This study examined the characteristics of graduate education students enrolled in an advanced methods class and their response to a micro-teaching approach. Conducted over 5 years beginning in 1987, the study involved 112 graduates micro-teaching 12 model lessons in groups of 4, in 10 academic areas of the curriculum. Participants were tested at the end of each lesson, all micro-lessons were critiqued by the participants in each group, and a three-point rating scale was used by the instructor to evaluate each lesson taught by the graduate students. A profile of the graduates revealed that 17 percent possessed degrees in disciplines other than education and that not all were teaching in their major area of certification. Evaluations and observations contained consistently positive responses regarding questioning techniques used with "interactive mechanisms." Conclusions based on perceptions of the graduates also supported utilization of heterogeneous grouping according to diverse disciplines for micro-teaching experiences. Contains six references. (JB)
"INNOVATION IN INSTRUCTIONAL STRATEGIES USED WITH GRADUATE STUDENTS ENROLLED IN AN ADVANCED HETEROGENEOUS METHODS CLASS"

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Many universities are currently requiring stronger liberal arts curricula for undergraduates in teacher education, and are putting more emphasis on professional preparation for teaching at the graduate level.

Two problems exist with this practice: (1) Graduate education classes, during the academic year, are customarily scheduled in the evening, making difficult scheduling of demonstration teaching experiences; and (2) a significant number of graduates have not taken undergraduate education methods courses, nor have sufficient prior teaching experience with which to relate.

The purpose of this study was (1) to compose a profile of the classes of graduate students enrolled during a five-year period, and (2) to compare and critique strategies and activities utilized by the instructor involving the graduates enrolled in this advanced methods class.

This five-year study, beginning Fall of 1987, involved 112 graduates micro-teaching 12 model lessons in groups of four, in ten academic areas of the curriculum. A profile of the graduates revealed that 17% possessed degrees in disciplines other than education.

Consistently appearing in the evaluations and observations were positive responses regarding questioning techniques used with "interactive mechanisms". Conclusions based on perceptions of the graduates also supported utilization of heterogeneous grouping according to diverse disciplines for micro-teaching experiences.
INNOVATION IN INSTRUCTIONAL STRATEGIES USED
WITH GRADUATE STUDENTS ENROLLED IN
AN ADVANCED HETEROGENEOUS
METHODS CLASS

A Paper

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by

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Nicholls State University is an institution located in Southern Louisiana, under the jurisdiction of the State Board of Trustees of Colleges and Universities. Beginning with the Fall Semester of 1987 and continuing through the Fall Semester of 1991, with the exclusion of Spring Semesters and Summer Sessions, one-hundred-twelve students were enrolled in a graduate education methods course involving the study of varied instructional strategies; EDCI 586, "Advanced Methods in Teaching Secondary Education Subjects". Even though teacher professional education continues to primarily be focused in undergraduate programs for education majors, many colleges and universities are currently requiring a stronger liberal arts curriculum for their undergraduates in teacher education, and are putting more emphasis on professional preparation for teaching at the graduate level (Campbell, Cunningham, Nystrand, and Usdan, 1990).

Statement of the Problem

Two problems exist with this practice: (1) Graduate education classes, during the academic year, are customarily scheduled in the evening to make them accessible to employed teachers; yet classes of secondary school students are not available for demonstration teaching experiences during these hours. (2) In addition, a significant number of graduate education students have not taken undergraduate education methods courses; nor do they all have sufficient teaching experience with which to relate to methods and materials of instruction offered in an advanced level graduate education course.

Purpose of the Study

The purpose of this study was (1) to compose a profile of
the classes of graduate students enrolled during this five-year period with regard to academic areas in which they were teaching, and (2) to compare and critique strategies utilized by the instructor and activities involving the graduates enrolled in this advanced methods class, to bring about improved modifications.

The following chart depicts a profile of the graduates, composed from available enrollment data, according to percentages of graduates teaching in each academic area:

**Graduate Methods Course**
1987,'88,'89,'90,'91 Fall Semesters

<table>
<thead>
<tr>
<th>Subject</th>
<th>Percent of Students</th>
</tr>
</thead>
<tbody>
<tr>
<td>Art</td>
<td>4%</td>
</tr>
<tr>
<td>Mus.</td>
<td>1%</td>
</tr>
<tr>
<td>Fren.</td>
<td>1%</td>
</tr>
<tr>
<td>Engl.</td>
<td>12%</td>
</tr>
<tr>
<td>So.St.</td>
<td>13%</td>
</tr>
<tr>
<td>Math</td>
<td>20%</td>
</tr>
<tr>
<td>Scien.</td>
<td>14%</td>
</tr>
<tr>
<td>Ho.Ec.</td>
<td>5%</td>
</tr>
<tr>
<td>Bus.</td>
<td>3%</td>
</tr>
<tr>
<td>P.E.</td>
<td>10%</td>
</tr>
<tr>
<td>(Cert)</td>
<td>17%</td>
</tr>
</tbody>
</table>

Graduate Education Students 112

A profile of the students in these graduate classes over this five-year period revealed that 20% were math teachers; 14% were in science; followed by 13% in social studies, and 12% were teachers of secondary English. Ten percent of the graduates were
physical education teachers, and another 14% was comprised of art, music, French, home economics, and business teachers. A further investigation revealed that not all of these graduates were teaching in their major area of certification, but rather were teachers of subjects in the minor area of their undergraduate education degree. All were graduates pursuing a master's degree in Curriculum & Instruction or Administration & Supervision with a minor in Curriculum & Instruction. Of special interest relating to the 112 graduates enrolled in these classes, was the revelation that 17% of the graduates possessed degrees in disciplines other than education and were working toward certification in education at the graduate level.

There are considerable advantages in involving inservice teachers in a micro-teaching context. Two prominent advantages are (1) an opportunity to teach exists for a scaled-down, controlled, supervised teaching experience, and (2) the clinical experience allows for the participants to reflect and analyze the teaching event, thus becoming more inquiry oriented toward teaching (Cruickshank).

Method

Beginning in the 1987 Fall Semester, continuing through subsequent Fall semesters, and concluding in the Fall of 1991; 112 graduate students micro-taught 12 different model lessons in groups of four, for a total of 336 lessons. The 12 different lessons were of approximately 20 minutes in length, and consisted of low content, but were structured at secondary school level. Ten academic areas of the curriculum were represented. Each "teaching group" contained four teachers of different academic
areas of the curriculum. The rationale for having teachers of different academic subjects arranged in each "teaching group" was based on the premise that teachers of the same discipline often prefer similar modes of instruction; lecture, demonstration, discussion. To the contrary, certain generic skills are essential for effective teaching in all curriculum areas (Moore, 1992). An example of the graduates grouped for micro-teaching is as follows:

EDCI 586/FALL '90
MICRO-TEACHING SCHEDULE

(Teaching Groups)
GROUP #1
(a) Bruce Blanchard - Math
(b) Sonya Brown - French
(c) Brian Robertson - General Science
(d) Monty Campbell - P.E./Geography

GROUP #2
(a) Angela Dowland - Math
(b) Cathy Smitherson - Home Economics
(c) John Crenshaw - Biology
(d) Robert Johnson - *(B.A. Degree, Pre-Law)

GROUP #3
(a) Mona Edmonson - Math/Computer Science
(b) Janet Smith - Art
(c) Gregory Henderson - Chemistry/Physics
(d) Angela Crenshaw - American Government

GROUP #4
(a) Denise Barrington - Geometry
(b) Laura Sutherland - Home Economics
(c) William Matthews - *(B.E. Degree)
(d) Marcia Dantin - Sociology/American History

GROUP #7

Four lesson plans were micro-taught on Monday evenings every other week over a six week period with lecture, discussion and planning occurring on alternate weeks. The graduates were grouped homogeneously with the same topics for purposes of group planning, and heterogeneously for the micro-teaching experience.
The four lessons taught on the first Monday evening involved teaching primarily in the psychomotor domain, followed on the third and fifth Monday evenings by eight lessons with behavioral objectives in the cognitive and affective domains of learning. Class meetings scheduled on other Monday evenings were reserved for lecture and group planning. Twenty-eight additional individual lessons, consisting of different topics selected by the graduates, were also micro-taught on the seventh Monday evening of each semester in groups of four. These individual micro-lessons were not used in this study, but served to provide experience to the graduates utilizing specific models of instruction (Concept Analysis, Advance Organizer, and/or Diagnostic-Prescriptive models).

Participants in each group involved in this study were tested at the end of each lesson, and all micro-lessons were critiqued by the participants in each group; followed by constructive criticism. A simple three-point rating scale was used by the instructor to evaluate each lesson taught by the graduate students; (1) Ineffective, (2) Effective, (3) Very Effective. Discussion between the instructor of the class and the graduate students ensued immediately following each teaching session, and centered on identification of strong and weak points of methodology implemented by the graduates in presenting the 12 micro-lessons.

**Results of the Study**

Consistently appearing in the evaluations and observations of the graduate students by the instructor were the following conclusions:
(1) Employing questioning techniques with "interactive mechanisms" were more effective in meeting planned objectives than use of teacher-student modes of discussion.

(2) Activity sections in the lesson plans were occasionally flawed with regard to sequence and continuity.

(3) Stating conditions in written objectives of the lessons appeared more complex than declaring overt actions. Stated criterions were often unnecessary.

(4) Planned behavioral objectives designed to demonstrate a comprehension of concepts often involved performance at the application level of the cognitive domain.

(5) Teaching skills demonstrated in the affective domain were more effective when employed in the set induction of the lesson.

(6) Eye contact and facial expressions were found to be effective non-verbal cues used in teaching the lessons.

(7) The "entry level" based on prior experience of the students in each group proved to be the largest handicap in pursuing planned objectives.

(8) Lessons in the psychomotor domain appeared to be taught with greater ease than those taught in the cognitive and affective domain.

(9) Attitudes and interests were more easily altered when the graduate teacher appeared to attach affective value to the content of the lesson.

A sampling of written comments by the graduates occurring during the post-lesson critiques revealed the following perceptions.

(1) The micro-teaching experience definitely prepares a future teacher with some realities of the classroom; lesson plan preparation, selection of objectives, speaking in front of a group, use of questioning skills, and methods of evaluation.

(2) Overall, micro-teaching enhances teacher confidence in a non-threatening situation.

(3) Micro-teaching provides an excellent opportunity to learn in a short period of time, multiple skills which are pertinent to teaching.
(4) Graduate classes in methodology should contain practical application. Planning together toward reaching the same objectives in a model lesson is a good experience.

(5) Since the micro-teaching group is diverse in composition, one has the advantage of listening and observing different perspectives regarding effective teaching. Teachers learn significantly from each other.

(6) Teachers involved in micro-teaching experience the realization of how important preparation, organization, and presentation are in effectively teaching students.

(7) Pertinent to the micro-teaching experience are the selection of appropriate activities, placed in a logical sequence, with proper continuity, in a well-integrated context.

(8) Micro-teaching provides a concise instrument through which teachers can practice teaching strategies, judge their effectiveness, and get immediate feedback.

(9) Appropriate use of questions in a lesson can create a powerful learning environment.

(10) Micro-teaching allows for a variety of questions to be used according to various levels of difficulty.

(11) The micro-teaching experience provides an excellent opportunity for use of interactive mechanisms and divergent thinking. It also encourages student participation.

(12) Recognition of student non-verbal cues was an asset in utilizing formative evaluation.

REFERENCES


