

Status of Pennsylvania Special Needs Students
in Vocational Agriculture

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Given the requirements of Public Law 94-142 (the Education for all Handicapped Children Act), it remains to be seen whether educators can cope with the educational needs of the handicapped without doing an injustice to other students and existing programs. This law requires that local public school district officials in all states locate and identify all handicapped children in need of special education and related services and to provide the services guaranteed under its provisions. Before the educational needs of students and regular classroom teachers can be identified, a detailed census of the number of special students enrolled is necessary.

Few states have assessed the problems resulting from "mainstreaming" since the passage of P.L. 94-142 in 1975. Manzitti et al. (1976), Pecheone et al. (1978), Hughes (1978), and Mallilo (1979) attempted to determine the state of the art in Michigan, Connecticut/Massachusetts, North Carolina, and West Virginia, respectively. Further, because monetary assistance to local schools is usually based on the number of handicapped students in attendance, one can only speculate on the number of federal dollars lost to a public school when such data are lacking.

Objectives of the Study

The objectives of this study were as follows:

1. To identify and enumerate special needs students by category of definition who were enrolled in vocational agriculture programs in Pennsylvania during the 1980-81 school year.
2. To identify problems encountered by vocational agriculture teachers resulting from the placement of handicapped students into their programs.
3. To identify vocational agriculture teachers' perceived level of competence for teaching handicapped students.

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Methodology

In this study, the descriptive method of research, using the survey technique, was utilized. Survey items developed by Manzitti et al. (1976), in conjunction with items deemed appropriate for Pennsylvania vocational agriculture programs developed by the researchers, composed the final questionnaire.

Questionnaires were mailed to a 50 percent random sample of vocational agriculture teachers in Pennsylvania. The initial mailing returned 83 (45.5%) of the 184 questionnaires mailed. A follow-up letter sent to nonrespondents two weeks after the initial mailing returned an additional 57 questionnaires. In total, 140 (76.5%) of the 184 questionnaires were returned. Two questionnaires were omitted from the final analysis due to insufficient data, yielding a 75% useable return rate. The study was restricted to vocational agriculture teachers in Pennsylvania during the 1980-81 school year.

Findings

Objective One

Data in Table 1 illustrate the number and type of handicapped students enrolled in vocational agriculture programs in Pennsylvania. Nearly half (48.9%) of the 777 identified handicapped students were classified as learning disabled. One hundred and eighty (23.2%) were classified as educable mentally retarded. Visually handicapped, emotionally disturbed, physical/health impaired, speech impaired, and deaf comprised 7.2%, 6.4%, 6.2%, 4.1%, 4.0% of the total, respectively. Total vocational agriculture enrollment for 1980-81 was approximately 15,000 students.

Table 1
Number of Handicapped Students Enrolled in Pennsylvania
Vocational Agriculture Programs
According to Handicap

Handicap	No. of Handicapped students	Percent
Learning Disabled	380	48.9
Educable mentally retarded	180	23.2
Visually handicapped	56	7.2
Emotionally disturbed	50	6.4
Physical or health impaired	48	6.2
Speech impaired	32	4.1
Deaf	31	4.0
Total	777	100.0

Of the 137 respondents, 24 (17.5%) reported no handicapped students (Table 2). Programs enrolling between one and three handicapped students were reported with the greatest frequency (37.2%). From these data it can be inferred that approximately five of every six agricultural programs in Pennsylvania had at least one handicapped student enrolled, whereas one of every six (16.8%) reported 10 or more handicapped students enrolled.

Table 2
Number of Handicapped Students Enrolled in Pennsylvania Vocational Agriculture Programs as Reported by Vocational Agriculture Teachers

No. of students	No. of programs	Percent
None	24	17.5
1-3	51	37.2
4-6	27	19.7
7-9	12	8.8
10 or more	23	16.8
Total	137	100.0

According to data recorded in Table 3, approximately two-thirds (66.0%) of the vocational agriculture teachers reported that handicapped students enrolled in production agriculture as opposed to 21.1% in horticulture, 9.2% in agricultural mechanics, and 3.7% in agribusiness.

Table 3
Agricultural Program Specialization in which Handicapped Students Enroll as Reported by Vocational Agriculture Teachers

Area	No. of teachers	Percent
Horticulture	23	21.1
Production agriculture	72	66.0
Agricultural mechanics	10	9.2
Agribusiness	4	3.7
Total	109	100.0

Objective Two

When asked to rank eight common problems of "mainstreaming," vocational agriculture teachers reported "class size," "curriculum modification," and "lack of training" to be the three largest problems as shown in Table 4. Hughes (1978) and Manzitti (1976) also identified curriculum modification and lack of teaching methods to be the most severe problems encountered by regular classroom teachers.

Table 4
Rank Order of Problems Encountered by Vocational
Agricultural Teachers with Handicapped Students

Problem	Mean a	Standard Deviation
Class size	3.31	2.3
Curriculum modification	3.43	2.2
Lack of training	3.96	2.0
Lack of support personnel	4.09	2.1
Lack of teaching materials	4.32	2.1
Facilities not adaptable	5.00	2.4
Administrative	5.30	2.3
Lack of cooperation by others	5.66	2.3

a 1=largest; 8=smallest

According to 120 vocational agriculture teachers responding to the question on persons most supportive of the handicapped, over half (53.3%) identified the special education teacher as being the most supportive (Table 5). This finding was in agreement with Manzitti (1976).

Table 5
Persons Most Supportive of Handicapped Students
as Perceived by Vocational Agriculture Teachers

Personnel	No. of teachers	Percent
Special education teacher	64	53.3
Administration	29	24.2
Parents of handicapped	14	11.7
Regular students	5	4.2
Regular classroom teachers	4	3.3
Voc. agriculture teachers	3	2.5
Other	1	0.8
Parents	0	0.0
Total	120	100.0

Data in Table 6 illustrate that 43.4% of the vocational agriculture teachers in Pennsylvania perceived the regular students to be the least supportive of the handicapped. Others identified to be the least supportive of the handicapped were the parents of regular students (21.7%), the administration (17.0%), the regular classroom teachers (11.3%), and the parents of the handicapped (6.6%).

Table 6

Persons Least Supportive of Handicapped Students
as Perceived by Vocational Agriculture Teachers

Personnel	No. of teachers	Percent
Regular students	46	43.4
Parents of regular students	23	21.7
Administration	18	17.0
Regular classroom teachers	12	11.3
Parents of Handicapped	7	6.6
Special education teacher	0	0.0
Voc. agriculture teacher	0	0.0
Total	106	100.0

Objective Three

Data in Table 7 identify Pennsylvania vocational agriculture teachers' perceived level of competence when teaching handicapped students. Of the 126 respondents, 8 (6.4%) perceived "no competence," 30 (23.8%) perceived "little competence," 77 (61.1%) perceived "average competence," and 11 (8.7%) perceived themselves as "fully competent."

Table 7

Vocational Agriculture Teachers' Perceived Level
of Competence when Teaching Handicapped Students

Level of Competence	No. of teachers	Percent
No Competence	8	6.4
Little competence	30	23.8
Average competence	77	61.1
Fully competent	11	8.7
Total	126	100.0

It is interesting to note that while over 60% of the teachers perceived themselves as having at least average competence (Table 7), 65% have not had any special educational training (Table 8). In complete contrast, Hughes (1978) and Manzitti (1976) reported 66% and 75% of their respective respondents had some special educational training. In addition, while 82.5% of Pennsylvania's vocational agriculture programs have handicapped students (Table 2), only 35% of the teachers reported having special educational training (Table 8).

Table 8
Number of Vocational Agriculture Teachers with
Special Education Training

Training	No. of teachers	Percent
Yes	48	35.0
No	89	65.0
Total	137	100.0

Recommendations

Based upon the findings of this study, the following recommendations were made:

1. A means, i.e., preservice/in-service instruction, should be made available to Pennsylvania's vocational agriculture teachers in order to improve their skills when teaching handicapped students.
2. In order to facilitate a more supportive atmosphere in the classroom, nonhandicapped students should receive orientation concerning the handicapped population prior to the placement of special needs students into the regular classroom.
3. To help lessen the problem of class size, teacher assistants should be available to those vocational agriculture teachers who have handicapped students in their classes.
4. In view of needs expressed for instructional materials, appropriate teaching materials should be developed by University and/or State Department of Education personnel for distribution to all vocational agriculture teachers in Pennsylvania.

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