This study identified strengths and weaknesses of the components in the general methods course, "Micro-teaching: Practice in Teaching Techniques", prior to a curriculum reorganization. The course included four basic components: (1) classroom instruction; (2) laboratory pre-conference; (3) laboratory teaching practice; and (4) laboratory post-conference. The classroom instruction component featured two basic categories of teaching skills, interaction patterns or methods, and strategies for planning the content of lessons. The laboratory components featured weekly micro-teaching experiences where the techniques learned during the classroom component were practiced. The strengths and weaknesses of the components were assessed in terms of preservice teacher perceptions regarding the four components of the program as measured by an especially developed rating instrument. Descriptions are given of the program, the research methods used in the evaluation, and the measurement instrument. An analysis of the responses of the 88 study participants is presented, as well as a summary of the issues raised by the evaluation. (JD)
Micro-teaching as a Model for Teacher Education

Preparation: Evaluating the Effects of the Curricular Component, Classroom Instruction, Within a General Methods Micro-teaching Approach

Kenneth F. Jerich
Micro-teaching as a Model for Teacher Education Preparation: Evaluating the Effects of the Curricular Component, Classroom Instruction, Within a General Methods Micro-teaching Approach

INTRODUCTION

With the event of current reform efforts in teacher education programs (Holmes Group, 1986; Carnegie Report, 1986) a myriad of enterprises are actively assessing, or in many cases, reassessing their programs for preparing teachers. Cuban (1987) cautions the profession that, at times, "Simplicity is preferred over complexity." (p. 353). Further, he states "The Holmes Group report has within it proposals for important changes within the university. That is an appropriate starting point." (p. 252)

The Association of Teacher Educator's Blue Ribbon Task Force report (1986) indicated that the impact of the Holmes group will prompt institutions of higher learning to examine the present status of clinical experiences and the methods by which they train their teacher education candidates. Cruickshank (1985) suggested four promising alternatives--in addition to the examination of traditional methods--for preparing teacher education candidates, one of which was micro-teaching. "They are promising alternatives because they provide for increased amounts of laboratory and clinical practice as called for by the NCATE Standards [1982] and other authorities [Howsam et
This paper focuses on the impact of micro-teaching as such an alternative, more specifically the impact of micro-teaching within the curricular component, classroom instruction, of a general methods course.

BACKGROUND INFORMATION

Micro-teaching was originally defined as a teaching encounter which provides a setting for instruction in which the complexities of a normal classroom are scaled down and in which the teacher receives extensive feedback on his/her performance (Allen & Ryan, 1969). The idea of micro-teaching was established at Stanford University in 1963. There, pre-service teachers were trained in the technical skills approach, that is, the practice of focusing on one teaching skill at a time. The technical skills approach evolved from the work of Aubertine (1964), who found the practice of focusing on one teaching skill at a time to be quite effective. Several additional technical teaching skills, carefully identified and developed by the micro-teaching staff, were introduced to the model. Eventually 14 general technical teaching skills were determined to be of most importance for beginning teachers. The technical teaching skills ranged from set induction to cognitive closure (Allen & Ryan, 1969).
Microteaching at Illinois.

The history of the Illinois model began during the mid 1960s when colleges, schools, and departments of education were in the midst of reforming their teacher education programs. At Illinois, this reform was in part a response to a criticism of the National Council for Accreditation of Teacher Education [NCATE], (1962). NCATE identified a lack of pre-student teaching professional experiences as a weakness of the Illinois program. To address this deficiency, the Teaching Techniques Laboratory (TTL) was established during the fall semester of the 1966-67 academic year. The curriculum was designed by an advisory committee of professors in the Department of Secondary Education. The advisory group rejected the notion of using the technical skills approach to micro-teaching developed at Stanford University and elected instead to develop a general methods curriculum (Johnson, 1980).

The first evaluation of TTL was conducted in 1967 (Johnson, 1967). Three questions were addressed:

1. Were the three methods (lecture, directions, and discussion) sufficiently significant to be practiced and sufficiently well-defined for the conduct of meaningful research?
2. What teaching principles and techniques should guide the methods instructors when instructing their pre-service teachers?

3. Did laboratory supervisors and pupil evaluators supply data that provided assurance to the investigators that the desired teaching methods were being practiced?

The 1967 evaluation concluded that (a) there was a need for identification of additional teaching techniques to be taught during the following term, (b) pupil evaluators needed to be trained because their ratings were comparatively unreliable, and (c) there were problems with the preparation of supervisors because of assessed differences in their effectiveness. There was also concern for incorporating the new material into the ongoing program of teacher preparation (Johnson, 1967). Among the problems identified was a lack of operational definitions of teaching techniques, sequencing of instruction and practice, and the number and length of practice periods.

Therefore, a decision was made to divide discussion, as defined in the 1967 project, into three exercises: directed, reflective, and inquiry. A recitacion exercise was also added. Thus, six basic methods became the curriculum of the Teaching Techniques Laboratory. The sequence of exercises was reordered. The reordering was done in terms of the anticipated degree of predictability of pupil reaction. Thus, lecturing became the first
exercise and inquiry or open ended discussions the last.

A second series of evaluations was conducted in 1968. First, Johnson (1968) completed an additional second in-house evaluation. Second, Limbacher (1968) directed a follow-up study to determine the degree to which micro-teaching effects transferred to student teaching. Third, Beetner and Johnson (1968) assessed student (pre-service teacher) reactions to micro-teaching.

Johnson (1968) evaluated the Laboratory practice effects of an augmented teacher education program which was offered fall semester, 1967. Two concerns, method curriculum and supervisory style, were studied. Johnson (1968) found that the attempted manipulation of supervisory styles was not successful. However, there was the emergence of a generally non-directive style.

Limbacher (1968) studied the differences in student teaching performance of student teachers who received micro-teaching training and those who did not. He found that pre-service teachers with micro-teaching practice performed better than pre-service teachers who did not have micro-teaching practice prior to their student teaching experience.

Beetner and Johnson (1968) conducted an assessment of the pre-service teachers' reactions to micro-teaching practice. They found that a vast majority of pre-service teachers who practiced taught in TTL found the experience
rewarding and that the attempt to manipulate supervisory styles, that is, the desired directive, non-directive, manipulation was not successful although a cooperative supervisory style was better received by pre-service teachers in the Laboratory than more directive supervision. Of concern to Beetner and Johnson was that Laboratory teaching was anxiety producing for the majority of the pre-service teachers.

Additional attention was devoted to those issues in later studies. Chang (1970) replicated Beetner and Johnson's (1968) study. Chang found that the majority of student teachers reacted positively to the micro-teaching experience and found the laboratory practice rewarding. Also, student teachers felt anxiety and offered solutions to the problems as well as suggesting. Furthermore, the student teachers believed that supervisors should possess a working knowledge of a cooperative supervisory style.

In 1973, Johnson reported that pre-service teachers who completed their micro-teaching experience learned to relate to pupils but were deficient in planning properly for content which was interpreted as a need to teach lesson planning more effectively. As a result, in 1975, the creation of a training program for supervisors as a graduate course in clinical supervision was instituted for Teaching Techniques Laboratory supervisors' and the expression "content strategies" was incorporated into the
During the late 1970's, the Illinois State Board of Education (ISBE) addressed the issue of clinical experiences in teacher education. There was a concern that field experiences in teacher education ought to be designed to parallel courses in the teacher education curriculum. Therefore, in response to a 1979 ISBE mandate regarding implementing clinical experiences in teacher education programs, pre-service teachers were required to complete 100 clock hours of field experiences (Wilson, 1981). To accommodate this requirement, field experiences were organized under three new courses, thus the general methods course (Secondary Education 239) was added to the teacher education curriculum. Prior to 1979, aspects of the general methods course had been used in other special methods courses which were serviced by the Teaching Techniques Laboratory. Since 1979, pre-service teachers have received instruction in micro-teaching in the general methods course (Johnson, 1980).

To further complement the research of the before mentioned studies, which were follow-ups of issues raised by Johnson's 1967 and 1968 comprehensive studies of the operation and effects of the Teaching Techniques Laboratory, a study was conducted, which is described in the following sections.
Statement of Problem

The central concern of the study was to identify strengths and weaknesses of the components of the general methods course, Micro-teaching: Practice in Teaching Techniques, prior to an anticipated curriculum reorganization. The course included four basic components: (a) classroom instruction, (b) laboratory pre-conference, (c) laboratory teaching practice, and (d) laboratory post-conference. The classroom instruction component featured two basic categories of teaching skills: (a) interaction patterns, or methods, and (b) strategies for planning the content of lessons. The laboratory components, that is, pre-conference, teaching practice, and post-conference featured weekly micro-teaching experiences where pre-service teachers practiced the techniques learned during the classroom component. Strengths and weaknesses of the components were assessed in terms of pre-service teacher perceptions regarding the four components of the program as measured by an especially developed rating instrument.

Eighty-eight pre-service teacher candidates enrolled in four different sections of the general methods course during Fall semester, 1985 and Spring semester, 1986 participated in the study. Section I accounted for 13 teacher candidates. Section II accounted for 29 teacher candidates. Section III accounted for 20 teacher candidates. Section IV accounted for 26 teacher candidates. A selected
sample (n=23) of pre-service teachers were interviewed as part of the study. Questionnaire and interview responses were identified by the pre-service teacher's social security number. As is the case with all aspects of the micro-teaching practice, the teacher candidates were reassured that their responses to the instruments would in no way influence their grades for the course in which they were enrolled.

An Approach To Evaluating The Illinois Program

A useful conceptualization for evaluating the Illinois program was to look at, in part, various components that constituted the operational design of the Illinois program. There were four curricular components, that is, classroom instruction, laboratory pre-conference, laboratory teaching practice, and laboratory post-conference, which were viewed as crucial in the organization of the program's tightly coupled curriculum and laboratory experiences. The study evaluated the general methods course in terms of four selected curricular components of the Illinois program through the use of Cronbach's (1982) UTOS--Unit, Treatment, Observing Operations, and Setting--formulation for evaluating educational and social programs and Worthen's (1981) multiple method approach to evaluation. The intent of this paper is to characterized the impact of the curricular component, classroom instruction.
Research Methods

While several methods were used to analyze the quantitative data, the report of findings is organized by reference of the research questions associated with the curricular component, classroom instruction. The analytic methods associated with the research questions were (a) computing measures of central tendency, (b) applying t-tests, (c) utilizing ANOVA repeated measures, and (d) employing MANOVA repeated measures. Content analysis was used to analyze the qualitative data and to assist in the interpretation of the findings from the interviews.

There were two research questions that dealt with the curricular component, classroom instruction. For purposes of this paper, they are identified as research questions 1 and 2.

Research Question One

Quantitative Findings. The statistical procedure, paired t-tests, was used to assess the differences in the mean ratings assigned to the curricular component, classroom instruction, of the general methods course that covered (a) teacher-centered teaching techniques and (b) learner-centered teaching techniques. The statistic of interest in this analysis was the mean of the ratings assigned to each of the two clusters of teaching techniques of the classroom instruction component summed across four elements, namely, (a) formal presentation by the instructor
in the class sessions, (element A), (b) assigned readings/instructional materials [handouts], (element B), (c) viewing of model tapes, (element C), and (d) class discussion, (element D). The following null hypothesis was tested:

\[ H_0: \text{TCLASS} = \text{LCLASS} \]

The data, displayed in Table 1, suggest it is appropriate to reject the null hypothesis using an alpha level of .05. Pre-service teachers reported that their understandings of the teacher-centered teaching techniques were more effectively advanced by the classroom instruction component of the program than were their understandings of the learner-centered teaching techniques.

Table 1

Paired t-tests Analysis Summary Table for Teacher-Centered Classroom Instruction Component and Learner-Centered Classroom Instruction Component

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>Maximum Possible Score</th>
<th>Degrees Of Freedom</th>
<th>2-Tail Prob</th>
</tr>
</thead>
<tbody>
<tr>
<td>TCCLASS</td>
<td>18.19</td>
<td>4.26</td>
<td>28</td>
<td>87</td>
<td>.005</td>
</tr>
<tr>
<td>LCCLASS</td>
<td>17.02</td>
<td>4.34</td>
<td>28</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Qualitative Findings. Overall, pre-service teachers stated that the amount of instruction devoted to the scope and sequence of the curricular component (general methods course) was a contributor to their understandings.
of the different teacher-centered and learner-centered teaching strategies. For them, the amount of academic learning time, namely, time on task, was seen as having an impact on their understandings of the different teaching strategies. In addition, pre-service teachers found that the provisions for advance organizers within the curricular component, classroom instruction contributed to their understandings. For example, they reported that the orientations (presentations) of the laboratory procedures for the different teaching techniques served as schema to aid their conceptualization of what and how to teach. In part, pre-service teachers were able to apply what they learned about the teaching strategies, coupled with associated teaching skills, to logically develop a plan for presenting material to a group of students.

However, a troublesome area for them was the way in which their instructors incorporated the use of model videotapes of teaching strategies for purposes of instruction. Pre-service teachers stated that more model videotapes of teaching techniques as teaching examples should have been used instead of the instructors presenting live demonstrations of the teaching techniques to be learned. For many pre-service teachers, the demonstrations were unclear, subsequently causing confusion as to how they were to incorporate the teaching strategies into
their own laboratory teaching micro-lessons. They expressed that the explanations of the different teaching techniques were, at times, unclear.

Pre-service teachers remarked that certain types of feedback which occurred had an impact on increasing pre-service teacher's comprehension of specific goals. They viewed the idea of receiving feedback during the classroom sessions as being an important aspect of instruction. For example, the mid-term evaluation of their micro-teaching performance. For them, that while receiving positive feedback over an extended period of time from their laboratory supervisor about their level of understandings of the different teaching strategies, they did not receive a similar type of feedback from their instructors with regard to their mid-term micro-teaching evaluation. To compound the extent to which the characteristics of various types of feedback interrelated with the pre-service teachers' perceptions of what contributed to their understandings of the teaching strategies, they commented that they did not view certain types of debriefing, for example, communiques as contributing to their understandings of the teaching strategies. For pre-service teachers, those types of debriefing strategies were not used in a supportive way thus distracting them from acquiring improved understandings of the different teacher-centered and learner-centered teaching strategies.
Pre-service teachers stated the receiving of feedback on various teaching skills, for example, the construction and phrasing of different types of questions at various cognitive levels to pace the flow of instruction, was representative of the types of feedback which contributed to their understandings of the teaching strategies. In sum, they emphasized, above all, that feedback, regardless of its form, must be expressed with care and concern for the individual involved.

Research Question 2.

Quantitative Findings. The statistical procedures, analysis of variance and multiple analysis of variance repeated measures analysis, were used to assess the differences in the mean ratings assigned to each element associated with the curricular component, classroom instruction of the general methods course that envisaged the teacher-centered and the learner-centered teaching techniques clusters. The statistic of interest in these analyses was the mean of the ratings assigned to each of the four elements within the classroom instruction component summed across the two clusters of teaching centered and learner-centered teaching techniques.

The following null hypothesis was tested:

\[ H_0: \mu_{TCLCA} = \mu_{TCLCB} = \mu_{TCLCC} = \mu_{TCLCD} \]

The data, displayed in Table 2, suggest it is appropriate to reject the null hypothesis using an alpha level of .05.
Table 2
Analysis of Variance Summary Table for Each Element in the Teacher-Centered and Learner-Centered Classroom Instruction Component

<table>
<thead>
<tr>
<th>Source Of Variation</th>
<th>SS</th>
<th>DF</th>
<th>Mean Square</th>
<th>F Value</th>
<th>Signf</th>
</tr>
</thead>
<tbody>
<tr>
<td>BETWEEN ELEMENTS</td>
<td>1299.58</td>
<td>87</td>
<td>14.94</td>
<td></td>
<td></td>
</tr>
<tr>
<td>WITHIN ELEMENTS</td>
<td>2388.50</td>
<td>264</td>
<td>8.67</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BETWEEN MEASURES</td>
<td>303.30</td>
<td>3</td>
<td>101.11</td>
<td>13.29</td>
<td>.0001</td>
</tr>
<tr>
<td>RESIDUAL</td>
<td>1985.17</td>
<td>261</td>
<td>7.61</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TOTAL</td>
<td>3588.08</td>
<td>351</td>
<td>10.22</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

GRAND MEAN = 8.80

To investigate further in depth the findings of the univariate analysis approach for the four elements, A through D, within the classroom instruction component of the curriculum of the general methods course, a multivariate approach as an alternative to repeated measures as an alternative analysis was conducted.

Tatsuoka (1971) stated,

In applied contexts, particularly in educational and psychological research, multivariate analysis is concerned with a group (or several groups) of individuals, each of whom possesses values or scores on two or more variables such as tests or other measures. We are interested in studying the interrelations among these variables, in looking for possible group differences in terms of these variables,
and in drawing inferences relevant to these variables concerning the populations from which the sample groups were chosen. (p. 1)

Data, displayed in Table 3, indicate that pre-service teachers reported that their understandings of the teacher-centered and learner-centered teaching techniques was more effectively advanced by element D, class discussion, within the classroom instruction component of the program than by element A, formal instruction by the course instructor.

Table 3

**Cell Means and Standard Deviations Portion of the Multivariate Approach of Repeated Measures Summary Table 8**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>Maximum Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>TCLC ELEMENT A</td>
<td>9.34</td>
<td>2.93</td>
<td>14</td>
</tr>
<tr>
<td>TCLC ELEMENT B</td>
<td>8.51</td>
<td>3.06</td>
<td>14</td>
</tr>
<tr>
<td>TCLC ELEMENT C</td>
<td>7.44</td>
<td>3.38</td>
<td>14</td>
</tr>
<tr>
<td>TCLC ELEMENT D</td>
<td>9.91</td>
<td>2.90</td>
<td>14</td>
</tr>
</tbody>
</table>

**Note.** The symbol, TCLC, refers to the combined teacher centered and learner-centered teaching techniques scores for the element.

Pre-service teachers reported that their understandings of the teacher-centered and learner-centered teaching techniques was more effectively advanced by element A,
formal instruction by the course instructor, within the classroom instruction component of the program than by element B, assigned readings and/or instructional materials (handouts). In addition, pre-service teachers reported that their understandings of the teacher-centered and learner-centered teaching techniques was more effectively advanced by element B, assigned readings and/or instructional materials (handouts), within the classroom instruction component of the program than by element C, viewing of model videotape.

Of particular interest to the investigator was the transformation of the four elements within the classroom instruction component of the curriculum to a new set of measures which represent comparisons of possible interest among the levels of the within subject factors, that is, elements A through D. Specific contrasts were investigated which compared the four elements to each other.

The multivariate test examination of the joint null hypothesis findings, displayed in Table 4, suggest it is appropriate to reject the null hypothesis using an alpha level of .05. The follow-up univariate F-tests evaluated each of the hypotheses separately since the multivariate test finding was significant.

The findings suggest that the significant classroom instruction effect is due primarily to a significant difference between element A, formal presentation by the
Table 4

Multivariate Tests of Significance and Univariate F-Tests

Table

<table>
<thead>
<tr>
<th>Test Name</th>
<th>Value</th>
<th>Approx. F</th>
<th>Hypoth. F</th>
<th>Error F</th>
<th>Sign. Of F</th>
</tr>
</thead>
<tbody>
<tr>
<td>PILLAI$S$</td>
<td>.30</td>
<td>12.33</td>
<td>3.00</td>
<td>85.00</td>
<td>5.612E-008</td>
</tr>
<tr>
<td>HOTELLING</td>
<td>.44</td>
<td>12.33</td>
<td>3.00</td>
<td>85.00</td>
<td>5.612E-008</td>
</tr>
<tr>
<td>WILKS</td>
<td>.70</td>
<td>12.33</td>
<td>3.00</td>
<td>85.00</td>
<td>5.612E-008</td>
</tr>
<tr>
<td>ROYS</td>
<td>.30</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Univariate F-tests with (1,87) Degrees of Freedom Summary

Table

<table>
<thead>
<tr>
<th>Variable</th>
<th>Hypoth. SS</th>
<th>Error SS</th>
<th>Hypoth. SS</th>
<th>Error MS</th>
<th>F</th>
<th>Sign Of F</th>
</tr>
</thead>
<tbody>
<tr>
<td>A VS B</td>
<td>30.28</td>
<td>541.2</td>
<td>30.28</td>
<td>6.22</td>
<td>4.87</td>
<td>.030</td>
</tr>
<tr>
<td>A VS C</td>
<td>158.60</td>
<td>921.04</td>
<td>158.46</td>
<td>10.59</td>
<td>14.97</td>
<td>2.099E-04</td>
</tr>
<tr>
<td>A VS D</td>
<td>14.20</td>
<td>431.80</td>
<td>14.20</td>
<td>4.96</td>
<td>2.86</td>
<td>.094</td>
</tr>
<tr>
<td>B VS D</td>
<td>50.20</td>
<td>756.80</td>
<td>50.20</td>
<td>8.70</td>
<td>5.77</td>
<td>.018</td>
</tr>
<tr>
<td>B VS D</td>
<td>85.96</td>
<td>689.54</td>
<td>85.96</td>
<td>7.92</td>
<td>10.85</td>
<td>.001</td>
</tr>
<tr>
<td>C VS D</td>
<td>267.56</td>
<td>629.95</td>
<td>267.55</td>
<td>7.24</td>
<td>36.95</td>
<td>0</td>
</tr>
<tr>
<td>A&amp;B VS C&amp;D</td>
<td>5.50</td>
<td>814.00</td>
<td>5.50</td>
<td>9.35</td>
<td>.59</td>
<td>.445</td>
</tr>
<tr>
<td>A&amp;C VS B&amp;D</td>
<td>58.91</td>
<td>374.59</td>
<td>58.91</td>
<td>4.31</td>
<td>13.68</td>
<td>3.7E-004</td>
</tr>
<tr>
<td>A&amp;D VS</td>
<td>238.92</td>
<td>796.58</td>
<td>238.92</td>
<td>9.15</td>
<td>26.09</td>
<td>1.1E-006</td>
</tr>
</tbody>
</table>

Note. Figures involving letters represent the mathematical power level of significance, for example, 5.612E-008 represents the alpha level .00000001.
instructor in the class sessions, and element B; assigned readings/instructional materials (handouts); a significant difference between element A, formal presentation by the instructor in the class sessions and element C, viewing of model tapes; a significant difference between element B, assigned readings/instructional materials (handouts) and element D, class discussions; a significant difference between element C, viewing of model tapes and element D, class discussion; a significant difference between element A with element C and element B with element D; and, a significant difference between element A with element D and element B with element C. There are no significant differences between elements A and D and element A with B and elements C with D.

In sum, in the four sections of the general methods course, significant differences in pre-service teachers' perceptions regarding the four elements within the component focused primary on the instructor's formal presentation of content and utilization of video tape models of teaching protocols for instructional purposes.

Qualitative Findings. Overall, pre-service teachers expressed concern with how the different curricular elements of the component, classroom instruction, were integrated. The fashion in which the elements were integrated had an impact on their understandings of the different teacher-centered and learner-centered teaching strategies. They
viewed the overall integration of the various elements as contributing to their understandings of the teaching strategies. However, they found the manner in which assigned readings and model videotapes of teaching were used in conjunction with the instructors' presentations of the content on teaching strategies to be contradictory. For example, pre-service teachers perceived this to imply that the intentions of the instructor's class sessions were not reflective of or related to the overall goal of the program.

Pre-service teachers viewed the relationship between the assigned readings and instructional handouts and formal presentations of content to be troublesome. They perceived this to be troublesome, in particular, to their understandings of the learner-centered teaching strategies, viz, inquiry and discussion related topics. Pre-service teachers reported that not enough instructional time was devoted to the assigned readings and instructional handouts.

Class discussions had an impact on the pre-service teachers' understandings of the different teaching strategies. The discussions were seen as a series of opportunities to discover the foci and impact of the different teaching strategies in that pre-service teachers were able to reflect upon their own teaching performance and attitudes toward the different teaching strategies. Pre-service teachers commented that more input from their
peers through class discussions and, perhaps, more feedback from the instructors regarding their questions about the impact of the teaching strategies would have increased their understandings about the teaching strategies.

A series of mixed signals were expressed by the pre-service teachers about the extent to which the use of the model teaching videotapes as examples of the teaching strategies was seen as a contributor to their understandings of teaching strategies. On the one hand, they viewed having the opportunity to view the types of videotape models of teaching as contributing to their understandings of the teaching strategies. They remarked that more use of the videotapes for purposes of illustration should be incorporated in the curricular component, classroom instruction. On the other hand, the ways in which videotapes of the different teaching strategies were integrated with the instructors' orientations (presentations) of the laboratory procedures was not seen as a contributor to their understandings of the different teaching strategies. They remarked that the instructor would make misleading remarks as to the quality of the videotape models or what they referred to as being just another filler. Pre-service teachers expressed, repeatedly, that if the instructors were going to incorporate the viewing of a videotape model of the particular teacher-centered or learner-centered teaching strategy, then careful
consideration should be given to the nature and quality of teaching illustrated on the videotape and provide interactive feedback using the videotape model during their instruction.

Pre-service teachers cautioned that videotape models of the different teacher-centered and learner-centered teaching strategies should not be discarded in lieu of live demonstrations by the instructors as an instructional strategy. Instead, they remarked that serious attention should be given to the manner with which videotape models of teaching strategies are integrated with classroom instruction. Pre-service teachers reported that the ways in which instructors used the videotape examples of teaching strategies during the orientations to the laboratory procedures was troublesome to their understandings of the teaching strategies. In sum, pre-service teachers perceived the curricular elements, formal presentation of the instructor and class discussion, as having an impact of their understandings of the different teacher-centered and learner-centered teaching strategies and recommended that a more judicious use of the curricular elements, assigned readings, instructional handouts, and videotape models of the teaching strategies would enhance their understandings of the different teacher-centered and learner-centered teaching strategies.
Discussion

In lieu of the recent reform reports, the evaluation of selected curricular components of the 1986 Illinois version of micro-teaching is timely. The curriculum for the Illinois Micro-teaching Model is based on a general methods approach for teaching and has witnessed modification and expansion to meet the needs for preparing secondary teacher education candidates in America's schools. The significant differences between (a) the means of the ratings summed across the four elements for the teacher-centered and learner-centered teaching technique clusters and (b) across means of the ratings for each element within the classroom instruction component suggest that pre-service teachers perceive different gradations of impact for the Illinois micro-teaching program. Furthermore, an analysis of the qualitative data through a content analysis of selected pre-service teacher interviews assisted in the interpretation of the findings and the result was found to be supportive of the quantitative findings. These findings support two claims.

1. The curricular component, classroom instruction, contributes more effectively to pre-service teachers' understandings of teacher-centered teaching strategies than it does to their understandings of learner-centered teacher strategies.
2. That within the curricular component, classroom instruction, elements D, class discussion, and A, formal presentation by the instructor, contribute more effectively to pre-service teachers understandings of the teacher-centered and learner-centered teaching techniques than do elements B, assigned readings/instructional materials, and element C, viewing of model tapes.

Copeland (1986) suggested that a clinical teacher education program must "ensure that the context within which a student is placed to practice-teach is one that will support the student's professional development." (p. 32) Furthermore, the context should support the goals of the program. What is crucial to the success of the curricular goals of the program--in this case, a general methods (micro-teaching) approach to pedagogical understandings and applications--is the promotion of intellectual stimulation for the pre-service teachers by instructors and the care with which the context is promoted.

Attention to the effects of the curricular impact of any curricular component within a course should be ongoing. The Illinois version of micro-teaching represents such an effort with its continual evaluative efforts and subsequent modification of the program's curricular goals and related laboratory experiences. Central to this type of ongoing process is the examination of the extent to which the effects of theoretical constructs and their practical
applications affect the direction of a curricular component.

Summary Of Issues

Academic Learning Time. Instructors in the classroom component devote various and differing amounts of time to selected topics in the syllabus. It was not clear why some topics received more emphasis than others. To what extent should the faculty review time allotments within the classroom component on an ongoing basis to ensure that important topics receive proper emphasis?

Orientations. Pre-service teachers found that the structure of the topics within the classroom component was logical and helpful. Further, the ordering of the topics served as types of effective advance organizers (Ausubel, 1963), enhancing their understandings. While the faculty must, of course, continue to study ways the curriculum should be organized, they should not be quick to abandon the current sequence. It is apparently a very effective plan. With this in mind, should an instructor be permitted to change the procedures within an specific teaching methods strategy without collaborating with other staff members?

Use of Models. Pre-service teachers reported that the use of models during the classroom component, either through live class demonstration or through video tape,
was problematic. The pre-service teachers had two concerns. The first was that the video tape resources available to all classroom instructors in the course were seldom used. The second worry had to do with the credibility of the video models. Some pre-service teachers found them utterly unconvincing and even distracting. Should the faculty undertake studies concerning the efficacy of video-tape models versus live demonstrations and the technology of using models in clarifying important concepts about teaching?

**Types of Feedback.** While the pre-service teachers found generally that the evaluations they received were helpful, and important in advancing the understandings they gained from the course, some reported that the logs they kept and the reaction sheets they submitted were subsequently used in ways that were not entirely supportive. Should individual faculty members be permitted to incorporate the use of general reaction sheets and other quasi-private communications without careful review of how these types of feedback are used in the evaluation process?

**Real Teaching.** Some pre-service teachers heard from instructors within the general methods course, and from other College of Education staff members, that micro-teaching is artificial and unreal. And yet, during the interviews carried out in the course of the study, the pre-service teachers were convinced that the assignments
were real, and they found the negative comments from others about micro-teaching, to be disquieting. To what extent should the Department take steps to help colleagues in the College, and those within the Department better understand the impacts of micro-teaching? Even more important, should pre-service teachers in the general methods course be helped to anticipate hearing negative comments about micro-teaching and how to deal with them?

Coherence. Each instructor has a point of view about teaching, and the ambience and the norms of the University of Illinois support acts, behaviors, and thoughts on the part of faculty that are unique, different, and separate from their colleagues. In this setting, how appropriate is it for instructors to criticize the rationale for the course, to introduce modifications in the topics taught, or the approaches advocated which may conflict with the design of the program and or the course objectives?

Design of Model. The apparent success of the micro-teaching process and the classroom instruction curricular component of the general methods course, at least in the eyes of the pre-service teachers, is dramatic, especially in contrast to the evaluations they give to other courses and approaches. In the light of the need to unite theory and practice, in the context of the teacher education reform movement, is it appropriate to consider a course
such as this one a model for all teacher education programs at the University of Illinois or throughout the nation?
LIST OF REFERENCES


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