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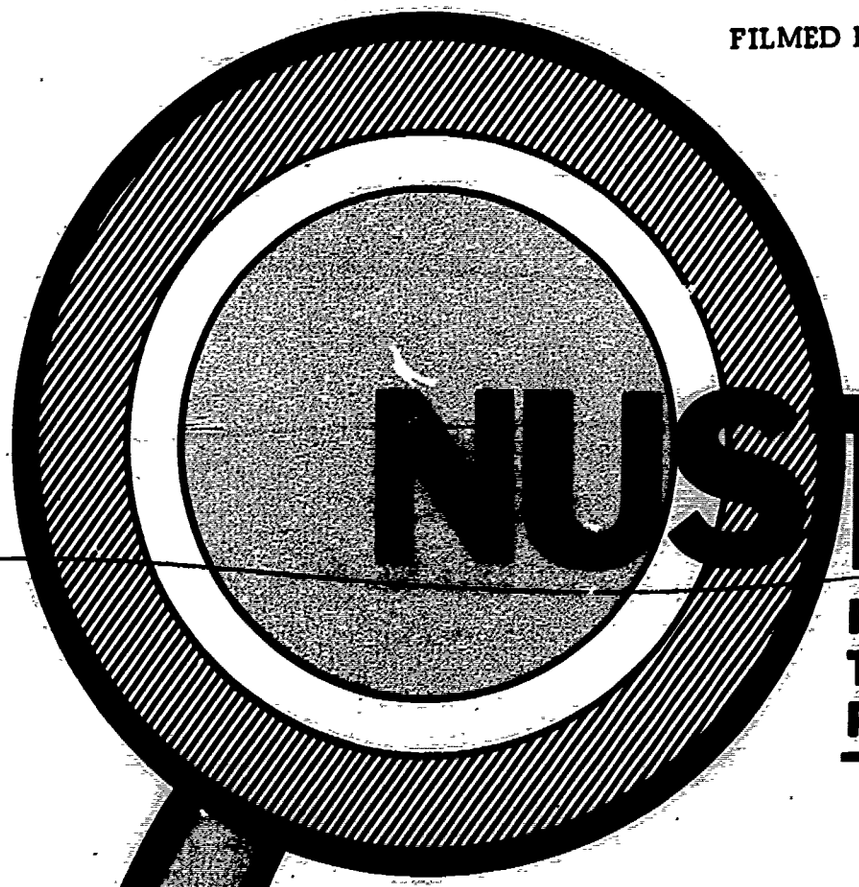
ABSTRACT

A study was conducted to determine differences between teachers trained in the Nebraska University Secondary Teacher Education Projects (NUSTEP) and those trained in a standard program. The NUSTEP program was composed of three classes which were also offered in the standard program; NUSTEP students, however, practiced teaching skills using videotaped microteaching techniques. Use of these methods in the regular program was sporadic or nonexistent. Two teacher preparation questionnaires were created to measure differences in attitude and use of innovative practices. Results indicated that further studies with firmer parametric controls are needed to determine whether NUSTEP students categorically have improved attitudes and teaching skills. Tendencies were indicated, however, that show a positive attitude toward the NUSTEP program by the participating students. (Six tables of data are included.) (JB)



PERFORMANCE BASED TEACHER EDUCATION PROGRAM

STUDENT ATTITUDES TOWARD THE TEACHER PREPARATION PROGRAM OF THE UNIVERSITY OF NEBRASKA–LINCOLN: 1970-71

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Introduction

Any formal analysis of programs or institutions must be continually aware that the most important subject under consideration is behavior. It can, however, be further argued that the behavior of an individual is a result of the interrelationship between his attitudes and his environment. Rokeach has succinctly expressed a further assumption, i.e., expressed opinions as well as observed behaviors represent the individual's attitudes.[1]

It is with the assumption that expressed opinions are as important as observed behaviors, and represent the attitudes and actions of individuals, that the two studies described in this report were undertaken. Stern[2] and Gibb[3] have suggested that the climate perceived by teachers is transmitted to the students they teach. Accordingly, a second assumption of the studies reported here is that more positive perceptions are indicative of a higher probability of teaching skill. If a teacher (or teacher candidate) has positive feelings about his own learning experiences, he is more likely to transmit those feelings to the students he teaches.

A study undertaken in 1969-70 by J. Galen Saylor[4], and others, reported upon the perceptions of students in the Department of Secondary Edu-

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[1]Milton Rokeach, Beliefs, Attitudes and Values. San Francisco, Jossey Bass Inc., 1969.

[2]George G. Stern, People In Context. New York, John Wiley and Sons, 1970.

[3]Jack P. Gibb, Sociopsychological Processes of Group Instruction, Forces in Learning No. 3. Washington, D.C.: NTL, NEA, 1961.

[4]J. Galen Saylor and others. An Opinionnaire Evaluation of the Secondary Education Teacher Training Program By Student Teachers, Cooperating Teachers, University Supervisors. Department of Secondary Education, University of Nebraska-Lincoln, 1970.

cation regarding teacher preparation experiences while enrolled at the University of Nebraska-Lincoln. Two major reasons existed which suggested a replication of the Saylor, et al. study was in order. One initial consideration was the belief of the current investigators that collection of information about on-going programs should be a continual process, providing feedback to the individual or organization for self-correcting in approaches to conflict resolution and problem solving. A second, and methodological, reason was that the Saylor study neglected to provide any way of dichotomizing the data into major components, e.g., students trained in the regular program of the University of Nebraska Teachers College and students trained in the NUSTEP sections. At the time of the Saylor study, the NUSTEP program was completing its first full year of operation as an instructional program. For the two studies reported here, students trained in the Nebraska University Secondary Teacher Education Project (NUSTEP) during that first year (academic year 1969-1970) and students trained during the second year of NUSTEP are compared with students trained in other sections of the teacher education program.

Description

NUSTEP is a combination of three classes offered in the regular program: Educational Psychology 162, Secondary Education 121, and Secondary Education 141. These classes, respectively, are: Behavior in the Classroom, Special Methods, and Principles of Secondary Education. Major elements of the three classes are integrated into a sequenced teacher training program. NUSTEP students spend a considerable amount of time practicing teaching skills and behaviors in videotaped micro-teaching experiences and in class-

room settings in the public schools. The use of these two components in the non-NUSTEP sections is sporadic or non-existent.

In the first section of this report a Teacher Preparation Questionnaire[5] is described and the findings are reported. This instrument was distributed to a sample of recently graduated trainees completing their first full year as practicing teachers. The data collected contrasted teachers trained in the regular program and those participating in the first year of the NUSTEP program.

The second section describes the findings of the Teacher Preparation Personal Reaction Form designed to collect information about the attitudes and feelings of trainees student teaching during spring semester 1971. Results presented again refer to comparisons of NUSTEP trained student teachers and student teachers trained in the regular program.

In the final segments, some basic conclusions and recommendations are presented. The results of the two studies reported here are examined and implications for change or review in teacher preparation programs are described.

Procedures Used for Analysis

Both instruments were computer tallied for percentage distributions, mean scores, frequency distributions, variances, standard deviations, and t-test results from the comparison of NUSTEP and non-NUSTEP respondents. Other analyses included calculation of correlation coefficients for rank orderings, matched group tests, and sign tests for matched groups. The .05 level of confidence was established as the alpha level.

[5]Copies of this and other instruments described will be provided upon request.

The Teacher Preparation Questionnaire

The Teacher Preparation Questionnaire was administered June, 1971 to graduates of the University of Nebraska completing their first year of full-time teaching. Those sampled included individuals trained in NUSTEP and those who had been trained in the regular teacher preparation program. Of 184 questionnaires mailed, 112 were returned. This represented approximately 60 percent of the number distributed.*

Three major attitudinal areas were measured by the Teacher Preparation Questionnaire. Respondents were asked to rate: the quality of their undergraduate preparation for teaching, the prevalence of certain innovative practices, and the extent to which twenty-five items identified as the most common problems of beginning teachers were, for them, actual problems. Items used in this third section of the instrument were chosen according to the findings of Gaylord E. Moller, reported in a 1968 doctoral dissertation.[6]

Students in both the regular teacher training program or the NUSTEP program, after one year of full-time teaching, tended to describe student teaching as the most important part of their teacher preparation experience. It was interesting to note, however, that a significant percentage of NUSTEP trained students rated their NUSTEP experiences as being even better than student teaching. Teachers in the regular program ranked component courses at all levels. Responses received placed any given course in all positions

*It should be noted that inadequate record keeping procedures for the address of graduates, as well as the scarcity of jobs, and the fact that not all graduates took teaching jobs were factors in the low numbers of questionnaires distributed compared with the number of students receiving degrees and teaching certificates in June, 1970.

[6]Gaylord E. Moller. A Comprehensive Study of the Problems of Beginning Teachers in Selected Large Senior High Schools. Unpublished doctoral dissertation. University of Nebraska, 1968.

from one to six on a six-point scale. In contrast, NUSTEP trained teachers ranked their training in NUSTEP as either first or second in importance in their preparation experience. No other course, including student teaching, had all responses in the upper half. When the three courses combined in the NUSTEP program were considered separately for teachers trained in the non-NUSTEP program, 61.4 percent ranked these courses as being in the most important half of their teacher preparation experiences while 22.7 percent of the respondents described one or more courses as being the worst teacher preparation experience. Secondary Education 121, the methods class, drew the most favorable comments. Educational Psychology 162 and Secondary Education 141 fared less well. One out of ten respondents described Educational Psychology 162 as their worst course and one out of five respondents described Secondary Education 141 as their worst course. All students had taken Education 31, a basic foundations course, as a separate course. Respondents tended to give very low ratings to this course; more than half of all respondents ranked this as the worst part of their teacher preparation experience.

The tendency of NUSTEP trained teachers to place significant value upon their NUSTEP experiences may indicate that individuals trained in NUSTEP have a higher positive self-image regarding their capabilities and capacities as teachers. And, as has been suggested earlier, there is a viable argument for the belief that higher positive feelings on the part of the teacher (about himself and about teaching) are directly reflected in the classroom climate created for students. If this is valid, there would be some tendency to believe that NUSTEP trained teachers, as a group, would tend to be more effective. Regardless of the validity of this hypothesis, however, one conclusion is supported by the data reported above:

the NUSTEP program appears to have had considerable impact on the affective objective of creating a more confident teacher.

The second area of the Teacher Preparation Questionnaire centered upon the presence and use of innovative practices. One of the questions of interest to the investigators was whether or not NUSTEP trained students were more actively engaged in the use of experimental or innovative teaching behaviors, i.e., were they emitting the behaviors which the NUSTEP staff felt that it had modeled for them? This concern is directly related to one of the expressed goals of the NUSTEP program: the preparation of teachers who are committed to experimental procedures.

Teachers were asked to respond to twelve items indicating whether innovative practices were ut lized in their building (defined as a practice common to ten percent or more of the teaching staff in the building.) After responding to the question of availability, respondents were asked to indicate whether they were using the practices identified. The obtained correlation coefficient between reported availability and usage was .741.

When the total sample was divided into NUSTEP AND non-NUSTEP respondents, there were no significant differences in the reported availability of innovative practices. For one of the twelve items, NUSTEP trained teachers reported a significantly higher use of affective objectives in the determination of student progress. Across all twelve items, NUSTEP trained students were significantly higher in reported rates of usage of most items ($P < .025$). Table I. reports in greater detail findings obtained on the availability and use of innovative practices. Generally, the first year teachers sampled reported higher use of self-assessment techniques, behavioral objectives, independent study approaches, and small group work.

The latter two items have recently been identified as important characteristics of good teaching, based on 18,528 classroom ovservations.[7]

In the third component of the Teacher Preparation Questionnaire, first year teachers sampled in the present study were compared to first year teacher data reported by Moller (1968). An area of particular interest was the identification of how perceived problems changed in the intervening three years. While the precise cause of such changes, in terms of the total sample, cannot be identified, the specification of important issues provides insight into areas of possible concern in planning or revising teacher preparation programs. (Some of the problems, of course, cannot be solved by revision of the teacher preparation program, e.g., personal financial problems.)

When the 1971 sample was compared with the 1968 sample, the obtained correlation coefficient was .548. While this value indicates a tendency for the two groups to view problems in the same way, there is also cause to believe that definite changes in teacher perceptions have occurred in the intervening years. Table II reports this data in full and analysis of the table reveals the sources of some changes in perception.

The 1971 first year teachers are less concerned about student absenteeism, less concerned about feeling fatigued, and more concerned about having enough time for student conferences. Those trained in the regular program are more concerned than their 1968 counterparts about inadequate building facilities and providing needed remedial instruction within the classroom; those trained in NUSTEP are less concerned about processing makeup work occurring after student absences, less concerned about grading students, and more concerned about discipline.

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[7]Martin N. Olson, "Research Notes, Ways to Achieve Quality in School Classrooms: Some Definitive Answers," Phi Delta Kappan, Sept., 1971, pp. 63-65.

TABLE I

FIRST-YEAR TEACHER REPORTING OF AVAILABLE INNOVATIVE PRACTICES AND RATES OF USAGE IN THEIR TEACHING SITUATIONS. COMPARISON OF AVAILABILITY AND USAGE RATES FOR NUSTEP-TRAINED AND FOR TEACHERS NOT TRAINED IN THE NUSTEP PROGRAM.

ITEM	AVAILABILITY				USAGE			
	Totals	Non-NUSTEP	NUSTEP	Sig. Level	Totals	Non-NUSTEP	NUSTEP	Sig. Level
	(%)	(Mean)	(Mean)	(T-test)	(%)	(Mean)	(Mean)	(t-test)
Success-based programs of Instruction	53.57	1.4681	1.4444	.43	63.39	1.3511	1.4444	.23
Mediated Learning Materials	57.14	1.4468	1.3333	.19	66.07	1.3511	1.2778	.28
Learning Packages	53.57	1.4787	1.3889	.25	75.00	1.2340	1.3333	.19
Independent Study	37.50	1.6383	1.5556	.26	46.43	1.5106	1.6667	.12
Contracted Learning	61.61	1.4043	1.2778	.16	80.36	1.2021	1.1667	.37
Small Group Instruction	33.04	1.6489	1.7778	.15	39.29	1.5851	1.7222	.14
Pair Learning	78.57	1.1915	1.3333	.10	80.36	1.1915	1.2222	.39
Large Group Instruction (equal to groups of two regular classrooms or larger.)	58.04	1.4043	1.5000	.23	66.96	1.3085	1.4444	.14
Consistent Use of Behavioral Objectives	53.57	1.4468	1.5556	.21	47.32	1.5000	1.6667	.10
Criterion Referenced Eval. Systems	73.21	1.2553	1.3333	.25	74.11	1.2660	1.2222	.36
Periodic Methods of Self-Assessment by Teachers including techniques for Gathering organized beedback from Students	63.39	1.3404	1.5000	.11	55.36	1.4149	1.6111	.07
Evaluation of affective objectives used in determining student progress	66.07	1.3192	1.4444	.16	66.07	1.2979	1.5556	.02*

*Significant at .05 level or better

TABLE II

RANK ORDERINGS OF THE TWENTY-FIVE MOST COMMON PROBLEMS OF FIRST YEAR TEACHERS

PROBLEM	1968 Ranks*	1971 Totals	1971 Non-NUSTEP	1971 NUSTEP
Motivating Students	1	1	1	1
Student Indifference	2	4	4	8
Student Absenteeism	3	23	23	20
Parental Indifference	4	10	11	9
Holding Student Interest	5	3	3	6
Processing Makeup Work after Student Absences	6	13	13	16
Grading Students	7	12	7	25
Providing Enrichment for Superior Students	8	8	8	4
Meeting Individual Student Differences	9	2	2	7
Finding Enough Time to Keep Current in Subject Matter Being Taught	10	9	9	3
Discipline	11	7	10	2
Working with Low Ability Students	12	11	12	10
Fatigue	13	22	22	24
Evaluating Pupil Progress	14	15	15	17
Adjusting to a Satisfactory Speed for Covering Subject Matter	15	20	21	15
Providing Needed Remedial Instruction Within the Classroom	16	6	5	11
Constructing Satisfactory Tests and Quizzes	17	19	17	22
Having Enough Opportunity for Contact With Parents	18	16	16	13
Correcting Student Papers	19	21	20	21
Lack of Teaching Creativity	20	18	19	12
Having Enough Opportunity for Student Conferences	21	5	6	5
Inadequate Building Facilities	22	14	14	14
Giving Too Much Time to Problem Students	23	17	18	18
Personal Financial Problems	24	25	25	23
Having a Tendency to Talk Over Student Heads	25	24	24	10

* Ties were broken to simplify computations.

Comparison of the NUSTEP trained first year teachers with those not trained in the NUSTEP program suggests that NUSTEP trained teachers are less concerned with grading, more concerned about discipline, more concerned about teaching creativity, more concerned about providing remedial instruction in the classroom, and less concerned with constructing satisfactory tests and quizzes. Generally, the recently trained teacher reflects a greater concern than his 1968 counterpart for the problems of individualizing instruction aimed at providing success for all students. The lessening of expressed concern over personal fatigue indicates a probable increase in commitment to teaching. The lessening of concern over student absenteeism--one of the most important concerns in the 1968 study and one of the five least important concerns in 1971--may indicate a shift in first year teacher attitudes toward less concern with control for the sake of control. It may also be a result of the greater flexibility provided by the use of individualized instructional materials. In either case, in the opinion of the investigators, it speaks well for the development of better student-teaching relationships.

Overall, the results of the Teacher Preparation Questionnaire seem to indicate that NUSTEP trained teachers are, in comparison to teachers receiving degrees three years earlier, more confident, more likely to be using innovative materials or approaches, and along with the first year teachers trained in the regular program, more likely to be committed to teaching, with deeper concern for the student. These results are more pronounced for teachers trained in NUSTEP than for traditionally trained teachers. Significant differences ($P < .05$) in utilization of innovative practices by NUSTEP trained first year teachers were also indicated. These same teachers were generally more positive in their overall attitude toward

teacher preparation than were their counterparts trained in the regular program.

The Teacher Preparation Personal Reaction Form

The Teacher Preparation Personal Reaction Form was intended for use with all student teachers enrolled in student teaching (Department of Secondary Education) for spring semester 1971. Delays in distribution of the questionnaire caused the instrument to be forwarded to student teachers during the last week of school and only one-hundred and sixty (160) usable responses were collected. This number represents a sizable proportion of the number of students enrolled, although open to some question in terms of the size of the sample compared to the number of questionnaires distributed. Of the subject areas measured, seven had adequate responses to provide valid comparison of those seven areas with one another. The forty-nine (49) questions of the Teacher Preparation Personal Reaction Form have been sorted into categories with data reported in terms of those categories, as well as across the total instrument. Data is also reported in terms of the seven subject areas where adequate response levels were achieved to permit valid comparisons.

Initial findings can be reported before a more detailed analysis is presented.

In a comparison of the perceptions of NUSTEP trained student teachers with those trained in the standard instructional program, a correlation coefficient of .816 was obtained for the reported attitudinal scores. Additionally, a significant difference ($P<.05$) appeared in attitudes reported by the two groups in favor of the NUSTEP trained sample.

Students not trained in NUSTEP were significantly different from NUSTEP

trained students in being more positive on one questionnaire item--"As a result of my teacher preparation experiences, I did a considerable amount of rethinking about my own attitudes and values." Interpretation of this finding is difficult, however, since NUSTEP students were significantly different from non-NUSTEP students in their description of teacher preparation courses as more concerned with the development of new attitudes and behaviors than were other university courses.

NUSTEP students were more positive than the other students in their perceptions of a number of issues (all within the established .05 level of confidence.) NUSTEP students:

1. felt more adequately prepared in the use of audiovisual materials.

2. placed a higher value on pre-student teaching in school experiences. (NUSTEP teacher assisting would be the probable cause of this difference in perception.)

3. are more positive in their overall rating of the teacher preparation program (a finding also shown in the description of the perceptions of first year teachers.)

4. were significantly less negative about the need for change in the teacher preparation program. (Both groups, however, sharply rejected the statement that major changes in the teacher preparation program are not needed.)

5. described their teacher preparation program as providing better models of teaching than those commonly found in schools.

6. expressed more positive attitudes about their university supervisors actions in identifying the behaviors which they would need to demonstrate in student teaching. They also felt supervisors had more clearly specified how they would be evaluated and graded for student teaching.

7. described their university teacher preparation instructors as modeling the new behaviors or practices which were suggested.

8. felt they were encouraged or permitted to develop and try out new approaches in their on-campus teacher preparation experience.

9. were significantly more positive about the statement that their teacher preparation program offered variety in the presentation of teaching strategies.

10. expressed much higher satisfaction with the opportunities for micro-teaching and videotaping within their teacher preparation program (significant at the .000001 level.)

As the rather extensive listing above and Table IV on the following page indicate, a number of significant differences exist in the perceptions of NUSTEP trained students compared with non-NUSTEP trained students. When the questions were grouped into major categories shown in Table IV, significant differences were found within categories. Most of these differences favored the NUSTEP program. It should be noted that the high degree of positive acceptance given to student teaching (a finding common to the first study described in this report) by both groups show no significant differences between the perceptions of either sample. On a raw score basis non-NUSTEP students are slightly more positive about their in-school experiences.

With differences between NUSTEP and the regular teacher preparation program strongly indicated for a number of areas, a further question was suggested. Did students from the four subject areas within NUSTEP tend to agree with each other or were there significant differences when the groups were compared within the NUSTEP framework?

The hypotheses that no differences existed in the perceptions of students from the four subject area groups within NUSTEP, and that no differences existed in the perceptions of students from the four subject area groups within NUSTEP, when measured across the eight categories (shown in Table IV) were rejected at the .01 and .005 levels respectively. Table III on the following page shows the obtained z scores for the null hypothesis that no differences existed between subject areas. (One note of caution should be sounded---all English students were not in NUSTEP but, since they are now included, they were compared with the other NUSTEP areas.)

TABLE IV

RANK ORDERING OF SEVEN SUBJECT MATTER AREAS ACROSS EIGHT CATEGORIES AND THE TOTAL INSTRUMENT OF THE TEACHER PREPARATION PERSONAL REACTION FORM WITH OBTAINED LEVEL OF SIGNFICANCE (.05 OR BETTER) FOR THE NULL HYPOTHESIS THAT NO SIGNIFICANT DIFFERENCES EXIST IN THE PERCEPTIONS OF THE SEVEN SUBJECT MATTER AREAS FOR THE ITEM UNDER CONSIDERATION. DATA ALSO TABLED AND COMBINED FOR COMPARISON OF NUSTEP AND NON NUSTEP RESULTS.

CATEGORY	SIG. LEVEL	ART	MATH	MPE	ENG.	SOC. STUD.	MUS.	SCI.	NON-NUSTEP	NUSTEP
Attitudes toward University Instructors and Supervisors	.05	7.0	3.0	6.0	4.0	2.0	1.0	5.0	2.0	1.0
Attitudes toward Supervisors in Student Teaching	.01	5.5	1.5	7.0	4.0	1.5	3.0	5.5	2.0	1.0
Attitudes toward On Campus Teacher Preparation Work	.05	5.0	2.5	4.0	7.0	6.0	1.0	2.5	2.0	1.0
Attitudes toward Student Teaching (and Teacher Assisting or Observations in Schools)	NS	1.0	4.5	6.0	2.0	4.5	3.0	7.0	1.0	2.0
Self Description of Ability to Perform Teaching Skills	.025	3.5	2.0	7.0	5.0	3.5	1.0	6.0	2.0	1.0
Attitudes toward Skill of Teachers in Subject Area Already Working in Schools	.05	5.0	2.0	4.0	1.0	6.0	3.0	7.0	1.0	2.0
Attitudes toward Need for Change in Teacher Preparation Program	.005	1.5	3.0	5.5	4.0	1.5	7.0	5.5	1.0	2.0
General Attitudes About Teacher Preparation	.05	7.0	2.0	6.0	4.5	3.0	1.0	4.5	2.0	1.0
TOTAL INSTRUMENT	.005	5.0	2.0	7.0	4.0	3.0	1.0	6.0	2.0	1.0

With English eliminated from consideration in Table III, the obtained results would <u>almost</u> permit the conclusion that there is a definite NUSTEP model which is operating across all subject areas (only the relationship between social studies and music would prevent this conclusion.)

TABLE III

COMPARISON OF PERCEPTIONS OF SUBJECT MATTER GROUPS WITHIN NUSTEP

AREA	English	Social Studies	Music	Science
English		2.60*	2.75*	2.09*
Social Studies	2.60*		1.65*	0.29
Music	2.75*	1.65*		0.55
Science	2.09*	0.29	0.55	

* Significant at .05 or better.

What does remain as a conclusion on the basis of the above data, however, is that a definite NUSTEP model, with uniform results across subject areas has not yet been achieved. Re-examination of Table IV tends to provide additional indications that many areas of difference remain among the subject groups which are working cooperatively in the NUSTEP program. (The presence of differences should not be interpreted to mean a difference in goals; differences in perceptions as measured by the instrument used here refer to a difference in outcomes rather than a difference in goals or in procedures. On the other hand, those differences may exist, but the evidence provided here would not permit a conclusion on those levels.)

The instrument consisted of fifty-seven items with the first eight collecting general personal history information. The data reported were collected on questionnaire items 9 through 57. To provide some additional information on attitudes, Tables V and VI were constructed. In both tables, the data is broken into NUSTEP and non-NUSTEP responses. Table V indicates the first twelve in rank order. Since differences appeared between the NUSTEP and non-NUSTEP groups, more than twelve items have been listed so that the first twelve of each group, with the comparative rank assigned by the other group also shown. The same procedure was followed for the twelve questions drawing the most negative responses. In each table, the questionnaire item number is given in parentheses after the statement of the item. Table V provides upper quartile comparisons and Table VI provides lower quartile comparisons.

TABLE V

UPPER QUARTILE OF RESPONSES

ITEM	Non-NUSTEP Rank	NUSTEP Rank	Non-NUSTEP X	NUSTEP X	Sig. Level (t-test)
Earlier Experiences in Schools Needed (32)	1	1	4.276	4.361	.17
University Supervisor Showed Personal Interest (41)	7	2	4.868	4.208	.17
Self-Assessment of Knowledge of Subject Matter (18)	5	3	4.114	2.167	.31
Attitude toward Cooperating Teacher (25)	5	4.5	4.114	4.125	.48
Student Teaching Helped Me Become More Interested in Teaching as a Career (37)	2	4.5	4.148	4.125	.45
Student Teachers Should not Take Other courses while Student Teaching (33)	3	6	4.057	4.113	.50
University Supervisor was Helpful and Effective(28)	13.5	7	3.875	4.000	.24
On campus Education Instructors were Helpful and Effective (27)	12	8	3.886	3.972	.43
Teacher Preparation Program should Provide more Minority Ed Experiences(30)	5	9	4.114	3.944	.11
Self-Assessment of Skill in Teacher Conducting (20)	20	10.5	3.761	3.917	.09
Perception of Skills of Practicing Teachers in the School Locations in Student Teaching (24)	9	10.5	3.952	3.917	.20
Need for Exposure of Students to More school Locations Before Student teaching(31)	11	12.5	3.932	3.875	.36
Perceived Acceptance by Cooperating Teacher as a Colleqgue (42)	3	12.5	4.136	3.875	.08
Student Teaching caused self examination of Values (48)	10	20	3.948	3.694	.02*

*Significant at .05 level.

TABLE VI

LOWER QUARTILE OF RESPONSES

ITEM	Rank Non-NUSTEP	Rank NUSTEP	X Non-NUSTEP	X NUSTEP	Sig Level (t-tests)
Value of Ed. Psych. 162 (or for NUSTEP, Ed. Psych. Tasks in NUSTEP) (12)	25	38.5	3.448	3.194	.09
Adequacy of Information About Career Opportunities in Teaching (15)	41	38.5	2.989	3.194	.13
Teacher Preparation Program Prepares Us for a Different Style of Teaching than that Used in Most Schools (30)	34	40.5	3.261	3.153	.26
More Time is Needed for Professional Preparation Courses (55)	42	40.5	2.977	3.153	.17
Student Teachers Should be assigned in a Variety of Locations Across the State	32	42	3.284	3.083	.13
Teacher Preparation Courses Taken Before Student Teaching Increased My Interest in Teaching (36)	39	43	3.034	2.986	.47
Videotaping for Self-Assessment Was Adequately Used in Student Teaching (57)	45	44	2.614	2.806	.17
Teacher Preparation did not Provide New Knowledge or Skills (52)	44	45	2.784	2.750	.43
Value of Ed. Psych. 61 (10)	43	46	2.859	2.648	.22
I would have NO Major Changes to Suggest for the Teacher Preparation Program (34)	49	47	2.103	2.375	.41
Value of Observation Experiences in Ed. 31 (16)	46	48	2.543	2.373	.26
Value of Ed. 31 (9)	47	49	2.170	2.083	.30
Teacher Preparation Provided Better Models than Those Used in Most Schools	40	31.5	3.011	3.431	.01*
Before Student Teaching, Adequate Use was Made of Videotaping Experiences for Practice	48	34	2.136	3.361	.000001*

*Significant at .05 or better.

Conclusions and Recommendations

From the findings presented, there seems little question that students enrolled in NUSTEP during the first two academic years of its existence (1969-1970 and 1970-1971) were more positive about NUSTEP as a vehicle of teacher preparation than were students who had been enrolled in the regular program, i.e., the program which existed prior to NUSTEP and which has continued to serve a sizable number of students and subject areas within the Department of Secondary Education and within Teachers College at the University of Nebraska-Lincoln.

Although some speculation that the improvement of teacher attitudes toward teacher preparation will be translated into more effective teaching is warranted, a firm conclusion cannot be drawn with impunity on the basis of the type of information provided by the two instruments described here.

From the data presented, it is clear that NUSTEP trained students have been more widely and systematically exposed to the use of videotaping, microteaching and in-school experiences prior to student teaching. It is also apparent that these items are viewed, in retrospect at least, as being valuable to teacher trainees. Since part of the rationale for NUSTEP was based on the use of such procedures and techniques, this discovery can hardly be termed surprising.

Information provided in Tables IV, V, and VI would also suggest that more attention should be given both to techniques of supervision and methods of self-assessment on the part of students. These concerns are more appropriate for some areas than for others as the tabled data would tend to indicate. Similarly those responsivle for Ed. 31, Ed. Psych. 61, and 162 (especially in the integration of Ed. Psych. within the NUSTEP program), and Secondary Education 141 must consider the data presented here to examine

and possibly restructure some of the approaches used.

Student differences inspired by NUSTEP appear to be the result of considerable staff interaction, combined with micro-teaching, with video-taping and teacher assisting in school settings. These areas, however, are those requiring equipment, staff time, and much of the additional cost NUSTEP incurs compared to the regular program, e.g., money for transportation of teacher assistants to Omaha. Further studies should carefully assess the specific role of each of these elements for its impact upon the attitudinal gains indicated by the results reported above. More extensive parametric studies, with rigorous controls, can be used to determine whether or not NUSTEP students have improved skills as well as improved attitudes. Such research should be undertaken and completed before plans are implemented to expand or revise the program following suggestions from the above data. For example, all students express a strong belief that earlier experiences in the school settings are needed. There also seems to be some student press for the idea of a professional semester in which students are freed from the burden of other courses while student teaching. While such changes could be made on the basis of belief, it is to be hoped that sound research will soon be undertaken to accurately check the actual impact of micro-teaching or of teacher assisting, individually, on both attitudes and skills of students who enroll in, and complete, the teacher preparation program within the Department of Secondary Education. Such research should be a prelude to further extension of the NUSTEP project.

While the preceding comments have been somewhat cautionary, it should be kept in mind that the results reported here strongly suggest the NUSTEP program does make a difference, and that the direction of the differences noted is positive. Simultaneously, it should be kept in mind that NUSTEP

students, while more positive than non-NUSTEP students toward existing programs (i.e., less ready to see a need for major changes in preparation) are expressing a perceived need for change in the teacher preparation program.

On a closing note, it is the hope of the investigators that the materials presented will serve as a stimulus to continued and increased discussion of approaches to improved programs of teacher preparation. Such improvements can come by the self-assessment of staff members working in this area, by the assessment of other variables not covered in this study, and by a continued attention to the collection of feedback and observational data on the teacher candidates produced by the department.