

The Effects of a Survey Course in Special Education on the Attitudes of Regular Education Preservice Teachers Toward Handicapped Children

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Since 1968 special education has been moving away from the unnecessarily restrictive educational placement of handicapped children. This has resulted in a large increase in the number of handicapped children being served in regular classes. Although many special educators are in favor of mainstreaming, their enthusiasm is not equally shared by regular educators. Several studies (Hudson, Graham, & Warner, 1979; Payne & Murray, 1974; Ringlaben & Price, 1981; Shotel, Iano, & McGettigan, 1972) have demonstrated that negative attitudes toward handicapped students and

mainstreaming are held by many regular educators. Although these studies are limited in number, their results are consistent. Many regular educators are not in favor of integrating handicapped students into regular classrooms, and programs need to be implemented to change these attitudes if mainstreaming is to be successful.

In-service programs have been reported in the literature as having differing degrees of impact on the attitudes of regular educators (Harasymiw & Horne, 1976; Hudson, Reisberg, & Wolf, 1983;

McCoy, Prehm, & Lambert, 1980; Larrivee, 1981). Earlier studies indicated positive changes in attitudes toward handicapped students for regular classroom teachers receiving in-service education. Since in-service education has been successful, one might expect similar results for preservice programs. However, very little research on preservice programs in special education for prospective regular educators has been reported in the literature. Naor and Milgram (1980) compared the traditional lecture-discussion strategy with an experiential strategy for changing attitudes of prospective elementary education teachers. Two groups of teachers received instruction on the mentally retarded, emotionally disturbed, learning disabled, and physically or sensorily handicapped. One of the groups also took field trips designed to provide direct exposure to handicapped students and their educational programs. The improvement in attitude of the experiential group was significantly greater than that of the lecture-discussion group.

In a similar study Dailey and Halpin (1981) compared the lecture strategy with the use of videotapes of handicapped children for changing the attitudes of undergraduate regular and special education majors enrolled in an introductory course in special education. Half of the subjects were presented with lectures only. The other half were presented with lectures and videotapes of handicapped children. The regular education majors who viewed the videotapes had significantly more positive attitudes than those who did not. In contrast, the special education majors presented with lectures only had significantly more positive attitudes than those presented with the videotapes.

In recent years there has been a trend in many states to require all preservice teachers to take a survey course in special education. Generally, these courses are large and impersonal lecture courses that emphasize characteristics and a brief survey of methods and materials. The objective of these courses typically is to facilitate teacher identification of handicapped children and the mainstreaming of handicapped children.

This study was concerned with attitudes toward handicapped students that could impact on mainstreaming efforts. The purpose of the study was to evaluate the effect of a survey course in special education on the beliefs and attitudes of regular educators toward handicapped children.

Method

Subjects

The subjects used in this study represent virtually the entire enrollment in the special education survey courses taught to regular education majors at both Mississippi State University and the University of South Alabama during one school year. Since a small proportion, about 10%, of the enrollment in these courses consisted of special education majors, these students were excluded from the study. In the contrast group 39% were South Alabama students and the remainder were Mississippi State students. This group was 13% male and 87% female in composition. Elementary majors contributed 60%, secondary majors 36%, and physical education majors 4% to the group. In the experimental group 28% were South Alabama students and the remainder were Mississippi State students. This group was 25% male and 75% female in composition. Elementary majors contributed 46%, secondary majors 38%, and physical education majors 16% to the group.

Measurement

A 5-point bipolar rating scale, with 1 representing strongly agree and 5 representing strongly disagree, was constructed for use in this study as the measure of the dependent variable. The scale consisted of 30 items relating to attitudes toward the education of handicapped children. Some of these items were drawn from previous research on this topic (Glickling & Theobald, 1975; Harasymiw & Horne, 1976); others were generated by the authors. A reliability study on this scale, using a 2-week interval, yielded a test-retest coefficient of $r = .59, p < .000$ ($N = 43$). Reliabilities for individual items

ranged from $r = .25, p < .02$ to $r = .67, p < .000$. The test-retest coefficient of .59 closely approximates Salvia and Ysseldyke's (1981) recommendation

that group tests should have a reliability of at least .60 (see Table 1).

Table 1

A List of the Survey Items

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1. Being placed in a special education self-contained classroom restricts the chance for a student to fully participate in activities such as service organizations, clubs, sports, etc., normally available to regular classroom students.
 2. If given a chance, special education students would participate in most school activities.
 3. Public schools' philosophies and objectives are limited to the range of normal children.
 4. Children placed in self-contained special education classes are more likely to be seen as different than if permitted to stay in regular classes.
 5. A child is socially isolated from his peers when placed in a self-contained special education class.
 6. Special education placement practices have been free of socioeconomic and racial discrimination.
 7. Under normal conditions, the regular classroom teacher feels imposed upon to help special education students.
 8. The regular classroom teacher feels he/she has the skills to help special education students.
 9. Special self-contained classes seem to be adequately providing academic services for the mildly handicapped and do not need to be changed.
 10. Special self-contained classes for the mildly handicapped have proved to be more effective than regular classes have been for these students.
 11. If there was a movement away from self-contained special classes for the mildly handicapped, regular classroom teachers would be willing to accept special education students into their classes.
 12. The regular classroom teacher would feel more comfortable if special education personnel would assist in providing services in the regular classroom.
 13. If time were available to work with special education personnel, regular classroom teachers would take advantage of this opportunity.
 14. In the future, I strongly recommend the use of resource rooms for mildly handicapped children.
 15. In the future, I strongly recommend the use of self-contained classes for the mildly handicapped.
 16. Requiring a course on exceptional children and youths is a waste of time.
 17. A knowledge of the characteristics and teaching techniques for exceptional children and youths is useful for teachers in a regular classroom.
 18. Children with special needs could best be served by instruction in a regular classroom setting for non-academics.
 19. My knowledge of exceptional children and youths makes me comfortable about having to work with exceptional students in my program.
 20. Even if it were not required, I would recommend to my friends that they take a course in exceptional children and youths.
 21. I feel I cannot communicate to colleagues the needs of exceptional students.
 22. I feel the content of information about exceptional children and youths can be better met through "in-service" arrangements instead of requiring this course.
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Table 1 — Continued

23. I feel I have a good idea of my professional role regarding how exceptional children can be served.
24. Most school teachers have an adequate understanding of P.L. 94-142.
25. Children with special needs could best be served by instruction in a regular classroom setting for academics.
26. Most teachers would be willing to revise or adapt their curriculum or instruction for children with special needs.
27. Contact with children having special needs would be beneficial to other classroom members.
28. Regular classroom teachers have sufficient training to teach special needs children.
29. Integration of special needs children will not require significant changes in regular classroom procedures.
30. There is strong research evidence to suggest that children with special needs who are integrated in the regular classroom perform better than non-integrated children.

Design

A static-group comparison (Campbell & Stanley, 1963) was used in the study. This pseudoexperimental design requires that two intact groups, where one group has been exposed to the independent variable and the other has not, be measured on the dependent variable at the same time. This study deviated somewhat from this requirement in that each group was composed of several intact groups in which the measurement took place at different points during the school year. The measurements from these intact groups were then pooled to form two groups. Another slight deviation was that the measurement in classes designated as experimental subjects and those designated as control subjects did not take place at exactly the same time. This deviation was necessary because of the use of intact classes. The lag between measures was about 2 or 3 weeks, representing breaks between terms. The experimental subjects were measured at the end of one term, and the contrast control subjects were measured at the beginning of the next term before they were exposed to any instruction.

The contrast group consisted of 197 students enrolled in survey courses in special education who had not yet received instruction. The experimental group consisted of 415 students who had just completed survey courses in special education. The attitudes held by regular education students who had

not received instruction in special education were contrasted to those held by other regular education students who had been given instruction. The testing procedure that was used eliminated the possibility of bias from testing effect. The two groups were similar, though not identical, in composition in terms of major, sex, and university.

Procedure

Introductory special education courses, which formed the independent variable, were taught at both universities by persons with a terminal degree in special education. Each instructor had approximately the same amount of experience in teaching the survey course. The courses were structured so that they had similar objectives, content, and instructional materials. Courses at both universities made use of lectures, textbook assignments, and audiovisual aids. One notable difference was in the number of student contact hours, which resulted from use of the quarter system at South Alabama and the semester system at Mississippi State.

Results

A nonparametric statistic, the Kruskal-Wallis one-way analysis of variance of ranks (Nie, Hull, Jenkins, Steinbrenner, & Bent, 1975), was selected for the data analysis. The chi-square test used by the Kruskal-Wallis was corrected for ties before deter-

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mining significance levels. A nonparametric statistic was selected because an exploratory data analysis indicated that the data were skewed. The contrast and experimental groups were compared first using the total sample, then by major, by sex, and finally by university (see Table 2).

The analysis using the total sample revealed that there were statistically significant differences in a positive direction on seven items (4, 8, 19, 21, 23, 24 and 28). The contrast and experimental groups differed on these items at levels ranging from .015 to .000. There were no significant differences on the remaining 23 items.

By major, the analysis indicated statistically significant differences in a positive direction on five items for elementary majors (19, 21, 23, 24, and 28) and negative change on one item (9). The differences ranged in significance from the .005 to the .000 level. For secondary majors there were significant positive differences on four items (4, 19, 21, and 23). The differences ranged in significance from the .018 to the .000 level. There were three statistically significant differences in a negative direction for secondary majors (11, 13, and 17). The differences ranged in significance from the .04 to the .011 level. There was a significant difference in a positive direction on only one item (13) for the physical education majors at the .018 level of significance.

The analysis by sex revealed that there was a statistically significant change in a positive direction on two items (21 and 23) for males at the .035 and .004 levels, respectively. There were statistically significant changes in a positive direction for females on nine items (1, 4, 5, 8, 19, 21, 23, 24, and 28). These differences ranged in significance from the .05 to the .000 level. There were no significant changes in a negative direction.

By university, the analysis indicated statistically significant differences in a positive direction on five items (10, 19, 20, 21, and 23) for South Alabama students. These differences ranged in significance from the .034 to the .000 level. Mississippi State students had significant differences in a posi-

tive direction on nine items (2, 4, 8, 19, 21, 22, 23, 24, and 28). These differences ranged in significance from the .024 to the .000 level. There was a significant change in a negative direction for Mississippi State students on one item (20) at the .041 level.

Discussion

The purpose of this study was to determine if there was a significant difference in attitudes between preservice regular education teachers who had completed an introductory course in special education and those who had not yet taken the course. The students were compared on their rating of 30 items related to the education of the handicapped. The analysis using the total sample revealed that there were statistically significant differences in a positive direction on seven items. The experimental group believed that children placed in self-contained classes would more likely be seen as different than if permitted to stay in regular classes. They felt more knowledgeable and comfortable about working with exceptional children and believed that they had the training and skills sufficient to teach these children. They agreed that most teachers have an adequate understanding of P.L. 94-142. They also felt that they understood their professional role regarding teaching exceptional children and that they could communicate with their colleagues about the needs of handicapped students.

Analysis by major indicated statistically significant differences in a positive direction for elementary majors on five items and a negative change on one item. They felt that they had sufficient training to teach special needs children and that they could communicate with their colleagues concerning the needs of these children. They expressed an understanding of their professional role regarding how exceptional children can be served and stated that their knowledge of these students made them feel comfortable about working with them. Elementary majors agreed that most school teachers have an adequate understanding of P.L. 94-142. They also believed that special self-contained classes adequately provide academic programming for the mildly handicapped.

Table 2

Summary of the Kruskal-Wallis Analysis of Variance by Ranks With the Mean Rank for Each of the 30 Items for Both the Control (C) and Experimental (E) Groups

Item	Total Sample		Elementary		Secondary		Physical Ed.	
	C n=197	E n=415	C n=120	E n=194	C n=70	E n=156	C n=8	E n=69
1	325.34	301.28	164.84	152.96	120.94	110.16	35.75	39.38
2	324.58	301.64	164.52	153.16	117.93	111.51	45.88	38.20
3	310.65	308.22	160.03	155.93	114.63	112.99	26.56	40.44
4	332.26	298.01*	167.58	151.26	127.89	107.04*	27.50	40.33
5	327.21	300.39	165.16	152.76	123.49	109.02	37.00	39.23
6	318.39	304.56	164.32	153.28	113.75	113.39	40.81	38.79
7	311.09	308.01	156.68	158.01	114.64	112.99	43.75	38.45
8	334.71	296.85**	168.21	150.88	120.53	110.35	45.19	38.28
9	318.30	304.60	174.53	146.96**	102.07	118.63	34.88	39.48
10	300.40	313.06	157.15	157.72	102.04	118.64	33.75	39.61
11	300.09	313.21	160.20	155.83	100.63	119.28*	45.25	38.28
12	303.40	311.65	158.34	156.98	112.13	114.12	29.75	40.07
13	298.09	314.16	158.97	156.59	98.38	120.29*	54.13	37.25*
14	300.89	312.83	154.95	159.08	110.80	114.71	35.81	39.37
15	310.80	308.15	153.27	160.12	113.63	113.44	43.50	38.48
16	316.89	305.27	154.50	159.36	120.79	110.23	43.81	38.44
17	296.62	314.85	158.69	156.76	101.68	118.80	35.75	39.38
18	305.88	310.47	149.07	162.71	120.11	110.54	37.31	39.20
19	360.30	284.76**	180.64	143.19**	133.25	104.64**	40.25	38.86
20	304.79	310.99	153.05	160.25	112.98	113.73	42.69	38.57
21	262.12	331.16**	136.92	170.23**	93.77	122.35**	33.06	39.69
22	327.36	300.33	164.52	153.15	120.39	110.41	43.75	38.45
23	391.99	269.78**	191.47	136.49**	149.03	97.56**	50.56	37.66
24	360.85	284.50**	192.71	135.72**	122.82	109.32	35.69	39.38
25	322.55	302.60	167.87	151.09	111.23	114.52	43.00	38.54
26	317.99	304.75	160.72	155.51	117.13	111.87	38.31	39.08
27	325.18	301.35	166.99	151.63	121.82	109.77	33.31	39.66
28	341.07	293.84**	173.54	147.58**	120.69	110.28	42.94	38.54
29	323.35	302.22	161.04	155.31	118.27	111.36	34.63	39.51
30	304.31	311.22	153.90	159.73	116.94	111.96	34.69	39.50

* $p < .05$. ** $p < .01$.

Male		Female		USA		MSU	
C	E	C	E	C	E	C	E
n=26	n=103	n=171	n=312	n=76	n=116	n=121	n=303
67.04	64.49	257.19	233.67*	100.28	94.02	225.62	207.26
67.56	64.35	253.94	235.46	93.83	98.25	231.31	204.99*
59.12	66.49	244.73	240.50	94.27	97.96	219.88	209.55
61.83	65.80	263.08	230.45**	97.72	95.70	235.98	203.12**
65.79	64.80	257.94	233.26*	98.17	95.41	228.30	206.19
70.96	63.50	249.03	238.15	93.02	98.78	223.37	208.16
67.94	64.26	241.00	242.55	99.09	94.80	212.21	212.62
59.42	66.41	264.95	229.42**	95.05	97.45	240.78	201.21**
57.33	66.94	253.10	235.92	95.74	97.00	224.50	207.71
54.50	67.65	234.23	246.26	84.30	104.49**	218.90	209.94
61.85	65.80	238.18	244.09	90.28	100.58	211.88	212.75
65.06	64.99	239.30	243.48	97.47	95.86	204.51	215.69
61.73	65.83	239.23	243.52	98.43	95.23	198.29	218.17
58.12	66.74	239.75	243.24	88.40	101.81	211.42	212.93
69.38	63.89	236.79	244.86	94.71	97.67	216.29	210.99
67.67	64.33	243.53	241.16	95.66	97.05	223.16	208.24
67.02	64.49	231.05	248.00	94.74	97.66	201.36	216.95
62.79	65.56	240.88	242.61	96.97	96.19	207.57	214.47
72.06	63.22	283.61	219.19**	107.55	89.26*	257.07	194.70**
70.13	63.70	239.98	243.11	106.25	90.11*	194.84	219.55*
51.94	68.30*	206.01	261.72**	82.74	105.52**	175.66	227.21**
64.23	65.19	257.59	233.46	93.64	98.38	234.62	203.67*
82.19	60.66**	305.92	206.97**	118.54	82.06**	274.08	187.91**
67.88	64.27	286.85	217.42**	103.13	92.16	259.22	193.84**
64.81	65.05	253.97	235.44	94.64	97.72	225.27	207.40
69.96	63.75	248.69	238.33	92.61	99.05	225.71	207.22
68.12	64.21	256.44	234.09	98.50	95.19	224.17	207.84
69.94	63.75	264.72	229.55**	96.47	96.52	245.56	199.30**
64.85	65.04	250.93	237.10	94.40	97.88	227.98	206.32
59.77	66.32	244.81	240.46	90.59	100.37	215.50	211.30

For secondary majors there were statistically significant differences on seven items. Changes on four items were in a positive direction. They agreed that children placed in self-contained special education classes would more likely be seen as different than if permitted to stay in regular classes. Their knowledge of exceptional children and youths made them feel comfortable about working with them in a regular program. They felt that they could communicate with their colleagues about the needs of handicapped children and expressed an understanding of their professional role in serving these students. Changes on three items were in a negative direction. Secondary majors believed that regular teachers would not be willing to accept special education students in their classes or to work with special education personnel, if there were a movement away from self-contained special classes for the mildly handicapped. Secondary majors also disagreed that a knowledge of the characteristics and teaching techniques for exceptional children and youths is useful for teachers in a regular classroom.

There was a significant difference on only one item for physical education majors. They believed that if time were available to work with special education personnel, regular classroom teachers would take advantage of the opportunity.

The analysis by sex revealed that there was a statistically significant change in a positive direction on two items for males. They felt more able to communicate with their colleagues concerning the needs of exceptional students. They also believed that they had a good idea of their professional role regarding how exceptional children can be served.

There were statistically significant changes in a positive direction on nine items for females. They agreed that placement in a special education self-contained classroom restricts the chance for a student to participate fully in activities such as service organizations, clubs, and sports and that students in such classes are more likely to be socially isolated and seen as different than if they were permitted to

stay in regular classes. They felt that regular teachers have sufficient training and skills needed to help special needs children. Females believed that their knowledge of exceptional children and youths made them feel comfortable about working with the children in regular programs and that they could communicate with their colleagues concerning the needs of these children. They felt that they had a good idea of their professional role regarding how exceptional children can be served and that most school teachers have an adequate understanding of P.L. 94-142. There were no changes in a negative direction for males or females.

By university, the analysis indicated statistically significant positive changes on five items for the University of South Alabama. The South Alabama students believed that their knowledge of exceptional children and youths made them feel comfortable about working with the children in regular programs and that they could communicate with their colleagues concerning the needs of these children. They felt that they had a good idea of their professional role regarding how exceptional children can be served. They indicated that they would recommend to their friends that they take a course in exceptional children and youths, even if it were not required. They did not believe that special self-contained classes for the mildly handicapped had proved more effective than regular classes for these students.

The analysis indicated statistically significant change on 10 items for Mississippi State University. The change was in a positive direction for nine of these. The Mississippi State students agreed that children placed in a special education self-contained classroom are more likely to be seen as different than if permitted to stay in regular classes and that if given a chance, special education students would participate in most school activities. They felt that regular teachers have training and skills sufficient to help children with special needs. They believed that their knowledge of exceptional children and youths made them feel comfortable about working with the children in regular programs and that they

could communicate with their colleagues concerning the needs of these children. Mississippi State students indicated that they had a good idea of their professional role regarding how exceptional children can be served and that most school teachers have an adequate understanding of P.L. 94-142. They believed that the need for information about exceptional children and youths could be better met through in-service arrangements than through a required preservice course. This last finding probably accounts for the change in a negative direction for Mississippi State students; they would not recommend that their friends take a course in exceptional children and youths.

From these results it can be seen that an introductory course in special education can change teachers' perceptions concerning mainstreaming handicapped children. All groups showed some change in a positive direction favoring mainstreaming. These results support the findings of McCoy, Prehm, and Lambert (1980) and Hudson, Reisberg, and Wolf (1983) that an introductory course in special education enhanced teachers' attitudes toward and knowledge of mainstreaming. The results also support Dailey and Halpin's (1981) finding that undergraduates' attitudes toward the handicapped could be modified by an introductory course in special education employing lectures and videotapes.

With regard to the 15 items taken from the descriptive study by Gickling and Theobald (1975), this study indicated that a survey course in special education had a positive impact on five (1, 4, 5, 8, and 13) and a negative impact on three (9, 11, and 13). There was a differential impact on item 13 in that a positive change was indicated for secondary majors and a negative change for physical education majors. There were eight items (2, 3, 6, 7, 10, 12, 14, and 15) on which the survey course produced no change in either direction. This study indicated that a survey course in special education had a positive impact on two items (24 and 28) of the six taken from the study by Harasymiw and Horne (1976). The course produced no change on the other four items (18, 27, 29, and 30). Of the nine items

generated by the authors, this study indicated a positive impact on three (19, 21, and 23) and a negative impact on one (19). The course produced no change on five items (16, 20, 22, 25, and 26).

The most obvious problems suggested by this study are (a) the small positive impact on males and physical education majors and (b) the amount of negative impact of a survey course in special education on the attitudes of secondary majors. These problems indicate that greater attention should be given to instructional planning for males and secondary majors enrolled in a survey course. These three populations are not unrelated in that more males teach physical education and more often at the secondary than at the elementary level. Also, it is generally believed that secondary teachers tend to be oriented more toward content than students. This suggests the need to consider alternative instructional strategies for this population. With the present trend toward expansion of special education programming upward into the secondary grades, this would seem to be of critical importance. It is possible that some of the techniques used by Naor and Milgram (1980) and Dailey and Halpin (1981), such as field trips and the use of video tapes, might produce better results with secondary majors.

The second problem indicated by this study is the relatively low number of items (9 out of 30) on which a survey course in special education produced a positive impact. The previous suggestions also might apply more generally to preservice teachers as a whole. In addition, more specific instruction might be in order in the areas indicated by those items which remained unchanged and particularly by those items on which negative change resulted. What variables contributed to these differences is not clear at this time. One major difference between the courses was the number of student contact hours. The Mississippi State students received 10 more hours of instruction than the South Alabama students. Whether this contributed to the more positive responses of the Mississippi State students is uncertain. However, the results of this study support the enrollment of regular educa-

tion preservice teachers in a special education course. Further research is necessary to determine which variables might cause the positive and negative changes and which variables could produce positive change on the items that were unaffected. Also, it needs to be determined if these changes will be maintained over time.

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