This report, conducted at the University of Victoria, Canada, presents an overview of the results of a 4-year study to individualize instruction within an introductory Educational Psychology course. Emphasis is placed on written source material, specific instructional objectives given to the student, testing on small units, testing when students are ready, testing by teaching assistants, immediate and personal feedback of information, and mastery criterion for advancement. One instructor is responsible for one to four sections, and each section is assigned two teaching assistants. Three 1-hour class meetings are scheduled, each week. The first meeting is devoted to student participation activities, demonstrations, and discussion. The second meeting is a lecture hour; new material, group experiments and demonstrations are presented. The final meeting is optional; instructor and teaching assistants are available for assistance at this time. Materials for the courses have been organized into 15 sequential phases called P-E-P (phases of educational psychology). Each phase begins with specific behavioral objectives. Assigned readings and activities are prepared and submitted for teacher approval. After teacher approval is obtained the student must take a mastery quiz and achieve an 80 percent before moving to the next unit. All phases must be completed to take final exams or to do an applied project. Each year the course has been in operation there has been an increase in student performance. A 3-item bibliography and a detailed course description are included. (MJM)
Preaching and Practice
in
Teaching Educational Psychology:
A Four-Year Study

Charles G. Galloway
University of Victoria
Victoria, B. C.
Canada

Annual Meeting
American Educational Research Association
Chicago
April, 1972
PREACHING AND PRACTICE IN TEACHING EDUCATIONAL PSYCHOLOGY:
A FOUR-YEAR STUDY*

Overview:

The purpose of the present study has been an attempt to individualize instruction within an introductory course of educational psychology. Over the past four years at the University of Victoria, some of the sections of our introductory course in educational psychology, required as part of the teacher-training program, have been organized around a Learning-for-Mastery approach. Materials have been programmed with the idea of allowing each student to work at his own rate. The general theme within this individualized approach has been to try to incorporate many of the ideas being taught into the operation of the course itself. For example, because immediate feedback is considered important in classroom learning, this program provides it rather than just says that it should occur. Rather than preaching about the value of specific behavioral objectives, the course uses them. Individual contact with the learner is considered important in meeting affective outcomes, therefore, the course insists on at least thirty personal contacts with each student during the term.

The first year this course was offered only one section of thirty students was so organized. In the second and third years four sections were offered. During the fourth year, eight sections used the

* I have a few extra copies of the total program reported here that I would be pleased to loan. If you are interested in seeing it, please write to me at the University of Victoria, Victoria, B. C., Canada.
individualized approach. One instructor has been responsible for one to four sections. Each section has assigned to it two teaching assistants who work ten hours per week. They are paid on an hourly rate.

Three one-hour class meetings per week for each section are normally scheduled. The first meeting, early in each week, is devoted to student-participation activities, demonstrations and discussion. The second meeting each week usually on Wednesday is a lecture hour common for all sections. Implications for use of new material, group-experiments, and demonstrations are presented at this time. The third meeting, on Thursday or Friday of each week for each section, is considered optional. The instructor and teaching assistants, however, are available at this time in a designated classroom for any kind of assistance a student might need in order to progress through the program. No instructor-planned activity occurs during this meeting. In addition, office space is available for teaching assistants to meet students on an individual or small group basis.

Materials for the course have been organized into fifteen sequential phases called P.E.P.s (Phases of Educational Psychology). Each phase begins with specific behavioral objectives. Assigned readings and written activities follow. Some student choice of readings and activities is allowed, especially toward the middle and later phases. Upon completion of the written activity for each P.E.P., the student submits it to a teaching assistant for approval. If the performance is considered complete the student then schedules himself for a ten-item mastery quiz of that material. Beginning with P.E.P. number five, nearly every other P.E.P. has a pre-test. Students may challenge these P.E.P.'s by demonstrating mastery of the material through a score
of 80% or better on the pre-test. Over 90% of the students do so successfully. All tests are written in the presence of a teaching assistant and are marked immediately. The student must score at least 80% in order to qualify for movement to the next phase. Eight of the fifteen phases must be completed to qualify for writing the Christmas exam. All fifteen must be completed to qualify to write the final exam or to do an applied project at the end of the term. The project, usually the preparation of a unit of instruction for elementary school children, must reflect the principles of learning that have been studied throughout the term. Nearly 90% of our students elect to complete the project rather than write the final exam. Credit for course marks is weighted with 60% from mastery quiz scores on P.E.P.s, 15% from the Christmas exam and 25% from the final exam or project.

Each year the course has been in operation there has been an increase in the average performance of students. Consistently, over 90% of the students complete all the work required. (Many students report that this is the first time in their college careers that they actually did read all of the materials assigned.) Course marks have improved considerably over the past four years. Thirty-one percent earned a mark of A four years ago. Last year (1970-71) nearly 61% earned marks of A and 31% earned marks of B. In retrospect, however, I'm convinced that the differences in percent of students earning marks of A over the four years is more a reflection of my unwillingness at first to report such a high percent of "good" marks than it is an actual improvement in students' performance in the course. As I gain more confidence in the effectiveness of a Mastery approach, I become more bold about saying so!
When compared with students taking other sections of introductory educational psychology, students in the individualized approach have scored equally well on content-oriented exams. Practice teaching marks of students in the first individualized group were significantly higher than were those for the students not in the individualized group ($\bar{x}_E = 2.43, \bar{x}_C = 2.63; SD_E = .453, SD_C = .507; n_E = 30, n_C = 102; t = 2.17, p < .05$). Comparison of practice teaching marks for subsequent years has not been possible because of confounding variables e.g. other required courses moving to a Mastery model, and blocking of students in various sections rather than random assignment.

Results from student evaluation questionnaires have consistently given the individualized approach a relatively higher rating than the non individualized approach. Students report that the learning-for-mastery approach requires much more of their time than more traditional courses but that the time is more profitably spent. Nearly 100% of the students would recommend the course to their friends.

Follow-up of students is something often talked about by Faculties of Education but seldom done. As a part of the experimental Mastery approach, however, students in the course during 1967-68 and 1968-69 who had gone on to classroom teaching were located throughout British Columbia. A random sample of students from the same years but from other Educational Psychology sections who also had gone on to teaching, were located throughout British Columbia. A questionnaire was sent to each of these people during the latter part of May, 1969, and April, 1970. By these times each person had completed nearly one year of teaching following the professional year. One hundred and ten questionnaires
5.
were returned. This represented a 75% return of those sent out.

Items of special interest to the organization and operation of the experimental program were as follows:

(Responses to the items have been summarized below.)

Item: (B-4)

4. How well do you feel professional year prepared you for teaching?

<table>
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<tr>
<th>Poorly</th>
<th>Fair</th>
<th>Adequately</th>
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Responses:
(a) Experimental Group - Average rating = 7.50
(b) Other Ed. Psych. Sections - Average rating = 6.39

Item: (B-5)

5. What experience(s) within professional year proved most valuable to you in your teaching this year? (List in order of preference.)

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Responses:
(a) Experimental Group - listed Ed.Psych = 68.19%
(b) Other Ed. Psych. Sections - listed Ed.Psych = 3.03%

Item: (B-8a)

8. (a) In terms of its help in your first year of teaching:
Ed. Psych. proved to be:

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<tr>
<th>Of little help</th>
<th>Medium</th>
<th>Of great help</th>
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Responses:
(a) Experimental Group - average rating = 9.56
(b) Other Ed. Psych. Sections - average rating = 5.33
13. In retrospect, were you satisfied with the Ed. Psych. program you were in?  Yes  No

Responses:
(a) Experimental Group - responded "yes" = 95.46%
(b) Other Ed. Psych. Sections - responded "yes" = 63.70%

14. Ed. Psych. should be:

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<th>More practical</th>
<th>As it was</th>
<th>More theoretical</th>
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<tbody>
<tr>
<td>(applied)</td>
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Responses:
(a) Experimental Group - average rating = 4.86
(b) Other Ed. Psych. Sections - average rating = 2.66

16. Help received in Ed. Psych. was:

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<th>Medium</th>
<th>Good</th>
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Responses:
(a) Experimental Group - average rating = 11.02
(b) Other Ed. Psych. Sections - average rating = 6.00

17. If any concepts dealt with in Ed. Psych. proved especially helpful to you in your teaching - please list them:

Responses:
Of all the concepts listed by both groups, 71% were listed by the Experimental Group whereas 29% were listed by the other Ed. Psych. Sections.

At the present time, based on evaluative feedback from current students and from those now teaching, the course has been revised four times. Indications are that on-going revision may be a necessary part
of such a program designed to meet more and more of the individual differences of students. Many problems have been encountered in trying to establish the conditions for Mastery learning as outlined by Bloom (1968) and Carroll (1963), increasingly, however, it is the experience of those associated with the present study that the greatest fundamental problem to be overcome in a student's mastery of a learning task is a teacher's ability to capture sufficient time of the learner for the task at hand. All other problems appear to be functionally related in some way or another to this one major idea.

The Course:

The following pages provide, in some detail, a description of how the course has been organized. Two of the fifteen P.E.P.s are included to give the reader an idea of how each phase develops. As will be noted, this program bears a striking resemblance to the P.S.I. method (Personalized System of Instruction) developed at about the same time by Fred Keller (1968).

1) Emphasis on written source material (few lectures)
2) Specific instructional objectives given to the student
3) Testing over small units (about one-week unit size)
4) Testing when student is ready (student-paced)
5) Testing by teaching assistant (students)
6) Immediate and personal feedback of information
7) Mastery criterion (80%) for advancement

Currently we are in our fifth year of the program and at this point increasingly committed to the point of view that when teachers assume more personal responsibility for their students' learning, not only do their students learn more effectively but so also do their teachers.
8.

References


INTRODUCTION

This course is an attempt to develop a useful way of helping prospective teachers learn concepts of educational psychology at the University of Victoria. In general terms, the plan of this procedure is to offer individual instruction and attention within the framework of a continuous progress approach. The long range goals are that each person will in fact master the basic content material appropriate to a first course in educational psychology and, furthermore, will be able to make systematic use of that material in the development of teaching proficiency.

Two characteristics of this programme merit special attention. First, each student should be able to move at his own pace through the entire course. The rapid worker should not be held back by a slower student nor forced to waste time listening to several repetitions of information he has already learned. Equally important, the slower working student should not be forced to move ahead at the sacrifice of comprehension.

Secondly, material should be presented only as the students are ready to deal with it. The student who "missed the point" but is allowed or forced to proceed, soon compounds his slight misunderstanding into greater confusion -- the stuff that failures are made of. Consequently, the subject matter of this course is broken down into a series of small units. Students will be required to show a mastery of at least 80% of each unit before moving on to the next. This way a small mistake can be corrected before it has a chance of resulting in ultimate confusion. To demonstrate mastery of each unit, students will be required to pass a proficiency test before proceeding further in the programme.

The information students will be asked to acquire will come in six kinds of packages -- readings, special projects, small group discussions, demonstrations, a few lectures, and actual practice-teaching in classrooms as well as in micro-settings with the aid of television. Some material is more appropriate for one type of presentation -- not always a lecture -- than for another, and none of it is appropriate until students have mastered what goes before. There will be periods of concentrated reading and other periods of little or no reading at all. Large group lectures, demonstrations and experiments will serve as types of "advance organizers" and/or for clarification of the major concepts of study. The burden for the examination and critical evaluation of ideas and information among students and teaching staff will fall largely to the small group discussions and the many one-to-one contacts throughout the year.

The teaching staff for this course includes two teaching assistants per section and the professor. The assistants were chosen on the basis of their mastery of the course material, maturity of judgment, understanding of the special problems that may confront students as beginners, and for their willingness to be learners themselves as they try to help you learn.
The responsibilities of the teaching assistants are as follows:

a. Intimate involvement in the preparation and writing of the materials for the course as a whole.

b. Organization and provision of study materials for students as they become ready for them.

c. Conferences with the professor re organization and instructional problems and successes.

d. Proctor proficiency exams.

e. The keeping of progress records for all class members.

f. Aid in individual projects, experiments, demonstrations.

g. Scheduling students, as they demonstrate their readiness for the next learning experience.

h. Help each student succeed to the best of his ability.

The professor has as his principal responsibilities (with the consultation of the assistants):

a. The selection of all study materials, projects, and actual teaching experiences in the course.

b. The organization and mode of presentation of this material.

c. The construction of the many unit proficiency tests and alternates.

d. The preparation of television lectures and demonstrations.

e. The success of each student to the best of his ability.

f. The final evaluation of each student's progress in the course.

MECHANICS

A. Attendance:

a. Compulsory - All scheduled small-group "United Natter" meetings. All Thursday large-group meetings in Maclaurin Building 144 are compulsory.

b. Optional - Although your time-table indicates Ed. 200 classes on the basis of one hour, three days per week, only Monday or Tuesday and the large-group lectures on Thursdays will be held regularly during these times for all students. The professor and an assistant will always be available in the classroom at the optional meeting scheduled on Wednesday or Thursday to provide help on an individual and small-group basis. Further explanation for use of the optional meeting each week will be provided later. You are encouraged to make use of the classrooms for individual study, planning of group projects, or simply for communicating with your colleagues, teaching assistants and professor. In a course such as educational psychology with such a vast amount of new material to be mastered it is probably preferable to "keep-up" rather than to try to "katch-up".
B. Basic Procedures:

a. All PEPs (Phases of Educational Psychology) will come to you in envelopes as you demonstrate readiness for them. Additional readings relevant to specific PEPs will be distributed as they are required. You are to follow the instructions provided within the PEPs. If you have difficulty with any of the items you are encouraged to seek help from the professor or your assistants during "regular" class hours or the posted office times for the T.A.s assigned to your section. We want to help you learn. Please ask for help when you need it!

b. When all requirements within each PEP have been completed, you are asked to enclose it in the envelope provided, and turn it in to your T.A.s for evaluation. At that time a tentative return date will be given you. The PEP will be marked complete or incomplete. Any corrections must be made and the PEP resubmitted for further evaluation. When all items are successfully completed, you may schedule a time to take a proficiency test (post-test). This test will take approximately 20 minutes and will be marked immediately by your T.A. This score will be recorded as a part of your course mark. Items missed will be discussed with you at the time of the test.

c. After satisfactory performance on a proficiency test, you may move on to the next PEP. Everyone is expected to complete the entire series of 15 PEPs, however, not necessarily at the same rate. Some PEPs have pre-tests associated with them. These tests are primarily knowledge-level items. If you choose to do a pre-test on those PEPs where they are available you may not have to complete the activities for those PEPs depending on how you score on the pre-tests. If you score 80% or better you will be asked to complete only those items which pertain to the items you missed. The opportunity is given to improve your score if you choose to. If you score less than 80% you will be asked to do the entire PEP and to do a post test. If you score 80% or better and are not required to do an entire PEP, your final pre-test score will substitute for your post-test score for that PEP. You will not need to write the post-test in this case.

d. Final marks for the course will be arrived at as a result of scores on the 15 post-tests and/or pre-tests plus two major examinations, one taken at Christmas time and the other at the end of the second term in the Spring. Self-administered practice-exams will be made available from time-to-time for any student who wishes to test further his comprehension of materials learned. No marks will be recorded for these practice tests, however, clarification of items missed will be provided by the assistants or the professor if requested. Since one of our primary objectives is to individualize instruction, alternate ways of meeting the final exam will be made available. The Christmas exam will cover material in PEPs one through eight. Anyone not completing the first eight PEPs will not be considered "qualified" to write the exam. In order to qualify for writing the final exam in the Spring, you must complete all of the 15 PEPs.

PEP quizzes will make up 60% of the total course mark (4% per PEP). 15% of the total mark will come from the Christmas exam and 20% from the final exam. 5% of the total mark will come from your group participation in one "United Natter" presentation to the students in your
section. Throughout the course general note will be made of the
overall quality of each student's PEP work re constructive criticism,
classroom involvement and contribution to discussion. On the basis
of these casual observations, each student will be given a ☐, ☐,
or ☐. In the calculation of the final course mark these observations
will be used to help determine the placement of marks that fall on
the borderline between letter grades. In no instance will they be
used to lower a student's mark.

C. United Natter Topics:

One of our main goals for you as a teacher is to help you acquire
some basic principles of learning and to gain some perspective about how
these relate to the kinds of problems and issues teachers and children
face. In order to do this we propose that committees of three to five
persons within each section be set up and topics chosen from the following
list. Each topic will be presented by a committee during the compulsory
United Natters meetings throughout the year. The objective for each
committee will be to present the topic, using some form of Audio-visual
materials. The presentation or demonstration should provoke questions and
discussion for the class as a whole. There will be one score (1-10)
awarded to your group for the presentation. This score will be worth 5%
of your final course mark. UNITED committees will be struck at one of the
first meetings.

1. Should Disadvantaged Children Have a Special Curriculum?
2. Free Schools - Pros and Cons
3. Community Pressures on the Public School Teacher
4. Open Area and Team Teaching?
5. Corporal Punishment?
6. Should Teachers have Tenure?
7. What Could be the Role of a Counsellor in an Elementary School?
8. Should Special Education Exist in the Public Schools?
9. Comparison of Montessori and Conventional System
10. Will a No-Grade system work Throughout a Whole School System?
11. Why Would it be Advantageous to Have Male Teachers in Primary?
12. Where do Teachers go for Outside Help?
13. The Influence of Technology on Teaching
15. What the Hell is a Teacher? (No Cliches) Babysitter or Dictator?
16. Role of an Education Student in Influencing Educational Change in the
   University
17. Drugs -- Prescribed or Otherwise -- Their Use in Elementary School
18. Sex Education in the Elementary School -- Where and How Much?
19. Creative Dramatics in School -- Yes, No?
20. Individualized Instruction -- Reality or a Myth?
21. Structure in the Classroom -- Necessary or Not?
22. Student Freedom -- What does it Mean?

D. Miscellaneous:

a. PEP Calendar - You may find it helpful to consult occasionally the
   PEP Calendar of dates and events planned for the year. This will be
   posted in the hall near the T.A. offices. This will include a
suggested time sequence for completion of PEPs and office hours for the assistants and the professor. With such a large group in the program this year, it will be necessary to ask you to observe very closely the office hours posted. (A copy of the PEP Calendar is included in PEP #1.) It is suggested you try to complete the 15 PEPs well within the school term.

b. PEP progress will be recorded by T.A.s and is available to students upon request.

c. Objectives - To facilitate your success in achieving the objectives of the course, a rating scale for the degree to which aims and objectives for each PEP have been met is included in each of the 15 PEPs. The space below the rating scale is included for your use in responding to the objective for your own understanding. We feel your total learning will be increased, if, prior to beginning the readings and activities of each PEP, you will read carefully the statement of objectives for that PEP as a kind of self pre-test, and, then when the activities have been completed, re-read the objectives and complete the rating scale. If you have met the objectives well for each PEP, you should have very little difficulty with the PEP quizzes and examinations, and, more importantly, you will have met our main goal for you ... that you be well on your way toward being able to apply educational psychology to help children learn better.

d. The basic text for the course is Psychology of Learning and Teaching by Bernard. Other readings will be assigned throughout the year (e.g. Klausmeier, Blair, Loree, Cronbach). In addition to basic readings, supplemental readings are included for each PEP. These may parallel the basic readings, but may also introduce other points of view for your consideration. These are optional.

e. Included in PEP #1 is a distribution of marks obtained by Education 200 students (1970-71). Similar feedback at the end of this session (1971-72) will be available for those who request it.

f. Criticism - This is a different kind of program which has been in operation at UVic for the past four years. Over this time, there have been four major revisions based on the criticism our students have been willing to share with us. In this course the burden for learning is placed on the individual student. The role of the instructor and T.A.s is seen to be that of resource people, acting as catalysts to your learning process rather than as experts with all the answers. Because this is a developing programme, undoubtedly containing weak spots, we would appreciate your constructive criticism at any time.
EDUCATION 200

DEFINITION OF EDUCATIONAL PSYCHOLOGY

A. The "hows, whats, and whys" of teaching.
B. All of the psychology that applies to an educational setting.
C. Through theory to practice.

Noll and Noll (Readings in Educational Psychology, 1962, p. 21) list the following as "Fields or Areas of Educational Psychology".

I. Human Growth and Development -
   a. Heredity and Environment
   b. General Growth and Development
   c. Social and Emotional Development
   d. Motivation, Drives - Basic Theory
   e. Intelligence, Aptitudes, Interests
   f. Individual Differences

II. Learning -
    a. General Nature of Learning
    b. Factors Influencing Learning
    c. Motivation - Devices in Teaching
    d. Skills
    e. Reasoning and Problem-Solving
    f. Attitudes
    g. Learning of Particular School Subjects
    h. Transfer of Training

III. Personality and Adjustment -
     a. Emotions
     b. Mental Hygiene of the Pupil
     c. Mental Health of the Teacher
     d. Exceptional Children
     e. Character
     f. Social Interaction

IV. Measurement and Evaluation -
    a. Basic Principles of Measurement
    b. Measurement of Intelligence and Aptitudes
    c. Measurement of Learning
    d. Measurement of Adjustment
    e. Application of Results of Measurement

V. Techniques and Method in Education Psychology -
    a. The Scientific Study of Educational Problems
    b. Statistical Techniques
    c. Implementation of Research for the Classroom Teacher
ED. 200 EXPERIMENTAL PROGRAM 1970-71 (1-8)

Distribution of Scores for Year's Work

Note of Explanation:

The scores represent the weighted values for each student determined by:

(a) PEP Scores = 60% value
(b) X-Mas Exam = 15% value
(c) Final exam or unit = 25% value

total mark

These three scores, when weighted and converted to percentage scores, were then placed in a final distribution for all eight sections together. Marks were then assigned on the basis of the distribution. There were four failures and only three marks of D assigned. 229 students completed the course. 60.69% earned a mark of A (A+, A, A-); 31.0% earned B (B+, B, B-); 5.24% earned C (C+, C); 1.31% earned D; 1.74% earned F.

Mean scores for the total group for each of three parts of the final mark were:

PEP's = 143.0 points (150 possible)
X-Mas Exam = 141.7 points (165 possible)
Final Exam = 129.7 points (150 possible)
Final Units = 97.4 points (100 possible)
Overall average for the eight sections = 92.6 percent

By the nature of the course, which was simply "Learning for Mastery", an 80% average was necessary to proceed through the various phases of the program. Hence, 80% in this sense becomes the basis for a pass (C). As is seen from the very high percentage of A and B marks assigned, most students were able to achieve considerably above the 80% average, which, hopefully, indicates a high level of mastery of the material for Ed. Psych. 200. And, in the final analysis, that is what the main objective for the course was.

Following is a break-down for you in terms of percentage scores:

Your name ________________________________
Your PEP Scores __________________________
Your X-Mas Exam __________________________
Your Unit/Final Exam ________________________
Your Total Percentage Score __________________
Your Mark Assigned _________________________
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Frequency Distribution for Total Scores
Ed. 200 (1-8) 1970-71

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</table>
A. To have a knowledge of learning principles and to apply them to the classroom.
B. To have a knowledge of child growth and development and to apply it to the classroom.
C. To be able to construct and carry through a unit of work from objectives through activities to evaluation.
D. Development of the affective area
   a. Unafraid interaction with peers, T.A.s, and professor.
   b. Ability to support a point of view.
   c. Acceptance of constructive criticism.
   d. Use of "constructive" criticism.
   e. "Intervene in your own learning."
E. To be able to locate and apply educational psychology materials when they are needed.
<table>
<thead>
<tr>
<th>PEP</th>
<th>TOPIC</th>
<th>READINGS (Chapters)</th>
<th>PEP ACTIVITIES</th>
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<tr>
<td>1</td>
<td>General Introduction to Ed. Psy.</td>
<td>1 and 21 Bernard</td>
<td>- Journal Abstract&lt;br&gt;- autobiography and information sheet&lt;br&gt;- questions</td>
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<td></td>
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<td>1 Klausmeier&lt;br&gt;1 and pp. 169-180 Loree&lt;br&gt;1 and Part VI Blair</td>
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<td>2</td>
<td>Behavioral Objectives &amp; Classroom Questions</td>
<td>1 Saunders and Mager: &quot;Preparing Objectives for Programmed Instruction&quot; (all of it)</td>
<td>- filmstrips and worksheet&lt;br&gt;- question&lt;br&gt;- set of objectives and activity on any lesson&lt;br&gt;- level objectives given</td>
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<tr>
<td></td>
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<td>pp. 101-107 Loree</td>
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<td>3</td>
<td>Learning Theories and Instructional Processes</td>
<td>2 Bernard and 3 Klausmeier</td>
<td>- questions&lt;br&gt;- T.V. typescript; reprint and question&lt;br&gt;- indicate levels of objectives</td>
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<td>5 Blair&lt;br&gt;4 and pp. 32-42 Loree</td>
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<td>4</td>
<td>Transfer</td>
<td>3 Bernard and 13 Klausmeier</td>
<td>- question&lt;br&gt;- write and level objectives&lt;br&gt;- read story and submit questions</td>
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<td>10 Blair&lt;br&gt;8 Loree&lt;br&gt;10 Cronbach</td>
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<td>Habit Formation and test: Factors that facilitate learning</td>
<td>5 and 6 Bernard</td>
<td>- Journal Abstract&lt;br&gt;- comparing book with Basic Reading&lt;br&gt;- question</td>
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<td>7 and 9 Blair</td>
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<td>Holt: &quot;How Children Fail&quot; (at least pp. 1-98) Loree and 11 Bernard</td>
<td>- questions (4)&lt;br&gt;- Motivational scheme</td>
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<td>7</td>
<td>Individual Differences, Measurement &amp; Intelligence</td>
<td>9 and 10 Bernard</td>
<td>- questions (3)&lt;br&gt;- definitions&lt;br&gt;- personality survey</td>
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<td>8</td>
<td>Language Development and Growth</td>
<td>7 and 8 Bernard</td>
<td>3 and pp. 95-100 Blair</td>
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<td>Problem Solving and Creativity</td>
<td>4 Bernard and 8 Klausmeier, and pp. 393-95 Bernard</td>
<td>9 Blair 12 Loree</td>
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<td>11</td>
<td>Personality and Emotion</td>
<td>12 and 13 Bernard</td>
<td>10 and 11 Klausmeier 2, 13 and 15 Loree 3 and 13 Blair 17 and 18 Cronbach</td>
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<td>12</td>
<td>Discipline &amp; Personality</td>
<td>14 and 15 Bernard and Gnagy's &quot;Controlling Classroom Misbehavior&quot;</td>
<td>14 Blair 15 Cronbach</td>
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<td>Programmed Instruction</td>
<td>18 Bernard or 15 Klausmeier and &quot;The Science of Learning and the Art of Teaching&quot;</td>
<td>9 Loree pp. 149-161 Blair</td>
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<td>14</td>
<td>Evaluation and Mental Hygiene, the experimental study</td>
<td>19 and 20 Bernard and Klausmeier Part IV and V Blair</td>
<td>11 and 17 Klausmeier Part IV and V Blair</td>
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<td>Teacher Personality and Review</td>
<td>21 Bernard</td>
<td>14 Loree 22 Blair 5 Klausmeier</td>
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EDUCATION 200

PEP CALENDAR

Introduction:

It is recommended that you complete at least one PEP per week for each term, and that you allow two weeks at the end of second term for doing (if you choose) an alternative for the final examination.

In the first term, December 6 is the last day that PEPs will be accepted before the Christmas exams. (Remember: before you can write the exam, PEPs 1-8 must be finished.) December 9 is the last day for writing PEP quizzes.

In the second term, April 4 is the last day for PEP acceptance and April 6 is the last day for writing quizzes. The above dates are the deadlines for all sections, but may not apply in some circumstances to each section if office hours do not fall on the specific dates. Important: Your T.A.s also carry full courses, have assigned essays and exams. Do not leave the load to the end or you may have to bear it alone!!

Check often with the bulletin board outside the offices on the third floor for any changes or additions and keep this at hand for the rest of the year.

All Monday and Tuesday section meetings are compulsory. If due to a holiday a meeting is cancelled, an alternate time for that meeting will be announced.

Calendar Key

* = compulsory Wednesday meeting

PEP due dates are strongly suggested.

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<td>Teaching Practicum (No classes in Ed. 200)</td>
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<td>Nov. 8</td>
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Nov. 29  PEP 8
Dec. 2  *
Dec. 6  Last day for PEP acceptance
Dec. 9  Last day of lectures. Last day for quizzes
Dec. 13-21  First term examinations
Dec. 25  Merry Christmas to all!
Jan. 1  Happy New Year from the "Group of Eight"
Jan. 10  Second term begins
Jan. 13  *
Jan. 17  PEP 9
Jan. 20  *
Jan. 24  PEP 10
Jan. 27  *
Jan. 31-Feb. 18  Teaching Practicum
Feb. 21  PEP 11
Feb. 24-25  Reading Break
Feb. 28  PEP 12
Mar. 2  *
Mar. 6  PEP 13
Mar. 9  *
Mar. 13  PEP 14
Mar. 16  *
Mar. 20  PEP 15
Mar. 23  *
Mar. 27  PEP 15 for second time
Mar. 30  *
Mar. 31-Apr. 3  Good Friday to Easter Monday - University closed
Apr. 4  PEP 15. Last day for PEP acceptance
Apr. 6  *  Last day for quizzes
Apr. 7  Last day of lectures
Apr. 12-28  Sessional exams
Apr. 24-May 12  Final Practicum

Good luck in Ed. 200 and in Teaching

Better to Keepup than Katchup
PEP #1

EDUCATION 200

PEP 1 Directions

1-A Choose a journal from the enclosed list (or, if you wish to read another not listed, check with one of the instructors). The assignment is to do an abstract on any one article (i.e. name of article, journal, issue, digest of article contents, your reactions). This assignment is to be completed on one side of one 5" x 8" card (included in your PEP album). Reporting may be in note form if you wish.

1-B READ: Bernard - Chapters 1 and 21.
Supplementary (Optional) Readings: Klausmeier - Chapter 1
Loree - Chapter 1 and pp. 169-180
Blair - Part VI
(* Copies of the supplementary readings will be on reserve in the Main and/or Curriculum libraries.)
In PEP Readings: "Love and Hate in the Act of Teaching"

1-C Cite one example from your own school experience that seems to indicate a lack of knowledge of psychology on the part of the teacher. Cite one instance that indicates a functional knowledge of educational psychology on the part of the teacher.

1-D Submit an autobiography between 2-3 pages in length, double-spaced, please, longhand or typed.

1-E Submit your completed Information Sheet for Ed. 200.

1-F Please discuss: "What the hell is education?"

Your comments about PEPs will always be appreciated

LAST THOUGHT:

Good Luck! Scream for help when necessary!!
Long Range Goals

Cognitive Area:
A. The student understands some of the basic principles and aims of Educational Psychology.
B. The student is aware of the qualities and characteristics which make a "good" teacher.
C. The student can relate the general area of psychology to teaching.

Affective Area:
A. As the course progresses, the student will become more appreciative of success in learning situations.
B. The student will gain satisfaction through interaction with others (professors, T.A.s, teachers, fellow students).
C. The student gains confidence to become a better teacher from the knowledge acquired in PEP 1.

*NOTE:
Consistent with our model beginning with a statement of behavioral objectives, the exam items are drawn from the objectives themselves. Therefore, as a self-evaluation, it is required that you rate how well you have met these objectives. This can be done along the scale provided. It is your responsibility to meet all the objectives through: (1) activities, text readings, and handouts, (2) other students' information, (3) professors or T.A.s, (4) prior experience, or (5) other references. The three lines provided following each objective are for your use in practicing responses to the objective. These responses will not be evaluated by your T.A.

Objectives for PEP 1

The objectives for Pep 1, stated in behavioral outcomes for you, are as follows: (Note: The objectives in the Cognitive Area have been classified according to Bloom's Taxonomy of Educational Objectives. Expansion of this type of classification will follow in PEP 2.)
PEP #1

COGNITIVE AREA

Comprehension (translation & interpretation)
a) The student is able to write a definition in his or her own words of what is meant by educational psychology.


Knowledge
b) The student can state in writing at least three general aims of educational psychology.


Analysis
c) The student can state in writing the relationships between educational psychology and other branches of psychology.


Analysis
d) The student can state in writing the relationships between educational psychology and the practice of teaching.

Analysis
e) The student can in writing relate what aspects of personality could possibly affect the children's motivation to learn, social adjustment, academic achievement, and most of all their continuing thirst for knowledge.

Very well met          Very poorly met

Comprehension
f) The student can interpret in his or her own words the significance of the statement: "More good teachers are made than born."

Very well met          Very poorly met

Knowledge
g) The student can list ten personal qualities which have been reported to be characteristic of effective teachers.

Very well met          Very poorly met

Knowledge
h) The student can state orally the location in McPherson Library, of Psychology Abstracts, the Educational Index, and the Canadian Educational Index.

Very well met          Very poorly met
Synthesis  
i) The student can, using two examples from his own experience as a student, show that there are many ways of being an effective teacher.

<table>
<thead>
<tr>
<th>Very well met</th>
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Synthesis  
j) The student can devise an argument for the point of view that excellence of teaching is not inherent.

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Analysis  
k) The student can extract practical, as well as theoretical information from the many educational journals, as demonstrated by composition of Journal Abstracts.

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AFFECTIVE AREA  
a) The student interacts freely with fellow classmates and the instructors, either individually or in groups.

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b) The student asks questions when he or she has a need for assistance.

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</table>
c) The student experiences success in terms of his or her own ability and rate of progression.

Very well met

Very poorly met

d) The student becomes more confident as he realizes the qualities of his or her own personality which will benefit him as a prospective teacher.

Very well met

Very poorly met
The travelling Doctor - Use Dr. Sanders' Cure-all questions, a watch kids Bloom
PEP #2

EDUCATION 200
PEP #2 Directions

(Please read objectives FIRST, then do activities.)

2-A Basic Readings:

Sander's Classroom Questions, chapter 1 (on reserve in the Curriculum Library, and a few copies in the McPherson Library).
Mager's Preparing Objectives for Programmed Instruction (on reserve in the Curriculum Library) and the following included reprints:
The Key Words for Objectives; An Open Letter; and Supplemental Readings: pp. 101-107 Loree.
In PEP Readings: "The Taxonomy of Educational Objectives - Its Use in Curriculum Building"; "Some Persistent Questions on the Defining of Objectives"

2-B Comment on the usefulness of stating immediate objectives in terms of student behavior. Should the teacher make students aware of objectives? Support your answer.

2-C Indicate in the blank spaces provided at the left of the objectives the level represented by each of the cognitive objectives.

2-D Form in a group of from 5 to 10 students and view filmstrip #2 (Educational Objectives: Stating Educational Objectives in Behavioral Terms), followed by #3 (Selecting Appropriate Educational Objectives, Introduction to Bloom). These filmstrips and their accompanying audio-tapes are available at the Curriculum Librarian's desk (in Ed/Arts Bldg.). Complete and correct the enclosed worksheets. If you have difficulty operating the machinery, contact the Curriculum Librarian or a T.A. Don't be afraid to give it a try!! Please return the tapes as soon as you finish with them. (Please turn in your corrected answer sheets with the rest of your PEP).

2-E After reading Mager's book, as an individual effort, prepare on the enclosed form a set of at least 3 cognitive objectives, stated in specific behavioral terms, for any kind of lesson at any grade level either for one child or for a group of children. Indicate the cognitive level you consider each of the objectives to represent. Also prepare one affective objective and one psychomotor objective as well as an appropriate activity for helping children meet all the objectives you have stated.

Your comments about PEPs will always be appreciated.
EDUCATION 200

PEP 2 OBJECTIVES

Long Range Goals

Cognitive:
A. The student understands Bloom's taxonomy and can apply it to formulating objectives at the various levels.
B. The student understands the importance of using Sander's question levels in the classroom.

Affective:
The student gains confidence that she can formulate objectives and plan appropriate activities for meeting these objectives.

We will consider these long range goals met, if as a result of the activities assigned, the student is able to meet the shorter range (immediate) objectives:

Objectives for PEP 2

COGNITIVE AREA

a) The student can list the levels and hierarchy of Bloom's Taxonomy.

very well met

very poorly met

Analysis
b) The student can analyze, in written form, the educational advantages in the use of classroom questions of different levels for the intellectual development of children.

very well met

very poorly met
c) The student can demonstrate an understanding of the importance of thoughtful planning through work on his or her lesson plan.

very well met          very poorly met

---

Synthesis
d) The student can formulate specific behavioral, cognitive and affective objectives for a lesson.

very well met          very poorly met

---

Synthesis
e) The student can develop a paragraph concerning the usefulness of stating immediate objectives in terms of a child's behavior.

very well met          very poorly met

---

f) The student can provide an argument for or against the practice of making students aware of the objectives for learning.

very well met          very poorly met

---
g) The student can apply her knowledge of Bloom's taxonomy to the levelling of behavioral objectives in Pep #2.

very well met

very poorly met

h) The student can provide written definitions of the following: cognitive, affective, and psychomotor domains; divergent and convergent thinking.

very well met

very poorly met

i) The student can operate a sound correlated filmstrip machine. (This aim is psychomotor, as well as cognitive.)

very well met

very poorly met

DO NOT LEVEL:

Affective Area:

a) The student is experiencing frustration in the task of formulating and classifying behavioral objectives.

very poorly met

very well met

b) The student feels it is important to learn more about the variables relevant to the meeting of objectives.

very well met

very poorly met
c) The student values the discussions with others of the problems found in formulating objectives.

very well met

very poorly met

d) The student is finding it easier to ask questions when he or she has a need to do so.

very well met

very poorly met

e) The student feels encouraged to carry the major share of the responsibility for his or her own learning.

very well met

very poorly met
Dear Pepping Pupil:

In PEP #2 you will come face to face with tremendously important concepts about objectives or learning outcomes for children. The word behavioral will appear over and over in this respect. This means that in planning learning activities for children, it is very important to think of objectives in terms of specific responses you want children to be able to make. These behaviors (responses) must be observable by you, the teacher. Therefore, this suggests that vague objectives such as: "The child knows his timetables" are not very useful because, as a teacher, how do you know when the child "knows" his timetables? And, furthermore, exactly what does "knows" mean? Can he parrot correct answers when asked to recite? Can he demonstrate with concrete objects that $3 \times 8 = 24$? Can he solve simple/complex problems calling for a use of multiplication? Exactly what can he do? You see, it's not very helpful in terms of planning for children's learning and then trying to evaluate whether learning has taken place if objectives are stated in vague, general, and "gobby" terms. Be specific about the exact behaviors you wish to observe in children as a consequence of some learning experiences.

Furthermore, keep in mind that as a teacher you will have goals for children that may take a long time to meet, and that the long range goals can be broken down into short range, daily-lesson kinds of objectives. The short range objectives are the ones that correspond to the steps on a ladder that must be taken one at a time in order to meet the long range goal of "getting-on-the roof".

Another important idea with reference to objectives that you will need to master, has to do with the kinds of specific behavioral objectives you will formulate for your children. Objectives may be conveniently grouped into three major areas (kinds): cognitive (or "thinking" kind), affective (or "feeling" kind), and psychomotor (or "doing" kind). You will find a good deal of agreement among people in education that objectives in the affective area are of primary importance. These objectives relate to the general long range goal of developing "effective citizenship" ...of feeling positive about self and others, of enjoying being a person. Cognitive and psychomotor objectives have to do with developing competence in intellectual ways and in being able to perform motor-coordination tasks. Consequently, they become the basis for a person to be able to feel positive about himself and competent in his relationship with others. Education should be more than just remembering for children. Therefore, the cognitive objectives you formulate should cause children to do other kinds of mental activity than just remember and repeat. A gentleman by the name of Mr. Bloom has been of great help in this respect. He has worked out a type of system for classifying cognitive objectives that proves helpful to us as teachers in our efforts to write objectives requiring student activity that is more than memory. Bloom's system includes objectives of these major kinds (levels): Knowledge; Comprehension (C =Translation, Interpretation); Application; Analysis; Synthesis; Evaluation.
Another fellow, Mr. Norris Sanders, has also been of assistance. What he has done is to take Mr. Bloom's major categories (levels) of cognitive objectives and show how teachers can build questions to ask children which will cause them to function at levels beyond simply remembering. In doing this Mr. Sanders modifies Mr. Bloom's categories slightly at the level of Comprehension.

<table>
<thead>
<tr>
<th>Bloom (Objectives)</th>
<th>Sanders (Questions)</th>
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<tbody>
<tr>
<td>1. Knowledge</td>
<td>1. Memory of knowledge</td>
</tr>
<tr>
<td>2. Comprehension</td>
<td>2. Translation</td>
</tr>
<tr>
<td>a. Translation</td>
<td>3. Interpretation</td>
</tr>
<tr>
<td>b. Interpretation</td>
<td>4. Application</td>
</tr>
<tr>
<td>3. Application</td>
<td>5. Analysis</td>
</tr>
<tr>
<td>5. Synthesis</td>
<td>7. Evaluation</td>
</tr>
<tr>
<td>6. Evaluation</td>
<td></td>
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</table>

The two systems (which in reality are one system, Bloom's and Sanders', an application of it to the area of asking questions) then serve as a basis we can use to formulate meaningful and useful cognitive objectives for children's learning.

Note the examples which follow as illustrations for the way specific behavioral objectives might be formulated.

OBJECTIVES ARE IMPORTANT!
TALK IT OVER WITH A FRIEND.
TALK TO THE T.A.s.

Helpfully yours,

Group of Eight
Knowledge

The child can state the three types of building material used in the story of "The Three Little Pigs".

Comprehension

a) Translation

The child is able to paint a picture of the Wolf from a descriptive paragraph.

b) Interpretation

The child when shown accompanying illustrations to "The Three Little Pigs" can explain what is happening.

Application

The child is able to suggest appropriate building materials for houses in windy places.

Analysis

The child can discriminate between those pigs who built their houses with adequate or inadequate materials.

Synthesis

The child can design his or her own plans for a house using building materials referred to in the story.

Evaluation

The child can pick which of the houses he would prefer to live in and give reasons for his choice.
Education 200

It is hoped that this sheet will be a help to those people having difficulty leveling objectives.

I. COGNITIVE AREA:

<table>
<thead>
<tr>
<th>Levels</th>
<th>Key Words</th>
</tr>
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<tbody>
<tr>
<td>Knowledge:</td>
<td>state, name, list, write definitions directly from a source, quote</td>
</tr>
<tr>
<td>Comprehension:</td>
<td>reward, (e.g. describe a picture in words)</td>
</tr>
<tr>
<td>a. Translation</td>
<td>explain (in your own words) (e.g. explain a picture in your own words), paraphrase</td>
</tr>
<tr>
<td>b. Interpretation</td>
<td>demonstrate or apply (a knowledge of), use</td>
</tr>
<tr>
<td>Application:</td>
<td>relate, compare, contrast, discriminate, can state relationships, extract, can break down</td>
</tr>
<tr>
<td>Analysis:</td>
<td>formulate, provide an example of your own making, can create, devise, can construct</td>
</tr>
<tr>
<td>Synthesis:</td>
<td>give the importance of (and reasons why), can provide an argument for or against</td>
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<tr>
<td>Evaluation:</td>
<td></td>
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</tbody>
</table>

EXCEPTIONS:

K: The student can list the levels of Bloom's taxonomy.

C: a) The student can reward the following statement: "Intervene in your own learning".
   b) The student can explain in his or her own words each of the following terms: reinforcement, extinction, habit formation, successive approximation.

Ap: The student can use the scores achieved on a test to graph the results of that test.

An: The student can compare and/or contrast learning and habit formation.

S: The student can provide an example from his or her own experience of where reinforcement of a behavior occurred during a lesson.

E: The student can provide an argument in favor of or against the importance of stating objectives in specific behavioral terms.
II. AFFECTIVE AREA: (need not be levelled)

Key Words: experiencing, feels, values, needs, encouraged

III. PSYCHOMOTOR AREA: (need not be levelled)

Key words: manipulate, move (jump, skip, hop), balance, can visually discriminate
**EDUCATION 200**

**EDUCATIONAL OBJECTIVES**

(WORKSHEET #2)

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<table>
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<tbody>
<tr>
<td>1. Yes or No</td>
<td>6. A B C D</td>
</tr>
<tr>
<td>2. Yes or No</td>
<td>7. A B</td>
</tr>
<tr>
<td>3. Yes or No</td>
<td>8. A B</td>
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<tr>
<td>5. A B C D</td>
<td>10. A B</td>
</tr>
<tr>
<td></td>
<td>11. A B</td>
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<td>12. Yes or No</td>
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<td>(a)</td>
<td></td>
</tr>
<tr>
<td>(b)</td>
<td></td>
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<tr>
<td>(c)</td>
<td></td>
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SELECTING APPROPRIATE EDUCATION OBJECTIVES

(WORKSHEET #3)

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<tbody>
<tr>
<td>1. A B</td>
<td>12. C A P</td>
</tr>
<tr>
<td>4. A B</td>
<td>15. L H</td>
</tr>
<tr>
<td>5. A B</td>
<td>16. L H</td>
</tr>
<tr>
<td>6. A B</td>
<td>17. L H</td>
</tr>
<tr>
<td>7. A B</td>
<td>18. L H</td>
</tr>
<tr>
<td>10. (a) ___ (b) ___ (c) ___ (d) ___</td>
<td>21. C A P L H</td>
</tr>
<tr>
<td>11. C A P</td>
<td>22. C A P L H</td>
</tr>
</tbody>
</table>
I. Objectives for the lesson: What are the learning outcomes (aims or objectives) you expect for the children? Exactly what do you expect the children to gain from their work within the subject area being studied? Your objectives for them should begin this way:

"The child (children) ...........................................

A. Cognitive Area: (List three specific behavioral objectives and level each according to Bloom's taxonomy.)

B. Affective Area: (List one affective objective)

C. Psychomotor Area: (List one psychomotor objective)

II. Activity planned for helping the children meet the above stated objectives: