<td>8</td>
<td>5</td>
</tr>
<tr>
<td>Total</td>
<td>110</td>
<td>92</td>
<td>53</td>
<td>39</td>
</tr>
</tbody>
</table>

Fifty-three of ninety-two teachers who responded to the questionnaire have taught handicapped students. More specifically, thirty-eight have taught students with physical handicaps - twenty have taught mentally retarded students. Five teachers have taught both physically handicapped and mentally retarded students.

Questions four and five ask whether these students were successfully integrated into regular classes and competed successfully with the regular students. Of the fifty-three yes responses to the questions in Table 2, twenty-two responded that the physically handicapped competed successfully. Three responded that the mentally
retarded competed successfully. All three were in Business Education.
Twenty-eight responded that the handicapped students were not able to
compete successfully and five of these were from teachers who had
taught both the physically handicapped and mentally retarded.

Two critical areas were identified in the special vocational
program taught to students at Huntington Intermediate School. These
were classroom teaching methodologies and testing procedures. It was
necessary to question the vocational teachers as to whether they were
required to modify either their teaching or testing procedures for the
handicapped.

| TABLE 3 |

<table>
<thead>
<tr>
<th>Teaching</th>
<th>Testing</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Business Education</td>
<td>10</td>
</tr>
<tr>
<td>Industrial Arts</td>
<td>7</td>
</tr>
<tr>
<td>Distributive Education</td>
<td>4</td>
</tr>
<tr>
<td>Home Economics</td>
<td>12</td>
</tr>
<tr>
<td>Industrial Cooperative Training</td>
<td>2</td>
</tr>
<tr>
<td>No Program Indicated</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

As listed in Table 3, of the fifty-three teachers who taught
handicapped students, forty-one had to modify teaching procedures for
a total of seventy-seven percent. Fifty-two of fifty-three teachers
had to modify testing procedures for a total ninety-eight percent.

During the collection of data over the past three years, it became clear that many vocational teachers were unfamiliar with the needs of handicapped students and were apprehensive about taking them into their classes. Table 4 provides the information by program area of those vocational teachers who feel qualified to teach handicapped students.

TABLE 4

DO YOU FEEL QUALIFIED TO DEAL WITH THE PROBLEMS OF THE PHYSICALLY AND MENTALLY HANDICAPPED STUDENTS

<table>
<thead>
<tr>
<th>Program Area</th>
<th>Yes</th>
<th>No</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Business Education</td>
<td>4</td>
<td>22</td>
<td>84.6%</td>
</tr>
<tr>
<td>Industrial Arts</td>
<td>2</td>
<td>11</td>
<td>52.4%</td>
</tr>
<tr>
<td>Distributive Education</td>
<td>0</td>
<td>7</td>
<td>77.7%</td>
</tr>
<tr>
<td>Home Economics</td>
<td>0</td>
<td>9</td>
<td>50.0%</td>
</tr>
<tr>
<td>Industrial Cooperative Training</td>
<td>0</td>
<td>3</td>
<td>60.0%</td>
</tr>
<tr>
<td>No Program Indicated</td>
<td>0</td>
<td>9</td>
<td>69.2%</td>
</tr>
</tbody>
</table>

Only sixty-seven of ninety-two responding teachers answered these questions. Sixty-six percent felt they were not qualified to teach physically and mentally handicapped students. In Business Education, of the four teachers who responded yes, only two felt they could deal with the problems of the mentally retarded. In Industrial Arts,
eight teachers felt they could deal with physical but not mental handicaps. In Distributive Education, two teachers felt they could deal with physical but not mental handicaps. In Home Economics, six teachers felt they could deal with physical handicaps, and four of the six felt they could also deal with mental handicaps. In Industrial Cooperative Training, two teachers felt they could deal with physical handicaps, and one felt that mental handicaps could also be dealt with. The teachers with no program indicated felt that three could deal with physical but not mental handicaps.

It was anticipated from previously gathered data that vocational teachers would voice reservations about teaching handicapped students. Table 5 asked these teachers if they felt that separate specially designed vocational classes would be more suitable.
Questions 14, 15, and 16 ask if the public schools can provide vocational education for the handicapped. Of the ninety-two responding teachers, eighty-five believe that all handicapped students can be adequately educated in the public school system. Seven teachers feel that special schools could be needed for physical handicaps depending on the nature and severity of the handicap. Five of these seven teachers feel that mentally retarded students should be in separate schools.

Question 17 asks if the vocational teachers are familiar with Public Law 94-142. With ninety-two teachers responding, only twenty-two said they were not familiar with Public Law 94-142. Seventy
teachers indicated familiarity with the law.

Question 18 asked if the teachers were prepared to implement Public Law 94-142 for handicapped students in their classrooms. Seventy-one responded that they were not prepared to implement the law. Eight teachers in Industrial Arts said they were prepared. Three Business teachers said they were prepared, and three who did not identify their programs said they were prepared. Distributive Education teachers and Industrial Cooperative teachers indicated no readiness to fulfill the requirements of the law.

The last significant part of the questionnaire was Question 21 where the teachers were requested to give their opinion on how the vocational needs of handicapped students could best be met to prepare them to be self supporting adults. Eighty-eight of ninety-two teachers responded for a total of ninety-six percent. Because the question required a subjective opinion, a table was not used to interpret the information. Instead the answers were analyzed by the intent of the response.

Of the eighty-eight teachers responding, nine felt they could successfully deal with either physically or mentally handicapped students if the class size was small enough and there was sufficient time. Two other teachers felt they would have no problems with the physically handicapped as long as equipment modifications could be made. These two teachers also felt they could deal with mentally retarded students so long as they had teaching assistants assigned to those classes with mentally retarded students. The remaining seventy-seven teachers did not feel qualified to deal with handicapped
students in general and felt that their needs would best be served in classes especially designed for them. All comments were universal in stating that the needs of the handicapped student could and should be met in the public school provided the degree of the handicap was not so severe as to require some type of resident status at a special school.

SUMMARY

The success rate of students enrolled in the Vocational Education Exploratory Program for Handicapped Students has been well documented. The results of the questionnaire submitted to vocational teachers in Newport News, Virginia has also been well documented. These findings will be used in Chapter Five to help provide direction for the future education of handicapped children in Newport News, Virginia.
CHAPTER FIVE

SUMMARY, CONCLUSIONS, RECOMMENDATIONS

SUMMARY

This study was conducted to analyze the information collected over the three years from 1977/78 to the present time to determine whether it would be feasible to develop a separate vocational track for handicapped students in Newport News, Virginia. The study was constructed so that physically handicapped students would be separately identified from mentally retarded students. In addition, the vocational teachers in Newport News were questioned as to their exposure to handicapped students, their familiarity with federal laws relating to handicapped students, and whether they felt capable of adequately serving the needs of these students. The purpose of this study has been to satisfy these goals or disprove them:

1. Provide proof that handicapped students, especially educable mentally retarded, can be successfully trained, given the proper learning atmosphere, and

2. Provide justification that a separate vocational educational track for educable mentally retarded students should be established where they may compete only with others in their peer group.
CONCLUSIONS

Within the last three years, many programs to satisfy the needs of handicapped students have been implemented across the United States. The interim results of some of these programs have been referred to in this study. Invariably, these programs have been implemented to satisfy the requirements of federal legislation. Newport News, Virginia has attempted to satisfy these requirements in such a way as to insure that each handicapped student is given "a full, free education in the least restrictive environment." The Vocational Education Exploratory Program for Handicapped Students, through its three year history, has fully justified its existence. The students that have participated in this program have, in actuality, served a dual function. Initially they have satisfied the requirements of the course in numbers that exceed the average passing grades of students in regular classes. Secondly, they have been exclusively educated in vocational areas by competency based instruction for one year before this method of teaching was even available to public school teachers for certification. The results of this three year study were recorded and published in Newport News and speak for themselves as to what handicapped students can accomplish when placed in the proper learning environment. The Vocational Education Exploratory Program for Handicapped Students has existed for three years as a pilot program at the intermediate school level (grades 8 and 9). It has not been implemented for grades 10
through 12. Consequently, students who have progressed to these grades have not had the opportunity to continue the development of the skills identified at the intermediate level.

The results of the questionnaire submitted to the vocational teachers of Newport News prove that the majority of these teachers have not been given the opportunity to teach handicapped students. Those who have had this opportunity feel that the needs of the students would best be served in a separate vocational track within the public school system. Those teachers who have not had the opportunity to teach handicapped students do not look forward to the opportunity. It was the general consensus of vocational teachers in Newport News that they will comply with existing federal laws as required. They also felt that this might be to the detriment of the handicapped students. The majority felt that the educational needs of these students could best be served by providing a separate vocational educational track for these students within the public school system. By doing so, these students would be intermingled with the regular student body, and through the competitive programs offered through the various student associations, prove that they also have employable job skills. By proper use of the individualized education program (I.E.P.), especially at the junior high school level, a cumulative record would illustrate the most appropriate vocational preparatory track that any handicapped student should follow to accumulate necessary job entry skills.
RECOMMENDATIONS

The information that has been previously documented in this study fully supports the following recommendations:

1. Handicapped students can be successfully trained to fulfill job entry skills.

2. They can successfully compete with others in their peer groups, and in specific areas be fully competitive.

3. They can also approach the adult life fully capable of competing for jobs with non-handicapped students in areas where expertise has been developed.

It has not been contended in this study that handicapped persons will be fully capable to compete in all job areas. It has been proven, however, that these same individuals can satisfy the requirements of many jobs that are repetitive and that do not require mental innovation, at least in regard to the mentally retarded. The recommendations of this study are these:

1. That programs for the handicapped, both physically and mentally retarded, be developed through grades six through twelve in all appropriate vocational programs.

2. That particular attention be given to insure that the information on the individualized education program is complete and accurate.

3. That there is a coordinated effort from grades six through twelve to identify employable job skills, and to insure that each handicapped individual receive job training in the most appropriate job area.
4. That there be a person identified to recognize and coordinate the efforts of the various vocational teachers, and to develop opportunities for these students to compete for jobs at the completion of their training.

Everybody has some talent in life that is worth something not only to them but can be used to gain employment. Handicapped people are no different. It is much less expensive to insure an adequate education to handicapped people to provide job skills than it is to support these same people on the welfare roles or in penal institutions. It has been the purpose of this study to prove that these unsavory alternatives are unnecessary. This study has accomplished its purpose.
BIBLIOGRAPHY


APPENDIX A

Dear Fellow Teacher:

I am completing the research requirements for my M. Ed. degree. The title of the research area is "A Study of Vocational Needs of Handicapped Students in Newport News, Virginia." The attached questionnaire is very important to the data necessary for this research. Your completion and return of this questionnaire in the enclosed envelope will be valuable and greatly appreciated.

No names will be required, and the information gathered will be confidential and used solely for the completion of this study. If you desire a copy of the results, include your name and address.

With many thanks.

Sincerely,

Don Barton
Huntington Intermediate School
APPENDIX A

Please indicate your program area ___________________________________________

Please answer the following questions with the appropriate check

<table>
<thead>
<tr>
<th>Question</th>
<th>YES</th>
<th>NO</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Have you ever taught handicapped students?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Were the students physically handicapped?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Were the students mentally retarded?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Were these students successfully integrated into regular classes?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Could these students compete successfully with non-handicapped students?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Were you required to alter your grading procedures for these students?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Were you required to alter your teaching procedures for these students?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Were these students disruptive to classroom discipline?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. Were these students disruptive to classroom procedures?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. Do you feel qualified to deal with the problems of physically handicapped students?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>11. Do you feel qualified to deal with the problems of mentally retarded students?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>12. Do you believe that physically handicapped students should have specially designed vocational classes?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>13. Do you believe that mentally retarded students should have specially designed vocational classes?</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
14. Do you believe the vocational needs of physically handicapped students should be met in the public school system? 

15. Do you believe the vocational needs of handicapped students are better served in specially designed schools? 

16. Do you believe the vocational needs of mentally retarded students should be met in the public school system? 

17. Are you familiar with Public Law 94-142? 

18. Will you be prepared to fulfill the requirements of Public Law 94-142 by July 1, 1980 in relation to completing the pre-vocational section of Individualized Education Programs? 

19. Do you believe that physically handicapped students could become self supporting adults? 

20. Do you believe that mentally retarded students could become self supporting adults? 

The last question requires your opinion: 

21. How do you believe the vocational needs of the handicapped students can best be met to prepare them to be self sufficient adults who can contribute to society?