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ABSTRACT

Distance education has numerous inherent philosophies to utilize in teaching-learning situation. The problem solving aspect of distance learning encourages active involvement by students in teaching-learning situations; student selection of content; teachers as guides and motivators of student learning; ordering of learning experiences in terms of sequential flexible steps of problem solving; and student involvement in curriculum development. The subject centered approach in distance learning stresses the abstract and cognitive rather than the psychomotor and affective dimensions; teacher sequencing of subject matter; a structured curriculum; a teacher-developed curriculum; and student attainment of vital facts and concepts. A third philosophy, measurement-driven instruction, emphasizes a logical curriculum with teacher selection of sequential objectives; content directed at measurably-stated objectives; appraisal procedures aimed at measurably-stated objectives; and scope and sequence derived from ordered objectives. Student decision-making, a fourth philosophy in distance education, emphasizes that learners should be developing appropriate attitudes and skills in making choices; achieving optimally in making selections; working effectively in groups; becoming responsible individuals; and selecting meaningful tasks. (14 references) (MES)

DISTANCE LEARNING AND THE CURRICULUM

During the 1950's, educational television had its beginning in the school curriculum. Educational television, as one media of instruction, has been available as a learning opportunity to many students as the decades have progressed since the 1950's. Students in isolated, rural areas or small towns have not had the opportunities to learn from specifically designed television programs to attain vital goals. Nor have selected urban school students had opportunities, in the past, to observe quality educational programs through distance education.

Distance learning has provided quality programs for students. In distance learning, the instructor is located in a different geographical region, as compared to the learner. With a dish satellite, which is affordable to most schools, signals are received from the region where the televised program is developed and relayed to a monitor in the classroom. After being hooked up for distance learning, diverse objectives, purposes, and activities are inherent in the televised presentation.

Classes, not provided due to the cost and expense involved in the past, can now be offered through distance learning. In science, mathematics, social studies, reading and the language arts, among other curriculum areas, students may experience quality learning activities using distance learning.

Staff development and inservice education programs for teachers are also available through distance learning. These programs are presented at a lower cost as compared to traditional means of emphasizing

professional growth of teachers. A variety of programs are available for teachers to develop well and achieve effectively in the teaching arena.

Philosophy of Distance Learning

Distance learning has numerous inherent philosophies to utilize in teaching-learning situations. Problem solving philosophies are indeed excellent to implement. Problem solving is very useful in the school curriculum as well as in society. Each individual faces major and minor problems which need solutions.

Prior to a distance learning presentation and within a contextual rich learning environment, a problem (or problems) are identified by learners with teacher guidance. The problem needs to possess clarity to be solved. Distance learning, along with other reference sources, may well provide needed subject matter, directly related to the problem. A hypothesis follows, which provides a tentative answer to the problem. The hypothesis is tentative, not an absolute, and subject to testing. Diverse learning opportunities, including distance learning, provide content to test the hypothesis. If evidence warrants, the hypothesis is refuted. The hypothesis may be accepted as originally stated or modified, as evidence warrants.

Within a distance learning presentation, students might also select one or more problems to solve. Sequential flexible steps of problem solving might then follow with data gathering, hypothesis development, as well as hypothesis testing.

Problem solving within distance learning stresses

1. active involvement by students in teaching-learning situations. Students are not passive recipients of knowledge.
2. students selecting content to learn via problems which they have identified. A psychological curriculum is then in evidence with students sequencing their own activities and experiences.
3. teachers being guides, stimulators, and motivators of student learning.
4. learners ordering their own experiences in terms of sequential flexible steps of problem solving.
5. pupils being heavily involved in curriculum development.

The writer heartily recommends utilizing distance learning within problem solving situations. The art of problem solving is very useful in school and in society.

A second philosophy to emphasize in distance learning is a subject centered approach. Thus distance learning presentations emphasize student acquisition of facts, concepts, and generalizations. Objectives of instruction stress students achieving vital subject matter. An idea centered curriculum is then in evidence. Mental development becomes paramount. Attitudinal ends are salient only to the degree that students are guided to attain vital content. Mind is real and needs development through subject matter acquisition..

Distance learning presentations in a subject centered approach need to stress vital subject matter. Careful selection of each presentation needs to emphasize students achieving well in the cognitive domain. Content in a subject centered curriculum generally is acquired outside the framework of problem solving. Content achieved should assist students to prepare for the future. Academic achievement and the liberal arts should predominate in distance learning presentations in preparation for the future. The practical and the utiliatarian should

receive minimal emphasis in an academic emphasis within the framework of distance learning.

A subject centered curriculum in distance learning stresses

1. the abstract and the cognitive rather than the psychomotor and the affective dimensions. The psychomotor and the affective are salient to the degree that cognitive goals are attained by learners.
2. teachers sequencing subject matter for student acquisition. A logical distance learning philosophy is then in evidence.
3. a structured curriculum for students. The teacher then selects key ideas for student attainment.
4. a teacher determined and developed curriculum. The teacher selects objectives, learning activities, and evaluation procedures.
5. students attaining vital facts, concepts, and generalizations.

The writer advocates students utilizing subject matter acquired from distance learning to solve relevant problems. Content might also be learned for its very own sake, if desired, outside of problem solving.

A third philosophy to implement in distance learning is measurement driven instruction (MDI). Prior to students viewing a distance learning presentation, the teacher determines/writes related measurably stated objectives. The chosen objectives might well be announced to students prior to viewing the presentation. Learners then know what is expected of them in terms of content to be acquired from distance learning.

Content in the distance learning presentation is directly related to the stated objectives. As a result of observing and interacting with the presentation, students ideally should be able to attain the predetermined measurably stated objectives. Appraisal of student achievement is in terms of the objectives. Thus, the test items of appraisal measure how well students have achieved the stated objectives.

Validity in measurement should be an end result. Consistency of test results be it split-half, test-retest, and/or alternate forms would indicate quality in reliability in testing situations.

MDI utilized as a method of teaching in distance learning emphasizes

1. a logical curriculum whereby the teacher has selected sequential objectives for learner attainment.
2. content from each presentation assisting students to attain measurably stated objectives. The distance learning presentation is aligned with the precise ends of instruction.
3. appraisal procedures relating directly to the specific measurably stated objectives.
4. sequence residing within the ordered objectives learners are to attain.
5. scope and sequence coming from the precise objectives of instruction as well as from subject matter contained in the distance learning presentation.

The writer advocates that the objectives of MDI instruction emphasize critical and creative thinking, as well as problem solving. Higher levels of cognition must be emphasized in a quality curriculum.

A fourth philosophy of distance learning stresses student decision making of goals, activities, as well as appraisal procedures. Decisions to be made by students are based on personal needs, interests, and purposes. The student then selects experiences from among alternatives. The choices to be made by the learner include problem solving, subject centerd activities, and /or MDI objectives of instruction. Sequence in choosing distance learning activities, from among alternatives, resides within the student. The teacher is a guide, a stimulator, and a motivator. Learning to make quality decisions is a major objective of instruction. More tasks are available than any one learner can complete. Choices then may truly be made by individual students.

Learners tend to select that which has meaning, purpose, and provides for individual differences. Success in learning is important when selecting distance learning opportunities, from among other alternatives.

Student decision-making philosophies in distance education emphasize learners

1. developing appropriate attitudes and skills in making choices.
2. achieving optimally in making selections, from among alternatives.
3. working effectively within committees when group endeavors are chosen by the individual.
4. becoming responsible beings for effort put forth in learning.
5. selecting tasks which are purposeful, meaningful, and of optimal interest.

The writer recommends that decision-making strategies of instruction stress learners selecting problems to solve, from a problem solving curriculum. Subject matter gleaned from distance learning is utilized to solve problems identified by the student with teacher guidance.

In Closing

Distance learning should be interactive in that students interact (questions asked) of the individual(s) presenting subject matter in distance learning presentations.

The following philosophies may well be stressed in distance learning:

1. problem solving procedures.
2. subject centered approaches.
3. measurement driven instruction (MDI).
4. decision-making emphasis.

The last three strategies might well emphasize students utilizing flexible steps of problem solving. Content acquired may well be used to solve problems. Problem solving is salient in the school curriculum as well as in society. Distance learning procedures have much to offer to guide students in the problem solving arena.

SELECTED REFERENCES

Billstein, Rick, Shlomo Libeskind, and Johnny W. Lott. A Problem Solving Approach to Mathematics for Elementary Teachers, Second Edition. Menlo Park, California: The Benjamin/Cummings Publishing Company, 1984.

Bingham, Alma. Improving Children's Facility in Problem Solving. Bureau of Publications, New York, 1958.

Bitter, Gary G., Mary M. Hatfield, and Nancy Tanner Edwards. Mathematics Methods for the Elementary and Middle School: A Comprehensive Approach. Boston: Allyn and Bacon, 1989.

Bruner, Jerome S. Toward a Theory of Instruction. New York: W.W. Norton & Company, Inc., 1966.

Burrowes, Sharon and others. Exploring IBM LOGO: A Guide for Adults. New York: Holt, Rinehart and Winston, 1985.

Commission on Standards for School Mathematics. Curriculum and Evaluation Standards for School Mathematics. Reston, Virginia: National Council of Teachers of Mathematics, 1989.

Core Competencies and Key Skills for Missouri Schools. (For Grades 2 Through 10); Missouri Department of Elementary & Secondary Education; Arthur L. Mallory, Commissioner of Education; September, 1986.

Coxford, Arthur F., ed. The Ideas of Algebra, K-12. 1988 Yearbook of the NCTM. Reston, Va.: NCTM, 1988.

Crosswhite, F. Joe. Organizing for Mathematics Instruction. 1977 Yearbook of the NCTM. Reston, Va., 1977.

Curio, Frances R. Teaching and Learning, a Problem-Solving Focus. National Council of Teachers of Mathematics, Virginia, 1987.

Kennedy, Leonard M. and Steve Tipps. Guiding Children's Learning of Mathematics, Fifth Edition. Belmont, Calif.: Wadsworth Publishing Company, 1988.

Krause, Eugene F. Mathematics for Elementary Teachers: A Balanced Approach. Lexington, Massachusetts. D.C. Heath and Company, 1987.

Lindquist, Mary Montgomery, ed. Learning and Teaching Geometry, K-12. 1987 Yearbook of the NCTM. Reston, Va.: NCTM, 1987.

Moore, Kenneth D. Classroom Teaching Skills. New York: Random House, 1989.