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AUTHOR Humphreys, Les
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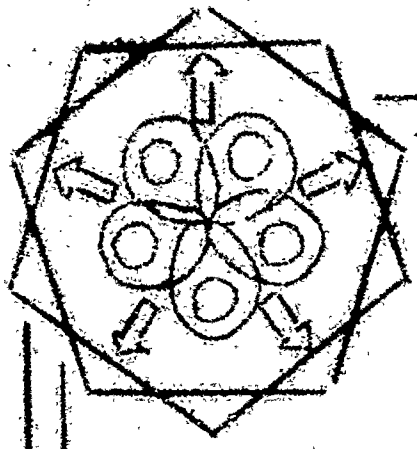
ABSTRACT

Teachers have used unified educational techniques for years. What is new is the attempt to articulate a system of such techniques that can be used at all levels of learning. Some suggested techniques are: (1) whole-learning charts, (2) linkage exercises, (3) whole-problem-solving exercise, (4) universals exercise, (5) archetype exercise, (6) model exercise, (7) analogy and metaphor exercise, (8) evolution exercise, (9) deviance exercise, (10) integration exercise. This is an attempt to rationalize a system for teaching certain ways of thinking, reasoning, problem solving, and decision making that are an important part of the "hidden" curriculum. (Author/KE)



UNIFIED STUDIES -- I:9

TECHNIQUES OF UNIFIED EDUCATION (1974)

TECHNIQUES OF UNIFIED EDUCATION

I believe that teachers have been using unified educational techniques for years now, o they are by no means "new" ideas. But what is new is the attempt to articulate a system of such techniques that can be used at all levels of learning.

WHOLE LEARNING CHARTS

"What you know, you know. What you don't know, you don't know."

Stop time for a moment - what students know at that moment is what they know. It makes little difference what they learned a week ago - or what they will learn a week hence. Memory is inaccurate and incomplete - prediction is unreliable - prophecy is uncertain. What exists at the present moment in the minds and feelings of your students is what really exists.

The aim of all "whole" unified educational techniques is to capture the moment.

So much of education today is geared to the idea that what you learn today you will use tomorrow. 'Know the following dates because . . . ." This is not necessarily a bad thing. But it should be only a small part of the learning process rather than its dominant motif. If a teacher conceives of his/her function in Dicken's terms of "filling up empty heads with facts", then education is sure to fail.

It is a quite different approach to start with what a student actually knows at a particular moment. This is the basis of whole learning. When you initially ask students what they know about a particular thing they will usually say "Nothing". In reality, they may know a great deal but have never integrated their thinking in such a way as to see its wholeness. For example, if you ask a class "What do you know about Africa?" and then write down the bits

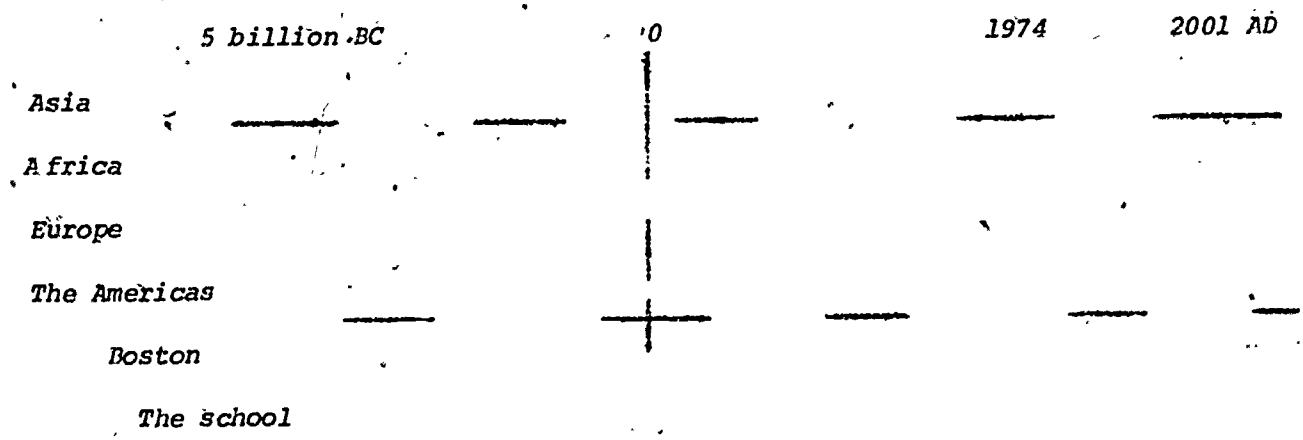
and pieces of unrelated responses, it will soon become apparent that there will be a great many fragmentary bits of information available. The function of the whole learning chart is to integrate these fragments - to find patterns - and to help students begin to feel that they do indeed know something.

Ask your students what they remember about yesterday - or last week - or last month. Record these remembrances on a large wall chart and point out the differences in their perceptions of the events that they have had a shared participation in.

A whole learning chart can be a graffiti board in its simplest form . . . or it can be a sophisticated time/content grid with geography and chronology as the matrixes . . . or it can be a three dimensional model.

In any case it is a "context". This is its function. Students remember more when what they learn is in a context that starts with what they know and goes on to add the unfamiliar.

In practical terms, you can use whole learning charts by papering a whole wall at the beginning of the semester. Indicate large chunks of time (periodization, civilizations, etc.) and include the potential for present and future happenings:



Any time during the year that a new block of time is introduced - or a new event or person mentioned - place an entry on the wall.

You might also paper another wall and have the geography of its grid include feelings inside oneself . . . or relationships with people close to oneself.

You can use "rip-off charts" of large newsprint - do a whole learning exercise for each day and allow students to take them home.

Encourage students to take notes in class (or while they are reading) on a whole learning chart form. The notes will make more sense to them if they are in a chronological or topical framework and context.

Whole learning charts are the key to contextual learning. Always try to describe forests on them rather than trees. Emphasize the general rather than the specific. Begin with what people already know and add the unfamiliar. The teacher's job is to initiate the organization of disparate parts into a coherent whole. For example, stress periodization before you stress dates, names and events.

Paste maps, pictures, charts, slogans, xerox copies of biographies, etc. onto the whole wall chart in their proper contexts. When a wall is full, take time to make reduced sized charts (or polaroid pictures) for each student. Only the major things will stand out. These are the things that students will remember - particularly the TV generation.

Through whole learning exercises students will be encouraged to posit statements on the basis of limited knowledge. Allow them to do this. It will give them a sense of their power. Never say (or imply) to a student that "you don't know enough, therefore you should keep quiet until you have read all the books that I have read." Build student's self respect by emphasizing their strengths (i.e. starting where they are really at).

LINKAGE EXERCISES

Another unified education technique is the use of linkage (association) exercises. Try to help students discover links between seemingly disparate events, names, occurances, cultures, etc.

Set up special times in the classroom when the conversation "floats" easily from point to point on the basis of one student's triggering an associated response from another. Follow the links wherever they go.

But at the same time the teacher's role is to try to fit the linked concepts into generalized patterns and to help students articulate why they moved from one subject to another. It is imperative that teachers articulate these contextual patterns and point out what appears to them to be the reasons for the linkage. Students will soon pick up on this technique and be able to articulate for themselves why they think one idea leads to another.

This kind of training will be invaluable later for students when they are asked to solve problems.

For example, give the students a word or a problem and ask them to "play" with it - examining it from each of their different perspectives. Comment on how one student will perceive a word (or a problem) in an entirely different way than will another student.

These exercises will strengthen student's abilities to articulate and integrate. Linkage is the basis for a multilinear sense of chronology (Stage V Phase 2 above). But it is larger than this. It is a key to how peoples' minds work. Most people remember well through association and they utilize only that which is relevant at a particular moment. While they are working on a project (e.g. the study of the Civil War) they become "experts" if they find utility in their knowledge. Soon they will forget much of their content learning . . . but they will not forget the "way" in which they learned it . . . this is the justification for linkage training.

WHOLE PROBLEM SOLVING EXERCISES

Often students are asked to solve problems by dividing them into units. They run to the dictionaries and encyclopedias to "define" words and "research" events. They are taught to avoid generalizations and present ideas in terms of specific agreed upon tertiary source definitions of fragmentary and narrow "solutions".

Reverse this process. Turn it upside down. The result of definition and division in problem solving is that students seldom see the "whole" problem. They deal only with its parts (e.g. the economic implications of . . . or the social implications of . . . etc.).

Many students study Greek History, then Roman History, then the Middle ages . . . but they never study world history. They never see the whole world all at once. No matter how adept they become at describing trees - they never get to the point of seeing forests.

In setting up whole problems for your students to solve, make sure that the areas covered are multi-faceted. Help students integrate data from a variety of disciplinary sources so that they can see problem solving as something more than just rationalization and definition. Maximimze parameters.

Give each student a choice of a problem to solve each week - gear the problems to the age and sophistication of each student. Use your creativity to come up with problems that are "process" problems (i.e. in a state of change). For example, a high school class might be asked "Where will technology take communications in terms of personal privacy during the next twenty years?" Or an elementary school student might be asked to "compare ZOOM on TV this year with what you remember about it from last year - then try to figure out what it will be like next year." Allow students to use social, economic, historical, literary, ethical and subjective personal data. Have them come back the following year and check their solutions against what they then perceive to be the case.

Allow students to posit tentative solutions. Then check these solutions sometime later to see if students want to change their minds based upon the new place that they find themselves in.

This is the way real life whole problem solving should be done. You are teaching your students how to solve process problems.

You will thus reinforce students' powers of selectivity (in terms of sources) logic (in terms of method) and creativity (in terms of speculation and evaluation). Allow as much diversity as possible. One of your students may come up with a viable solution to the air pollution problem twenty years from now if she/he is trained in this technique now.

UNIVERSALS EXERCISES

Ask students to posit things that they believe to be universally true - or universally false - or good for all people - or bad for all people. Part of the fragmentation that many people feel today stems from the learning patterns that they have established. If students can be trained to think (at least some of the time) in terms of universals, then there is a possibility that they will develope a "whole world" sense.

In the early years of schooling you might wish to introduce universals through "folk wisdom", songs, tales, ballads, etc. In later analysis, you can then deal with ethnic differences, cultural analogies, etc. and still have a basic feeling of "humanity" maintained by the students.

ARCHETYPE EXERCISES

You have done an archetype exercise this semester: we dealt with the "hedgehog" and "fox" archetypes as well as the C.P. Snow thesis concerning two cultures.

The aim of these exercises should be for your students to get above the

particular and find expressions of similarity (or difference) that can distinguish patterns. Give your students a list of seemingly disparate elements (events, mathematical figures, etc.) and have them posit archetypes.

MODEL EXERCISES

Model theory in learning is fairly well developed. Look on the resource list for a number of recent articles that deal with the use of models in the classroom.

Again, the aim of this sort of exercise is to have students develop the ability to create real models (either verbal or physical) from or for an abstract set of seemingly disparate elements.

Ask your students to construct models for all sorts of things - places, events, concepts (in that order). The more adept they become at constructing models, the more they will be able to visualize whole problems.

Compare students models. Point out similarities and differences in each of their perspectives on a particular thing. Generalize from these perceptual differences to problem solving techniques in which each individual has a particular way in which they approach every problem. Make sure that your students know why they see things differently from each other.

In its most sophisticated development, you schould be able to have your students construct a model for "justice", or "love", or "freedom".

Let students use their whole environment in constructing models.

ANALOGY AND METAPHOR EXERCISES

People can be trained in the rigorous use of analogy and metaphor at a fairly early age. We talked in class about teaching the concept in history that cultures do not always "progress". Sometimes they decay. And I suggested that you bring a green banana on Monday and ask the children what has happened

to it by Friday. This will develop a sense of chronology (Phase 2 - see below) and at the same time strengthen people's concepts of "right time" and "right place".

I would suggest that you get a copy of Bill Gordon's book The Metaphorical Way and become familiar with some of the techniques that can be used to stimulate creativity.

The main danger in using analogy in teaching a sense of history is that some teachers will fall back on the old saw that "History Repeats Itself". They will say: "Study the Past So That You Do Not Make The Same Mistakes Twice". This is rubbish.

Analogy is merely a tool by which the familiar can be re-stated in a new way. Metaphors are merely tools by which the familiar can spark insights into the unfamiliar.

EVOLUTION EXERCISES

Whenever possible, try to help your students articulate gradual change. Often it is the case that teachers of history teach only those events that are "revolutionary" (i.e. in the eyes of historians these events are significant because they are crisis laden or drastic in some widespread way).

The emphasis of whole learning is (and should be) on both the micro as well as the macro world. Watch the film Cosmic Zoom sometime (Canadian Film Board).

Structure exercises that will emphasize slow development over a long period of time (long in this case being relative to the age of the student).

DEVIANCE EXERCISES

Teachers often teach (or exhibit) norms. Seldom do they stress deviance as a process for determining norms. In terms of whole learning and whole problem solving, it is essential that people be aware of both the norms that they

employ as well as differences that preceded them.

For example, state a "rule" or a "law" and ask your students to think of as many exceptions to that rule as possible. This will sharpen up their ability to handle a variety of perspectives while at the same time reinforcing the need for norms.

INTEGRATION EXERCISES

Circle exercises - Draw a circle and include within the circle all of the ramifications of a particular problem or event. Include everything. Any thought that any student has or can remember should be placed randomly within the circle.

The aim of this kind of exercise is to have students develop the ability to create a simple whole from a variety of complex parts.

Circumference exercises - Start at a particular point and go through a step by step process of getting back to the same point. Plot these points on a circle.

Spiral exercises - Once students are able to do both of the above well, try stretching the circles out into spirals. Then integrate various spirals where they touch each other. This will prepare students for a Phase 3 (Stage V) sense of chronology (see below).

You will have to take these generic exercises and develop your own specific applications for the age group of students that you are serving.

All of these ideas are fairly new to me, and I have not had the time to think through their implications fully. What is at stake however, is clear: this is an attempt to rationalize a system for teaching certain ways of thinking, reasoning, problem solving and decision making that seem to me to be an important part of the "hidden" curriculum at the moment. Teachers already use these devices and techniques. But most often it is an intuitive sort of thing. I hope that we can develop a systematic (and therefore replicable) model for the teaching of "wholeness".