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The Effect of Observation of Classes upon Education Majors' Attitudes toward Selected Aspects of Teaching.

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Descriptors - \*Changing Attitudes, \*Educational Experiments, \*Education Majors, \*Observation, Pilot Projects, School Visitation, \*Student Attitudes

Identifiers -Mann Whitney U Test, Wilcoxon Matched Pair Signed Rank Test

An experiment was designed to investigate the effects of classroom observation on the attitudes of education majors toward selected aspects of teaching. Three major hypotheses were considered: (1) that observation of classes would result in a significant change in student attitudes toward selected aspects of teaching, (2) that student attitudes would shift toward those held by the present teaching faculty at the school in which they observed, and (3) that the attitudes of the McCaskill Laboratory School Faculty, Wisconsin State University, Superior, would vary significantly from the attitudes of the education majors in the study. Thirty-three education majors without observation experience were identified and were divided randomly into control and experimental groups. The control group was restricted from observation during the experimental period while the experimental group made five 30-minute observations of classes. Pretest and posttest measurements were administered to assess attitudes toward such aspects as student teaching, teaching, discipline, and children. A semantic differential was employed as the measuring device. Analysis of the data led to rejection of all three hypotheses. (Author/SG)

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POSITION OR POLICY. THE EFFECT OF OBSERVATION OF CLASSES UPON EDUCATION

MAJORS' ATTITUDES TOWARD SELECTED ASPECTS OF TEACHING

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Statement of the Problem

This experiment was designed to investigate the effects of ob-  
servation of classes upon the attitudes of education majors toward  
selected aspects of teaching. Three major hypotheses were selected  
for consideration:

1. That observation of classes would result in a significant  
change in the attitudes held by the students toward the  
selected aspects of teaching.
2. That the direction of the attitudinal shift would be toward  
the attitudes held by the present teaching faculty at the  
school in which they observed classes.
3. That the attitudes of the McCaskill Laboratory School  
faculty would vary significantly from the attitudes of the  
education majors in the study.

Procedures

The one hundred and twenty education majors enrolled in  
Educational Psychology 102 were administered a questionnaire de-  
signed to reveal the nature and extent of their experiences with  
children. All students with classroom observation experience and  
experiences in working with children in organized activities were  
removed from the study. The remaining thirty-three students, all  
in their junior year, were divided in a random manner into an ex-  
perimental group with seventeen members and a control group with  
sixteen members. Each group contained approximately the same  
proportion of men and women.

The attitudes of all of the Educational Psychology 102  
students were measured prior to the classroom observation period  
and after the observation period ostensibly in order to assess the  
reliability of an attitude scale. The attitudes of the McCaskill  
faculty were measured at the end of the experimental period.

The experimental group was assigned five thirty-minute ob-  
servation periods during the six week duration of the investiga-  
tion. The observations were made through one-way class windows  
at McCaskill Laboratory School, WSU-Superior. The control group  
was also assigned five similar observations, but they were required

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to make these after the experimental period. Neither group was aware that the study was in progress. The observations were accepted as a matter of routine as a general class assignment. The observations were directed utilizing a simple observation guide. A report on each observation was submitted to the instructor.

Attitudes were measured toward such factors as student teaching, teaching, discipline, and helping an individual child. (For the complete list and definitions see Appendix I) The measurement was conducted with a five bi-polar scale semantic differential. (see Appendix II) The analysis of the attitude change was made with the Wilcoxon Matched-Pair Signed-Rank test and the assesment of the difference in attitude between the students and the McCaskill faculty utilized the Mann Whitney U test.

## Results

The hypothesis that observation of classes would result in a significant change in attitude was rejected as in no case was there a significant shift in the experimental groups attitudes. This data is presented in Table I.

The hypothesis that observation of classes would result in a shift in attitude of the experimental group toward the attitudes held by the McCaskill faculty was rejected as in four instances the groups direction of change was toward the attitudes held by the McCaskill faculty and in five instances the movement was away from the McCaskill faculties' attitudes. This data is shown in Table I.

The hypothesis that the attitudes of the McCaskill faculty would vary significantly from the experimentals groups attitudes was not supported by the data as illustrated by Table II.

Table III shows the control group and the data indicates that this group had about the same pattern of attitudes and underwent a similar pattern of change as the experimental group. The attitude toward discipline changed significantly but all other changes failed to reach the five per cent level of significance.

## Summary

This investigation was designed to study the effects of observation of classes upon the attitudes of education majors toward selected concepts or processes related to education.

The population consisted of thirty-three juniors in the School of Education. This population was selected because they did not have any previous classroom observation experience or any experience working with children in youth activities. The population was divided in a random manner into experimental and control groups.

The experimental group made five one-half hour observations of classes at McCaskill Laboratory School. The control group was restricted from observation during the six week experimental period.

Semantic differential measurements were made of the students attitudes toward selected aspects of teaching such as student teaching, teaching, discipline, the teacher's daily job, teaching as a life's work, and children. The measurement was done prior to and immediately after the experimental period.

Three major hypothesis were tested:

1. That observation of classes would result in a significant change in the attitudes held by the students toward the selected aspects of teaching.
2. That the direction of the attitudinal shift would be toward the attitudes held by the present teaching faculty at the school in which they observed classes.
3. That the attitudes of the McCaskill faculty would vary significantly from the attitudes of the education majors in the study.

All three hypothesis were rejected on the basis of the data.

### Discussion

The failure of the observation experience to result in significant shifts in attitude may be attributed to several factors. There is a distinct possibility that an actual shift may have taken place but was not revealed due to technical weaknesses within the investigation. Possibilities in this area are size of sample, the number and duration of the observation periods and the sensitivity of the measuring instrument.

The investigator favors an alternate explanation. The attitudes held by the students and the faculty were similar and positive prior to the observation period and as a result there was no room for a change in the students attitudes. It was not possible for the students attitudes to be strongly influenced because of the high agreement between the students attitudes and the faculty attitudes prior to the observation. It is possible to speculate that a shift might have been found had there been a marked variance between the attitudes held by the students and the faculty at the laboratory school.

### Implications

This pilot study was limited in size and scope and as a result implications must be drawn in a conservative manner. While this



study found that observation did not affect the attitudes of the observer toward teaching, it does not indicate that other positive gains do not result from observation. An example of a value of observation not within the scope of this investigation would be gains in knowledge as to how to implement a specific teaching technique or method.

There is a need for expanded research as to the value of observation. There is a need to relate it more directly to success as a student teacher. The investigator has designed a more encompassing research proposal and it has been funded by the Office of Education. The study will begin in September, 1967.

TABLE I

## WILCOXON MATCHED-PAIR SIGNED-RANK ANALYSIS OF ATTITUDE CHANGE-EXPERIMENTAL GROUP

Concept toward which attitude was measured	Pre-test mean	Post-test mean	Loss or gain	T score	McCaskill staff mean	Was attitude changed toward McCaskill mean?
Student teaching	27.1	28.8	+1.7	27.5	----	----
Teaching	30.5	30.8	+ .3	43.5	31.9	yes
Classroom Control	30.3	29.7	- .6	34.5	31.1	no
Discipline	22.4	24.1	+1.7	31.5	21.8	no
Children	30.7	31.1	+ .4	41.0	31.4	yes
Boys	29.7	29.7	0	45.0	29.9	----
Girls	30.5	31.8	+1.3	29.5	30.9	yes
Teacher's Daily Job	28.8	28.7	- .1	55.0	29.9	no
Teaching as Lifework	30.7	30.5	- .2	60.0	31.5	no
Presenting Lesson	28.7	29.5	+ .8	35.0	32.0	yes
Helping Individual Child	31.9	32.2	+ .3	43.5	31.5	no

\* Significant at the five per cent level

The range of possible scores was from five to thirty-five with thirty-five the most positive.

TABLE II

MANN-WHITNEY U ANALYSIS OF COMPARATIVE  
SCORES OF McCASKILL STAFF AND EXPERIMENTAL GROUPS PRE-TEST

Concept toward which attitude was measured	McCaskill mean	Experimental mean	Difference Using McCaskill Score as base	U Score
Teaching	31.9	30.5	-1.4	60
Classroom Control	31.1	30.3	-.8	78.5
Discipline	21.8	22.4	+.6	87.0
Children	31.4	30.7	-.7	63.5
Boys	29.9	29.7	-.2	73.5
Girls	30.9	30.5	-.4	77.0
Teacher's Daily Job	29.9	28.8	-1.1	72.5
Teaching as lifework	31.5	30.7	-.8	70.0
Presenting Lesson	32.0	28.7	-3.3	42*
Helping individual child	31.5	31.9	+.5	84.0

\* - Significant at five per cent level

The range of possible scores was from five to thirty-five with thirty-five the most common.

## WILCOXON MATCHED-PAIR SIGNED-RANK ANALYSIS OF ATTITUDE CHANGE-CONTROL GROUP

Concept toward which attitude was measured	Pre-test mean	Post-test mean	Loss or gain	T score	McCaskill staff mean <sup>1</sup>	Was attitude changed toward McCaskill mean?
Student teaching	26.8	28.7	+1.9	22	---	---
Teaching	31.2	31.3	+ .1	38	31.9	yes
Classroom Control	30.3	30.1	- .2	39.5	31.1	no
Discipline	20.9	26.3	+5.4	8.0**	21.8	yes
Children	30.0	30.6	+ .6	45.0	31.4	yes
Boys	27.6	28.4	+ .8	29.0	29.9	yes
Girls	28.6	29.5	+ .9	34.5	30.9	yes
Teacher's Daily Job	28.7	30.1	+1.4	22.5	29.9	yes
Lifework, Teaching as	30.3	30.4	+ .1	42.5	31.5	yes
Presenting Lesson	26.8	30.3	+1.5	34.5	32.0	yes
Helping individual Childhood	32.0	32.5	+ .5	23.0	31.5	no

\*\* Significant at the one percent level

<sup>1</sup> McCaskill staff mean was used as a criteria for a realistic attitude toward the variable under consideration.



## Appendix I

### SELECTED ASPECTS OF TEACHING TOWARD WHICH ATTITUDE MEASUREMENT WAS MADE.\*

- I. Student Teaching (The process of supervised teaching under the guidance and supervision of a cooperating teacher and a supervisor)
- II. Teaching (Being a fully certified functioning member of a school staff with responsibility for a particular grade or subject)
- III. Classroom Control (The process of guiding the learning and directing the activities in such a manner that the class functions smoothly without threat or punishment)
- IV. Discipline (Handling individuals and groups by direct methods in order to gain obedience. Includes rebukes, mild threats, reminders, etc.)
- V. Children (The boys and girls in a regular classroom situation)
- VI. Boys (The boys in a regular classroom situation)
- VII. Girls (The girls in a regular classroom situation)
- VIII. The Teachers Daily Job (Includes the routine daily aspects of teaching such as relating with children, giving directions, making explanations, giving assignments)
- IX. Teaching as a Life's Work (Includes feelings about teaching as a career, enjoyment, challenge, prestige, etc.)
- X. Presenting a Lesson to a Class (Includes lecture, leading, and discussion, demonstrations, etc.)
- XI. Helping an Individual Child (Helping an individual child in an area where he is weak. Includes instruction, encouragement, follow-up, etc.)

\* The definition was included on the semantic differential.

Appendix II

THE SEMANTIC DIFFERENTIAL USED  
FOR ATTITUDE MEASUREMENT

Teaching

	Very Close	Close	Slight- ly	Middle	Slight- ly	Close	Very Close	
Good	_____	: _____	: _____	: _____	: _____	: _____	: _____	Bad
Ugly	_____	: _____	: _____	: _____	: _____	: _____	: _____	Beauti- ful
Happy	_____	: _____	: _____	: _____	: _____	: _____	: _____	Sad
Awful	_____	: _____	: _____	: _____	: _____	: _____	: _____	Nice
Pleasant	_____	: _____	: _____	: _____	: _____	: _____	: _____	Unpleas- ant

The score on each measurement was the summation of the individual checks on each bi-polar scale. The positive end of each scale was scored a seven with the range on each scale being from one to seven. The summation made the entire range from five to thirty-five.