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ABSTRACT

A study conducted to determine the effect of students who were assigned to student teach as a member of a two or three-man team used a sample of 48 social studies majors preparing for secondary school certification randomly selected from all such potential student teachers in the Individualized Secondary Teacher Education Program (I-STEP) at Brigham Young University during fall semester 1969-70. Solo and team student teachers were compared on data gathered in three categories: 1) performance in nine areas on pre and post student teaching videotaped 15-minute lessons; 2) classroom interaction using Verbal Interaction Category System; 3) self and cooperating teacher ratings on questionnaires relating to perceived growth in teaching knowledge, skills, and attitudes. The analysis generally favored the student teaching teams over their solo counterparts. It was noted that team student teaching, compared to solo experiences, allows for greater individualization of teaching and student learning, changes the self-image of prospective teachers positively, provides additional teacher models and helpful peer evaluation, aids trainees in maintaining composure during stress situations, permits significantly greater involvement of school children in learning tasks, encourages more frequent and appropriate teacher reinforcement behavior, and yields less teacher initiated talk. (RT)

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THEORY AND RESEARCH

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TEAM STUDENT TEACHING: THEORY AND RESEARCH

Wallace Allred and Hugh Baird

Introduction

The Secondary Education Department at Brigham Young University has begun to investigate student teaching as a worthwhile experience in the preservice training of teachers. Most everyone involved in training programs for teachers has considered the student teaching experience as one of the most helpful experiences in the preservice education of a prospective teacher. This may be because of the excellence of student teaching or it may be because of the gross inadequacies of most of the other training a student receives.

Studies purporting to compare newer approaches to the education of teachers with more conventional approaches are still in short supply. The present report is an attempt to provide empirical data about the efficacy of team student teaching.

Team student teaching, as used in the Secondary Education Department at Brigham Young University, is an arrangement in which either two or three students are assigned to work as a team during their student teaching. As a team, they plan their units and lessons, prepare instructional materials, and teach three or four classes under the supervision of a public school cooperating teacher. They are encouraged to do something other than "turn teach"; to use their skills and time to the best advantage of their classes. The team is supervised by faculty members from the Secondary Education Department and the academic department in which the students are majoring. Students assigned to a team have the same or very compatable majors.

Statement of the General Problem

A number of questions can be raised about the appropriatness of our present system of student teaching:

1. Is it justifiable (or necessary) to assign a student teacher to a less than excellent cooperating teacher simply because the present arrangement does not provide sufficient excellent teachers for trainees?

2. Is the present arrangement of assigning each secondary trainee to a separate public school teacher for an eight week, all day experience the best possible, considering the large number of teachers prepared annually?

3. Is the load placed on each college supervisor justifiable in terms of number of students and number of weeks (8 at B.Y.U.) involved?

4. Does each student need an extensive "solo" experience as a student teacher to develop the skills and attitudes necessary for a successful beginning teacher?

5. Is it appropriate for each trainee to have one and only one model of teaching in his major area of preparation?

6. As long as we use most of the present secondary public school teachers as trainers and models for our trainees how can we change the situation in which student teachers preparing for tomorrow's schools learn of today's (yesterday's) methods and materials and thus perpetuate the inadequate education system which we have now?

7. Will the trainee admit weaknesses to and seek help from the person (cooperating teacher) who must eventually judge the trainee and recommend him for employment?

Hypotheses Relating to Team Student Teaching

Hypotheses #1: Team student teaching completely breaks the usual classroom instruction pattern and therefore reduces the possibility of a student teacher modeling the behavior of one classroom teacher.

Hypothesis #2: Student teachers will come to model the behavior of others with whom they teach (their team members) as much or more than they will model the cooperating teacher with whom they student teach.

Hypothesis #3: A team student teaching program can greatly reduce the logistics problem by allowing at least twice as many student teachers to train in classes of excellent cooperating teachers.

Hypothesis #4: Teaching in teams affords students more opportunity to get helpful feedback regarding their performance as a student teacher than does solo student teaching. The feedback often comes from team members.

Hypothesis #5: Teaching in teams creates a situation where the student teacher will likely be more resistant to a cooperating teacher who is inflexible to the variety of arrangements of students and time and curriculum which the team may propose. This resistance, it is hypothesized, will be fed and strengthened as the team works and talks and communicates together.

Hypothesis #6: Cooperating teachers working with teams of student teachers will change their behavior in the direction of individualized instruction.

Hypothesis #7: Cooperating teachers working with teams of BYU students will transfer many of the teaching behaviors they see in the team to other student teachers for which they are responsible.

Hypothesis #8: Students assigned to teach in teams will employ better teaching techniques than those who solo teach. "Better" will be determined in two ways:

1. Teaching will be judged as to effective use of ten elements of teaching.
    a. preassessment
    b. use of examplars
    c. participation on other than lowest cognitive level
    d. effective student involvement
    e. reinforcement of acceptable pupil behavior
    f. maintaining classroom poise and composure
    g. opportunity for concept application
    h. appropriate use of memorization
    i. concept classification activities
    j. experience leads to problem solving
2. Teacher-pupil interaction will be judged using the nine categories in the Verbal Interaction Categories System (VICS).

Hypothesis #9: There will be significant differences in classroom interaction patterns between classes taught by men and those taught by women.

Hypothesis #10: Cooperating teachers will rate team student teachers as having more teaching ability than solo student teachers with whom they have worked.

None of these hypotheses have been tested sufficiently. Two studies relating to them are reported herein.

Reactions of Trainees to Team Student Teaching Experiences

Procedure. In an attempt to collect data relating to some of the hypotheses above, a study was conducted to determine the affect of students who were assigned to student teach as a member of a two or three-man team.

A group of faculty members first made an extensive list of statements which could possibly represent a trainee's feelings toward team student teaching. A small pilot group of trainees were asked to respond to the list by noting ambiguous statements, and adding statements not covered in the original list. Reactions from these trainees were used as the list was revised. Instructions to trainees directed them to respond to each of sixteen items by placing a mark under the column heading which best represented their feelings toward the idea contained in the item.

All of the team student teachers during one semester (18) were asked to respond anonymously to the questionnaire. Figure 1 is a summary of the results.

Respondents were also asked to list the three disadvantages and the three advantages which relate to team student teaching. Figures two and three report the responses to this question.

Performance of Trainees who Student Taught as Teams and Those Who Taught Singly

Procedures. Forty-eight social studies majors preparing for secondary school certification were randomly selected from all such potential student teachers the Brigham Young University during fall semester, 1969-1970. These students

were further randomized into four groups containing equal numbers of males and females.

The four groups were randomly assigned to a training program and a student teaching assignment as follows:

1) Group I, traditional preparation, no student teaching;

2) Group II, traditional preparation, solo student teaching;

3) Group III, Individualized Secondary Teacher Education Program (I-STEP), solo student teaching;

4) Group IV, I-STEP, team (three member) student teaching.

The subjects were compared on data gathered in three categories:

1) Performance in nine areas on pre and post student teaching video-taped fifteen minute lessons;

2) Classroom interaction (using Verbal Interaction Category System--VICS) determined from the video-taped lessons;

3) Self and cooperating teacher ratings on questionnaires (sixty items) relating to perceived growth in teaching knowledge, skills, and attitudes.

Pre and post video-taped episodes, recorded in the public school classrooms, were randomized and evaluated by three independent judges in terms of effective organization and presentation as well as for interaction patterns evident during the sessions.

Data from the pre student teaching lessons were subjected to an analysis of variance and the mean scores adjusted for differences so that the pretest could be employed as a covariate in analyzing post test data.

Summary of the Findings

The findings of this experimental investigation are listed according to group differences which tested significant at the .05 level. Findings for each phase follow:

A. Phase I. This consisted of an evaluation pertaining to effective utilization of ten particular instructional techniques as determined from the pre and post student teaching video-taped lessons:

1. Significant group differences

a) The group that did no student teaching had ratings higher than the traditional solo group in two categories:

(1) degree to which students were involved in the lessons activities.

(2) extent to which student teachers reinforced acceptable pupil behavior.

b) Group II (traditional solo) had the lowest means in each category where significant differences were recorded. These consisted of:

(1) student involvement in the lesson

(2) reinforcement of student behavior

(3) maintaining composure during the lesson

(4) providing for concept application as part of the lesson

(5) including concept classification activities in the learning opportunity

c) I-STEP participants who taught singly (Group III) during practice teaching were rated significantly more effective than the "no student teaching" group and the "traditional solo" group in the following areas:

(1) ability to recognize and reward acceptable pupil behavior

(2) ability to maintain composure when confronted with unusual or unexpected classroom situations.

d) Group III (I-STEP solo) was rated significantly higher than the traditional solo group in two additional areas:

(1) extent of student involvement during the lesson

(2) degree to which the class was aided in proper classification of the concept(s) being taught.

e) In no category were I-STEP solo trainees rated significantly higher than their I-STEP team counterparts.

f) Students who student taught as a member of a team (Group IV) had higher means in every category where significant differences were recorded. These included:

(1) greater opportunity to apply the concept than all other groups

(2) provision for more suitable concept classification activities than Groups I and II.

(3) maintaining composure more favorable than Groups I and II

(4) reinforcing acceptable pupil behavior more effectively than Groups I and II

(5) involvement of pupils during the lesson to a greater extent than Group II.

In general, the team opportunity, within I-STEP, appears to contribute to a somewhat better teaching performance than a solo experience from the same background, and is considerably better than the traditional program.

B. Phase II. This evaluation was made in nine categories of the VICS matrix for classroom interaction. Comparisons were made on the same pre and post student teaching lessons which were video-taped in public school classrooms for Phase I. A different set of judges was utilized in obtaining the data for this analysis.

1. Significant group differences:

a) I-STEP team student teachers were judged to have had significantly less observable interaction in their video-taped lessons for the categories listed below than the other groups specified:

(1) less teacher initiated and prolonged talk than any of the other three groups in the study

(2) less pupil-pupil interaction than the traditional solo group

(3) less silence and confusion than either the traditional solo group or the group with no student teaching.

b) I-STEP solo student teachers were rated significantly different in three categories:

(1) less pupil-pupil interaction than the traditional solo group

(2) less silence and confusion than the traditional solo group and the non student teaching group

(3) greater in teacher initiated and prolonged talk than the I-STEP team student teachers.

c) Traditional solo student teachers (Group II) were instrumental in producing significantly different interactions, as compared with the other groups, as follows:

(1) greater than the I-STEP team group in teacher initiated and prolonged talk

(2) greater than all other groups in the amount of pupil-pupil interaction

(3) greater in terms of the silence and confusion elements present in the lessons than either I-STEP group.

d) The group that did not participate in practice teaching had significantly higher means than the team group in the area of teacher initiated and prolonged talk.

The analysis generally favored the student teaching teams over their solo counterparts in the same program. While many of the comparisons between these two groups were not significant, the mean scores for the team participants were consistently higher.

The analysis for this phase also suggests that involvement in I-STEP prior to practice teaching seems to aid trainees in preparing and presenting lessons which reflect more desireable interaction patterns than is currently evident as a result of the traditional sequence. Thus, whether I-STEP participants engaged in a practicum on a solo basis or as a member of a team, they received more favorable ratings with regard to interaction skills than trainees whose pre student teaching experiences were centered in the current catalog sequence of courses.

Conclusions

From the findings of this study, the following conclusions are drawn:

A. A student teaching practicum in which trainees are organized into teams is at least as effective, and in several ways more effective, in providing cadet teachers with certain desirable teaching behaviors as is a practicum in which each student works singly with a cooperating teacher.

B. The kind of practicum experience (team or solo) produces no measurably different effect upon the perception of teaching growth as viewed by either the trainee or the cooperating teacher.

C. Student teaching preparation which provides experiences such as those in the I-STEP program enables trainees to initiate a greater diversity of classroom interaction patterns than does the traditional sequence of education courses.

D. Potential social studies teachers who participate in the Individualized Secondary Teacher Education Program perform better in a practicum (whether in a team or solo arrangement) than do trainees whose preparatory activities consist of the traditional education courses.

Recommendations

Important to any research study is the application of the findings to facilitate change or modify existing practices. It would appear that the findings this study have several possible implications which can be easily implemented.

The following areas are recommended as possible means for such implementations:

1. It is recommended that teacher education institutions initiate teaming of cadets for the major practicum of the training program. Such a move would require fewer cooperating teachers, thus allowing institutions to be more selective in placing trainees with appropriate instructor models. It would also provide more cadets with a team experience who could then become available for schools organized on a team teaching basis.

2. It is recommended that a screening process be devised which would aid in the identification of public school teachers who possess the characteristics of a model to which prospective teachers ought to be exposed. Such teachers could be trained to work effectively with teams of trainees and a continuous in-service program of improvement could be initiated which would benefit the classroom teacher, the pre-service trainee, and more importantly, the public school pupil.

3. School districts interested in taking advantage of the "team" training of these prospective teachers should be provided with a roster which would indicate the subject matter skill and an evaluation of the performance of each individual so trained.

4. Colleges and Universities offering a "team" student teaching experience should conduct careful and continuous follow-up studies of the graduates. Data obtained from such studies should be utilized in modifying existing programs and should provide a continuing index of the success of such training.

Disadvantages
(as solicited from 18 team student teachers)

Disadvantage	Votes
1. It is hard to work together as a team.	10
2. It is hard to decide between different methods.	7
3. Sometimes one pulls too much of the load and another not enough.	4
4. It involves extra time.	4
5. A teacher can hide a weakness by having team members do it.	2
6. It confuses kids.	2
7. Student teachers don't get a realistic picture of traditional public school.	2
8. There are none.	2

Figure 2.

RANK ORDER OF STUDENT TEAM TEACHING
Advantages
(as solicited from 18 team student teachers)

Advantage	Votes
1. It enables individualization of teaching and student learning	12
2. Better preparation of units and curricula.	9
3. Utilization of the many talents of the teachers.	8
4. Provides constructive criticism from peers.	6
5. Enables one to work with people and with a team.	5
6. Provides many models.	5
7. Provides for different points of view.	4
8. Provides a wider variety of experiences for future teachers.	4
9. Establishes a better self concept because of team interaction.	3
10. There is less cooperating teacher pressure.	2
11. Enables students to see progressive education models.	2

Figure 3.

RESULTS
TEAM STUDENT TEACHING QUESTIONNAIRE*
N = 18

The experience of student teaching in teams:

		Very True	Somewhat True	Somewhat Untrue	Untrue	No Response
1.	changed my self-image as a teacher in a positive direction	56%	39%	5%		
2.	has given me a feeling of competence as a teacher	44%	56%			
3.	raised doubts within me that I can become a successful teacher				95%	5%
4.	is not much more than just a novel experience		5%	5%	90%	
5.	should be replaced by solo student teaching		11%	11%	78%	
6.	aids in self-evaluation	61%	33%	6%		
7.	is embarrassing and discomforting		11%	22%	67%	
8.	has little application to actual teaching on the job		5%	22%	73%	
9.	would have been better if I could have taught alone for part of the time	17%	34%	5%	39%	
10.	is a nuisance; I could have done it better alone		5%	5%	90%	
11.	was difficult because I had problems working with my team		40%	5%	50%	5%
12.	helped my teaching by being able to watch my team members	78%	22%			
13.	didn't enable me to work enough with my cooperating teacher		5%	28%	67%	
14.	was helpful because team members gave me suggestions that enabled me to improve my teaching	73%	22%	5%		
15.	seemed to give my cooperating teacher new ideas for his other classes	61%	39%			
16.	was approved of by my cooperating teacher	50%	40%	5%		5%

*It will be noted that all responses with the exception of numbers 9 and 11 indisputably favor team student teaching. The split voting on numbers 9 and 11 allow no conclusions.

Figure 1