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A Study of Curriculum Methods and Materials Students' (Education 314) Performance at Central Washington State College and Teaching Competence

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A STUDY OF CURRICULUM METHODS AND MATERIALS STUDENTS
(EDUCATION 314) PERFORMANCE AT CENTRAL WASHINGTON
STATE COLLEGE AND TEACHING COMPETENCE

A Thesis
Presented to
the Graduate Faculty
Central Washington State College

In Partial Fulfillment
of the Requirements for the Degree
Master of Education

by
John Paul Uhrich Jr.
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APPROVED FOR THE GRADUATE FACULTY

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CHAPTER I

THE PROBLEM AND DEFINITION OF TERMS USED

To receive a Bachelor of Arts in Education degree from Central Washington State College and a Washington State Teaching Certificate one must complete a sequence of professional courses designed for the teacher education program. Since many are admitted each year to the teacher education program at Central Washington State College and begin this sequence, interest has been generated in the success of Central Washington State College graduates.

Curriculum Methods and Materials (Education 314), a course in the sequence of professional courses at Central Washington State College, was selected for study for the following reasons:

1. The data would be of interest to the Education 314 instructors.
2. The Education 314 curriculum was applicable in the field.
3. It was believed that the findings of such a study would be of interest and use to the Department of Education.

THE PROBLEM

Statement of the Problem

It was the purpose of this study (1) to determine the relationship between present performance of teachers and past performance in Education 314 classes at Central Washington State College; and (2) to gather field data related to the objectives of the Education 314 course on campus.

Importance of the Study

At the inception and during the course of this study the researcher was encouraged by the consistent, positive reinforcement given by the Education 314 faculty members at Central Washington State College. They believed this study might be a significant contribution.

Evaluation as done in the classroom and in the field is always important. Walter Monroe indicated that further research was essential to obtain a satisfactory criterion of teaching success (10:1390). This researcher believed that this study would help to provide a broader base for future research and decision making.

Limitations of the Study

This study was limited to self-perceptions of teaching effectiveness of those persons who completed Education 314

with an "A" or "C" grade during the 1968-1969 school year at Central Washington State College. The subjects had been teaching one or two years in Washington state.

Hypotheses

1. No statistical difference in teaching proficiency would be found between "A" students in Education 314 and "C" students in Education 314.

2. Professors were not attaining their teaching objectives for Education 314.

DEFINITIONS OF TERMS USED

Education 314

Education 314 identifies the department and course number of Curriculum Methods and Materials. It is a four credit course with prerequisites of Introduction to Education, Human Growth and Development, Learning and Evaluation, and admission to the teacher education program. The classes meet daily. The basic principals of curriculum and instruction, fundamental teaching procedures, orientation to curriculum content, classroom activities, and instructional materials typical of primary, intermediate, junior high, and senior high school levels were presented. Laboratory experiences were scheduled regularly (3:63).

"A" Grade

For purposes of this study "A" grades also include "A-" grades. "The highest grade, "A", is reserved for those students who have excelled in every phase of the course" (3:19).

"C" Grade

For purposes of this study "C" grades also include "C+" and "C-" grades. "A "C" grade indicates that the student has made substantial progress toward meeting the objectives of the course and has fulfilled the requirements of the course" (3:19).

CHAPTER II

REVIEW OF THE LITERATURE

This Chapter presents a review of the literature related to teaching success, self-reports, questionnaires, interviews, and grades. It was important to review the literature related to teaching success because this study attempted to evaluate teaching success. The literature related to self-reports, questionnaires and interviews was important because these techniques were employed in the gathering of the data for this study. Literature related to grades was reviewed because grades were related to the primary hypothesis of this study. The library at Central Washington State College was the major source from which information was obtained.

Teaching Success

The review indicated some disagreement among researchers as to the relationship between scholastic achievement and teaching effectiveness. Fred L. Pigge found that elementary principals rated former college students who had accumulative "A" grade point averages significantly higher in teaching success than they rated the former students with "C" averages (13:99). Elmer P. Magnell, however, found that

college marks had no predictive value as to one's success in teaching music and stated that he found several music teachers with rather low college grades who were rated as doing outstanding work in their teaching. Others with high scholastic achievements were often rated low in their ability to teach effectively (9:56). Walter S. Monroe felt that, "scholarship is a factor in determining teaching success." He stated that:

A valid and reliable criterion of teaching success has not been found. The factors conditioning success in teaching are not definitely known, and a satisfactory technique of investigation for applying the criterion and the factors has not been formulated (10:1390).

In the past, teaching success has been left to the value judgement of the principal. Pigge expressed confidence in the fact that "evaluating teaching effectiveness was impossible without the value judgement" (12:99). Other authorities are in quite general agreement that the value judgement of teaching success is the best available criterion (10:1390).

How effective has the evaluation of teaching success been in the past? In research cited by Gage, LaDuke reported that supervision ratings of teacher effectiveness are invalid; and Jayne reported that supervisory ratings of teachers seemed to lack reliability and validity. This research is summarized in a statement by Gage. "No fallacy

is more widely believed than the one which says it is possible to judge a teacher's skill by watching him teach" (4:257-258). M. Gill explained partly why supervisory evaluation is so poorly accepted. She found that supervisors don't have enough time to adequately evaluate and that they are not skilled in evaluation (5:623).

Self-report

Hyman posed this question, "Do people's replies really give a true picture of their behavior?" He found that people distort the truth (6:557-559). Parry and Crossley found that answers to factual items in surveys were invalid. They emphasized that caution is needed in accepting so-called factual data at face value. "Do not despair," they add, "nevertheless, the reader should not infer from these findings that research in the social sciences is relatively hopeless" (12:61-65).

Questionnaires

Walsh reported that:

Investigators generally assume that the questionnaire, the interview and personal data blank possess useful validity despite their plausible weakness and some negative research findings.

He indicated that:

The method of collecting the data was not associated with the accuracy of the self-report and that no one method elicits more accurate self-reports than another.

Results lend equal credence to research results based upon the questionnaire, interview and personal data blank. Until better evidence is provided, it is reasonable to assume that information can be obtained with equal validity in several ways (17:18).

When an imagined opportunity for advancement was seen Stoker and Lehman found in collecting personal information that "A" students exaggerate less than "C" students and went on to state that the "supposition that a slothful teacher will give a truthful report of his own slothfulness is a questionable one" (16:435-438).

Interview

Kahn and Cannell listed the elements of a good interview. They basically were:

1. Introduction--disclosure of time needed.
2. Purpose of the interview.
3. How the data is to be used.
4. What is expected of the respondent.
 - a. Degree of expertness--what is expected.
 - b. Type of answers--fact or opinion.

Support for the type of interview used in this study was cited by Kahn and Cannell from an American Psychology Association statement:

The interviewer is justified in misleading research subjects only when, in his judgement, this is clearly required by the problem.

They further implied that, in some cases, to discuss fully with the respondent the purpose of the interview, could render the results useless (7:80-89).

Grades

The review of the literature related to grades revealed that as far back as 1914 college instructors were demanding complete freedom in their classrooms. Kelly stated that:

There persists a very general feeling that college instructors should be allowed practically absolute freedom to conduct their classes in any way they see fit.

This freedom is related to grading practices. Kelly felt that this meant individual instructors would manifest their own standards and convert student behavior, with respect for these standards, into grades. Since standards of instructors are far from uniform, wide differences will be found in the reliability of grades (8:2).

Weiss and Rasmussen felt that education instructors believe that "students learn more under a highly encouraging marking system." Therefore, the percentage of "A"s in education is twice as large as in business administration or liberal arts. Failures in education courses are at the rate of one in 200 students. These data were gleaned from six large Midwestern universities.

Weiss and Rasmussen cited Lloyd Trump's opinion in this statement:

High marking is encouraged in education courses because professors are aware that no relationship exists between college grades and later teaching success.

More support for high grades in education classes was found in this Weiss and Rasmussen supposition:

It is possible that education professors, recognizing the importance of "good student-teacher relationships," of "helping the learner," of "meeting the need of the student," and of "the effects of failure," have an increased awareness of the fact that a grade of less than "C" endangers student status (18:143-149).

Cady reported that "half of all college grades assigned are A's and B's" Does this mean that we have more superior students in college than average students? He answered the above question with this statement, "There appears to be a contradiction." Scores made by college freshmen on entrance exams do not lead to this conclusion. Cady's findings were the result of a study conducted in 168 institutions belonging to the North Central Association of Colleges and Secondary Schools.

In summary, a statement from Cady seems appropriate, "Marks should so measure one's mental trait that they will be intelligible to others" (1:441-445). But, the literature shows the value of marks to be undetermined.

CHAPTER III

PROCEDURES

Questionnaire

Before work was begun on the questionnaire, the literature related to the development and success of questionnaires was reviewed. Also, Dr. John Purcell, Director of Institutional Studies, and others were consulted.

Each of the Education 314 professors was asked for a course outline, syllabus, or a list of objectives for their Education 314 course. Not all of the seven professors provided a list of objectives. A total list of objectives was compiled. It was decided that only the objectives which appeared on all lists would be used because a concensus would be needed. From the total, a list of nineteen objectives was used. From this list of nineteen objectives the questionnaire was devised (see Appendix A). The questions were very closely related to the course objectives of the Education 314 professors.

It was decided to use questions of the closed (yes or no) variety, to limit the time needed to administer the questionnaire and to reduce the risk of misinterpretation.

An order was developed for the questions within the questionnaire. Questions were grouped with related questions. The questions were arranged with regard to their possible threatening natures with the least threatening first.

With the help and advice of the Education 314 instructors, the thesis committee members, and the test case findings the questionnaire was revised a number of times. The final wording of the questions and the final draft of the questionnaire itself were approved and accepted by the Education 314 instructors.

From the review of the literature it was found that the interview and the questionnaire were of equal validity (6:89). This researcher employed both in the gathering of data. It was believed that the data would be more valid when two data gathering techniques were employed simultaneously.

Subjects

The names of persons who received an "A" or "C" grade in Education 314 at Central Washington State College during the 1968-1969 academic school year were obtained from the Education 314 professors who were on campus during Winter Quarter 1971. A master list was composed from the lists of names obtained. It was arranged in alphabetical order to facilitate the clerical work to follow. An

alphabetical list also eliminated bias, in that the researcher did not know which persons were "A" or "C" students. Files in the College Placement Office, Alumni Office and Fifth year Office were used to locate addresses and telephone numbers of these former Education 314 students. Some addresses and telephone numbers were obtained from persons on the College campus who were closely associated with the students during the time they were attending this institution.

Of the 142 persons who received "A" or "C" grades in Education 314, twenty-six "A" grade students and twenty-three "C" grade students were located in teaching positions. Of those not teaching in Washington, four were in the military, six were out of state, and five were still in school. Seventy could not be located or were in other positions.

A questionnaire was devised and administered over the telephone to the forty-nine teachers teaching in Washington. A standard introduction was given prior to the administration of the questionnaire (see Appendix B). The questionnaire with introduction was field tested with a test sample of nine individuals. The sample was easily available and closely resembled the real population. The results of the field test brought about changes within the questionnaire and also provided reinforcement for the type of data gathering procedure used in the study.

Both Walter Monroe and Fred Pigge felt that measures of teaching success could best be assessed by the experts. They defined experts as principals and other authorities. This researcher, however, believed the teachers themselves to be the real experts when it came to a measurement of their teaching success. Ray Simpson also felt that teachers were capable of self-evaluation and that it must be a never ending process.

Data Analysis

On the basis of the entire questionnaire, the "chi square" test was employed to determine if statistically significant differences existed between "A" and "C" students in Education 314. Secondly, the "chi square" test was employed to determine if there were significant differences in responses of "A" and "C" groups to each of the items. Also, a "t" test was used to determine if statistically significant differences existed between the "A" and "C" groups with respect to self-evaluation of personal and professional pride. Then item number twenty pertaining to the subjects' perceived validity of the questionnaire was evaluated by using simple percentages.

A criterion level of seventy percent of the "yes" responses or greater was adopted to evaluate the hypothesis that Education 314 professors were not attaining their teaching objectives.

CHAPTER IV

RESULTS

Results of the "chi square" test of differences for the individual items of the questionnaire are shown on Table 1. No significant difference in teaching proficiency of "A" and "C" students in Education 314 was found for any item of the questionnaire. The primary hypothesis was supported by these findings.

The second hypothesis, that Education 314 professors were not attaining their teaching objectives, was supported on the basis of the data found on Table 1. Seven of the eighteen items of the questionnaire failed to reach the criterion level of seventy percent "yes" responses. The seven objectives not being met were:

2. Awareness of continuous progress concept.
3. Familiarity with self-direction as a teaching technique.
7. Use of the discovery method.
11. Adequate experience writing lesson plans.
12. Adequate experience with unit planning.
14. Adequate test construction.
17. Awareness of professional literature on curriculum and instruction.

Table 1

Statistical Analysis of the Differences in Teaching Proficiency of
 "A" and "C" Students in Education 314 on Individual Items
 of the Questionnaire

Items**	"A" Students Yes	"C" Students Yes	Total Yes	"A" Students No	"C" Students No	Total No	χ^2 ***
1	24	23	47	2	0	2	.521
2	11	14	25*	15	9	24	.751
3	13	14	27*	13	9	22	.083
4	25	21	46	1	2	3	.377
5	25	23	48	1	0	1	.271
6	23	18	41	3	5	8	.150
7	19	15	34*	7	8	15	.096
8	23	20	43	3	3	6	.190
9	21	19	40	5	4	9	.137
10	24	16	40	2	7	9	3.417
11	14	13	27*	12	10	22	.083
12	14	11	25*	12	12	24	.082
13	24	21	45	2	2	4	.272
14	19	13	32*	7	10	17	2.258
15	18	17	35	8	6	14	.101
16	19	18	37	7	5	12	.113
17	15	12	27*	11	11	22	.084
18	18	18	36	8	5	13	.109

* Less than 70 percent "yes" response.

** Refer to questionnaire, Appendix A.

*** No χ^2 were significant.

Table 2 presents a statistical analysis of the difference in teaching proficiency of "A" and "C" students in Education 314 as measured by the total questionnaire. The "Chi square" test of differences was employed. The comparison failed to reach critical value of .05. The finding supports the basic hypothesis.

Table 2

Statistical Analysis of the Difference in Teaching Proficiency of "A" and "C" Students in Education 314 as Measured by the Total Questionnaire

"A" Students		"C" Students		χ^2
Yes	No	Yes	No	
375	119	328	109	.0521*

* Not significant at .05 level of confidence.

The statistical analysis of the difference in personal and professional pride of former "A" and "C" students in Education 314 is presented in Table 3. A "t" test of the difference of two means was used to analyze the data. A "t" of .280 indicated no significant difference.

Table 3

Statistical Analysis of the Difference in Personal
and Professional Pride of Former "A" and "C"
Students in Education 314

"A" Student Group Total	"C" Student Group Total	"t"
203	165	
Mean = 7.8	Mean = 7.2	.280*

* Not significant at .05 level of confidence.

Support for the validity of the questionnaire as perceived by the respondents can be found in the data gathered for item number twenty (see Appendix A). One person, or two percent, of the sample reported that the "yes" responses on the questionnaire were not related to his teaching effectiveness. Ninety-eight percent or 48 of 49 respondents reported that the "yes" responses on the questionnaire were related to their teaching effectiveness.

CHAPTER V

SUMMARY AND DISCUSSION

Summary

It was the purpose of this study (1) to determine the relationship between present performance of teachers and past performance in Education 314 classes at Central Washington State College; and (2) to gather field data related to the objectives of the Education 314 course on campus.

This study was limited to self-perceptions of teaching effectiveness of those persons who completed Education 314 with an "A" or "C" grade during the 1968-1969 school year at Central Washington State College. The subjects had been teaching one or two years in Washington State.

The hypotheses were:

1. No statistical difference in teaching proficiency would be found between "A" and "C" students in Education 314.
2. Professors were not attaining their teaching objectives for Education 314.

The instrument used in this study was a questionnaire devised from the teaching objectives of the Education 314 professors and agreed upon by them all. The questionnaire

was administered to "A" and "C" students in Education 314 at Central Washington State College and who were now teaching in Washington State.

The data were gathered from the sample population during a telephone interview. The data were analyzed by means of "chi square" and "t" tests to find if there were any significant differences. No differences were found.

This study concluded that, as of March, 1971, there was no difference in the self-perceived teaching effectiveness of those students who received "A" or "C" grades in Education 314 at Central Washington State College during the 1968-1969 academic school year. Furthermore, from the questionnaire data it was concluded that "C" students in Education 314 who are now teachers are just as proud and professional as "A" students in Education 314 and now teaching. The last conclusion drawn was that Education 314 professors were not reaching their teaching objectives.

Discussion

One or more of the following implications can be drawn from the data:

1. Sometime between the completion of Education 314 and the gathering of the data for this study "C" students who are now teaching reached a competency level equal to the level of "A" students.

2. The self-perception of the "C" group was not good and they overestimated their success.

3. The grades assigned the two groups did not really discriminate.

4. The data suggest that the "C" students perceived themselves very much like the "A" students.

5. As perceived by their students Education 314 professors are not reaching some of their teaching objectives.

Since ninety-eight percent of all those questioned and a concensus of Education 314 professors believed the questionnaire to be very closely related to teaching effectiveness, this researcher believed the findings of this study to be valuable.

Additional studies are needed to support this study, warrant more generalizations from its findings and to determine which implications are true. It is recommended that any additional studies be carried out with scaled responses to the questions rather than responses of the closed (yes or no) variety.

Contrary to this study, Pigge found significant differences in "A" and "C" students teaching effectiveness (12:102). That study, however, deemed "A" or "C" on the basis of overall grade point average and the subjects were evaluated by their superiors rather than themselves.

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APPENDIX

Appendix A

Name _____ Grade Level _____
Sex _____ Subject Area _____
Age _____ Location _____

- yes ___ no ___ 1. Do you feel you are able to use games in curricular areas?
- yes ___ no ___ 2. Are you aware of the continuous progress concept?
- yes ___ no ___ 3. Are you familiar with self-direction as a teaching technique?
- yes ___ no ___ 4. Are you familiar with problem solving as a teaching technique?
- yes ___ no ___ 5. Can you use questioning as a teaching technique?
- yes ___ no ___ 6. Are you familiar with inquiry technique?
- yes ___ no ___ 7. Do you feel that you are able to use the discovery method?
- yes ___ no ___ 8. Can you define team-teaching?
- yes ___ no ___ 9. Can you individualize instruction?
- yes ___ no ___ 10. Are you aware of procedures for evaluating teachers?
- yes ___ no ___ 11. Do you feel that the experience you received writing lesson plans was adequate?
- yes ___ no ___ 12. Do you feel that the experience you received with unit planning was adequate?
- yes ___ no ___ 13. Can you write educational objectives in behavioral terms?
- yes ___ no ___ 14. As the result of work you did with teacher test making, do you feel capable of constructing adequate tests?

- yes ___ no ___ 15. Did you receive enough experience with audio-visual equipment to enable you to handle the equipment in your school?
- yes ___ no ___ 16. When you do your planning, do you make wide use of instructional materials and media?
- yes ___ no ___ 17. Do you read Professional Literature on curriculum and instruction?
- yes ___ no ___ 18. Do you try new ideas often?
19. Rate yourself from 1 to 10 on the following item. A high personal and professional pride will be evident in all work (10 is the top).
- 1 2 3 4 5 6 7 8 9 10
- yes ___ no ___ 20. Is there a relationship between the yes responses on this questionnaire and your teaching effectiveness?

Appendix B

Elements of the Introduction

- I. Introduction
 - A. My name
 - B. How I found their name
 - C. Data would remain confidential
- II. Purpose
 - A. Improvement of Education 314 at Central Washington State College
 - B. Disclosed time (approximately 5 minutes)
- III. Data would be used by professors and researcher
- IV. What is expected of respondent
 - A. Truthful responses
 - B. Search for facts not opinions
- V. Telephone interview is less expensive than travel and better than mail