This document proposes that preservice teachers assess various learning philosophies to find methods that may be useful in teaching at the higher education level. In the first section of the paper ten broad principles of teaching are cited: developing and maintaining student interest; motivating learners; providing useful learning opportunities; making learning meaningful; making learning purposeful; attending to individual needs and differences; logical sequencing; instructor enthusiasm for learning; making learning enjoyable; and using appropriate assessment techniques that reveal how well the instructor is using these principles. The next sections of the paper discuss assessment of instructional objectives, and using learning activities to achieve objectives, noting that learning activities should be varied, inclusive, and based on student learning styles. Learning activities should also meet a hierarchy of student needs, be technologically up to date, emphasize experiential activities, and be governed by the philosophy of education. A final section of the paper discusses various philosophies of instruction, including experimentalism, idealism, existentialism, and behaviorism. (Contains 13 references.) (SM)
ASSESSMENT OF THE HIGHER EDUCATION CURRICULUM

Classes students taken in higher education tend to be lecture dominated. The instructor then lectures to students from notes in his/her possession. It can become a one way street of communication. The message moves from the instructor to students via lecture notes. Students tend to be passive individuals in the process. The student then is to absorb the information as it is presented. Generally, students take many notes as the lecture is presented. Sometimes, a student has a cassette recorder to record what is being presented. A student may ask ahead of time if this is permissible. While taking notes on the class lecture, the student’s attention is divided between the lecture and the notes being taken.

There are selected assumptions when using lecture as an only method of instruction in higher education. These assumptions include the following:

1. students learn best with the lecture method of instruction.
2. the instructor has the necessary knowledge to be transmitted which students do not have.
3. lecture is the most efficient approach to use in teaching students.
4. students can use and apply that which has been received from the instructor.
5. committee work and questions from students wastes valuable time and tends to deal with the mundane.

Philosophies of instruction need to be assessed by the instructor in teaching and learning situations. Might there be additional methods which may be used in teaching on the higher education level?

Teaching and Learning in Higher Education

There are principles of learning from educational psychology which need to be implemented in the higher education curriculum. These principles of learning should assist students to achieve at a more optimal rate of achievement. Each may be assessed if used by the instructor to improve instruction. Thus, educational psychologists recommend using the following:

1. interest is a powerful factor in learning. instructors need to develop and maintain student interest in the subject matter being taught. Proper use of the voice with appropriate stress, pitch, and juncture should aid in obtaining student interest. Using a variety of activities should stimulate interest in wanting to learn. Boredom and the routine can be avoided when the instructor varies learning opportunities for students. Goal centered instruction definitely needs to be stresses when
a variety of learning opportunities are provided for students.

2. motivated learners achieve at a higher rate as compared to the unmotivated. Thus, learning opportunities for students need to motivate and encourage optimal student achievement. Challenging students with quality learning opportunities and high instructor expectations should definitely foster learner achievement and progress.

3. useful learning opportunities need to be provided. In teacher education classes, students need to experience that which can be useful in teaching and learning in the public schools. Students need to perceive how learning opportunities provided in class and in public school field experiences may be used to become a truly professional teacher. Application of ideas from classroom related experiences may then be used in the present as well as in the nearby future as a fully licensed, certified teacher. Useful knowledge and skills are more acceptable to students compared to that which has little/no perceived use.

4. meaningful learning needs to be in evidence. With meaning, students learn concepts and generalizations in depth, not survey procedures. A variety of procedures need to be in evidence to assist students to achieve intensity in acquiring subject matter. Intensity is opposite of shallow attaining of ideas. With depth, intensity teaching and learning, students should be able to make better use of subject matter from classroom endeavors. if students do not understand content presented from a variety of learning opportunities, they will not be able to use what has been learned. Meaning and understanding are key ideas in the Instructional arenas.

5. purpose or reasons for learning are vital. Students too frequently do not perceive the value of acquiring subject matter content in class. The instructor should take time to have students perceive and realize the importance of the different class sessions and related field experiences. Importance of content and experiences perceived by the learner should aid in achieving more optimally. Purpose for learning is a vital ingredient in the psychology of learning. Educational psychologists have long recommended that students perceive reasons for learning ensuing subject matter. Otherwise achievement and learning will go downhill.

6. individual needs and differences must be attended to. Students on university campuses differ much from each other in terms of the kinds of learning opportunities they might benefit from. Gardner (1993) stresses the importance of multiple intelligences theory. Eight different intelligences have been identified. This does not mean that weak student intelligences should not be used in the curriculum. It does mean that university students should be able to use their strengths or intelligences to reveal what has been learned. Verbal intelligence stresses
lecture, reading, and writing. The latter two are generally emphasized in test taking. There are additional means for university students to reveal what has been learned, such as making teaching aids for a class and there will be used later in student teaching as well as in full time, licensed teaching.

7. Quality sequence needs to be in the offing. A logical sequence should be used periodically. Here, the university instructor orders the learning opportunities so that students perceive the relationship of new content with that presented previously. The sequence is such that students relate the new with what was previously presented. The two become one and not separated entities. The pacing is attended to by the instructor, but with the perception that learners feel that the subject matter is integrated when harmonizing yesterday's presentation with that of today.

A second type of sequence pertains to a psychological order. Here, the student is actively involved in a project and sequences his/her very own experiences. From one activity to the next in the project method, the student psychologically perceives relationships among the order of doing things. When students make choices, they tend to sense order out of what is being learned. The order involves sequential steps in learning and is a psychological sequence.

8. Instructor enthusiasm for learning is important as a model for students. Hopefully, students will experience the zest, fascination, and enticement for learning. Enthusiasm shown toward learning by the instructor will tend to rub off on students. Students need to have this contagious feeling for learning. Life long learning might well be an end result. Individuals should never give up on continuous learning. Education needs to be continuous and ongoing. What has been learned previously provides the foundation for new experiences. It is sad when enthusiasm wanes and no longer is there for learning. Acquiring new subject matter, new skills, and positive attitudes must be there for individuals to grow, achieve, and develop. Zest for life and living in its diverse manifestations are musts for all.

9. Instructors need to make learning enjoyable for university students. A pleasant learning atmosphere can assist students to appreciate opportunities to learn. An atmosphere of respect, caring, and assistance can do much to help university students enjoy learning in its numerous dimensions. Whatever is taught and learned should have the enjoyment factor inherent, so that appropriate attitudes are instilled within university students. The instructor and students need to work together to make each class session enjoyable.

10. Appropriate assessment techniques should be used to appraise student achievement. These techniques should be valid in that they measure student achievement pertaining to that which was taught and learned. They also need to be reliable so that consistence of results is
there, be it test/retest. alternate forms. and/or split half reliability.

The above listed principles of learning from educational psychology are vital to stress by instructors for optimal student achievement. This is to be stressed in an era when high standards and expectations need to be in evidence to aid student achievement. Thus principles of learning from educational psychology need to be stressed to optimize student achievement. Certainly, instructors should be assessed in terms of using principles of learning in classroom instruction. Assessment procedures on a five point Likert scale may reveal how well the instructor is using these principles of learning.

Assessment of instructional Objectives

Instructional objectives stressed by the instructor in teaching and learning need to follow selected criteria. It can be assessed how each objective of instruction harmonizes with the total number of stated objectives. Which standards might then be used to assess the worth of each objective stressed in teaching and learning? Objectives need to pass the criterion of being relevant. It is difficult for students to become fascinated with irrelevant subject matter. Relevancy indicates the facts, concepts, and generalizations stressed in each class session have worth in teaching students. A study of the latest trends on teaching in higher education provides data on the worthwhileness of each chosen objective for university students to attain. A wide variety of reference sources may be used to locate information on what is vital for university students to learn.

Second, three kinds of objectives need to be in the offing for university students to achieve. Knowledge objectives pertain to choosing vital subject matter for learner attainment. The cognition dimension is being stressed here, such as students recalling what has been learned, comprehension of ideas presented, application of content achieved, analyzing subject matter into component parts such as important from unimportant ideas, synthesizing of ideas such as relating content achieved, and evaluation in that the worth of subject matter attained is assessed (See Bloom, 1971). Skills objective are also vital for student attainment. Skills stress students doing something with the knowledge obtained. Thus, students may give oral or written reports on information acquired. Or, students may develop a line, bar, and/or circle graph based on content achieved. Learners do need to become skillful in using what has been acquired in the cognitive domain. In addition to knowledge and skills ends, attitudinal goals are also equally important. Positive attitudes assist the university student to achieve more optimally in knowledge and skills goals. Negative attitudes hinder a person from doing as well as he/she can in the curriculum. Attitudes
need to emphasize a desire to learn, wanting to do well in each learning opportunity, having feelings of wanting to do the best work possible, and wanting to help others in school and in society.

Learning Activities to Achieve Objectives

Learning activities to achieve objectives need to be
1. varied to stimulate interest in learning as well as provide for individual differences (Ediger, 1995, 1-11).
2. inclusive to provide for multiple intelligences of students (See Gardner, 1993).
3. based on learning styles possessed by students (See Dunn and Dunn, 1978).
4. grounded in meeting a hierarchy of student needs (See Maslow, 1954).
5. approached within the framework of a sound philosophy of education (See Ediger, 1995, Chapter Five).
6. updated to include the state of the art technology in learning opportunities (See Mehiinger, 1996).
7. emphasized in course experiences, field work, and student teaching which relate directly to teaching pupils in the public schools (See Stetson and Stetson, 1997).
8. formulated developmentally and immersed in the principles of learning as advocated by educational psychologists.
9. governed by sound ideas from the philosophy of education.
10. assessed by the thinking of the best procedures possible from psychometric theory (See Saivia and Ysseldyke, 1995).

Each learning opportunity might then be evaluated by using strands from the above named reference sources. Thus, learning opportunities should stress criteria involving quality. Quality inherent in each learning opportunity needs to focus upon student achievement of vital objectives and ends. Each student needs to attain as optimally as possible. Learning opportunities might then include lecture that contains pertinent ideas in having students assist public school pupils to achieve as much as possible. Time is valuable and each semester is short in duration for teacher preparation. Wise use of lecture with proper voice inflection, pitch, juncture, and stress should be in the offing. Student encouragement to raise questions and problem areas must be inherent. Problems and questions need to be discussed and relevant answers sought. Deliberation, thought, and inquisitiveness should be in the offing.

Second, discussions should be used frequently for study and elaboration of ideas. Discussions should provide opportunities for students to think critically by breaking down ideas into component parts.
Segments need to be assessed as being important versus unimportant, relevant versus not relevant, and saliency versus not possessing purpose.

Third, further reflection upon ideas should emphasize developing and testing each hypothesis. Depth learning is involved here in that each idea tested is given full consideration.

Fourth, construction experiences may be stressed by having students make teaching aids to be used in student teaching and later in full time teaching. Each teaching aid must meet selected standards of neatness, quality, usefulness, and possess utilitarian concepts. Teaching aids are used then by university students to guide pupils to attain as much as possible individually as well as collectively within the framework of field experiences and student teaching.

Fifth, state of the art technology should be experienced fully by each university student to be used in the public school classroom. Internet, CD ROMs, programmed learning, word processing, video-tapes, films, filmstrips, study prints, illustrations, and demonstrations, among others should be used to prepare professional teachers (See Ediger, 2000, 41-46). Educational technology needs to be used to assist students in achieving objectives of instruction. Learning opportunities to achieve objectives need to be in the offering. Appropriate assessment procedures need to be used to ascertain learner achievement and progress. Why should the state of the art technology be available in teacher education programs?

1. the business world has used diverse technological devices for approximately five decades and teaching/learning situations for teacher education students as well as for pupils in the public schools need to also be up-to-date. Individuals will be left out of opportunities available in society if technological skills are not mastered in school and in the societal arenas.

2. the curriculum needs to be updated and cannot remain stable. Changes occur constantly and one thing is certain that change will be continually with us. Even in prehistoric times, great changes came about from hunters and gatherers to the beginnings of settled village life with agriculture and domesticated animals.

3. individual differences need to be provided for in that students learn in different ways--technology being one way.

4. technological use makes the world of work easier and more efficient. Thus with word processor use, typing has become easier due to spell check, cut and paste, insertions, and diverse commands. Computers tend to be very user friendly. Thus, my typing skills are very poor, but I can come up ultimately with a perfect document with ease.

5. printer use and computers has made final documents appear to be neat, professional, and tidy for term papers and other
University professors need to consider diverse philosophies of instruction and implement that which provides for optimal learner achievement. Each philosophy of instruction has major strands of thought to emphasize.

Experimentalism (See Dewey, 1916) stresses the importance of problem solving. Teaching involves continuous problem solving, there are discipline problems, curricular problems, grouping for instruction, and working harmoniously well with others, among others, that are major problems to solve. Problem solving stresses the importance of identifying the problem with adequate delimitations. Next, information needs to be gathered in order to solve the problem. Vital information needs to be sought and analyzed. An hypothesis should result. The hypothesis is a possible answer to the problem. Each hypothesis is tentative, not an absolute, and needs testing in a practical situation. Revisions may need to be made, based on the evidence. Experimentalism is a very useful philosophy of instruction in that teachers and school administrators have an approach which may be used to solve the many problems that are encountered in teaching/learning situations.

Idealism, as a second philosophy to consider, stresses the importance of an idea centered world. Ideas or mental constructs become important here. There are numerous excellent ideas that have stood the test of time and might well be used in the curriculum. For example, the Golden Rule states the well known “Categorical imperative” of Immanuel Kant. In a nutshell, the Categorical imperative states that whatever is morally right to do is right for all, and whatever is morally wrong to do is wrong for all. One should do only those things that become a universal law. The Categorical Imperative or Golden Rule might well become a quality standard to operate by involving the school administrator, teachers, support personnel, and the lay public. The Categorical imperative should be stressed in classroom conduct standards for teachers and learners to follow. It should also be emphasized in the university curriculum including teacher education programs (See Sahakian, 1968).

Idealism emphasizes universal ideas that have stood the test of time and space. Thus, the Categorical Imperative has always been important. Idealism stressed the importance of the “a priori” concept. A priori emphasizes ideas that have always been true, outside the framework of experimentalism with its philosophy based upon solving practical problems.

A third philosophy to consider in the university community is
existentialism. Existentialists believe that knowledge is subjective and subject to individual interpretation. Truth tends to be in the eyes of the beholder. It is the individual who makes truth which is quite opposite of idealism's stress placed upon the a priori. Decision making skills by the student then become quite important to the existentialist. How can existentialism then be stressed in teacher education programs?

1. Students need to make choices as to term projects to be completed within the framework of each course taken.
2. Instructors need to encourage students to raise questions and identify problems in classes pertaining to methods of teaching/learning in the public schools.
3. Students need to be creative in responding to self-selected questions and problems.
4. Mini-lessons taught within the field experiences domain as well as within units taught in the internship need to possess quality as determined solely by the university student.
5. University students should be heavily involved in the total assessment program for active participation in professional courses taken as well as in preservice field experiences and student teaching in general.

Behaviorism, as a fourth philosophy of education, stresses that individuals can achieve successfully with carefully arranged, sequential objectives of instruction. With specific objectives predetermined for preservice students to achieve, goals become precise and measurable for attainment. Either the university student does or does not achieve an objective. Learning activities and experiences are selected by the university instructor for students to achieve. Assessment of students is made against the precisely stated objectives of instruction. Objectives not achieved may need a different instructional strategy. University students may become successful learners if the highly specific objectives are arranged sequentially. Each objective then provides readiness for the next sequential step of learning (See Ediger, 1997, Chapter Eleven).

Conclusion

Preservice teachers need to achieve relevant objectives of instruction. Each objective needs to be carefully considered in order that the very best of teacher education experiences are in the offering for university students. Principles of learning taken from the psychology of education need to be implemented in the total preservice program of teacher education. These guidelines to be used in teaching and learning should assist each student to achieve as optimally as possible.

A variety of procedures need to be in the offering to assist in
appraising preservice teacher growth and achievement. Learning opportunities to help students achieve objectives should provide for individual differences among learners so that each student may achieve as much as possible.

Tenets from the philosophy of education provide additional standards to university instructors and students in pursuing quality in the teacher education curriculum.

References


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