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ABSTRACT

This project had two purposes: 1) to develop a model having sequential, reasonable, and valid task specifications in terms of behavioral objectives through which education majors could be prepared for their initial classroom teaching experiences in secondary schools; and 2) to provide a common framework to coordinate the methods program of several colleges in central Kansas to provide a unified program for students from various disciplines. The developer interviewed cooperating teachers and principals to determine competencies desired of student teachers before their clinical experiences in public schools. Students who had completed their clinical program were asked what facets of their methods program they felt were desirable and what competencies and experiences they would have liked before beginning student teaching. Suggestions received were organized into a series of related experiences in the model, each having a rationale for its inclusion as well as both performance and evaluative criteria. Students who have field tested the model and helped to modify it have reacted very favorably to their preparation for teaching and feel that the activities designed for them have enabled them to direct classroom learning with confidence. (Author/MBM)

Final Report

Project No. 1-G-008
Grant No. OEG-7-71-0005 (509)

UTILIZING A SYSTEMS APPROACH TO DESIGN A SERIES OF MODULES FOR SECONDARY EDUCATION MAJORS

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U.S. DEPARTMENT OF
HEALTH, EDUCATION, AND WELFARE

Office of Education
National Center for Educational Research and Development

Preface

In keeping with the concept that learning to teach is accomplished more adequately by student involvement in teaching-related activities than by readings and lectures concerning the process of teaching, the author sought to design a model by which requisite understandings, attitudes, and skills could be developed.

The model designed for this project and herein reported is the result of the cooperative effort of many persons and it has proved to be an effective means for promoting a cooperative secondary methods program for the ACCK (Associated Colleges of Central Kansas). Modules incorporated into the model utilize many of the current proposals for the improvement of teacher education.

Although final responsibility for the work is assumed by Theodore R. Von Fange, Head, Department of Education, Bethany College, Lindsborg, Kansas, director of the project, special thanks are herewith given to Mrs. Kay Goerss and Dr. Diana Jordan, leaders of a summer Experienced Teacher Practicum at the University of Missouri, St. Louis who field-tested the materials initially with their students; to Dr. Albert Nelson, Head of the Education Department of Kansas Weslyn University, Salina, Kansas and to Dr. Arthur Gathman of Sterling, Kansas for their encouragement and assistance during their membership on the initial committee appointed to design an acceptable program of methods; to professors and students of the Associated Colleges who used the materials and made helpful suggestions which are incorporated into the model included with this report; and to that anonymous student who wrote, "This program forces me to think through the course I am expected to teach and design appropriate learning experiences for my students. In fact, I feel I am being pushed, shoved, and railroaded into becoming a better teacher."

Introduction

The Associated Colleges of Central Kansas, like many other small liberal arts colleges which have teacher education programs have personnel problems. There have been and still are an insufficient number of secondary education majors in most of the academic areas for which students desire certification to justify having fully qualified faculty at each college to teach the individual subject methods courses.

Meetings have been held during the past several years to seek possible means of inter-college cooperation to effect a solution to the staffing problem. After much discussion it was resolved to schedule methods classes for all academic secondary education teaching majors for which at least five students could be gained from the combined enrollments of the six colleges. Because of the probable extensive travel requirements for students and faculty, it was decided to design a mutually acceptable model to serve as a unifying thread to course content. It was also decided that the model should provide opportunity for students on each campus to do what they could individually; for

students on each campus from all disciplines to do together whatever was in common in the model; and for students to come together to a centrally located campus by disciplines under the direction of qualified professors of education in those disciplines to study those segments of the model through which students could profit from such an arrangement.

The project undertaken under this grant was to develop a model to unify these efforts of students and faculty in a cooperative methods program. Except for student feedback during the process of model development, there has been no study utilizing experimental and control groups. Such a study, if deemed advisable to demonstrate the effectiveness and desirability of the model developed in this curriculum development project, could be undertaken by some college or university having a sufficient number of students to conduct such a comparison.

Methods and Procedures

After the education sub-committee of ACCK considered the idea of a cooperative program for the mutual strengthening of secondary teacher education programs, a committee of three was appointed to propose the content for a joint methods program. The three members appointed were Dr. Arthur Gathman of Sterling College, Dr. Albert Nelson of Kansas Wesleyn University, and Dr. Theodore Von Fange of Bethany College. This committee held a number of telephone conferences concerning the assigned task.

So that personnel serving as cooperating teachers in the public high schools could add their experiences to the model development, the project director discussed the matter of desired competencies for beginning student teachers with acting and potential cooperating teachers and received a number of suggestions. In addition, he interviewed the secondary student teachers at Bethany College during and after their clinical experience to ascertain their desires for a meaningful methods program.

The ideas gained from these sources were analyzed, grouped according to topics, written roughly in the form finally adopted for the model, and presented to the committee as a point of departure for discussion. After other telephone conferences the committee adopted the suggested content for the model. Thereupon the project director refined the series of modules each having a rationale for its inclusion in the model, a performance task and an evaluative criteria. In addition, much of the current literature was surveyed to form a background for the writing of brief, yet pertinent information regarded as essential not only for the cognitive, but also for the attitude development conducive to a student's becoming the type of teacher-leader desired. Each secondary education major was to rethink the role of the school in the community, the process of learning, the presently perceived role of the teacher, the dimensions of learning, and the importance of the subject field chosen by the potential

teacher. Then he was to develop skill and confidence in developing materials for guiding the learning process.

The first series of modules in the model were field-tested not only at Bethany College but also in an Experienced Teacher Practicum at the University of Missouri, St. Louis campus. Suggestions and criticisms received from students were studied and modifications made in the model first used by students in the Associated Colleges of Central Kansas.

Because only one college using the model distributed Evaluation Form A with consistency and had students label each module being evaluated, the breadth of anticipated response was narrowed considerably. For that reason a second evaluation form (Form B) was designed to elicit evaluation of topics included in the model. Professors on two campuses did not distribute the forms because their students had not studied the program sufficiently. However, on three campuses the Evaluation Form B was distributed and comments received were given consideration in the present revision of the model which is incorporated into this report as Appendix D.

Planned use of the Evaluation Form C for cooperating teachers was limited to those serving one college. Because the results concern so few students any tabulation would be inconclusive; therefore, such tabulation and interpretation is not included in the report.

Results

It is readily apparent that the student reaction to the helpfulness of the developed model is positive. Students included in the survey represented several academic fields and included majors in home economics, English, foreign languages, mathematics, natural science, social science, music, and physical education. Although some students perceived some of the modules as not particularly helpful for them in their teaching field, it is interesting to note that not all students from an academic area agreed with one another. Students favored the individualized approach used and its coordination with clinical assignments in cooperating schools.

Almost all participants who marked the Evaluation Form A agreed that the rationale on each module was meaningfully stated so that the student seeing the reason for a requirement was inclined to perform it. Except for the first two introductory modules, the majority of participants felt the performance and evaluative criteria were clearly stated, reasonable, and the conditions clearly specified. Some students indicated by means of comments made in the margins that the newness of the approach, compared with their past experiences in college classes, while rewarding and satisfying, raised questions about instructor evaluation of participants.

MODEL EVALUATION
Form A

Module	Performance Objective: Meaningful Yes	Meaningful No	Rationale Yes	Rationale No	Clearly Stated Yes	Clearly Stated No	Reasonable Yes	Reasonable No	Conditions clearly Specified Yes	Conditions clearly Specified No	Evaluative Criteria Helpful Yes	Evaluative Criteria Helpful No	Appended Information Helpful Yes	Appended Information Helpful No
I A Basic Premises	30	5	20	16	31	5	18	18	22	12	29	6		
I B Learn. Environment	34	3	18	20	28	7	18	17	20	15	25	7		
I C Nature of Learning	33	3	34	3	33	4	31	6	29	4	23	2		
I D Nature of Teaching	39	1	38	2	35	5	37	2	35	5	28	12		
I E Dimens. of Learning	35	0	32	3	24	11	32	3	28	7	33	2		
I G Rationale	36	1	35	2	37	0	33	4	35	2				
II A Syllabus Design	28	2	29	1	19	10	29	1	22	8	30	0		
II B Design of Units	29	3	32	0	26	6	30	2	24	7	30	2		
II C Lesson Plans	32	0	30	2	29	3	29	3	27	5	29	1		
II D Behav. Obj.[1]	36	2	34	4	35	2	29	7	31	5	37	1		
II D Behav. Obj. [2]	37	0	35	2	35	1	35	2	33	4				
II F Evaluation	29	1	29	1	28	2	28	2	25	5				
II G Select.of Text	27	2	27	2	24	5	25	4	23	6	25	4		
III A Interaction Anal.	31	0	30	1	31	0	30	1	29	2	29	2		
III B Matrix Develop.	29	1	25	5	25	5	24	6	24	6	18	7		
III C Interpretation	28	1	26	3	28	1	25	4	25	4	27	2		
IV A Prin. Test Constr.	29	0	26	3	28	1	24	5	27	2	27	2		
IV B Scoring/Grading	31	1	31	1	29	3	27	5	24	7	28	3		

Model Evaluation
Form B

1. Modules in Preparing to Teach

   a. Orientation to teaching/learning process
      Had a negative influence on me 0
      Left me somewhat confused 9
      Helped me form positive attitudes 41

   b. Study of the dimensions of learning
      Was of little or no value to me 1
      Gave me some sense of direction 29
      Helped me design more meaningful learning experiences . 20

   c. Study and writing of behavioral objectives
      Had little applicability to my subject area 2
      Helped me focus on key aspects of my subject area 48

   d. Devising learning experiences
      Posed impossible requirements before teaching 3
      Needs to be tied to more frequent observation 33
      Enabled me to plan meaningful learning experiences 14

   e. Study of interaction analysis
      Has little, if any, transfer value to actual teaching . 11
      Helped me adopt effective teaching skills 29

   f. Techniques for evaluation of attainment
      Are not applicable to my area 11
      Serve as a useful guide to grading 39

2. Micro teaching skills films
      Were interesting but had little practical value 3
      Encouraged me to adopt skills 19
      Need to be followed by more practice in skill usage ... 28

3. Micro teaching experiences
      Had little or no transfer value 11
      Prepared me for planning, presenting, and critiquing .. 39

4. Observation experiences in the public schools
      a. Needed more emphasis 21
         Were structured adequately 17
      b. Outcomes of the observation experiences
         Found little value in such observation 5
         Sensed value of specific learning objectives 20
         Sensed value of designing instructional experiences. 27
         Sensed importance of interaction patterns 21

5. Overall assessment of methods model helpfulness
         Not at all 1
         Somewhat 10
         Well 27
         Very well 12

On the basis of responses from students, it seems evident that the materials are individualized sufficiently to provide a model for any one of several disciplines.

Evaluation Form B was designed to assess the value students placed upon the types of activities incorporated into the model and their relevance to the clinical experiences during student teaching.

Although some students indicated that the section concerned with orientation to the teaching/learning process left them confused, nearly five to one indicated that those modules helped them form positive attitudes toward their roles as teachers. Participants were somewhat more divided on the value of considering the dimensions of learning (cognitive, affective, and psychomotor). One said the module was of little or no value, twenty-nine said the activity gave some sense of direction, and twenty indicated the study helped them design more meaningful learning experiences. It should be noted that among the first two groups the majority were either in foreign languages, physical education, or music and that there was no unanimity of agreement on the part of respondents from any one of those areas.

There was an overwhelmingly favorable response to the study of behavioral objectives. Although students may have felt that it was difficult to phrase meaningful objectives using that model, they were in favor of that means of clarifying educational tasks in their own minds and for their students.

Some participants in the methods program had full academic loads on their home campuses while others were in a block program with no college classes scheduled during the day. A few who were enrolled in the methods program were to be student teaching the following semester and did not know who their cooperating teacher would be. Because the modules centering on devising learning experiences required participants to visit classes conducted by the cooperating teacher to whom they were assigned and to consult that teacher for direction concerning the course responsibilities they were to assume during clinical experience, some students were at a distinct disadvantage. Three participants indicated the modules posed impossible requirements before teaching, thirty-three indicated that the modules need to be tied to more frequent observation in the school where the student was assigned, and fourteen indicated that the modules enabled them to plan meaningful learning experiences.

Some students were not given the opportunity to study interaction analysis as a means of assessing teacher influence in the teaching/learning process and others who reviewed the system weren't encouraged to apply it during their clinical experiences and the college supervisor didn't utilize it during his consultations after classroom visitation. It seems largely for those reasons that ten indicated that they were not taught interaction analysis and eleven others indicated that it had little, if any, transfer value to actual teaching. Twenty-nine other participants rated the modules on interaction

analysis as having helped them adopt teaching skills which were conducive to effective teaching experiences by encouraging students through indirect means.

Modules concerned with evaluation techniques also received some negative ratings. Eleven participants indicated they felt the section was not applicable to their needs, but thirty-nine students indicated that the materials presented served as a useful guide in grading. Some felt students should be compared one with another in the assigning of letter grades whereas others considered the usual comparison of unlikes as indefensible. They argued that attainment needed to be measured in terms of the objective stated and not along traditional practices. Some felt uncomfortable when challenged to evaluate scores or other performance by students because of the highly subjective nature of the responsibility.

Students generally saw the value of micro teaching as a means of learning certain skills in a less threatening setting than the public school classroom. Although they indicated that the use of films demonstrating various desirable teaching skills encouraged them to adopt such skills, most raters indicated that their colleges needed to provide more opportunity to practice those skills. Whereas eleven participants indicated the micro teaching experience they had on campus had little or no transfer value for them, it is interesting to note that thirty-nine said such experiences prepared them for planning, presenting, and critiquing teaching.

Observation in the school in which the clinical experience is scheduled is seen by students as a vital facet of the model, yet one which many are unable to share either because they have on-campus classes which militate against such visitation or because they have not been informed concerning the school assignment. Twelve students had no opportunity to visit their cooperating school and twenty-one others indicated that observation experiences needed more emphasis. Only seventeen felt such classroom visitation and conference with the cooperating teacher was adequately structured.

Respondents checked more than one outcome of the observation experience as a rule. Five sensed little value in such observations, twenty sensed the value of specific learning objectives, twenty-seven noted the value of designing instructional experiences for their students, and twenty-one sensed the importance of interaction patterns which they had learned in the modules concerned with interaction analysis.

In overall assessment of the model, one student indicated it did not help him at all, ten indicated the course was somewhat helpful, twenty-seven said it prepared them well for their teaching experience, and twelve said the model prepared them very well for their clinical experiences.

It is necessary to note that the responses are colored by the fact that on two of the campuses students had no one who spent time with

them to coordinate the activites and they were expected to work on their own and gain their entire knowledge of the teaching-learning responsibilities from the ten two-hour sessions held on the McPherson College campus once a week for ten weeks. On two other campuses the students completed some of the modules under the direction of a campus coordinator who met with them twice a week for six weeks in addition to the ten weekly evening sessions. On one campus students met daily in a consistent effort to fulfill the activities in the entire series. Although some very favorable ratings were given by students who had minimal exposure on their home campuses, the majority of high ratings came from students whose activities were carefully coordinated on campus and who had frequent scheduled visits in their cooperating schools during the methods program so that all materials produced and all plans made were centered in the clinical assignment.

Conclusions

By means of this curriculum development project, a model was designed through cooperative input of students, college professors of education, and cooperating school personnel. The evaluation by participating students was favorable. Some whose work on campus was not coordinated commented that they perceived the model as having great potential for their preparation for teaching responsibilities and wished they could have had more help in thinking through the various modules.

Evaluation Form C intended for use by cooperating school teachers was not used in sufficient numbers to be given consideration in this report.

The model seems to offer a variety of activities related to the preparation of teachers for their clinical experience so they can be considered as teachers in their assigned schools and thus freeing the cooperating teachers of the responsibility of teaching the methods course informally during the clinical stay of the student.

Recommendations

It is highly recommended that, for colleges attempting to cooperate by sharing faculty and pooling students, a pacing program be devised whereby students in individual and group work on any one campus complete portions of the course in coordination with the pace on other campuses. Failure to observe such a practice places students in an unfair position and makes the task of the professor conducting joint academic sessions nearly untenable. When he assumes that students have had various experiences which they may not have had, they become discouraged and unable to meet his expectation resulting in frustration for all concerned.

If it is feasible to make a comparison study with a control group on some campus, the real worth of the model might be more clearly assessed.

APPENDIXES

APPENDIX A

EVALUATION FORM A

For users of experimental program entitled
Preparing For Teaching: Modules For Secondary Methods

Please rate each of the modules by placing a number in each of the boxes provided. Use a 4 if you regard the module as excellent, a 3 for good, a 2 for adequate, a 1 for poor, and a 0 for undesirable.

Module designation: (I-A, etc.) _____

1. Rationale:

   a. Was it meaningfully stated ? - - - - - - - - - - - - ☐
   b. If you sense a means of strengthening the rationale, please write your suggestions here.

2. Performance objective:

   a. Was the task clearly stated? - - - - - - - - - - - - ☐
   b. Was the task reasonable? - - - - - - - - - - - - - - ☐
   c. Were the conditions clearly specified? - - - - - - - ☐
   d. If you feel the performance objective should be revised, please write your suggestions here.

3. Evaluation Criteria:

   a. Was the means of determining your attainment of the task meaningful? - - - - - - - - - - - - - - - - - ☐
   b. If you feel the evaluation criteria should be revised, please write your suggestions here.

4. If the Module had some prepared thought starters, diagrams, forms, or commentary associated with it, how valuable were they? - ☐

APPENDIX B

TO: Students Enrolled in Secondary Methods

FROM: The ACCK Education Sub-committee

RE: Evaluation of the Methods program (Form B)

The Methods course you had this Fall has been devised on the basis of suggestions from past students, their cooperating teachers, and secondary school principals. Because it is our desire, as heads of the several education departments of ACCK colleges to design the best possible program of methods, and because we believe that you who have experienced the course are able to assess its worth to you, we request that you critique the methods program as you experienced it so that meaningful revision of either content or method may be made.

Because the degree of coordination on the individual campuses may color the responses, please write either a 0, 1, 2, 3, 4, or 5 in the box provided to indicate the number of hours per week classes were held ON YOUR HOME CAMPUS by someone who coordinated the work during the first six weeks of this semester. - - - - - - - - - - - ☐

My teaching field is (Please check) English___ Mathematics___ Social Science___ Natural Science___ Foreign Language___ Music___ Physical Education___

Please check in column one the topics you studied on your home campus; in column two those topics you studied for the evening sessions in McPherson; in column three those items you feel should be de-emphasized or dropped; and in column four those items you feel should be expanded or modified.

Topics	Column 1	Column 2	Column 3	Column 4
Unit I Introduction To Teaching				
1. Basic premises				
2. The learning environment				
3. Nature of learning				
4. Nature of teaching				
5. Dimensions of learning				
6. Rationale of subject				
7. Micro-teaching				
Unit II Systematizing Instruction				
1. Instructional design (Syllabus)				
2. Unit planning				
3. Lesson planning				
4. Behavioral objectives				
5. Methodologies				
6. Evaluation				
7. Textbook selection				

	Column 1	Column 2	Column 3	Column 4
Unit III Interaction Analysis				
1. The coding process				
2. Matrix development				
3. Interpretation of matrix				
Unit IV Evaluation techniques				
1. Preparing teacher made tests				
2. Scoring and grading				
3. Analyzing results				
Unit V Machine Operation				
1. Visual aids equipment				
2. Duplicating equipment				

Finally, as an attitude check, please place a check in the box after any items which indicate their importance or lack of it for you.

1. Modules in Preparing For Teaching
   - a. Orientation to the teaching/learning process
     - i. Had a negative influence for me ..... ☐
     - ii. Left me somewhat confused ..... ☐
     - iii. Helped me form positive attitudes toward the role of the teacher ..... ☐
   - b. Dimensions of learning (cognitive, affective, psychomotor)
     - i. Was of little or no value for me ..... ☐
     - ii. Gave me some sense of direction ..... ☐
     - iii. Helped me design meaningful learning experiences . ☐
   - c. Devising learning experiences (Syllabus, unit, lesson)
     - i. Posed impossible requirements before teaching .... ☐
     - ii. Needs to be tied to more observation in the cooperating school ..... ☐
     - iii. Enabled me to plan meaningful, sequential materials ..... ☐
   - d. Study and writing of behavioral objectives
     - i. Had little, if any, applicability to my field .... ☐
     - ii. Helped me focus on key aspects of my subject ..... ☐
   - e. Flanders-Amidon system of Interaction Analysis
     - i. Has little, if any, transfer value to teaching ... ☐
     - ii. Helped me adopt skills which promote learning .... ☐
   - f. Techniques presented for evaluating attainment
     - i. Were not applicable to my needs ..... ☐
     - ii. Served as useful guides for grading ..... ☐
2. Micro-Teaching Skills
   - a. Were interesting, but had little practical value ..... ☐
   - b. Prepared me for planning, presenting, & critiquing ... ☐
   - c. Need to be tied to more observation in cooperating school ..... ☐

3. Observation experiences in the public schools

i. Were too infrequent	☐
ii. Needed more structuring	☐
iii. Were structured adequately for my needs	☐

4. Outcomes of the observation experiences

i. Found little value in such observations	☐
ii. Sensed value of specific learning objectives	☐
iii. Sensed value of designing instructional experiences ..	☐
iv. Sensed importance of interaction patterns	☐

5. Overall assessment of the methods program as designed and conducted. Please check in the first column of boxes your assessment of the program ON YOUR CAMPUS and in the second column your assessment of the EVENING program.

i. Was of no value	☐	....	☐
ii. Was of some value	☐	....	☐
iii. Prepared me well for student teaching	☐	....	☐
iv. Prepared me very well for student teaching ..	☐	....	☐

6. Please feel free to make any additional comments in this space which you think would be helpful to us as we plan the methods program for next Fall.

Thank you for your helpfulness in evaluating the methods program!

APPENDIX C

EVALUATION FORM C
for
COOPERATING TEACHERS

Majors in secondary education in the ACCK colleges have prepared for their student teaching experiences for 1970 - 1971 by means of an experimental program entitled, "Preparing for Teaching: Modules in Secondary Methods". We would appreciate your assessment of the competencies and performance of the student teacher under your direction this term to help us in improving our program of preparing secondary school teachers. Thank you for your helpfulness.

Please rate the overall competencies and performance of the student teacher under your direction by placing a number in each of the boxes provided. Use a 4 in the box for excellent, a 3 for good, a 2 for adequate, a 1 for poor, and a 0 for undesirable.

1. Understanding the learning process? ---------- ☐
2. Understanding the teaching process? ---------- ☐
3. Concern for individual students? ---------- ☐
4. Developing meaningful objectives? ---------- ☐
5. Ability to design instructional experiences? ---- ☐
6. Use of a variety of media? ---------- ☐
7. Use of a variety of instructional techniques? --- ☐
8. Developing learning evaluation devices? --------- ☐
9. Confidence in guiding the learning process? ----- ☐
10. Desirable professional attitude? ---------- ☐

Other comments:

Cooperating School _____ Signature _____

APPENDIX D

PREPARING FOR TEACHING

Modules for Secondary Methods

Developed by

Dr. Theodore Von Fange

for the Cooperative Secondary Methods Program

for the Associated Colleges of Central Kansas

"The project presented or reported herein was performed pursuant to a grant from the U.S. Office of Education, Department of Health, Education, and Welfare. The opinions expressed herein, however, do not necessarily reflect the position or policy of the U.S. Office of Education, and no official endorsement by the U.S. Office of Education should be inferred."

Fall, 1970

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PREFACE

It is not uncommon for those who have studied college and university preparation of potential secondary teachers to be particularly critical of the methods courses. Many students who have enrolled in such courses have been vocal in stating their opposition to listening to someone tell them about teaching when, what they perceive to be necessary is guided assistance in doing. Frequently the burden of preparing teachers is shifted to the cooperating teacher in the public school. The irony is magnified when she and her students are asked to regard the neophyte as a teacher rather than an ill-prepared novice.

Traditionally, methods instructors have lectured to students about teaching or have, on occasion, invited a high school teacher or a panel of them to describe teaching as they perceive it. Sometimes the college instructor may include a field trip of a few hours duration so students may view a school in operation and observe classes in their subject field. Although such diversion from the lecture classroom is a welcome relief and may be interesting, it does little, if anything, to prepare the students to assume classroom responsibilities for guiding students in learning.

When principals, cooperating teachers, and student teachers who have completed their school assignments were asked to list competencies which students need before they assume the responsibilities of teaching, they listed the following as prerequisites:

1. Orientation to the teaching-learning process as it applies to secondary school teaching

2. Guidance in planning lessons, preparing materials, and in selecting learning strategies and methodologies

3. Opportunity to observe master teachers demonstrate teaching skills

4. Opportunity to practice those skills with small groups

5. Suggestions for securing participation from individuals within groups

6. Assistance in developing evaluation procedures, and

7. Suggestions for avoiding and/or solving behavior problems

Several assumptions were adopted by the author in developing this manual of modules. First, there can be no real preparation for teaching by means of a methods course unless such a course is structured around learner involvement in activities. Furthermore, if the above listed

prerequisites include the basic competencies necessary for assuming leadership in the teaching-learning process, then the student needs to be involved in thinking and planning rather than listening. Secondly, lecturing is no substitute for student participation. If students are to develop the attitudes, understandings, and skills essential for their assumption of teacher roles, the course design must provide students with the challenge of designing a plan for learning, of observing effective teaching either live or on video-tape, and of practicing desirable teaching skills. For that reason, the modules designed for this program are production oriented and guide the prospective teacher in developing a desirable mind set conducive toward developing sensitivity toward individuals within groups. Thirdly, the college or university is responsible for preparing the potential teacher for her role as a classroom teacher who is not only willing but able to serve as a teacher under the direction and encouragement of the cooperating teacher during the period of fire-testing. Finally, it was assumed that effective learning is most likely to take place when the learner is given a clear statement of what is to be learned, when old knowledge is associated with that which is to be learned, when new knowledge is associated with that which has been learned, and when the instructor establishes a clear focus by means of behavioral objectives and performance criteria.

The modular arrangement of this course is experimental in that formal classes give way to a variety of coordinated activities. Some modules are designed for independent study, some for small student group sessions, some require large group sessions guided by the instructor, and still other modules require the student to plan together with her cooperating teacher serving as the subject-matter specialist. Included in the program are various types of technologically assisted instruction including tape recorders, projectors or video-tape equipment for viewing teaching styles and skills as well as simulation of classroom experiences, and video-tape equipment for practice of micro-teaching techniques combined with self-analysis and, perhaps, group evaluation.

In the development of these modules, I am indebted to student teachers who during and after their assignment in a public school, have suggested preferred content; to cooperating teachers and principals who have shared their ideas concerning essential preparation for student-teachers prior to their arrival at their assigned schools for teaching; to various college and university professors who shared time with me during the Association For Student Teaching convention in Chicago, 1970, to encourage me to procede with the work and to professors of education within the Associated Colleges of Central Kansas for their critique as well as participation in an inter-campus experiment using these modules as the guide in preparing secondary education majors.

T. Von Fange

To Cooperating College Faculty

This course for secondary methods was designed to promote cooperation between students and involved faculty members from colleges in the Associated Colleges of Central Kansas (ACCK), yet avoid massive commuting on the part of participants. It is essential that the coordinator on each campus pace the successful completion of the modules by students of secondary methods who attend the two weekly evening meetings so that all professors of those joint sessions may properly assume that students are completing the work thus making it unnecessary to check on progress toward the completion of the modules.

Evening class time should, at students' suggestion, focus on demonstration of methodologies in lesson situations, micro-teaching, skill development, critique, etc. rather than on module development. That should be done on each campus under the direction of a campus coordinator.

While students pursue the on-going responsibility of developing teaching materials during Unit II, they are encouraged to gain insight into classroom climate by learning one of the interaction analysis systems. The Flanders-Amidon system lends itself well to the intended purpose. Developing the knowledge and understanding of classroom interaction as directed in Unit III should be completed by each student before the fifth week of class sessions. The insight gained may then be applied by students in their demonstration and assessment of various instructional methodologies. The micro-teaching experience, Unit III module D, is to provide an on-campus opportunity for each student to plan and present a five to six minute lesson in which he applies the interaction pattern he deemed most desirable while utilizing various other teaching skills observed by studying the film series developed by researchers at Stanford University or similar films or video-tapes depicting teaching skills.

Units I through V need to be completed before the student begins his student teaching assignment.

T. Von Fange

Preparation for Teaching: Modules for Secondary Methods

Unit I Introduction to Teaching

A. Basic premises underlying educational purposes

Rationale:

You have chosen to become a teacher! No doubt you have observed many teachers in the act of teaching and have some understanding of the nature of teaching. It is important to understand that education is a process in which students and teachers interact while focusing attention on selected information which is a part of the curriculum.

In consideration of individual differences in students, the teaching-learning process needs to be planned for flexibility. The process is to bring about desirable changes in each student's behavior.

The kinds of behavior to be changed in the schools may be classified into various goal areas such as knowledge, thinking processes, tool skills, self-direction, social effectiveness, and human values.

Performance Objective:

Given the underlined concepts listed in the rationale, each student will define and/or explain each in terms of the importance to educational purpose.

Evaluation Criterion:

Discuss the applicability of each of the underlined concepts in a small group session which you organize. Complete a report of your session on a duplicate of the attached form and give it to the instructor.

Basic Premises Underlying Educational Purposes

Although there was a time during which it was assumed that all persons had the same capacity for learning, it is commonly agreed today that there is a great diversity among individuals. Teachers and students recognize that individuals vary in capability, in preferred learning style, in the ease or difficulty experienced in attempting to learn, in physical ability, and in social patterns.

If one underlying principle of the democratic ethic is respect for individuality, members of classrooms need to recognize that each individual needs to be accepted as a person and that humiliation, embarrassment, anxiety, insecurity, and inordinate pressure need to be avoided. Obviously, the instructor, above all, needs to accept each person with whom he deals as an individual of worth. To enable the learner to progress in his efforts to learn, teachers need to acquire knowledge about each of the individuals whom he expects to teach, and utilize such background information in devising curricula and in planning lessons.

When each individual is accepted as a unique person, then it follows that the learning environment is much more likely to become one in which a variety of modes of expression is not only permitted but encouraged. To require conformity to one mode, that preferred by the teacher, may be denial of individuality, (play production, performance sessions in choral or instrumental music, etc. may be exceptions to this general rule.) Flexibility in the classroom is necessary not only in organizational patterns, but in assignments, methodologies, and the role of teacher and students. Teachers not only encourage the expression of ideas, but they develop a sensitivity to emotional needs also so that the classroom climate is conducive to learning.

Learning is a personal, individual matter for each learner. No one can learn for another. However, the teacher, as guide, needs to sense the needs of individuals and plan both the content and the teaching strategies so that each person is enabled to learn.

Although it is frequently necessary to impart otherwise unavailable information to the learner, teaching cannot be equated with telling. Rather, teaching is an interactive process through which the instructor diagnoses the needs; designs learning experiences which enable students to achieve desired behavioral goals; and guides individuals, usually within a group, to attain new knowledge, perfect skills, develop thinking ability, become self-directing, achieve social effectiveness, and adopt human values which promote individual and societal well-being.

Accordingly, the focus of learning is to be on basic concepts and the formulation of principles and generalizations having wide application rather than on isolated facts to be spewed out for testing purposes. The latter creates boredom, fails to promote favorable

behavioral change, and obviates the very purpose of education. Unless facts are basic to higher levels of mental activity, there is no reason to require students to remember them. It is important that students learn to apply knowledge to new situations, to analyze, to synthesize, to create.

Another basic goal is that each student needs to master the essential tool skills. Included are reading, writing, computation, physical dexterity, and such other skills as are necessary for the effective study of specific subjects.

One of the essential functions of schools is to enable students to think. American democracy requires a well-informed public capable of, and trained in, decision making. No teacher and no school can impart all available information in any one academic descipline to students. However, by means of their academic pursuits, students should develop their thinking ability so they can process information purposefully. Such thinking needs to go beyond recall to analysis, comparison, and critical as well as creative mental activity.

The design of this course enables each teacher education student in secondary education to develop a high degree of self-direction. To a large degree you will instruct yourself, formulate goals and standards, conduct independent study, design learning "packages" for your students, and evaluate yourself. Such self-direction is another of the essential goals of education.

Involvement is another of the key goals of education. The students' daily classroom interaction with the instructor and with his peers should enable each student to develop leadership ability and a sense of ease in social relationships.

Experiences such as those described will promote the acceptance of basic human values such as consideration for others; an empathy toward them; personal responsibility; respect for individual worth and dignity; as well as honesty, trust, and willingness to become involved. Thus, although much of the factual information read and perhaps included in discussion will soon be forgotten by students, humanity will have risen to new heights and the democratic ethic based upon the Judeo-Christian concept of man, will have been strengthened.

INDIVIDUAL REPORT
OF
SMALL GROUP SESSION

The objective of the group was to:

What procedure was followed?

Who became the leader? In what manner?

List the members of the session first according to the AMOUNT of their contribution and then, by means of a number in a circle after the names, according to the importance of their contribution.

1	4
2	5
3	6

To what extent did you, as an individual, express yourself by stating your ideas and or feelings?

Did the group stick to the topic?

Was the objective listed above attained? If not, why not?

How did you feel about the small group session?

Signature_____

Unit I Introduction to Teaching

B. The Learning Environment

Rationale:

Having considered the basic premises and their relevance to the educational processes of curriculum development and instruction, we now focus on the social-emotional climate which influences each individual. We need to recognize that each student's total environment influences his success, or lack of it, in the educational undertaking.

Research shows that the classroom climate that employs the premises and concepts considered in Module I - A will be more conducive to the promotion of healthy self-concepts in students than one which neglects them. A favorable climate is both responsive to the individual and encourages the spirit of inquiry.

Performance Objective:

Given the conceptual schemes attached, the student will

a) interpret each in terms of the challenges facing formal classroom education, and

b) explain the need for a responsive school environment which promotes individual well-being and the spirit of inquiry.

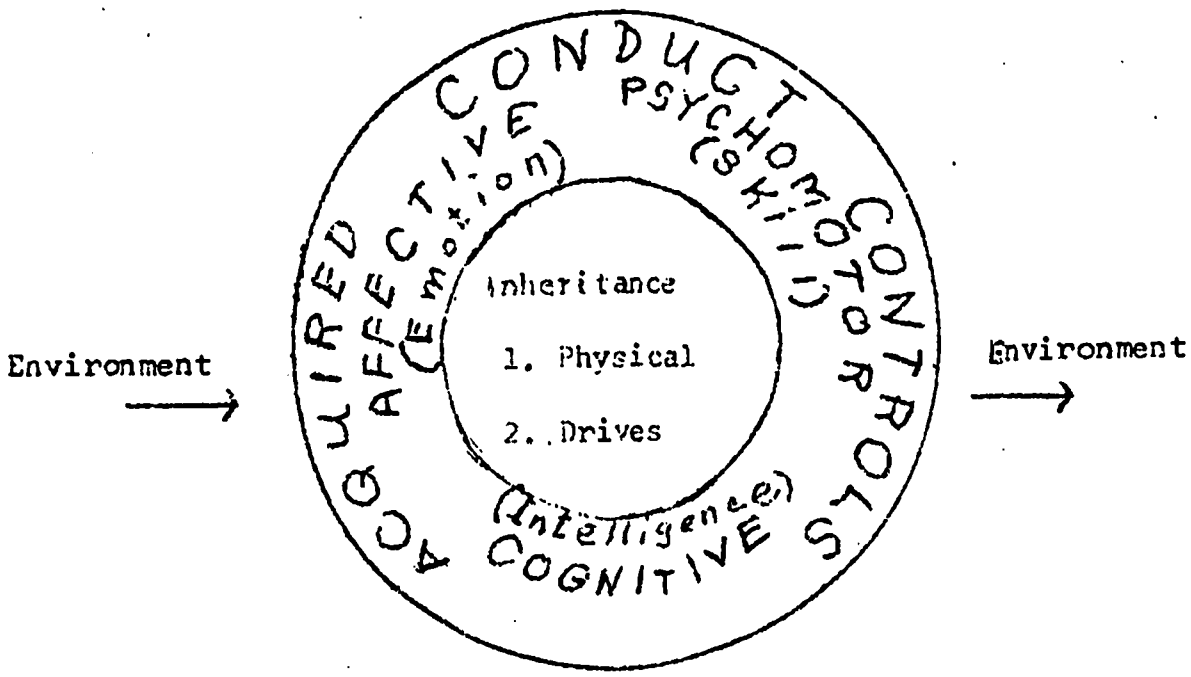
Evaluation Criterion:

You will be evaluated on the basis of your participation in a small group session. Complete an Individual Report Form as you did for I - A.

The Learning Environment

Each individual has certain basic educational needs which must be satisfied so that he may be prepared to cope with increasing social responsibilities. Among these are acquired behavioral patterns and controls which the home, the general community, and the school promote as essential to individual and group well-being.

When we view each individual as an integrated organism, Figure 1, it becomes readily apparent that intellect, emotion, and will interact to produce the acquired conduct controls of the individual. It is hoped that, as we provide the means by which various levels of cognitive or intellectual activity are attained in a climate that regards emotion and its expression as essential to human well-being, we will have provided effective inner controls for the energizing of the will so that each individual acts for his own as well as the common good. Needed in the learning environment is a balanced interplay between the cognitive, affective, and psychomotor domains. The environment acting upon a dynamically unfolding human being modifies that human being and is, in turn, modified by that individual's action and reaction.



Individual As An Integrated Organism

Figure 1

There are various forces operating as determinants of behavior. Each individual needs to become accepted as a worthwhile person for his own sake. He needs to be a somebody. He starts with a certain mental ability which, to a degree, affects his academic attainment. In addition, he comes with a degree of mental and physical health, certain attitudes, interests, aptitudes, and social abilities, all of which must be considered by the instructor who would work effectively with him.

That "self" has been shaped somewhat by informal factors long before he has come to your classroom. It is well to know that the home environment has instilled certain ethnic values, and the home and other environments have helped him form various attitudes and interests. Through these

influences, too, the student has been encouraged or dissuaded from taking part in various activities.

In addition to these influences, consideration must be given to the peer group which continues to exert a strong conforming pressure on the young. If the peer group frowns on overt participation in learning, it will be futile to attempt to encourage a member of that group to participate actively. It is, therefore, essential to become alert and sensitive to those forces operating as determinants of student behavior.

It is also important for the teacher to analyze the role of the organized or formal instructional system. Basically that role is to provide a planned framework of related activities through which each student is enabled to attain desired behavioral goals. Although learning does take place informally, the focus in classrooms is on the purposefully controlled environment by which opportunity is provided, under the planned guidance of a professional teacher, to enable each learner to attain specified learning objectives.

Ronald K. Randall, writing in the February 1969 issue of Educational Technology, identifies the components of an instructional system as

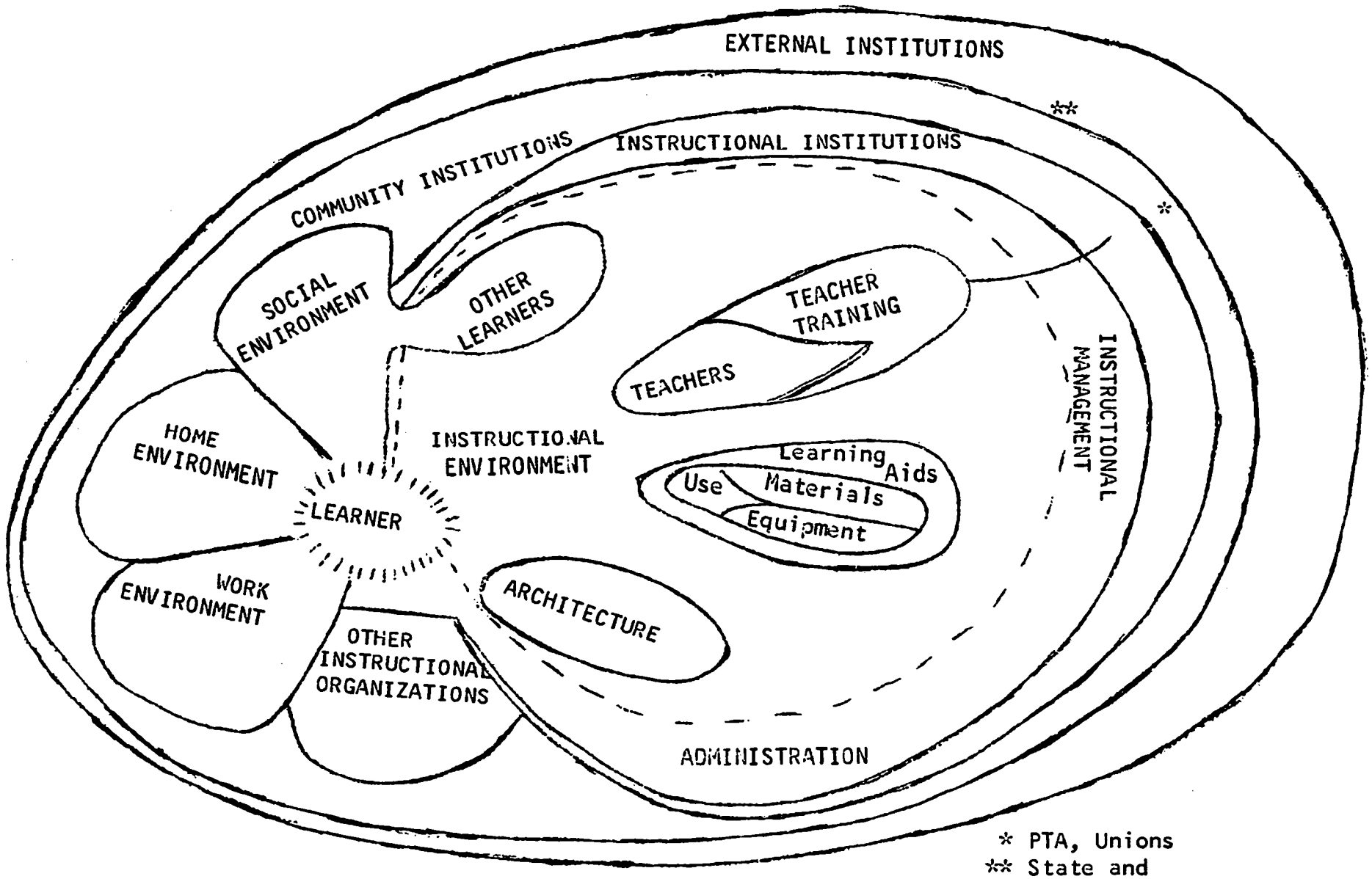
> Men, who interact with the learner in the roles of: informer, motivator, leader, example, friend, helper, competitor
>
> Materials, which contain and present to the learner information and various forms of meaningful stimuli
>
> Machines, which aid in the presentation of the materials to the learner and may implement some of the instructional methods employed (in this sense, a textbook is a machine)
>
> Master Facilities, which architecturally house and support the learner, men, materials, and machines
>
> Methods, which prescribe how the men, materials, machines, and master facilities are to be employed in interaction with the learner to secure the attainment of the specified learning objectives.

Instructors who ignore the psychological and sociological factors which have contributed to the development of each individual and which continue to exert influences upon him, can hardly expect to avoid failure.

Figure 2 is an attempt by Mr. Randall, in the article noted above, to conceptualize a learner centered instructional system. Picture each of the components of the conceptual scheme as inter-active and exerting either supportive or disruptive influences on the learner.

CONCEPTUAL SCHEME OF LEARNER-CENTERED

INSTRUCTIONAL SYSTEM



* PTA, Unions

** State and Federal programs

Unit I Introduction to Teaching

C. The Nature of Learning

Rationale:

Each individual is a unique organism in the process of becoming. Both his native endowments and the external influences on his life exert an influence on his future behavior. A key question which must be considered is: What can be expected as a consequence of learning?

Basically, learning is a process of reorganizing experiences. Unless students are enabled somehow to personalize the educational experience, words from a book or from the mouth of a teacher will have little or no desired effect upon the student.

Key to understanding the thinking process, and its implementation in the classroom, is a thorough knowledge of certain psychological processes which are central to learning and provide a framework for instructional planning. Although you will consider the nature of the learning act in more detail in the educational psychology class, a cursory view or review at this point is essential for our study of the teaching process.

Concepts to be considered at this point include aptitude, goals, motivation, learning experiences, learning style, reinforcement, perseverence, mastery levels, and self-concept.

Performance Objective:

Given a brief resume' of several components important for learning, the teacher-to-be will indicate how he envisions applying each in his classroom.

Evaluation Criterion:

You will be evaluated on the meaningfulness of your participation during a small group session. Hand in a report form after the meeting.

The Nature Of Learning

The principles of learning listed in the rationale are so essential to effective planning and teaching that the teacher who is really concerned about individuality, as has been considered briefly in Module I - A, needs to be alert to their implementation. Let us briefly consider each of the concepts named.

An aptitude is an ability, a quickness and aptness to learn. Because individuals differ in the quickness with which they can perform a given task or attain mastery in it, and because the teacher has a responsibility for each student assigned to his classes, he needs to plan for and structure the classroom activities so that each student may attain the lesson objective.

No doubt you have complained, or have heard others complain with some degree of anxiety and frustration that you didn't understand just what to do to complete an assignment. There must be a purpose for conducting a lesson or studying particular information; however, that purpose needs to be stated with clarity to enable students to reach the objective both efficiently and effectively. When a vague or ambiguously stated objective is presented, it suggests that the teacher does not really know what he expects the students to learn, or he hasn't thought through the objective sufficiently so that he can communicate an exact objective.

Frequently students are threatened or cajoled into performing a given task although they see no value in compliance except, perhaps, a keeping of the peace. Such extrinsic motivation will rarely either accomplish the desired result or cause the student to learn except under duress. When students are satisfied that that which they are asked to learn has personal value for them, they will study gladly, eagerly. Such intrinsic motivation develops, at least partly, when students not only understand clearly what they are to do, but also sense the reason for formal learning.

Learning experiences are those activities, planned for students, whereby meaningful objectives are achieved. As the teacher prepares to teach a lesson, he needs to keep students' abilities, aptitudes, and learning styles in mind so that each learner may approach the task with his strengths rather than his weaknesses. Just as a doctor does not prescribe the same medicine or the same dosage to each patient, so the teacher will need to avoid designing the same learning experiences for each of his students regardless of their capacities or needs.

Just as individuals vary from one another in ability, aptitude, intrinsic motivation, and other components essential to learning, so they differ in learning style. Each student's background of experiences, whether at home, with his peers, in society at large, or those resulting from the pursuance of personal interests have a direct bearing on

whether or not he can assimilate the material. Each student's needs are best met when a variety of methods and learning pathways are provided from which each may select that approach to learning which suits him best.

After a student has expended a given amount of time and effort to achieve a given objective, he needs to know the degree of progress he has made. Some students will pursue a task longer than others without such feedback, reinforcement, or encouragement; however, the greatest progress in learning is made when reinforcement is frequent. Avoid giving praise for attainment unless there is worthwhile progress, and you can be honest in such encouragement.

Unless the student is encouraged by the meaningfulness of that which is to be learned and by the progress he is making toward attaining the objective, he will lose interest in the planned learning experience. Perseverence is indicated by the time the learner is willing to spend in learning. When the assigned tasks are realistic in terms of the student's potential and the time required to perform the task, the student will be enabled to sense success. Since "nothing succeeds like success", it is important to plan for the success rather than the failure of each individual. Under such circumstances, perseverence will increase.

With the knowledge explosion or the rapid creation of new knowledge in all fields of learning, it is impossible for anyone to know all that may be known in any one discipline. Nor can we realistically expect some students to make giant strides to gain, in a comparatively brief time, whatever deficit exists between their present accumulation of knowledge and that of their peers. The degree of mastery required needs to be consistent with both the progress made in the curricular sequence and in the capacity of the learner under consideration.

Perhaps there is nothing more debilitating for an individual than to experience failure, failure, failure. Each individual needs to experience success for his own mental health. A self-concept built on successful experiences is basic to the development of a wholesome personality. Knowing this basic principle, the teacher will plan opportunities through which each individual not only achieves mastery and experiences success, but will also give the student recognition and encouragement.

Unit I Introduction to Teaching

D. The Nature of Teaching

Rationale:

Teaching is a complicated and demanding profession. Skill in the art of effective teaching develops slowly and often painfully. Viable teaching involves a number of components and practices including teacher expectations; teacher sensitivity; diagnosis; designing specific learning activities; developing the learning environment; directing teaching-learning activities; and evaluating pupil learning and the soundness of each portion of the total learning plan from the statement of the behavioral objectives to the content selected, the various media employed, and the methodology utilized. As you learn to understand the implications of each of these components and practices, you will be enabled to plan your clinical experiences as well as your professional services as a teacher for the best possible advantage of the learners.

Performance Objective:

Given the above named components and practices of viable teaching, each student will explain their significance for teaching in his subject area.

Evaluation Criterion:

You will be evaluated on the basis of your participation during the small group session. Again, complete a report form for the instructor.

The Nature Of Teaching

For most of the history of education in America, the focus has been on student achievement and behavior. Whenever achievement was low, teachers and parents tended to blame the student for being lazy, involved in conflicting activities, or unmotivated. Any misbehavior was assumed to be due to the nature of the student, his peers, or society as a whole.

Not until recently did the focus shift to the teacher. It is the teacher who sets the stage by his expectations of each student, by his planning for teaching, and by his control of the learning environment. In the book Pygmalion In The Classroom, Robert Rosenthal and Lenore Jacobson present convincing evidence that students tend to achieve at the level the teacher expects them to. In fact, the teacher's expectations of his pupils is demonstrated as being the chief determiner of success. When teachers listened to negative comments about a student, or judged him adversely because of his ethnic background, the student was kept from meaningful learning experiences and the teacher's expectation was fulfilled. However, when another teacher was told that that student was gifted, she formed a high level of expectation for him and her expectation was fulfilled also. In summary, after providing many case studies to support the contention, the book demonstrates that ".... one person's expectations for another's behavior can quite unwittingly become a more accurate prediction simply for its having been made."

It becomes clearly apparent that there are teacher variables which have a direct bearing on student behavior. Included among such variables are the teacher's motivation, physical stamina, self-concept, attitudes and values, interests, and abilities. These teacher variables either complement or conflict with student variables including innate capacity, physical stamina, attitude, interests, past learning, motivation, and his peer group influence. Interaction between these teacher and student variables takes place within an environment which is controlled by institutional objectives, available study materials, other resources, availability of audio-visual aids, strategies employed, architecture of the building, influence of the administration, and the impact of other immediate and remote communities. (Refer to the conceptual scheme on page 7)

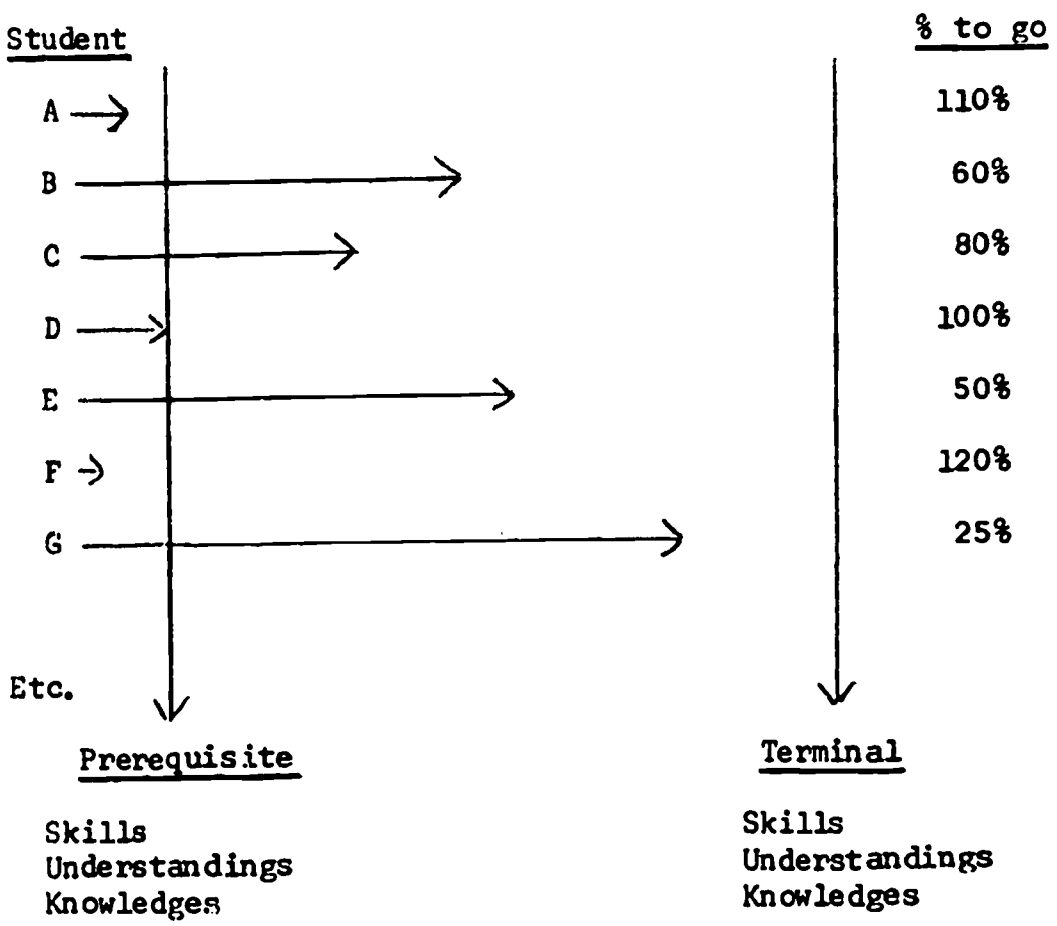
Sometimes teachers are criticized for being unaware of student attitudes, ideas, or feelings. An insensitive person ought not become a teacher. The act of teaching, if it is to promote an unfolding of the student, needs to be responsive to the learner. To establish a desirable learning environment, the teacher needs to be alert to each student's needs as an individual, listen to him, accept and develop his ideas and feelings, and encourage and praise him for his involvement in learning. Obviously such activity on the part of the teacher must be the result of genuine empathy, a sincerity beyond suspicion or careless repetition of insincere comments or expressions. As will be readily diagnosed in Unit III when we study interaction analysis of the teacher's classroom behavior,

such teacher sensitivity will determine, in large measure, how and to what degree students will learn in the classroom.

Of equal importance is the consideration by the teacher of the objectives to be attained. Too frequently class assignments and considerations do not focus on a clearly defined task. It is of paramount importance that the instructor formulate a clearcut statement specifying exactly what the student is to learn or be able to do as a result of engaging in a planned learning experience. In fact, such formulation of behavioral objectives is a precondition for the effective teaching-learning process.

Table 3 is an attempt to portray a typical group of students in a classroom. When the teacher ignores the facts presented, it is a relatively simple matter to predict the letter grade distribution at the termination of the course. Typically insensitive teachers "cover" the content regardless of student attainment, and those students with limited knowledge because of similar mistreatment in the past will actually fail because the instructor wasn't <u>really</u> interested in them as individuals. Rather than admit that fact, the teacher may award a "D" grade especially if an "F" grade means the student may be reassigned to his class again next year. Promotion on that basis does not help the student, rather it makes the tasks for the following year even more impossible until the student is "pushed" out of school.

Figure 3



"Teachers" who follow such practices may be said to hold classes, but it is doubtful that they are teachers in the sense that we need to become if we are to become part of the solution of societal problems rather than a laissez faire perpetuator of injustices. Diagnosis needs to be employed in all cases where sequence and scope of content to be mastered are dependent upon some necessary prerequisite.

After assessing the student's needs, the instructor can select from a variety of alternatives those experiences best suited to the individual. When the individual perceives the importance of that which he is asked to do and recognizes the possibility of his being successful in attempting the task, then he becomes a willing, cooperative participant in the learning process. Teaching requires that he who would teach accept the student, each student, as he is, assess his needs, select his learning activities, and otherwise guide his mental, emotional, and physical development. Whenever a teacher makes an assignment, he is prescribing that which is supposedly necessary for desired behavioral change. Greater care and concern need to be exercised in formulating each behavioral objective which becomes the directive for selecting or preparing content, selecting or designing various media, and organizing the class both for efficiency and effectiveness.

Learning takes place in an environment conditioned by teacher variables, by his ability to set the stage in such a manner that students desire to learn, and by the encouragement he gives to the learner when the latter becomes involved in learning activities. The oft used cliche' that the student is lazy is not really valid in many, if not most, instances. Students' willingness to participate in learning is largely a result of motivation, reinforcement, and learning climate which the instructor develops.

As the teacher directs the teaching-learning activities in the classroom, he employs a number of teaching skills or methodologies including presenting, explaining, demonstrating, and questioning. There are various ways of doing each of these as you will note when you study specific methods in Module E of Unit II, and when you observe video-taped micro-teaching skills in Unit III in preparation for culminating practice teaching experiences later in the course.

Teaching also involves evaluation. The design for learning experiences needs to include opportunities not only for the student to ascertain his degree of success in attaining the behavioral objective, but the teacher needs to get feedback from the student concerning the reasonableness of the assigned activities as well as the helpfulness of the learning plan. One means of gaining feedback from the student is through discussion. The most commonly used means of gaining information by which the student is apprized of his degree of success is by means of some measuring or testing device after which a report is given to students and, periodically, to parents.

Unit I Systematizing Instruction

E The Dimensions of Learning

Rationale:

Sometimes a student teacher becomes so eager to prove himself a teacher that he wants to conduct classes before he gives careful thought to what he intends to accomplish in the classroom. Much classroom time is ineffectively used because the teacher, who is to be the architect of the learning process, has made no plans and has no real basis either for selecting the content to be covered or for measuring educational progress. As a result, he tends to have students memorize vocabulary, facts, formulas, principles, or other ideas which are soon forgotten unless consistently reviewed. Because students see no value in such an "education" they are made to study by threats of failure. Those who resist such pressure become drop-outs or push-outs.

If teaching is to be more than that, if it is to promote mental, social, emotional, and skill development, then teachers must not only know these dimensions of learning, but include each dimension in the planned learning process.

Perfcrmance Objective:

Using the accompanying taxonomies of educational objectives, choose a level of students in your teaching field and

a) give an illustration for each of the six levels of mental activity in the cognitive dimension of learning

b) indicate how you would evaluate a student's attainment of each of the five categories in the affective dimension, and

c) provide examples showing various psychomotor skills students in your teaching field need to do well.

Evaluation Criterion:

You will be evaluated on the completeness of your written assignment and the appropriateness of your illustrations as determined by a group of your peers. Complete a "Report Form For Small Group Sessions".

The Dimensions of Learning

For a number of years, concerned educators have sought to help students develop various teaching skills; to express themselves through emotion and feeling; and to develop various motor skills all of which were known to be essential if education was to change people and help them fulfill their respective roles in American democracy. Not until the work of Bloom and Krathwohl in identifying, defining, and classifying instructional activities has there been any systematic study of attainable behavioral objectives. Their efforts, together with the help of many educators, psychologists, and test designers, have provided meaningful assistance to teachers who desire to accomplish more than simply holding classes or covering a stated number of pages of material.

For both the cognitive and affective domains, these writers have developed a spiral classification of increasingly complex levels each evolving from the level below it in the classification scheme. Bloom's "Taxonomy of Educational Objectives" divides cognitive or mental activity into six major categories: knowledge, comprehension, application, analysis, and evaluation.

1. Knowledge, the lowest level of mental activity, includes those behaviors and test situations which emphasize remembering of all kinds of information such as facts, terms, trends, criteria, procedures, generalizations given by others, and theories that need to be recalled. That level of mental activity is tested by asking the learner to define, identify, list, match, reproduce, state, or otherwise recall learned information.

2. Comprehension requires a learner to grasp the meaning of all kinds of information learned in level 1. The learner demonstrates his comprehension by translating the information into a different form such as words to numbers or one verbal form to another. He may also interpret the information through diagrams or charts, and extrapolate or make predictions on the basis of learned information. Comprehension is tested by asking the learner to convert, defend, estimate, explain, illustrate, paraphrase, predict, or rewrite.

3. Application requires the learner to use what he has learned. He makes applications he did not face in the learning situation. He will apply rules, methods, theories, principles, solve similar but new problems, design illustrative charts and graphs, demonstrate methodology, or otherwise use what he has learned.

4. Analysis involves dividing information into its constituent parts to promote understanding of its organizational structure. At this level the learner recognizes unstated assumptions, detects fallacious use of logic, differentiates between fact and opinion, analyzes a work of art, music, or other communication.

5. Synthesis requires creative ability in that the learner needs to work within limits set by problems, materials, methodologies, or theories to produce something new. Activities at this level include writing a well-organized theme, speech, poem, or other literary work; composing a song; developing a plan for an experiment or research; incorporating various other learnings into a plan for problem solving; or developing a new approach to some current practice.

6. Evaluation, the highest level of the cognitive domain, requires the learner to make judgments about the value of ideas; works of art or music; solutions, methods, materials; etc. Thus he may be required to judge the logical consistency of a composition; determine the adequacy of data given to support conclusions; or determine the value of a work of art or music either by internal evidence such as logical development, or by external criteria or clearly defined standards.

Some reflection will confirm that, before a learner can perform at any of the more mentally stimulating levels of Bloom's taxonomy, he must have attained the level preceding it. Thus the remembering of information, level one, is unimportant unless it enables the learner to perform at a higher level. No meaningful instructional plan dare stop with mere information. Rather, let information serve as the foundation upon which students build as they learn to use their minds in divergent, convergent, critical, or creative thinking.

A second domain upon which teachers need to focus attention is the affective. Human beings are not merely data banks or living dictionaries or encyclopedias of information. Man's humanity is denied when feelings, emotions, or attitudes are suppressed. The affective dimension of man causes him to act or interact with what he learns. Thus the affective dimension energizes man, activates his will, and prompts him to act.

Major categories identified by Krathwohl (1964) in the "Affective Domain of the Taxonomy of Educational Objectives" include receiving, responding, valuing, organizing, and characterization. As in the cognitive domain, each higher level builds upon the lower level in spiral fashion. Upper affective levels cannot be attained unless the individual has attained the attitudinal levels upon which the given level builds.

1. Receiving, also referred to as attending behavior, refers to the student's willingness to take part in classroom activities to a minimal degree by listening carefully, and being aware of the importance of that which is to be learned. Although not highly motivated, he is NOT negative. He is neutrally willing to react to stimulii. He develops an awareness of aesthetic factors in dress, furnishings, music, architecture, etc. He shows a tolerence of cultural patterns different from his own, and a sensitivity to human needs and pressing social problems, but does not become actively involved.

2. Responding not only requires a willingness to do something, but a doing of it, an active, voluntary responding to the phenomena involved. This is a rather low level of commitment. At this level the student will read the assigned material, prepare his lessons, be obedient to rules, participate in class discussion, volunteer for special activities, show an interest in the subject, and enjoy helping others. At this level the individual enjoys a feeling of satisfaction in his involvement. He may find enjoyment from self-expression in music, arts and crafts, or from other means of personal enrichment such as reading for recreation and conversing with many different kinds of people.

3. Valuing is concerned with the worth a student attaches to a particular object, phenomena, belief or behavior. At this affective level, the student is consistent and stable enough so his values are clearly identifiable. He assumes responsibility for involving reticent members of a group, deliberately examines various viewpoints on controversial issues so he can form an informed opinion about them, and actively participates in making arrangements such as for an art, music, or drama festival or other occasions. Valuing also includes a high degree of certainty; a firm emotional acceptance of a belief; and loyalty to a position, group, or cause. One actively seeks to win others ot his viewpoint.

4. Organization involves the internalization of values and the ordering of values into a hierarchy. The emphasis is upon comparing, relating, and synthesizing values. The goal of such activity is the formulation of a philosophy of life. Such an individual recognizes the need for systematic planning in solving problems, and assesses and accepts his strengths and limitations.

5. Characterization is the peak of the internalization process. At this level an individual has lived according to a value system sufficiently long to have developed a characteristic "life style". His behavior is consistent, persistent, and predictable. He follows a code of conduct based upon ethical principles consistent with democratic ideals. He is self-reliant, self-disciplined, cooperative, objective in problem solving, industrious, and punctual.

The third domain for classifying educational objectives is called the psychomotor domain or dimension. Obviously various motor skills have their base in knowledge of operations and safety and attitude or emotion. However, the emphasis here is on the motor skills. Included are writing, typewriting, drawing, playing a musical instrument, skill in using laboratory equipment, safely using either hand tools or power equipment, or demonstrating the proper technique in physical activities. Facility in using maps and globes or other audio-visual equipment also falls into this domain. Plan student activities for developing needed skills.

Unit I Introduction to Teaching

F. Micro-teaching experience

Rationale:

Frequently a methods course is criticized because that which is presented is too far removed from actual classroom interaction. Thus, although theoretical understanding of the teaching-learning process is necessary, students seek cook-bock simplicity of "how to do it". In an attempt to make the study of the remaining units more meaningful, the instructor will arrange time for each student to present a short lesson, not to exceed five minutes, to a group of peers selected by the student. By relating this experience to future lessons in this series of modules, the instructor hopes the remaining modules will have added significance.

Performance Objective:

Having surveyed some of the essential concepts which need implementation in the teaching-learning process, the teacher-to-be will prepare a lesson, select his "class", and schedule a time with the instructor to teach the class for video-taping.

Evaluation Criteria:

In this lesson, you will evaluate yourself as you see yourself on video-tape. Include in the critique an assessment of your

a. planning
b. purpose
c. motivation
d. interaction with the class, and focus particularly upon
e. personal factors such as
    1. grooming
    2. poise
    3. confidence

Note: At this stage it will be helpful to be critical of yourself. We learn from our mistakes at least as much, perhaps more, than we do from our successes. Unwarranted self-praise tends to form a mind set against analysis which leads to improvement.

Unit I Introduction to Teaching

G. Rationale for teaching your subject in high school

Rationale:

A frequent comment made by the adolescent is, "I don't know why I have to take___. It has no value for me. I'll certainly never use it in what I plan to do".

As long as one has no clearly perceived reason(s) for doing something, he can hardly apply himself purposefully or meaningfully to the task. This module is designed to have you consider reasons for, or values inherent in, studying the subject field as well as the particular courses or divisions of the subject field you plan to teach.

Performance Objective:

Write a rationale, which is convincing to an adolescent, for studying both the subject field of your major and of the particular subject(s) within that field normally taught in high school.

Evaluation Criterion:

Be prepared to present your rationale to the small group session including members NOT from your teaching field for critical appraisal. The group will evaluate your rationale in terms of its persuasiveness in convincing an adolescent of the relevance for him in his studying your subject field and the division of it you plan to teach.

Hand in a report form to the instructor.

Unit II Systematizing Education

A The Learning Components - Instructional Design

Rationale:

It is important to establish a classroom setting in which teacher and students recognize that there is purpose and sequence in the planned topics, problems, or units which comprise the instructional program. To achieve such purposeful education, the instructor must undertake both long-range, sequential planning as well as daily planning of specific activities. Superior teachers do not just "keep school"; rather, they think of themselves as important links in helping the student develop those competencies and that maturity of personality which will equip him to become a contributing member of society.

An analysis of well-designed planning reveals certain essential components. Basic to all such plans are the specific objectives to be reached by the learner, the activities designed to enable the learner to achieve those goals, certain methodologies which will promote learning efficiently and effectively, and pre-determined means of evaluation.

Although your clinical experience will not permit your using a fully developed course plan with its unit subdivisions for an entire year, you are to prepare the syllabus for a full course so that you see the segment which you will teach as a necessary part of the whole.

Performance Objective:

After studying the information appended to this module, prepare a syllabus for the course(s) you will be teaching during your clinical experience.

Evaluation Criteria:

Your completed syllabus is to be handed to the instructor or coordinator ON YOUR CAMPUS WITHIN A WEEK.

Resource:

The syllabus for this course, "Preparation for Teaching: Modules for Secondary Methods" is in the Appendix of this manual.

Syllabus Design

Schools are societal institutions established to accomplish far-reaching goals. By means of planned, yet flexible experiences, students are guided in their mental, emotional, and skill development. Whatever a community or school requires of its students and professional staff is the result of a basic philosophy. When such a statement of philosophy is analyzed, a number of purposes which that society desires the school to help accomplish become apparent. Purposes at this level are broadly stated and need to be refined. Examples of such educational purposes may be read in "The Seven Cardinal Principles of Secondary Education" (1918); the report of "The Committee on Social-Economic Goals of America," National Education Association (1937); and other attempts to specify purposes of secondary education. The Seven Cardinal Principles of Secondary Education are listed as health, command of fundamental processes, worthy home membership, vocation, civic education, worthy use of leisure time, and ethical character.

As one examines these concepts, he finds that they are so vague that little information for practical assistance is given either toward defining them or guiding one in their attainment. However, by studying such broadly conceived concepts, members of a school community determine with greater specificity the objectives students need to attain to achieve such vague objectives. All Experiences which a school adopts as a means of enabling students to attain such objectives are a part of its curriculum which is divided into curricular areas of subject fields and activities.

Leaders in the school community also decide which sub-divisions of each subject field are to be made, and thus which subjects or courses are to be included in the curricular offerings. Each such course is subdivided into meaningful units designed to combine or unite similar or related ideas so that learning is facilitated. That general overview of a course forms the heart of the syllabus.

To design a syllabus, the teacher needs to view the entire course and decide basic reasons for teaching it in terms of student development toward fulfilling the philosophy and purposes of the school. In much more specific statements than those emerging from the school philosophy, the planner states the objectives for teaching the course. Normally not over ten such objective statements are needed to set the course objectives. In the sample included in the Appendix, there are six such objectives, but they have various subdivisions. It is not necessary to define course objectives with such sub-divisions.

As the teacher specifies course objectives, he is led one step beyond the rationale stage which was prepared in Unit One. These objectives begin to take a more definite form and specify various behavioral outcomes in terms of cognitive, affective, and psychomotor terms.

If objectives were plotted on a continuum of increasing specificity, they would be ordered as follows: School objectives,

Subject Field objectives, Course objectives, Unit objectives, Lesson objectives.

Because objectives increase in specificity as the writer plans for his courses, it may be desirable to give some sample statements of specificity for course objectives which you will write for the syllabus. Remember that, in a comparatively few such statements you are to focus attention upon the thrust of the entire course.

Algebra I

1. To understand the logical structure of our number system through Real Numbers

2. To demonstrate the ability to analyze simple verbal problems and arrive at logical solutions

Geometry

1. To develop the ability to apply deduction to methematical situations

2. To understand the basic principles of direct and indirect measurement

English III

1. To recognize the language arts both as a means of communication and of esthetic, cultural, and spiritual development

2. To develop the ability of seeing the relationship between the central idea and the supporting thoughts in materials of increasing difficulty

American Government

1. To trace the impact that the historical, ethical, and philosophical background of our American Republic has on present ethical and social problems

2. To understand the operations and mechanics of American governments at local, state, and national levels

United States History

1. To examine, critically, the role of dissent in social progress

2. To attempt resolution of contemporary issues (economic, political, and social) by examining their origins and evolution

Art

1. To realize that art is a natural and necessary part of everyone's life

2. To apply elements and principles of art to creative work and to practical life situations

Music Appreciation

1. To utilize music as an effective means for a meaningful interchange between various cultures

2. To develop the ability to compare styles of performance, arrangement, and composition

Physical Education

1. To develop requisite skills in a wide range of games, sports, gynmastics, and rhythms

2. To develop physical capacity in a desirable and well-rounded manner

Chemistry

1. To understand the structure of matter

2. To appreciate the influence of chemistry on modern civilization and its role in shaping the future

Physics

1. To know the basic types of energy and how they are controlled

2. To understand natural laws which govern forces and motion

Foreign Language (First year)

1. To understand and use good pronunciation

2. To read, write, and speak simple_____

After thinking through your entire course and giving the focus to it through a few well-selected, specific objectives of the degree of specificity indicated, follow the remainder of the "Recommended Course Syllabus Outline" to complete the first stage of your planning.

RECOMMENDED COURSE SYLLABUS OUTLINE

I. Course Title

The course title as it appears in program plan sheets or brochures

II. Specific Course Objectives

A. These statements are to be behavioral, comprehensive, developmental and stated in terms of
   1. Cognitive - concepts, principles, and understandings
   2. Affective - attitudes, interests, and appreciations
   3. Psychomotor - motor skills, conduct, habits

B. To be consistent with and subordinate to subject field objectives

III. Listing of the Units of the Course

This listing is to include the unit titles in the order of expected normal use and a brief statement of description of each which, when taken together, indicate the content of the course.

IV. Learning Materials of the Course

A. Textbook or books required
B. Other materials, films, etc. which are needed
C. Proposed use of community resources and resource persons
D. Method of determining grade

V. Evaluation Procedures for the Course

A. Total class time used for testing expressed in class periods
B. Kinds of tests to be used
C. Method of determining the grade

VI. Course Management

A. Number of meetings per week
B. Value of the course in terms of Carnegie units or credit points
C. Outside student preparation expected in clock hours per week
D. Place of the course in the curriculum: level, and whether required or elective
E. Prerequisites, if any, for this course
F. Courses for which this course is prerequisite
G. Unique equipment needed for this course
H. Range of class size
   1. Minimum_____, Optimum_____, Maximum_____.
I. Recommended catalog description of this course

Unit II Systematizing Education

B Designing Units of Study

Rational:

If one is to provide meaningful learning experiences for his students, it is imperative that he avoid relying upon accidental learning outcomes from unplanned lessons. Some 'teachers' seem to brag about not planning lessons, but rarely do their students consider the daily classroom activities to be worthwhile. If learning is to be a sequentially ordered development of knowledge, attitude, and skills, then it follows that the teacher must design a program conducive to such mental, emotional, and skill development.

Each unit you have listed in your syllabus needs further development so that it becomes either a resource or a teaching unit. The former differs from the latter, primarily, in that it includes many more learning activities and many more materials including printed matter as well as visualizations than the teacher plans to use. Thus he may choose from a variety of information and activities from his storehouse of planned resources.

At the unit level, the behavioral objectives to be formulated are more specific than they were at the course level. At this stage of planning the sequence and scope of the information to be taught is presented in outline form; learning activities are planned, various media are either selected or prepared to provide multi-sensory avenues for impressing the planned information on the minds of the students; methodology is selected to make learning interesting, possible, efficient, and effective; and tests are designed to determine the extent to which the learners have attained the planned objectives.

This is a long term module for which you will receive further instruction in future modules. Hand in a completed series of units which you will teach during student teaching, prior to beginning your teaching assignment.

Performance Objective:

By following the outline on the following page, develop each unit for which you will be responsible during your student teaching experience.

Evaluation Criteria:

Because you will soon be working under the general supervision of a cooperating teacher, be sure to consult him to determine what portion of his course you are to teach. Share your plans with the cooperating teacher and make suggested revisions. Units are due BEFORE student teaching begins. Your units will be added to the curriculum materials in the library. For that reason, make an additional copy for yourself and for your cooperating teacher.

RECOMMENDED UNIT PLANNING GUIDE

Follow this outline for each unit you prepare. (It would be well to plan each unit in your syllabus so that you have a guide for further course development as a teacher.)

Unit I

A. Unit Title - Repeat the title as it is given in your syllabus.

B. Unit Overview - Write this overview as you would describe the unit to the students you will be teaching. After a brief introductory statement, enumerate ideas to be emphasized and indicate the procedure you plan to follow. (Consider the interests and achievement level of the students).

C. Significance of the Unit - Prepare a rationale which would convince the learner of the value, for him, of studying the information or for performing the activities included in this unit.

D. Specific Unit Objectives - In several well-designed statements having increased specificity over the course objectives, state the cognitive, affective, and psychomotor behavioral objectives which will provide the direction for student attainment during this unit.

E. Content Outline - By following conventional outline format, indicate the sequence of content to be studied during this unit. After the capital letter, use the arabic numerals for the next subdivision, small case letters next, and so on.

F. Student Learning Activities - List here the variety of activities designed to enable students to attain the stated behavioral objectives. Your planned activities will include:

1. Introductory activities -
   a)
   b) These are activities through which you introduce the unit
2. Developmental activities
   a) These are the activities through which students are
   b) enabled to attain the specific unit objectives
3. Enrichment activities - These are special activities performed by interested individuals or groups.
4. Culminating activities - These are designed to summarize the work done during the unit.

G. Learning Materials -

1. Bibliography for the teacher -
2. Bibliography for the students -
3. Other materials such as films, transparancies, slides, etc.

H. Evaluation

Indicate how you plan to measure teacher effectiveness, then how you plan to measure student achievement. If a paper/pencil test is to be used, attach a copy to this unit plan.

Designing Learning Activities

After stating the unit level objectives in a resource or teaching unit, the next step is to devise a variety of learning experiences by which students are enabled to change in the manner specified by the objectives. Although some experiences are planned to introduce the unit; others to develop the concepts, the attitudes, or skills deemed essential; others to enrich; and still others to summarize or culminate the work of the unit, there is no abrupt division between these. Each type of learning activity or experience flows naturally from the preceding ones.

Use introductory activities to focus attention upon that which is to be learned. This may be done by presenting an idea or lead question; by conducting a demonstration; by highlighting a problem which is to be considered; arranging some visual presentation by means of film, picture, or live performance through role playing, etc.; by establishing the emotional climate conducive to learning; or otherwise motivating students by creating a desire in students to learn. It may be sufficient to present an overview of the unit so that students may receive a sense of direction for discovering values and other outcomes relevant for their lives. At this stage readiness is established.

The teacher designs developmental activities by taking advantage of a variety of available sources of information. This may be printed material from books, pamphlets, magazines, or newspapers; personal presentations by the teacher, students, or other resource persons; films, such as 16mm, 8mm, film strip, or slides; laboratories such as science, language, or interaction groups. By appropriate use of such sources of information, the teacher may select those which are most appropriate for enabling students to achieve the desired behavior effectively and efficiently.

When such activities are pleasant and satisfying, the student will become intrinsically motivated toward learning. If objectives include the affective domain, the teacher's task is to design experiences offering interest and variety so that a climate free from anxiety, pressure, and disruptive emotional activity may be established. It is always important that the teacher be stable, composed, and in full control of his actions and emotions so that no undesired responses are triggered. Appeal to the student through as great a variety of media as possible and terminate class activity while enjoyment is still high.

It is important that the prospective teacher visit classrooms and view films depicting the teaching-learning process so that he may develop an increasing awareness of the types of activities which can be planned. The variety is limited solely by the degree of creative imagination of the teacher-designer and the nature and background of the students. Make certain that every activity is planned to enable learners to attain a definite objective. Aimless activity or busy-work deadens enthusiasm and establishes an undesirable emotional climate. It is not unusual for teachers to glean ideas for fruitful activities from students.

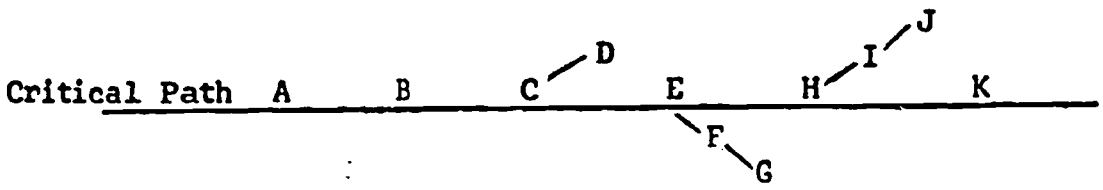
Enrichment activities are NOT MORE OF THE SAME, MORE PROBLEMS, LONGER THEMES, ADDITIONAL EXPERIMENTS, etc. Rather they are activities requested of students who have a particular interest which they can be helped to meet; additional, different activities designed by the teacher for those who have a particular interest in pursuing the study of the unit beyond the level of the other students, or otherwise satisfying the felt needs of particular learners. It is important to remember that not all students need to accomplish all the activities. Respect learner needs, learning styles, and interests.

Culminating activities are planned attempts to summarize what has been emphasized throughout the unit. In music, such an activity may be presenting a concert or recital; in art, arranging a display of projects completed; in science, scheduling an exhibit or science fair. Purposeful attempts are made to encourage the learner, to combine unit activities into a unifying whole, or to relate the work of the unit to the entire course or to other fields of learning.

If your student teaching assignment is in a junior or senior high school which is individualizing instruction, then the student learning activities portion of each unit is to be written in the behavioral objective form. The introductory, developmental, and culminating activities necessary to help students attain the unit objectives are required of all students and the enrichment activities reserved for those who seek additional work to pursue their interest. Such students could be encouraged to write their own behavioral enrichment objectives.

Should you adopt this procedure, the next module (II-C Daily Lesson Plans) is redundant. Under the individualized concept, students continue to pace themselves in fulfilling unit requirements and you, as instructor, serve as a resource person and recorder of individual progress.

Evaluation may be in terms of accomplished behavioral objectives either with or without comprehensive tests covering the unit. The requirements may be visualized by means of a chart depicting the required performance on a base line (a "C" grade) and, by means of branches above or below the base line, those behavioral objectives which may be done for enrichment and/or "B" or "A" grades on the unit. Such a graph is known as a "critical path".



Unit II Systematizing Education

C Daily Lesson Plans

Rationale:

After a teaching-learning plan has been developed, it is imperative that it be used for teaching and not placed in a drawer some place and forgotten. Each time an attempted experience suggests a modification in the plan, revise it and thus perfect it. In this way one's teaching guides are always evolving on the basis of empirical evidence. Because the unit plan has much material in it, the teacher must subdivide the information once more into daily lessons. Although these daily plans cannot be written far in advance because of unforseen interruptions such as assemblies, fire drills, inclement weather, etc., they need to be made in sufficient time so that the specific behavioral objective for the next lesson can be given for the assignment.

The key to planning a daily lesson is the specific behavioral objective. At this level, the statement indicates specifically what the student is to do, under what circumstances he will be required to demonstrate his achievement of it, and the standard of performance against which his performance will be measured. In the next two modules you will learn how to state such behavioral objectives with the degree of specificity required in planning for teaching.

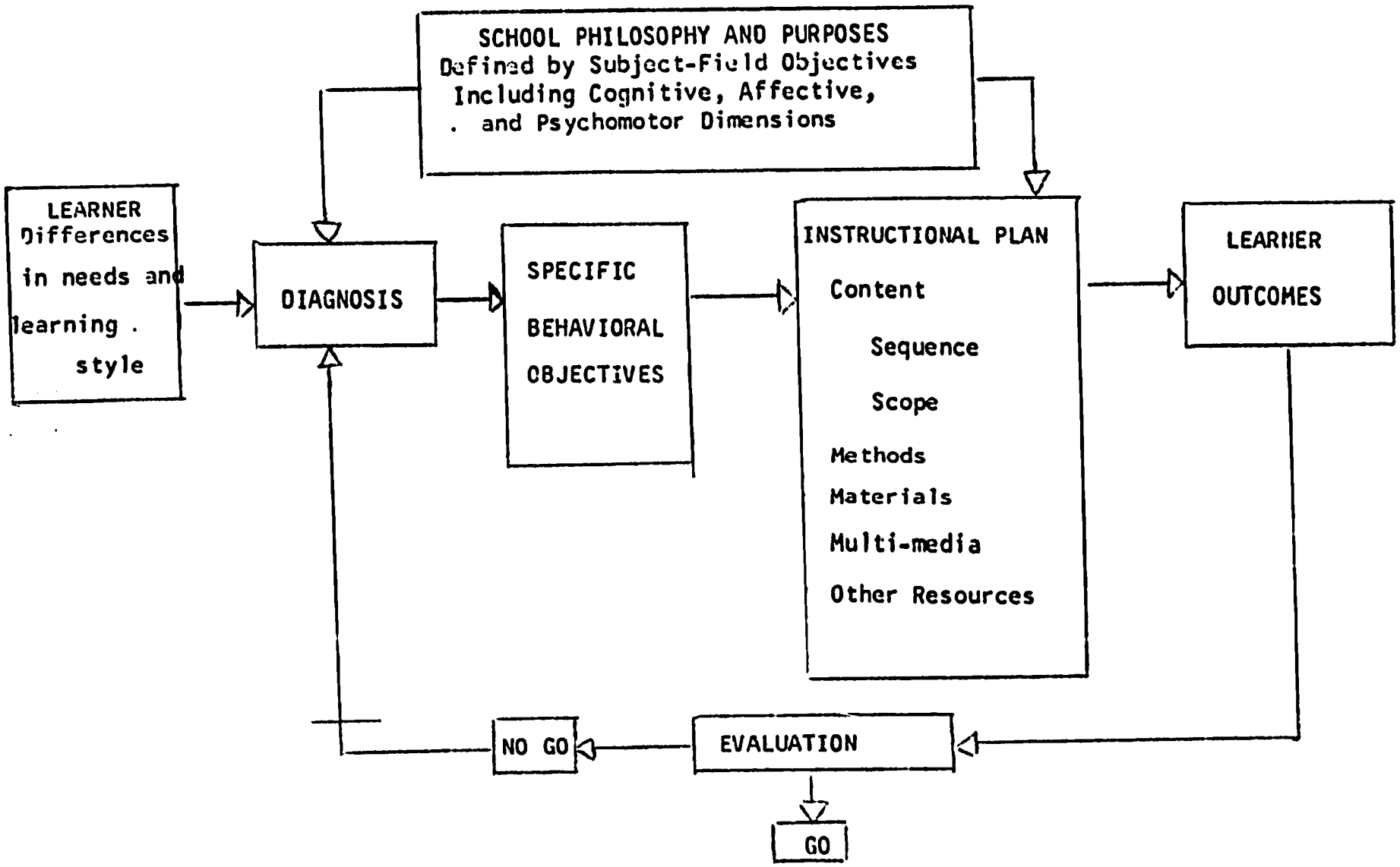
Performance Objective:

Given the diagram indicating the step-by-step process of lesson planning and implementation, and the Lesson Plan Outline, the student will complete one such plan for a class session based upon a unit in preparation, present it to the college instructor, and share in an evaluation of its quality.

Evaluation Criteria:

This prepared plan needs to be presented to the college instructor and critiqued by the time all modules in UNIT II have been completed. In addition, you will be expected to use this Lesson Plan Outline in planning your daily lessons during the student teaching experience and, by making carbon copies, give one to your cooperating teacher and one to the college supervisor daily during the time you are actually conducting the classes.

THE STEP-BY-STEP PROCESS OF INSTRUCTIONAL DESIGN



LESSON PLAN OUTLINE

Date_____ Name_____
Grade level_____
Period(s)_____

I. Subject

II. Purpose

Specific behavioral objective of the lesson, and its classification. (Cognitive and level, Affective and level, or psychomotor.) There may be more than one such objective for a lesson.

III. Procedure

A. Introductory activities
This is an opportunity for motivation

B. Developmental activities

C. Enriching activities

D. Culminating activities

IV. Materials

V. Evaluation
A. Evaluate student's attainment of the behavioral objective(s)
B. Self-evaluation
a) What were my strong points?
b) What were my weak points, and what might be done to overcome my weak points?
c) Supervisor's evaluation

Unit II Systematizing Education

D[1] Behavioral objectives (Identification)

Rationale:

An instructional objective is a destination. It provides a basis for choosing learning activities. In fact, objectives constitute the hub around which all other instructional activities revolve.

Much of what teachers do seems to have little immediate purpose simply because activities assigned are assigned without serious consideration being given to the purpose for requiring students to complete the assignment. Formulation of an instructional objective is the very first step in instructional technique. Most objectives usually presented in methods textbooks are too vague to serve any practical purpose. In all probability, neither the teacher nor the students know what is to be accomplished. For that reason, no evaluation of attainment can be made defensively.

Performance Objective:

Be able to select the behavioral objectives found among the statements on the following page and defend your selections on the basis of criteria presented in the textual information.

Evaluation Criterian:

By taking turns in a small group session within the larger class so the instructor may circulate freely among participants, tell whether an objective is behavioral with the required specificity and explain or defend your judgment. In addition, suggest how each improperly stated objective may be restated to meet the criteria.

Additional Resource:

Mager, Robert F. Preparing Objectives for Programmed Instruction Fearon Publishers, 1962, Palo Alto, California

Check Sheet of Objectives

The student should be able to:

____ 1. Give evidence of knowing the causes of World War II by passing a test at the end of the lesson.

____ 2. Evaluate the behavior of each of the main characters of "The Great Gatsby" by using a) the checklist which Benjamin Franklin published in his autobiography or b) the Ten Commandments.

____ 3. Measure a given object using standard units from the metric system.

____ 4. Construct a bar graph or point graph of pairs of measurements.

____ 5. Develop a critical understanding of behavioral objectives.

____ 6. Identify by name each of the minerals on the display table.

____ 7. Develop an appreciation for works of art.

____ 8. Add columns of numbers with 100% accuracy.

____ 9. Formulate a correct equation from the verbal problems given.

____10. Know the proper form for a business letter.

____11. Understand the basic rules of good health.

____12. Accurately identify behavioral objectives.

____13. Distinguish among warranted, unwarranted or contradictory conclusions drawn from a body of facts.

____14. After observing a movie made by time-lapse photography of the development of a flower from a seed, describe the process incorporating into your paragraph the essential botanical terminology.

____15. Understand algebraic formulas.

____16. Distinguish facts from hypotheses.

____17. Detect logical fallacies in arguments.

____18. State the point of view or bias of a writer in an historical account.

____19. Make an extemporaneous speech.

____20. Write simple musical compositions, as in setting a short poem to music.

Instructional or Behavioral Objectives

The term 'behavioral objective' has been used consistently in this manual to denote a change in individual students whether that change was in the cognitive domain (knowledge, comprehension, application, analysis, synthesis, or evaluation), the affective domain (receiving, responding, valuing, organizing, or characterizing), or the psychomotor domain. In the commentaries attached to previous modules, the idea of specificity of objectives has also been used, and the suggestion was made that, at the instructional level, the objectives are clearly task oriented and stated with the greatest possible specificity. When such a goal is not clearly perceived by all concerned with the learning process, teacher and students alike, the fuzziness makes learning difficult to pursue for the learner and nearly impossible to evaluate or assess for the instructor.

At this level the statement should include three factors needing clarity from the learner's point of view: what am I to be able to do, under what conditions or circumstances am I to demonstrate my knowledge, and with what degree of correctness or according to what standard. Focus on the essence of the learning task rather than the trivial in writing the objective.

If we examine this objective, "To understand Hawthorn's Scarlet Letter", and compare it with our criteria, we find that it does, in a sense, tell the student what he is to be able to do. However, the statement is so vague that neither the teacher nor the student can know precisely what is expected of the learner. It is important to know just how a student is to demonstrate his "understanding". To say, "by passing a test" is no help.

When we add to the objective so that it becomes, "After the student has read Hawthorne's The Scarlet Letter, he will demonstrate his understanding by describing the setting and explaining the significance to the plot of key selected words or expressions selected by the instructor, a number of the earlier objections are overcome.

As we examine the revised statement, we find that the student now knows what he should be able to do and under what conditions he will be able to do it. Does it indicate the standard which will be used in determining his attainment of the objective? Not really. If one were to present a standard such as, "Four out of Five" and insert it after "significance to the plot", then the student would know the expected level of performance.

In history or geography one might find an objective such as, "To correctly locate key places on the map." You will immediately recognize that this is not specific enough for a lesson objective. The statement does give a hint about the required skill of map work, but it does not tell the student what to study. Why not list the names of cities, mountains, ports, or other places which the student is to locate? Why keep requirements a secret? The statement does not give the conditions

although it vaguely suggests a standard by use of the adverb correctly. If we were to change the statement to, "Given an outline map of the United States, correctly locate, without benefit of notes or other aids, those places selected from the list in the study guide for Unit IV," the student would know precisely what to know and how the instructor planned to determine whether he had studied, as well as the degree of accuracy.

Should you be tempted to use the words understand or comprehend as directing verbs in the lesson-level behavioral objectives, keep in mind that it is not possible to assess mental activity unless the designer of the activity specifies the behavior to be observed as evidence of having understood or comprehended the information which was studied.

Diagnosis and prescription are two fundamental responsibilities of the teacher who prepares meaningful instructional experiences to which students are directed through behavioral objectives. The first step in that process requires the teacher to assess, by some means, the student's degree of prior attainment of each of the dimensions of learning as they apply to the subject to be studied. After determining the needs, he focuses upon a prescription which is the behavioral objective.

Only after the teacher has diagnosed a need can he decide upon a purposeful, relevant, specific, lesson-level, behavioral prescription. Thereafter he designs the formula, (selects the instructional information in sequence and scope), determines the manner by which it will be presented for greatest efficiency and effectiveness in learning (adopts or invents methodology), and selects or designs appropriate sensory materials by which he will increase the impact of the information on the learner to ensure the probability of the objective being attained.

After such diagnosis, prescription, and implementation or administration of the prescription, it is essential that the teacher check the success of the instructional plan. Obviously, the learner needs to be consulted, observed, or tested to determine whether the desired behavior has been learned. If he has attained the goal with the desired competency, then he proceeds to the next lesson. If he has not attained the objective with the desired competency, it is necessary to re-assess the clarity or adequacy of the behavioral objective which gave the focus to the instructional pattern. The focus may be clarified or sharpened as needed for the learner. However, if it is agreed that the behavioral objective was a clearly stated prescription designed to fill a recognized need, then the instructor needs to check the instructional plan to determine whether the vocabulary level of the information was suitable, whether the information provided was adequate in both sequence and scope, and whether the methodology employed suited the learner with his learning style. After the difficulty, if one exists, is discovered, it needs to be corrected and the student re-cycled.

Unit II Systematizing Education

D^2 Behavioral Objectives (Writing)

Rationale:

An educational experience is both enjoyable and profitable when the learner is enabled to perceive clearly both the educational goals and their value. If curriculum is a plan for learning, and if objectives determine what learning is important, then it follows that each objective needs to be stated in such a way that the learner understands clearly what he is to be able to do as a result of the assigned activities, under what conditions he will be asked to demonstrate the accomplishment thereof, and the standard to be applied in determining success.

Only when a clearly perceived objective is set before a learner is it possible for him to know when he has achieved the objective and for the instructor to evaluate progress. This learning experience is designed to enable you, as a potential teacher, to learn to state lesson level objectives in such a way that the learner is directed toward the accomplishment of a particular mental process, an attitude, or a motor skill.

Performance Objective:

Select a hypothetical student in a grade level of the subject you plan to teach, and write five (5) behavioral goals for him. Try to include the cognitive, affective, and psychomotor emphases discussed earlier, and label each according to classification and level in the appropriate taxonomy, (Module E of Unit I)

Evaluation Criterion:

During a class session, small groups will be assigned to critique the prepared behavioral objectives brought to class by group members. The instructor will roam freely as a resource person.

Resources:

Bloom, B. Taxonomy of Educational Objectives. Book I. New York David McKay Company, Inc.

Mager, Robert F. Preparing Instructional Objectives. Palo Alto, California, Fearon Publishers.

Unit II Systematizing Education

E Activities and Methodologies which Promote Learning

Rationale:

The objectives to be attained and the media through which the necessary information is made available both give clues as to the methods of presentation to employ. There are several basic methods and a number of variations of those methods in use in the teaching-learning process. Each instructor needs to understand methodologies sufficiently well so that he may utilize various approaches freely in designing and in conducting learning activities. Frequently an instructor needs to shift from one method to another in the course of teaching a lesson.

Among the methods which may be used are:

1. Reading of printed media (books, magazines, newspapers, etc.)
2. Observing and listening (lecture, audio-visual presentations, role playing, socio-drama, or other dramatization)
3. Research and experiment (inquiry, discovery, or testing of various hypotheses)
4. Individual activities (drill, recitation, practice, preparing a report or digest of information, or demonstration of a skill)
5. Group activities (discussion, debate, or panel presentation)
6. Independent study, programmed learning, etc.

Performance Objective:

Given the above listed methods, select those which have relevance for your teaching field, read descriptive information concerning each, and plan learning activities which incorporate a variety of the above listed methods in the units you are designing for classroom use.

Evaluation Criteria:

You will be evaluated upon both the appropriateness and the variety of the methods you employ in designing learning activities for your students. The completed project (the units being prepared) will be evaluated when they are handed in.

Unit II Systematizing Education

F Evaluation

Rationale:

An integral part of the instructional process is assessment by the teacher or the student or both to determine the degree to which the objectives were attained. In addition to determining the degree of attainment by students, the instructor and students also evaluate the instructional plan including the clarity of the objective, the desirability of the content, appropriateness of the media and materials, and the effectiveness of the methodology used.

One of the most difficult tasks the classroom teacher has is evaluation of learning. That task is simplified when the learning tasks have been stated in specific, measurable terms. Evaluation serves as a means of immediate feedback to the student to determine his effectiveness in learning, feedback to the instructor concerning the effectiveness or adequacy of the instructional design, and a means of awarding learning by means of some letter grade which becomes a part of that student's permanent record.

Performance Objective:

1. As you design the behavioral objectives for the units you will be teaching, devise test items to determine whether or not the objective has been reached.

2. Design practical means of feedback
   a) to the student regarding his success in reaching the behavioral goals, and
   b) from the student regarding the appropriateness of the instructional package.

Evaluation Criteria:

The teacher candidate will include unit evaluation devices (tests, etc.) and his planned means of feedback in the materials he hands in prior to his student teaching experience.

Unit II Systematizing Education

G Selection of a textbook

Rationale:

One of your first tasks after accepting a teaching position may well be that of selecting a textbook for your course or courses. So that your students may be enabled to secure information suited to attainment of objectives in the most efficient and effective manner possible, it is important that you provide them with suitable material. Although you may not desire a textbook or cannot find one that presents sufficient usable and desirable information to justify purchasing it as a class text, schools not having a well-designed learning center usually require a basic text for each course.

The selection of a text from among the many available may be facilitated if the instructor has and uses an evaluation guide which incorporates basic principles to be considered in textbook selection.

Performance Objective:

Compare two or three different textbooks for high school use for your subject (one of which is the book you will use during student teaching), compare them according to the attached criteria, select the one you regard as best for the course of study you are designing, and indicate why you chose that one.

Evaluation Criteria:

Your skill in choosing a textbook by using the selection criteria will be determined by assessing your written report listing the texts evaluated, the advantages and disadvantages noted, and the reasons for your selection.

Adopting the Best Textbook

Textbooks will continue to provide the basic information used in most teaching-learning situations in formal education. When the text is selected to meet a definite instructional need, it can serve as a valuable means of promoting learning; however, not all textbooks are equally important for use in carrying out YOUR planned course of study. It may well become your responsibility to select a text for your first teaching position.

You have noted during this course and others you have taken how important instructional materials are to effective learning. It is of paramount importance that the best available book be selected by applying specific comparative criteria in making an evaluation of available texts. The rating scale presented here has been modified from the one prepared by W. R. Miller and Robert H. Berry and published in the September, 1962 issue of The Clearing House magazine.

To use the rating sheet, write the titles of the texts you are comparing on the slanted lines at the upper right portion of the sheets. Examine one book at a time rating it according to the criteria listed, and assign various points for the book, 3 for good, 2 for average, and 1 for poor on each criteria. Place that "score" before the X symbol in the column headed "Multiplication Factor". After all items have been rated, multiply your assigned points by the factor for that criteria, and record that value in the column under the book being considered.

For Part II, write the main topics from the course you have planned on the lines provided, and rate each book on the adequacy of information provided for that topic in your course. Again use the 3, 2, and 1 as you did for Part I. Then multiply the score assigned by the factor given and place that value in the column under the book being considered.

By totalling the points for each book, you will have no difficulty in determining which will be the best textbook for your purposes.

Book Rating Sheet Part I

Criteria	Multiplication Factor				
Cost	X 1 =				
Cover Design	X 1 =				
Style of type	X 4 =				
Size of type	X 4 =				
Layout of page	X 4 =				
Use of Color	X 2 =				
Eye appeal of illustrations	X 4 =				
Quality of paper (glareproof, durable)	X 2 =				
Binding (paper or hardback)	X 4 =				
Glossary	X 3 =				
Table of contents	X 2 =				
Index	X 3 =				
Appendix	X 3 =				
Appropriateness of illustrations	X 5 =				
Unit or chapter summary	X 1 =				
Study, review, or discussion questions	X 1 =				
Suggested activities	X 1 =				
List of up-to-date-resource materials	X 2 =				
Up-to-dateness of materials	X 5 =				
Reference bibliography	X 1 =				
Teaching Guide or manual	X 2 =				
	Total Part I				

Book Rating Sheet Part II

Main topics of course of study	Multiplication Factor			
	X 1 =			
	X 1 =			
	X 1 =			
	X 1 =			
	X 1 =			
	X 1 =			
	X 1 =			
	X 1 =			
	X 1 =			
	X 1 =			
	X 1 =			
	X 1 =			
	X 1 =			
	X 1 =			
	X 1 =			
	X 1 =			
Sequence of content	X 3 =			
	Total Part II			
	Total Part I			
	Grand Total			
	Rank			

Unit III Interaction Analysis

A The Recording System

Rationale:

Until recently little attention was given to an instructor's classroom behavior. Students were observed, judged, and evaluated, but the instructor seemingly was free from analysis except as students evaluated him among themselves.

It is now recognized that the instructor's attitudes, habits, skills, prejudices, etc. determine the classroom climate to a greater degree than does student initiated behavior. Whether or not learning is promoted is due to the instructor's handling of the class.

The Amidon-Flanders system of classifying the verbal classroom behavior is one of several systems which are currently being used to analyze social interplay in formal education. It is important for the instructor to know at least one such analysis system as an aid to modifying his own classroom behavior to promote learning.

Performance Objective:

Given the descriptive information concerning the categories and the tapes for practice coding, the student will have learned the ten categories used in the Flanders Interaction Analysis system before the next class session by memorizing the categories and practicing coding by means of the taped class segments.

Evaluation Criterion:

The student will code taped classroom interaction with complete accuracy of category identification and a high degree of accuracy in maintaining the three second interval.

Note:

For practice in coding, use films or tapes of classroom interaction laboratory for which a code has been recorded. By checking your coding with the key given, you can determine accuracy. Your instructor will be able to direct you to suitable materials.

Interaction Analysis

Students of education, who adopt the Flanders system, a modification thereof, or a different system of interaction analysis altogether, will find that each of them use various numbers to describe what is said by teacher and students. Flanders and Amidon use numbers 1 through 7 to classify teacher use of words. Teachers indirectly influence students' responses by commenting on their feelings (1), praising or encouraging (2), accepting ideas (3), and by asking questions to which responses are expected (4). Such influence encourages student participation in learning activity. At times teachers may not seek student verbal involvement. Such direct control may be by lecturing (5), giving directions (6), by criticizing students, being sarcastic, or justifying what he says because he is the teacher (7). Students' verbal activity is either sought by a direct question which elicits an expected answer (8), or is initiated by them (9). The (10) is used for coding silence and/or confusion. Normal quiet between teacher and student response is NOT recorded as a (10) unless the time involved is three seconds or more.

The coder of classroom verbal interaction is required to record a number every third second or oftener if the interaction changes to a different code number. It is important to maintain an even tempo in recording every third second to classify what category mentioned above is taking place at that time. Coded numbers are NOT a means of giving value to a verbal behavior or making judgments, but simply discriptors of the behavior.

Begin and end each coding exercise with a (10), and record the numbers in columns to simplify the development of the matrix or chart from which an interpretation of the interaction is made.

Those desiring a detailed presentation of information, particularly those who desire to become adept at the numerical coding of verbal activity in the classroom, are urged to obtain a copy of The Role of the Teacher in the Classroom by Edmund Amidon and Ned Flanders: Paul S. Amidon and Associates, Inc., Minneapolis, Minnesota.

Unit III Interaction Analysis

B Developing the Matrix

Rationale:

Although it is possible to make some general interpretations of the interaction pattern simply by studying the sequence and frequency of the recorded numbers, much more accurate analysis is possible when a chart or matrix is made to graphically portray the classroom verbal behavior which has been number coded.

Performance Objective:

Given the explanatory information on the following pages, the student will have prepared a matrix on the work sheet of the interaction coding given on page 48.

Evaluation Criterion:

The prepared matrix will be checked in class for accuracy of recording as well as accuracy of calculations needed prior to making an analysis.

Developing the Matrix

There are ten numbers used as possible descriptors in the Flanders system. For that reason a chart or matrix divided into ten columns (verticle) and ten rows (horizontal) plus a row for totals in each column and another row to record the percent of the total represented by each column is used to chart the coded activity and make basic tabulations for interpreting the matrix.

Except for the 10's recorded at the beginning and end of each coded activity, all other numbers are used twice because the result of one verbal behavior becomes the cause of the next, etc. Use the first 10 for the row and the following number code as the column indicator. After making a tally mark in that cell, use the former column indicator as the row designator and look at the number following that as the new column indicator. Continue making tally marks in the appropriate cells until the tallying of the recorded interaction is completed. If you have been accurate the tallies for each row and matching column are equal. You will be able to check the accuracy of the number of tallies made by adding them and comparing them with the coded numbers recorded on the original record. There should be one less tally in the matrix than numbers on the original coding.

Some simple computations are helpful for analyzing the matrix. Add the tallies in each column and record that total in appropriate space in the row entitled "Total". Then add those sub-totals and place that matrix total in the box entitled matrix total. Next divide the matrix total into each of the column totals to determine the percentage of interactions devoted to each coded behavior.

Finally, by adding column totals for columns 1-7 (teacher talk) and dividing that by the matrix total you will find the percent of teacher talk, then by adding column totals for columns 8-9 and dividing by the matrix total you will find the percent of student talk.

For more descriptive information, illustration, and additional calculations for purposes of analysis, read the appropriate sections of The Role of the Teacher in the Classroom by Edmund Amidon and Ned Flanders.

Coding to be used for matrix preparation

This is a four minute coded section from a high school class. Record it on the matrix and make the various tabulations and computations required on the Work Matrix.

— 10			
1. 4	21. 8	41. 8	61. 8
2. 8	22. 4	42. 2	62. 8
3. 2	23. 8	43. 4	63. 8
4. 4	24. 2	44. 4	64. 9
5. 8	25. 2	45. 4	65. 9
6. 2	26. 4	46. 8	66. 9
7. 4	27. 8	47. 2	67. 9
8. 4	28. 8	48. 4	68. 2
9. 4	29. 2	49. 8	69. 2
10. 4	30. 2	50. 8	70. 3
11. 4	31. 8	51. 2	71. 3
12. 4	32. 2	52. 4	72. 4
13. 4	33. 4	53. 10	73. 4
14. 8	34. 8	54. 4	74. 4
15. 2	35. 2	55. 8	75. 8
16. 8	36. 4	56. 7	76. 8
17. 8	37. 8	57. 5	77. 4
18. 2	38. 7	58. 5	78. 7
19. 4	39. 2	59. 5	79. 7
20. 7	40. 4	60. 4	80. 6
			— 10

Note:

When you code a class session, it is NOT suggested that you number the coding as was done above. These are numbered simply to facilitate calling attention to a particular sequence during class discussion.

WORK MATRIX

	1	2	3	4	5	6	7	8	9	10	
1											
2											
3											
4											
5											
6											
7											
8											
9											
10											Matrix Total
TOTAL											
%											

Teacher Talk

Columns 1-7 total _____

% age of matrix total _____

Student Talk

Columns 8-9 total _____

% age of matrix total _____

Unit III Interaction Analysis

C Analysis and Interpretation

Rationale:

A careful analysis of pupil behavior resulting from teacher behavior can enable the teacher to change behavior patterns to promote the type of student behavior desired. Teachers who understand interaction patterns rarely, if ever, follow the classroom practices they had been using prior to learning such analysis. The summarized teacher-student interaction lends itself well to interpretation. Basic patterns which focus attention clearly on several classroom situations and their causes will enable an observer to interpret the data tabulated and computed from the matrix information.

Performance Objective:

Given the descriptive information on the following pages, the student will analyse and interpret the classroom interaction for which the practice matrix was prepared in Module III - B.

Evaluation Criterion:

Prepare an overhead transparency of your completed matrix (including tabulations) and be prepared to present your analysis and interpretation to the class for critique.

Interpreting the Matrix

It is well to remember at the outset that no recorded or tallied behavior is either "good" or "bad" in itself. The focus in interpreting the matrix needs to be on the behavioral objective together with the teacher's intent as he leads a class or a discussion group. Does he invite student's participation by use of praise, use of student's ideas, and a low percentage of criticism or does he neglect praise, fail to use student's ideas, lecture a great deal, resort to criticism, etc. by which students are discouraged from participation?

You will recall from placing the recorded numbers on the matrix that there is a cause-effect relationship evident from one coded number to another. You will have noted also that whenever a particular verbal activity continued beyond three seconds you moved to what Amidon and Flanders refer to as a diagonal or steady-state cell. Thus all cells, except the diagonal ones, 1 - 1, 2 - 2, 3 - 3, etc. are transitional, that is, they indicate a change in behavior whereas the steady-state cells indicate the continuation of a behavior. There are never two successive tallies in any but the steady-state cells.

When you placed the tallies on the matrix form, you moved in a clock-wise pattern. As you read the completed matrix, remember to follow that pattern.

You will note that, in reading the matrix, behaviors are described but no judgements are made. Thus the use of the matrix as the focal point for discussing a teacher's role in the classroom promotes objective considerations rather than opinion or emotion.

For additional information, refer to The Role Of The Teacher In The Classroom by Edmund J. Amidon and Ned A. Flanders, pages 38-71.

Unit III Interaction Analysis

D Micro-teaching experience for interaction analysis

Rationale:

Since your first micro-teaching experience, you have studied lesson planning techniques, specific methods designed to enable students to achieve the desired objectives, various teaching skills which need to be perfected by each teacher, and the effect of various interaction patterns in the classroom.

Basic micro-teaching skills each teacher needs to use capably include: questioning, creating student involvement, increasing student participation, and various presentation skills. Another opportunity is to be given in this module to combine what you have learned about teaching skills with interaction analysis.

By applying these knowledges and understandings of effective classroom practices, you should be able to present a lesson with much more ability and confidence.

Performance Objective:

Pre-design the interaction pattern you regard as "best" for you and attempt to implement it through a micro-teaching lesson not to exceed eight minutes during which you attempt to demonstrate as many of the teaching skills as possible.

Evaluation Criterion:

Schedule this micro-teaching lesson with the instructor and the video-tape studio for filming and critique purposes. Your presentation will be evaluated on the effectiveness with which you used various teaching skills. The interaction analysis taken during your live teaching demonstration will be compared with your intended pattern.

Unit IV Theoretical and Practical Evaluation Techniques

A Principles of test construction for teacher-made tests

Rationale:

Teacher-made tests and other types of teacher evaluation constitute the basis for grading students and reporting to parents. It is largely teacher-made tests that provide students with "feedback" concerning their degree of academic success. It is the teacher who is responsible for measuring student achievement day by day and week by week. The preparation of tests designed to measure student attainment during the study of the units necessitates the teacher's knowing and applying the basic principles of test construction so that achievement may be measured as accurately as possible.

Performance Objective:

Given the various principles of test construction, the student will write three questions of each type intended to measure attainment of an objective and be prepared to present them to the class for criticism.

Evaluation Criterion:

Each student will be judged on the basis of his prepared questions, his ability to apply the principles learned, and his ability to defend his prepared questions by demonstrating that they follow the guidelines presented on the following pages.

Measurement and Evaluation

The emphasis throughout these modules has been on designing learning experiences with the strong suggestion that, if the module is a prerequisite to those which follow, each student achieve at the criterion level before he can continue the sequence. The course grade or the pass/fail may be determined on the basis of satisfactory completion of each module. Ideally, each student's progress should be evaluated on the basis of his capacity for progress with the school organized for individualized instruction. That ideal tends to fail because teachers are not omniscient and most schools are not organized for individualized attention.

Teachers usually find it desirable to measure retention over a comparatively long period of time in addition to day by day achievement. When such a desire is present or mandated by the school, the teacher needs to prepare valid questions designed to measure attainment of the objectives of one or more units of study. Such testing involves both measurement and evaluation.

Measurement deals with administering and scoring various tests. Evaluation of student progress entails much more than simply designing, administering, and scoring tests. It includes making judgments about progress in terms of some standard whether in performance, conduct, or attitude. Some form of measurement seems necessary for evaluation, but the teacher needs to remember that testing reveals how well or poorly the teacher has taught just as it reveals the extent of student learning. It seems obvious that a test should include only items which measure attainment of what has actually been studied (validity). In addition, test items need to be designed in such a way that the measurement is accurate and consistent (reliability). Ambiguous statements, catch questions, etc. have no place in educational measurement designed to promote evaluation.

All teachers should design their own tests because that process forces them to define their behavioral objectives clearly, and helps determine the cognitive level being developed. Throughout these modules, the idea of behavioral objectives has been stressed. When such statements are formulated, they give direction to evaluation criteria and suggest various levels of cognitive behavior which may be measured. It is essential that the teacher have a clear focus both on what he is testing and how he plans to use the results.

Objective tests - true-false, multiple choice, matching, completion - are comparatively new. Although such tests have been criticized by those who prefer essay questions, both types are poor when the teacher fails to follow recommended design principles. Either MAY be good depending upon the purpose for selecting that type, the cognitive level to be measured, and the amount of content to be tested. If ambiguities are avoided and statements are well phrased, either type can be used to measure either of the cognitive levels. The use of carefully designed objective questions permits the instructor to measure much more of the course content in a testing period than can be done by means of essay questions. Objective

questions can be just as discriminating in determining levels of cognitive attainment as essay questions can be. The value of either depends upon the purpose and the ability of the teacher to construct the questions.

Before writing the test items, it is strongly recommended that the teacher plan the test by means of a two-way grid or specification chart. On one dimension, list the objectives for which attainment is to be measured, and on the other, the cognitive levels. Then fill in the number of questions to be composed for each of the combinations of objective and cognitive level. With such a written plan, the test designer will avoid writing all questions for simple recall or avoid stressing one objective and omitting another. In short, by utilizing such a plan for preparing a test, the instructor will be able to plan a balanced test which covers all objectives and all cognitive behavioral levels.

	Knowledge	Comprehension	Application	Analysis	Synthesis	Evaluation
Objective 1						
Objective 2						
Objective 3						
Objective 4						
etc.						

After preparing such a two-dimensional question specification form, the teacher is ready to select the type of question best suited to the cognitive level desired. It is advisable to write questions on a 3 X 5 index card, one test item per card, so that a file of questions indexed according to cognitive level may be established. Such a file will prove to be a great help in designing future tests.

To help decide what type of question to use for particular measurement, you need to know basic concepts about objective and subjective tests. Earlier it was mentioned that the basic objective question types included completion, true-false, matching, and multiple-choice.

When writing completion test items, the teacher omits key words or phrases which the student supplies either on a dash at the appropriate

place in the statement or on a line_____preceeding the question number. (The latter arrangement simplifies scoring.) Such test items are usually designed to measure recall or rote-memory items. When the lowest level of cognition is to be measured by means of a completion type test, avoid the use of specific determiners which give clues to the answer. Also avoid phrasing statements of such a vague type that several different words of varying degrees of acceptability might be inserted by the student. Another common error is the omission of a phrase so that the entire remaining series of words provides the student with no suggestion as to the response expected. It is never desirable to take a textbook statement and delete a key word.

True-false items are designed to test for certain specific data. If carefully constructed, such items may measure comprehension and application levels. Poorly constructed items emphasize isolated facts which have little importance in relation to the course objectives. Frequently such questions are so ambiguous that a student can, and will, argue his response persuasively despite the supposedly "correct" response desired by the teacher. It is difficult to write a series of statements which are always false. The use of specific determiners such as all, never, always, etc. give away answers to those who are test wise. For that reason, some students can successfully guess the right answers although they do not know the subject being tested. True-false items tend to penalize the mentally alert student because he may read other concepts into the statement and thus mentally change the desired response. When using the true-false question type, the teacher should underline the key phrase in question and have the student change all incorrect items. More credit should be given for correcting such statements than for merely identifying (or guessing) which are true and which false.

Matching questions, like the completion type, are of minor importance. Such exercises may be used merely to test recall of terminology. If such a purpose is to be met and you decide upon the matching type of question, then follow these guidelines: select only similar items for inclusion in a particular series, provide several additional items or responses so that selection of matched items cannot be successfully done by a process of elimination.

Although multiple-choice questions are much more difficult to write than other objective question types, they lend themselves more readily to testing the upper cognitive levels. A multiple-choice question consists of a clearly worded item stem which focusses attention upon a significant concept or generalization. The opening statement is followed by four or five alternate responses worded in parallel fashion. The carefully worded opening statement permits only one correct response, but all distractors need to be plausible to those who have no clear understanding of the concept being measured. Avoid using distractors which are readily recognized as false as well as distractors which are either longer or shorter than the others. Students tend to select the "odd" response.

The essay question can be phrased in such a manner as to measure any cognitive level. Rather than select from a pre-determined series of alternatives as in the multiple-choice question, the student must express himself in his own words. If the instructor's purpose in testing is to limit the amount of course coverage and to have students organize their own ideas and express them effectively, then the essay question ought to be used. Because such questions take relatively long to answer, only a limited amount of course content can be tested during any one period. Although essay questions may be written in far less time than multiple-choice items, it is difficult to phrase them clearly enough so that specific guidelines are given students so they know what response is expected. Such tests take a great deal of time to score and the score assigned is highly unreliable. That is, responses may be scored differently by different teachers. In fact, if a teacher made duplicate copies of the student responses and scored each set of papers at different times, it is highly unlikely that he would assign identical papers the same scores. Thus the scores and resultant letter grades are highly unreliable. Another difficulty in scoring involves the "halo" effect. Neat handwriting and desirable composition style with lesser content usually gains credit over keen perception clothed in faulty sentence construction or poor penmanship. Thus it is difficult to determine what is being graded and equally, if not more, difficult to compare student responses.

If the essay question is used, the teacher should prepare a response including all expected information. Responses from the students are then compared with the desired response in ideas and scores assigned according to that standard. After writing such responses, the teacher is wise to reread the question to determine whether it is stated in such a way that students can reasonably be expected to answer it in the way the teacher intended.

In deciding what question type to write and the cognitive level for which to design the question, it is necessary to review the behavioral objectives and all important outcomes of the instructional program for which student attainment is being measured. After planning the test on the two dimensional grid, write the first draft of each question, then at a later time revise the statements after a critical appraisal. Following the guidelines suggested will help the test designer avoid some of the usual errors, but only practice in writing questions together with a critical appraisal of prepared questions will hasten the day when the art of preparing effective questions to assess the attainment of objectives will be mastered. A careful study of questions designed for the various cognitive levels by Benjamin S. Bloom in his Taxonomy of Educational Objectives, Cognitive domain, is strongly encouraged.

Unit IV Theoretical and Practical Evaluation Techniques

B Scoring and grading

Rationale:

Perhaps more dissatisfaction arises to strain relationships between a teacher and his students in the testing process than in any other classroom activity. Apart from challenges made by students over poorly constructed questions which were misunderstood because of vagueness or poor word choice used by the teacher, frequent disputes arise over both the "points" given for a response and over the letter grade assigned to the entire test.

It is essential that the instructor have a definite scale of points to be given a correct response and a defensible rationale for assigning a letter grade to each raw score.

Performance Objective:

After reading the information concerning scoring and grading on the following pages, and considering the cognitive, affective, and psychomotor aspects of learning you envision developing for your student teaching experiences, devise a scoring and grading system.

Evaluation Criterion:

The student will be expected to present both the method he has chosen and his rationale for assigning the scores and grading he did, and thus defend his grading system before his peers in class.

Scoring and Grading

During the process of test construction, the teacher needs to determine the relative value of correct responses to questions of varying degrees of difficulty. For example, a knowledge level question of simple recall ought not have the same worth as a question relating to one of the higher order cognitive processes. It is entirely possible to design the scoring system from the two-dimensional grid before the questions are written.

As emphasized before, scoring of essay questions is so arbitrary that not only will the teacher assign different values to the responses at different times, but other factors such as handwriting and writing ability tend to increase the points for a response although it may be inferior in demonstrated thought. It is also unlikely that students will feel satisfied with the scores given when they compare their responses with those of their peers. To lessen the possibility of such arbitrariness in assigning scores on essay questions, the teacher needs to know what response is satisfactory for full credit and then phrase the question so each student will know how to answer the question. If the emphasis has been on learning, and the student demonstrates the required knowledge in his response, then full credit needs to be assigned without consideration for word fluency, word choice, desirable handwriting, and other factors. When such factors are weighted as part of the numerical "worth" of the response, then scores are distorted in favor of formerly developed skills rather than the behavioral change for which the instructional program was designed.

Once you have determined what you are going to measure and the basis by which you will assign points to each question, then you are ready to score the test. (It is NOT necessary to have a total of 100 points on a test; any number will do.) The total of the values assigned to the individual student responses is the raw score. After obtaining such scores for all the papers, the teacher needs to evaluate those scores to assign a letter grade to each score.

Consistent with the concept proposed throughout this series of modules is that the teacher NOT compare any student with any other student, but rather compare each student's attainment of the behavioral objective which specified not only what he was to know or do, the conditions under which he was to demonstrate such attainment, but also the standard expected.

Only such criteria as have been specified in the behavioral objective may be used in the evaluation of attainment. If a certain criteria is specified by which an "A" is gained, then all who meet those criteria get an "A", and others may be required to repeat the work until they meet the criteria.

Perhaps a variety of strategies could be incorporated into a long range plan of evaluation. Among these, in addition to paper-pencil tests whether objective or essay in nature, are observation of students as each works on the behavioral objectives, chat with individual students to determine the extent of his growth, examine some of the materials he has been working on, ask the student for his assessment of his attainment of the behavioral objectives, or develop a report form by which class members who have been working together can assess one another objectively.

Regardless of which system is adopted, each teacher must make many judgments not only in the learning expectations, but in word choice used in test construction, in questions to be asked, in point values for each test question, and for acceptable performance.

If, contrary to all recommendations, a grading system is to be based on statistical comparisons of students' scores, then the flexible system suggested on the following page may offer some helpful suggestions. In the upper section the class or group is characterized in three different ways, namely, ability level, class GPA average, or, on standardized tests, a class percentage average. Once the class is so characterized, a suggested "lower limit factor" is given which will be used in computations illustrated at the bottom of the sheet. The smaller that factor, the higher the grades, or to put it another way, the more A's and B's rather than D's and F's. The percent of marks of each grade is shown at the upper right.

By following the procedures suggested, the evaluator skews the "curve" with the hump on the left for a poor class to the "normal" for the average group, to a hump on the right for the exceptional class. The opportunity to skew the grading according to ability or past achievement makes this system more applicable than the "normal" curve.

One of many grading systems which differentiate between attainment levels

Ability Level	Class GPA Average	Class % age Average	Lower Limit Factor	Per Cent of Marks				
				A	B	C	D	F
Exceptional	2.80	79	0.7	24	38	29	8	1
Superior	2.60	73	0.9	18	36	32	12	2
Good	2.40	66	1.1	14	32	36	15	3
Fair	2.20	58	1.3	10	29	37	20	4
Average	2.00	50	1.5	7	24	38	24	7
Weak	1.80	42	1.7	4	20	37	29	10
Poor	1.60	34	1.9	3	15	36	32	14

Procedure:

1. Select a distribution of marks appropriate to the level of ability of the class being graded from the "Percent of Marks" above.
2. Find the median and calculate the standard deviation of the scores
3. Using the formula Median +(lower limit factor times standard deviation) determine the lower limit for the "A" grade range.
4. By successively subtracting the standard deviation from the computed grade range score, find the lower limits for the B, C, and D grades.
5. Assign the designated marks to the raw scores which fall within the intervals determined for each mark.

Sample Problem

A. Data for the problem:
   1. Class ability level measures
      a. Mean GPA on previous year's courses 2.19
      b. Mean percentile on aptitude test 57.2
      c. Appropriate ability level (to left of above information) Fair
   2 Raw scores: (38 students)

112	104	95	90	83	78	74	69	59	47
109	100	95	89	82	75	72	68	59	44
106	97	93	84	81	75	71	66	58	
105	97	91	84	80	75	70	62	51	

B. Calculations from the data:
   1. Median (Half way between the nineteenth and twentieth score) 80.5
   2. Standard Deviation $\frac{\text{Sum of U 1/6 - Sum of L 1/6}}{1/2\ N} = \frac{636 - 318}{19} = 16.7$

Marks	Lower Limits		Intervals	Number	Per Cent
A	80.5 + (1.3 x 16.7)	= 102.2	103-112	5	13
B	102.2 - 16.7	= 85.5	86-102	9	24
C	85.5 - 16.7	= 68.8	69- 85	15	39
D	68.8 - 16.7	= 52.1	53- 68	6	16
F			- 52	3	8
				38	100

Unit IV Theoretical and Practical Evaluation Techniques

C Scoring and Grading

Rationale:

Having adopted a system of scoring and grading you are willing to defend, you ought to score an actual test or theme from students enrolled in the course you plan to teach, and apply the principles and procedures learned during this unit. It would be helpful if each participant compared his scores and grades for the respective papers with others to determine the degree of unanimity. If you attempt to score an essay examination, it is suggested you make duplicates of each paper, without names, and score a set one day, then wait a day or two to score again, then compare.

Performance Objective:

After securing copies of classroom tests either from the cooperating teacher or from the college instructor of the methods class, the student will score and grade the papers.

Evaluation Criterion:

You will be evaluated on the scoring and grading of the papers by comparing your results with others who have scored and graded the same series of papers and on the basis of the rationale you give for assigning the letter grades you have assigned to the various scores.

Unit IV Theoretical and Practical Evaluation Techniques

D Analyzing results for parents-reporting

Rationale:

One teacher responsibility for which most teachers have traditionally been unprepared is the important personal and public relations function of communicating successfully with parents. It is the puspose of this instructional module to provide the teacher with some practical role-playing experiences in working with their student's parents.

Performance Objective:

Being given various situations, each student will be assigned a role (parent, teacher, student, observer) and be required to take part in any of the following simulations:

1. Interpreting a student's true capabilities to parents having unrealistically high attainment goals for their child
2. Discussing a child's serious problem with the parents
3. Contacting an unresponsive parent

Evaluation Criterion:

You will be evaluated on the basis of your participation either in random selection role playing on any of the above situations or on the basis of your critique of a presentation for which you have been appointed observer.

Problem situations for role playing - Simulation

Situation # 1.

A student in your class has been cheating regularly and openly on tests. Upon checking with the guidance counselor, you find that Mary has low average ability as measured by intelligence tests. The test scores range from 92 - 100. You also learn that both her parents are college graduates and serve as professional people in the community. Their plans include having their daughter go to college, and they are very firm about that decision as they are that Mary get good grades. You have called for an appointment, have gone to their house, and are ringing the doorbell.....

Situation # 2.

Because Jimmy has not been completing his assignments, you told him yesterday that, if he should fail to have his work completed again, you would send him to the principal. His work was not even begun for today, so you told him to go to the office but he refused. As you insist, Jimmy cocks his fist just as the Principal enters the room and takes him to the office. Shortly thereafter you get a call over the public address system (it is your planning period) stating that Jimmy's parents are in the office and you are to come to meet with them. You close your book, go down the hall, and enter the office.....

Situation # 3.

Doug., one of the senior boys, is very intelligent and has been the top student in his classes in the past. Doug does not participate in class discussions, does a minimal amount of work on his assignments, and seems to have lost all interest in academic pursuits. Because you feel his parents are unconcerned about him, you have called them to come to school to discuss a serious problem with them. They are now entering your room.....

Unit V Utilizing Mechanical Aids

A Operation of Audio-Visual equipment

Rationale:

An increasing amount of auditory and visual materials are being used in presenting information to students in the classroom. Using a multi-media approach to effective teaching, the teacher has to decide who will operate the hardware. He may either depend upon a trained corps of student projectionists or learn to operate such needed equipment himself. Because some schools do not have student assistants, it is necessary that each teacher know how to operate the various technological aids.

Performance Objective:

Given the variety of projection equipment available, each student will demonstrate proficiency in the operation of the technological aids available.

Evaluation Criterion:

Each student will demonstrate his proficiency in using the following equipment either to the instructor or to someone designated by him:

1. 16 mm projector
2. Film strip projector
3. Slide projector
4. 8 mm film loop projector
5. Tape recorder
6. Overhead projector
7. Opaque projector

Note: If you are not already proficient in the use of the above aids, either get help from the instructor or from a classmate who has learned to use the various items.
AVOID ABUSING EQUIPMENT. ASK IF YOU NEED HELP.

Unit V Utilizing Mechanical Aids

B Operation of duplicating equipment

Rationale:

Seldom does a teacher have secretarial assistance in typing, cutting stencils of tests or other materials for class use, or for making multiple copies of the stencil cut. Because such tasks are the responsibility of the teacher, it is important that each teacher candidate learn the necessary operational techniques. Although each different make of machine varies somewhat in required adjustments, you should be able to transfer knowledge gained from learning to operate one machine to the operation of a similar one by a different manufacturer.

Performance Objective:

Given the age level and subject of his choice, the student will cut a stencil of class work or a test from the units being planned and duplicate the material.

Evaluation Criterion:

Because the spirit master process is most commonly used in schools, each student is to purchase a ditto master, type, write, or draw the planned information thereon, and present a copy of the duplicated material to the instructor.

Note:

If needed, assistance may be obtained from the instructor or from a student who has already gained proficiency in the use of the machine. DO NOT HANDLE A MACHINE BEFORE RECEIVING INSTRUCTION IN ITS OPERATION.

Unit VI Seminar Topics During Student Teaching

A A Code of Ethics of the Teaching Profession

Rationale:

A code of ethics is one attribute of a profession. Since 1929 teachers have been guided by a written code which sets the standards by emphasizing the classroom teacher's commitment to the student, the community, the teaching profession, and by delineating various employment practices. It is essential that each teacher know and practice the adopted code of the profession.

Performance Objective:

Given the various principles and resultant axioms in the latest revision of the Code of Ethics, apply each in a posed problem situation.

Evaluation Criterion:

You will be evaluated on the basis of your meaningful participation during class consideration of the Code of Ethics.

Unit VI Seminar Topics During Student Teaching

B Completion of a Credential File

Rationale:

When superintendents seek teachers to fill an existing or future vacancy in their school system, they screen possible candidates by getting information from the school placement office. Superintendents can read many files of information in the time it takes to conduct one interview. Your credential file records information about your background, the courses you have taken, your effectiveness as a teacher as judged by the supervising teacher, the principal, and the college supervisor all of which observed you in action.

Your file is built up by your completing various forms and naming various key persons who have agreed to furnish recommendations for you. The placement office sends forms to those persons you name and thus accumulates the desired recommendations.

Completing such a file is the first step in the process of securing a teaching position.

Performance Objective:

Having been given a set of forms used by your Placement Office together with necessary directions, complete the forms accurately.

Evaluation Criterion:

The receipt and approval of your completed forms by the secretary in the education office will constitute completion of this module.

Unit VI Seminar Topics During Student Teaching

C Applying for a Position - Application and Interview

Rationale:

The next step in securing a position requires the teacher candidate to contact an employing superintendent and sell himself. This may be done by writing a letter and/or appearing for a personal interview with an employing superintendent. To participate in interviews scheduled on campus, keep informed of visiting personnel directors and schedule a time on the interview notice.

It is beneficial for the candidate to have both kinds of experience so that the "fear" might be diminished somewhat when the actual interview takes place. The writing of a letter is one facet of this dual experience which all can prepare, and all can observe an interview and receive some idea about the nature of the information sought during such a meeting.

Performance Objective:

Given the attached suggestions, each student will write a letter of application, including a data sheet, for a position in a school system of his choice.

Evaluation Criterion:

You will be evaluated on the basis of letter form, grammatical usage, and inclusiveness of content in a ONE PAGE TYPED LETTER.

For interview experience, one member of the class will be selected to participate in a demonstration interview planned for a class session. Thus one will actually experience the situation and the other class members will participate vicariously.

The following suggestions were given in an article by Stanley Clement, source unknown.

SO YOU WANT THAT JOB

Letter of Application

Your letter should be on business stationery, 8 1/2 X 11 inches (smaller sheets easily get lost or misplaced in folders and files). It should be centered on the page and be balanced both horizontally and vertically. Be sure it is neat, without strike overs, uneven typing, erasure smudges, ink blots, or fingerprints.

The heading should include the street and town address and the date. The inside address should take three lines with "Superintendent of Schools" or "Principal of _____School" being spelled out. Illustration:

Mr. John Jones, Superintendent
Unified School District # 256
Hometown, Massachusetts 89645

Use "Dear Mr. Jones:" as a salutation, not "Dear Sir". Use first and last names of people referred to in the letter, along with the appropriate title.

The letter should be concise, avoiding repetition and with the underbrush cut out. It should be clear, using simple words, logical order, and with sentences of not over twenty words.

Do not try to tell the whole story in the letter. This can be presented much better in an accompanying personal data sheet. Using the latter insures coverage without making the letter unwieldy.

Your entire letter should be on one page. (If handwritten, two pages may be used, although second pages are often not referred to and are easily lost.) Three paragraphs are recommended, single spaced with double spacing between.

Paragraph one should start with the indication of the purpose of the letter--"writing to apply for the position of _____teacher in _____school". Be sure to indicate the position. Use the name of the town or city, not "your school system." Indicate how you found out about the position, your present status, and where your credentials are. Refer to the enclosed personal data sheet and the information it contains. Avoid use of "about me" or "about myself."

In paragraph two, you really sell yourself. Indicate why you wish to teach, why you wish to teach in your particular subject field, and why you wish this particular position in this community and/or school.

In the third paragraph indicate that you will be glad to furnish additional information needed, that you desire to learn more about the position, the school, and the community, and that you would like to come for a personal interview at the addressee's convenience. Avoid "willing to come" or "available for interview" (too weak), also "earliest possible time" (too strong).

Personal Data Sheet

Your personal data sheet should be done in outline form to enable easy identification of specific information. Five sections are recommended, as in the following outline. The headings for each section should be in caps or be underlined so they stand out; the subheadings should be indented. The sections should be balanced on the page or two pages (don't use over two pages; too much information may dispel the interest in reading). There should be even spaces between sections. The sections should not be split, part on one page and part on another. The use of a double column in section one will eliminate a large blank space on the paper.

Personal Data Sheet

PERSONAL

Name	
Present address	Telephone
Permanent address	Telephone
Age	Marital status
Height	Children
Weight	Military status

(Maybe health or physical defects, no religion)

EDUCATION

High school--name, location, dates attended, course
College--name, location, dates attended, degree, major, minor
Graduate school--name, location, dates attended, courses, credits, and degree
Certificate--state, level, type
Prepared to teach--subject field or subjects
Special talents

EXPERIENCE

Practice teaching--school, location, dates, grade or subject
Regular teaching--same items, for each position
Youth work--camp or playground counselor, Sunday school, etc.
Substitute teaching and tutoring
Other work experience

ACTIVITIES

High school--clubs, sports, officerships, honors, and so on
College--same items
Community--civic organizations, etc.
Interests and hobbies
Travel
Professional organizations
Writing done (published), course of study, work, and so on

REFERENCES

Four or five people who know you best--who have seen you in action--such as:

College--placement director, department head, professors
Teaching--superintendent, principal, department head, critic teacher
Community--employers, pastor, and so on

Each reference should take two lines and include the title of the individual and his address. Indicate why this reference is appropriate (in parentheses) if this is not evident from the title. Ask permission before using a reference.

Where you receive an application form to be returned with the letter, the data sheet need not be sent but the latter will be a big help in filling out the form.

Files to Maintain

Well-maintained files can provide invaluable resources for use in the application process. Keep a folder or folders containing pertinent information, including such items as: personal data sheet (revise annually or oftener); copies of letters of application and replies; transcript of grades--several copies; letters of commendation; newspaper articles about your work; copy of contracts, including salary and assignment each year; birth certificate; childrens' birth certificates; marriage certificate; veterans' papers; health records--X rays, and so on, childhood and adult diseases; articles written and published; course outlines or curriculum guides developed.

Well-prepared letters of application and carefully prepared data sheets always make a good impression and may mean the difference in getting a position. If qualifications are satisfactory, they most certainly will lead to an interview (another area that needs to be carefully planned and prepared for if a good impression is to be made). Be sure to put your best foot forward. Good luck.

Unit VI Seminar Topics During Student Teaching

D Obtaining a Teaching Certificate

Rationale:

Education is a function of the state which determines basic requirements for both the preparation and certification of teachers. Each tentatively employed teacher is responsible for securing a license to teach. No School board can either employ or pay an uncertified person as teacher. The parent college recommends a person for certification if he has completed requirements listed by the State Department of Education; however, the State Department of Education personnel make the final decision in granting a license to teach.

Such a procedure assures present teachers that no unqualified person can displace them, and it assures the public that all who teach are fully qualified to assume such a position.

Completing the application form and requesting a complete official transcript from the Registrar's office are student responsibilities.

Performance Objective:

Given the required application form, each student will complete same to the satisfaction of the secretary in the Education Office and complete a formal request from the Registrar for a transcript to be prepared and sent to the Education Office.

Evaluation Criterion:

Completing the form to the satisfaction of the secretary will satisfy the requirement of this module.

Unit VI Seminar Topics During Student Teaching

E Professional Growth

Rationale:

During the various courses you have pursued for nearly four years, you have observed that, at most, you have made a beginning in the process of learning that which you need to know to become proficient as a teacher.

Graduation, in a sense, is being weaned from dependency upon others in the learning process to becoming independent and self-responsible in continuing the beginnings in the educational process. As a teacher you will need to maintain continuous educational growth and utilize all possible resources for improving teaching. This module will focus upon various doors of opportunity for you to remain a student of teaching.

Among these doors are:

1. Become actively involved in professional organizations
2. Experiment with recent innovations
3. Study professional books and periodicals
4. Write reports of successful teaching/learning practices for publication
5. Seek supervisory and consultant help
6. Participate in inservice education planned at your school

Performance Objective:

Selecting one of the suggested areas of professional growth, the student will write, and be prepared to summarize without the use of notes, a report on the values to be gained by utilizing that suggested opportunity for growth. (To assure that the reports include the six "doors" listed, the instructor may assign some reports.)

Evaluation Criterion:

The report will be collected and random summaries will be given as class time permits.

APPENDIX

COURSE SYLLABUS

I. COURSE TITLE

Preparation For Teaching: Modules for Secondary Methods

II. SPECIFIC COURSE OBJECTIVES

A. To provide an overview of the science and art of teaching by

1. considering basic premises of education
2. analyzing the learning environment
3. examining the nature of learning
4. examining the nature of teaching
5. considering the essential dimensions of learning
6. preparing a rationale for teaching___, and
7. teaching a micro-lesson for analysis

B. To develop the understandings necessary for curriculum construction by

1. analyzing the logical components of syllabus design
2. learning to write behavioral objectives
3. selecting appropriate learning activities
4. gaining understanding of methodologies appropriate to teaching_____
5. examining the need for feedback and evaluation, and
6. applying basic principles of textbook selection.

C. To become proficient in assessing the crucial role of the teacher in developing student attitudes toward and successes in learning by

1. analyzing verbal classroom behavior
2. observing video-taped micro-teaching skills, and
3. teaching micro-lessons applying the techniques learned.

D. To develop evaluation techniques consistent with stated objectives by

1. learning basic principles of constructing teacher-made tests
2. translating test scores into letter grades, and considering various reporting techniques.

E. To train students to operate various mechanical aids to teaching

F. To consider various topics related to teaching as seminar topics during student teaching such as

1. to internalize the Code Of Ethics of the teaching profession
2. to complete a credential file and application for teaching certificate
3. to vicariously experience various interviews for a teaching position, and
4. to consider the wide-ranging opportunities for professional growth.

III. UNITS OF THE COURSE

A. Introduction to Teaching

This unit deals with the process of teaching. As such, it provides opportunity to consider appropriate terminology; the psychological and sociological aspects of the interaction which takes place between the learner, the information, and the instructor; and various conceptual schemes. Student organized small group sessions are suggested as the vehicle for studying the concepts basic to proceeding with the following units.

B. Systematizing Education

This unit focuses attention on conceptual schemes for the dynamics of teaching and syllabus design. Specific attention is given to the process of developing a course of study. Except for some scheduled large group sessions, students will work independently in developing the units which they plan to teach during the student-teaching experience. The cooperating teacher and selected personnel from both the academic discipline and the college of education will serve as resource persons for the student.

C. Interaction Analysis of the Teacher's Classroom Behavior

This unit enables students to code classroom behavior, develop a matrix, and interpret such matrix. Indirectly the students will consider those instructor attitudes and actions which are conducive to wholesome interaction between the instructor and the students. After viewing video-tapes of micro-teaching skills, the students will plan a lesson for micro-teaching in which they attempt to conduct their perceived "ideal" lesson incorporating various skills learned.

D. Theoretical and Practical Evaluation Techniques

This unit deals with various types of teacher-made tests. Consideration is given to type, wording, scoring, grading, and reporting both to the student and to the parents.

E. Utilizing Mechanical Aids

During this unit students who have not as yet learned to operate the various hardware items available for visual aids, auditory aids, and duplicating devices will be given hands-on experience to learn to operate such devices.

F. Suggested Seminar Topics

Implications and application of the Code Of Ethics will be considered. Practical help will be given students in completing a credential file, filing for a teaching certificate, and erasing the fears inherent in conducting their first interview for a teaching position. Finally, some consideration is to be given to the necessity for continued professional development.

IV. LEARNING MATERIALS

A. A methods text in the student's teaching field is a necessity in addition to the manual, Preparation For Teaching: Modules for Secondary Methods.

B. No optional texts are required

C. Cooperating teachers will serve as resource persons in various facets of the course.

D. Materials to be made available to students include video-tapes, sample syllabi, audio tapes for learning to code interaction analysis, and various printed materials such as forms, etc.

V. EVALUATION PROCEDURES OF THE COURSE

A. Each group assembly session provides each student with feedback on the quality of his work. The student prepared teaching units, including tests, will form the major basis for evaluating the student's work during this course.

B. A comprehensive test, multiple-choice in form, is available for instructors who feel that a comprehensive test covering course concepts needs to be given.

C. Grading may be pass/fail or a composite arrived at by considering the reports on small group assembly sessions, the teaching units prepared by the student, the recommendation of the various instructors, and the optional comprehensive examination.

VI. COURSE MANAGEMENT

A. The course combines student organized small group assembly sessions, independent work, large group assembly sessions under the direction of the college professor, and sessions conducted by methods personnel for each academic area.

B. The work is equated at one course with credit hours to be determined according to the number of modules used on a campus.

C. Students will be required to prepare each module in the series regardless of the time they will need to accomplish the task.

D. This course is a senior level course required of all secondary teacher hopefuls.

E. Completion of courses in the major for academic background and various prerequisite courses in education such as educational psychology and educational sociology are required.

F. This course is prerequisite to student teaching.

G. Needed equipment includes projection equipment, duplicating equipment, tape recorder, and video-tape equipment.

H. There is no minimum class size, although financial consideration may necessitate not offering the course for fewer than ten students. Optimun class size is 20, and maximum ought to be 30 for a section because of the degree of video-taping of micro-teaching sessions.

I. Recommended Catalog Description of this Course

"This course focuses on the process of education; principles of curriculum construction, including the writing of objectives, the selection and organization of content and teaching materials; techniques of teaching; evaluation of student's work; analysis of classroom verbal behavior; and the operation of various mechanical aids to instruction. Opportunity is given to observe teaching methods employed by experienced classroom teachers in the selected field."

1 course