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ОСВІТА, НАУКА ТА ВИРОБНИЦТВО: РОЗВИТОК І ПЕРСПЕКТИВИ

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THREE LEVELS OF TEACHING SUBJECTS

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Almost every subject in our educational establishments can be taught at any or all of three levels: 1) the facts level, 2) the concepts level, and 3) the values level.

Education at the facts level includes the teaching and learning of specific information, facts, details, occurrences, events and actualities. It also includes the basic rudiments in learning a skill.

At the concepts level teachers and students explore the principles behind the facts. The learner groups isolated facts together in order to make generalizations from the data he has gathered. Abstractions and ideas are entertained. Where skills are involved, the more complicated processes of the skill are learned and practiced.

At the values level students relate the facts and concepts of a subject area to their own lives, explore the connection between the subject matter and their own feelings, opinions and behavior.

In our educational establishments students are usually taught at the facts or concepts level. Sometimes at both. Students are rarely taught at the facts, concepts and values level, although the most successful education includes all three.

Facts and basic skills are among the building blocks of the educational enterprise. We need to know the meaning of words and symbols – how to read, write, add and subtract. A knowledge of “the facts” is the first step in making sense of our world. History cannot be charted without facts. Mathematical and scientific concepts are based on facts. Without facts we cannot generalize, conceptualize or make abstractions. Facts are necessary if we are to build a viable set of values, unbiased by group opinion or unprejudiced by personal attitudes.

Teaching at the facts level alone may have certain advantages over teaching at the other levels. It provides a way of setting standards and norms and assures a common language and background for all who attend educational establishments.

However, teaching at the facts level alone has serious drawbacks. Primarily, the facts level involves memory work; it requires few of the higher levels of thinking and includes little relation to the life experience of students. Teachers who employ only facts seldom integrate them with other aspects of the subject matter. Facts remain isolated – bits of knowledge to be memorized for an exam and then discarded. Although occasionally interesting, facts by themselves rarely touch the individual or his life in any significant way. Rote memorization of concepts or generalizations is simply more facts-level learning. It is possible for students to memorize any concept without really understanding it.

Teaching facts alone does not allow a student to develop thinking ability or creativity. Nor do facts alone enrich the affective (emotional) and valuing areas of his life.

Teaching at the concepts level has definite advantages over teaching at the facts level. Students who learn the basic ideas and methods of inquiry can readily assimilate and classify facts. They can integrate facts into overall concepts and fundamental themes. Details are drawn together as part of the fabric of the subject. Students develop concepts and skills which they can use for a lifetime, long after specific facts are forgotten.

Lately, new teaching aids have been designed for teaching at the concepts level. Students are encouraged to inquire independently by conducting scientific experiments. They are stimulated to be creative, to work with basic materials and to discover for themselves the meaning of the concepts. In this way they test out their ideas. Mistakes are not punished or denigrated, but are thought of as part of the learning process. Students are allowed to develop

at their own rate, assisting each other in their learning. In the learning process, the teacher is more a guide or facilitator than an educational dictator.

Teaching at the concepts level is widely accepted in education today. It would be difficult to question the need for "well-educated" citizens who have developed an appreciation of important concepts and who have learned the skills of inquiry.

Our education trains us to deal with ideas, but not with values decisions. When the concepts level places the emphasis on cognitive functions, it neglects the personal lives and feelings of students. Although teachers at this level often try to make the subject matter relevant to today's world, the issues remain at the abstract, problem-solving level.

It is not surprising that the critical thinking skills learned in the social studies classes or the scientific method taught and retaught in science classes or the concept of beauty taught in art, music and literature classes carry over into students' daily lives so rarely.

If we are to make a difference in the quality of our students' lives, we cannot be content to remain at the facts and concepts levels of teaching. We must enter a third level, a values level, where subject matter is related to the lives of students – their interests, attitudes, concerns, feelings and behaviors.

Teachers can successfully begin and end at any of the three levels. Yet, there is a persuasive argument for generally trying to begin and end at the values level.

If students are seeking information to solve a values problem that has importance to them, they will want to know about the facts and the concepts behind the problem. Thus by beginning at the values level, students are often more motivated to work at the other two levels. Starting at the values level motivates and focuses the study; ending at the values level draws together and clarifies the learnings which the students themselves find significant.

Another dilemma of three-level teaching is the amount of time to be spent at each level. Too much time at the factual level tends to dry up the mind, making study seem boring and irrelevant. Too much time at the concepts level can reduce learning to an intellectual exercise conducted in an ivory tower. On the other hand, if too much time is spent at the values level, discussion can become merely a "bull session." If it leads to any action, it is likely to lead to action that is uninformed and unconsidered.

There is no formula to tell a teacher how much time to spend at each level in a given subject area. The teacher must himself make a value judgment about what is worth teaching. Hopefully, each teacher will decide after asking himself: How is this subject helping to inform my students' values? What difference will this really make in their lives?

Teaching at all three levels can integrate various aspects of the subject matter with the individual student's life. The student is encouraged to think, feel and act. He builds upon his perceptions and experiences to find meaning and values. What he learns in any educational establishment helps him determine the direction of his life.