Teachers may use any of numerous methods of teaching in the classroom. The quality of any learning activity depends upon what occurs and how it affects participants. Some of the more common methods of teaching are: the lecture method; memorization methods; discussion methods; problem solving; use of critical thinking; and use of creative thinking. This paper describes and discusses each of these methods in turn. (NKA)
Assessing Methods of Teaching in the Elementary School.

by Marlow Ediger
ASSESSING METHODS OF TEACHING IN THE ELEMENTARY SCHOOL

There are numerous methods of teaching that any teacher may use in the classroom. When reading journal articles and textbooks on teacher education, some of these methods appear to be taboo. Very often a writer or speaker on educational topics will state how good discussions are to have in the classroom. Also, how bad it is if students "memorize subject matter." The quality of a discussion depends upon what transpires therein. Discussions are neutral methods to use in teaching. If there are put downs, rudeness, shunning, and hostility within a group, definitely this learning activity has its extremely negative side affects. If students wish to memorize a poem and enjoy doing so, this can be a very positive experience. The quality of any learning activity depends upon what occurs and how it affects participants.

The Lecture Method

Several writers have written in journal articles that bad teachers "only lecture" and thus students fail in achieving objectives. On the university level, Reiske (1990) in a conversation mentioned how on the university level, his favorite way of learning was the lecture. Why? A well prepared lecture by a competent professor contained only the salient ideas necessary to understand course content. Why was Dr. Reiske lacking enthusiasm for discussions? Students so often would stray to irrelevant, unimportant ideas.

The writer, also a strong supporter of a well prepared, competent lecture in higher education, interprets lecture methods to include explanation because there is a one way street of communication involved. The message then goes from the instructor to students. Thus for primary school students, lecture (explanations) are essential to students achieving, developing, and growing. In attending a recent national Science Teachers Association Meeting, a speaker mentioned he never told students anything in his physics classes. If there was a question from students, he would merely raise another question so that students would need to discover the answer. The writer would have been a very frustrated student in his physics class since a short explanation of one or two sentences might have been all that was needed to move forward independently. It might be very time consuming to merely respond to a student's question with another question.

Guidelines for using lecture methods of instruction include the following:

1. observe the attention span of students. Change to a different method when learner interest is waning

2. make content meaningful to students so that understanding and comprehension is in the offing.
3. use appropriate stress, pitch, and juncture when communicating ideas.
4. speak at a rate whereby students attach meaning to what is said.
5. have appropriate eye contact in the communication process (Ediger, 2000, 23-29).

Memorization Methods

Memorization as a method of instruction has a very bad name in the educational literature as well as in speeches given by educators. To be sure, it can be overdone and meaningless. The author’s reflections upon memorization of content in grade school, 1934-1942, was rather pleasant. He memorized as requirements several poems which can still be recited today, such as ‘Old Ironsides,” “The Vision of Sir Launfall,” ”Hiawatha,” “My Shadow,” and “The Village Blacksmith,” among others. Memorization was easy for the author. When talking to one of my capable colleagues and mentioning that memorization had been very easy as a method of learning, he stated that it had been very difficult for him and continued with, “I was never good at that!” Perhaps, it is a learning style.

There are definite needs to memorize selected items, such as one’s phone number, social security number, and street number. As a classroom teacher in the early 1950s, the author found that many students needed to commit to memory the basic addition, subtraction, multiplication, and division facts. Students first attached meaning to these basic facts with the use of concrete/semiconcrete materials in making practical application of each fact. Sometime ago, the author in the home setting answered correctly, from a TV quiz show, what the names of the Great Lakes are by having remembered through the pneumonic device --- HOMES, e.g. Huron, Ontario, Michigan, Erie Superior. There is something joyful and exhilarating about being able to recall information. In fact, being able to recall what has been memorized in one way or another provides content for thinking. Any fact recalled can provide subject matter for asking an endless number of questions for problem solving or reflection.

There are certain things to watch in memorizing of subject matter:
1. use higher levels of cognition together with recall of information.
2. encourage students to memorize things such as poetry. Should it be required? Probably not.
3. memorize what tends to be highly utilitarian, such as the basic addition, subtraction, multiplication, and division facts; basic sight words in developing a reading vocabulary; and essential science and social studies content.
4. make memorizing of subject matter an enjoyable activity. When students perceive reasons for memorization of content, they might feel inclined to memorize.

5. develop games for students to play which encourages memorizing the salient as stated in #5 above.

6. complete software for student interaction which emphasizes memorization of what is important.

7. bring into a discussion group that which reinforces relevant items committed or should be committed to memory.

8. plan with students selected items to be memorized.

9. have students learn to spell, memorize if needed, a core of vital words, such as Dolch’s (1955) 220 Basic Sight Words.

10. assess with students what should be memorized pertaining to what was missed on a test (Ediger, 2000, 503-505).

Discussion Methods

When students participate in a discussion, the teacher obtains feedback on what students have comprehended and what was not meaningful. Observations may be made of who does/does not participate in the discussion. All need to participate, but no one dominate the discussion. Ideas need to be presented clearly so all can hear what is being said. Participant’s ideas should circulate among the members of the discussion group. There are a plethora of problems to solve when leading a discussion group:

1. individuals digress from the topic and the discussion is not leading in a goal centered direction.

2. a few participate only, leaving the rest out of developing feelings of belonging.

3. abrupt remarks made by a member hinders making for good group dynamics.

4. a clique dominates, leaving others out of the discussion.

5. the content may lack challenge for some when the group is too heterogeneous in achievement and knowledge levels.

Weaknesses exhibited in a discussion should become objectives to remedy problems involved. It is very important that all should become good members of a discussion group. In school as well as in society, each person is asked to serve on committees. Democratic procedures need to be in evidence in all discussions. Otherwise, the ideas in the conclusion do not represent the thinking of the group. The writer is reminded of a university division of education meeting when representatives were selected to be on each of the following: general education council, graduate council, faculty senate, and council on teacher education. The “custom” was to have one person nominated for
each committee only. One faculty member nominated the person to represent the division of education on the general education council; that person was “accepted by unanimous acclamation.” All division of education members concurred. Next, the same person nominated the individual to serve on the graduate council. Again the move “to accept by unanimous acclamation” was heard, followed by all agreeing. The same person again nominated the individual to be on the faculty senate as well as the council on teacher education. This again was followed each time by “accepting these persons by unanimous acclamation.” In the university newspaper, it stated that the four members chosen to represent the division of education were selected in a democratic manner, whereas it was one faculty member that chose all four representatives. Thus, discussions may be no more democratic as compared to the lecture method. It depends on what transpires in a discussion group.

In a discussion group, members need to stay on the topic being pursued. Each person needs to contribute and have ideas treated with respect. Developing feelings of cohesiveness is important (Ediger, 2000, 26-28).

Problem Solving

Each person needs to become proficient in problem solving since life itself consists of identifying and attempting to solve problems. Problem solving methods are indeed difficult to implement. If a committee is to choose a problem, then it truly needs to be an accepted problem for all members. The author has noticed in supervising student teachers whereby conscientious attempts were made to implement problem solving methods, but the following difficulties occurred:

1. lack of agreement as to which problem to solve.
2. the "problem selected" was not a problem but required a factual answer only.
3. the problem lacked relevance and was not reality based.
4. the problem to be solved did not maintain student momentum in finding a solution.
5. one student dominated the activity whereas another did nothing during the entire problem solving experience.
6. students were not assisted adequately in locating reference sources to find needed information.
7. students were "lost" when the problem was too complex to be solved. At another time, the problems was too easy and students lost interest soon in "finding" a solution.
8. a few students felt they were not learning enough since the textbook was not the major information source.
9. selected students found it very difficult to work together in
gathering information in answer to the identified problem. Perhaps, the intelligence style of learning varied here for students. Interpersonal learning as an intelligence emphasizes group work as a way of achieving more optimally, whereas intrapersonal learning stresses individual endeavors by a student to learn as much as possible (See Gardner, 1993).

10. the "pastures were greener" when a student listened to the chosen problem being discussed in another committee.

Teachers and students need to assess problem solving procedures used and reflect upon how the entire process can be improved upon. Problem solving should not be given up as a method of instruction merely because it did not go well the first few times. It is a skill that all need to become proficient in due to its usefulness in all of life's situations. Probably, problem solving should be the major goal of instruction in the curriculum.

Use of Critical Thinking

Critical thinking has tremendous values for all when reading and listening to subject matter presented. The consumer of information certainly wants to know if the content is true, accurate, presented responsibly, adequately researched, and honest in intent. There are a plethora of ideas floating around in a democracy. It makes it imperative to be able to analyze subject matter in terms of desirable standards. All content consumed by the reader/listener needs to be scrutinized. A very gullible person accepts almost everything that is said or read. Critical thinking involves separating facts from opinions, fantasy from reality, accurate from inaccurate statements, and avoids jumping on the bandwagon. When observing student teachers and cooperating teachers teach, problems faced in engaging students in critical thinking are the following:

1. students want factual answers rather than thinking things through when analyzing subject matter.
2. students are in a hurry to discuss alternatives in and during time devoted to critical thinking.
3. students do not wish to take time to deliberate on ideas presented.
4. students fail to engage in depth thinking when coming up with alternative ideas.
5. students lack background information to do critical thinking.

Critical thinking involves higher levels of cognition. Here, adequate time needs to be provided to learners so that analyzing subject matter is possible. Sufficient background information should be in the repertoire of the learner for critical thought to occur. Thus, for example, when
separating accurate from inaccurate ideas, students need to possess readiness to do the kind of thinking desired (See Gifford, 2000).

Creative Thinking

With creative thinking, the learner needs to come up with the new, the novel, and the unique. It is difficult many times to know if a student is coming up with a novel idea or is repeating what someone else has said. The teacher needs to be a quality discussion leader to encourage students to develop original ideas. Brainstorming is one of the finer ways to stress creative thinking in the classroom. Here, there are no right answers to a question. Instead, generating of ideas is wanted. For example, pupils may be asked to give as many uses for an object, such as a brick, as possible. The responses should be recorded and numbered on the chalkboard. Duplication of possible answers should be avoided. No value judgment is made pertaining to any response given by students. A very important criteria is that all answers are to be accepted and none ridiculed. Each student should feel free to provide possible answers for the use of a brick. Additional kinds of learning opportunities which encourage creative thinking include the following:
1. writing rhymed and unrhymed poems.
2. writing/telling tall tales, myths, legends, fairy tales, and fables.
3. writing narrative content.
4. developing an art project that relates directly to a creative short story written.
5. writing lyrics for a familiar melody.

Creative activities may cut across all curriculum areas. Teachers need to look for opportunities to correlate, fuse, and integrate creative thinking with topics that are presently being discussed. Creativity cannot be hurried, but needs to be encouraged through the use of adequate readiness materials of instruction, such as the use of concrete and semiconcrete items of instruction (See Ediger, 1999, 280-285).

Students with teacher guidance need to engage in a variety of kinds of thinking. Why? Situations in life demand that each person become proficient in being a good thinker. For example, all need to become proficient in problem solving since each faces minor and major problems which need to be identified and solved. Beginning with the earliest years of a child’s life then, it is imperative to stress problem solving sequentially as a way of life.
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