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PART ONE

FOUR COMMONPLACES OF EDUCATING PLUS ONE

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The Art of Educating

Principle 1. Educating changes the meaning of experience.

How we educate is a complex process. Our task is to simplify this complexity without denying its value. This task requires much thought, careful planning, and individual effort. Educating becomes possible when it is viewed as a social event of shared meaning between individuals. Educative events help us come into possession of our world, both social and natural, and occur as a consequence of human choice, intervention, and inauguration, which give us power over subsequent events. Literally thousands of educative events happen. Examples of educative events include: a teacher and a student working together on a *plan* for a scientific experiment; a coach and a player reviewing a *playbook*; an automobile mechanic explaining to a driver a procedure with the fuel injection system described in the *owner's manual*; a gardener using a *book* on gardening to demonstrate the process of hybrid germination in plants to an interested party; a parent and a child reading about their *family tree*; and a student showing the teacher a *computer programming application*. In each of these examples, we see people using ideas (e.g., documents) to change meanings of events. *As educative events come increasingly under the control of individuals, educating becomes self-educating*.

The **V** diagram helps learners to recognize the complexity and also the basic simplicity of the knowledge construction process. **V** diagrams help first-time learners of the **V** to see that knowledge has structure. From the first learning experiences through all grades and levels of learning, knowledge has structure. Observing that knowledge has structure helps greatly in anticipating new events. Learners at each grade or level come to expect to see the structure and how it is made. The **V** is used to diagram the issues that are produced by claims of knowledge and, through its arrangement of the epistemic elements, reveals its source of conceptual and methodological

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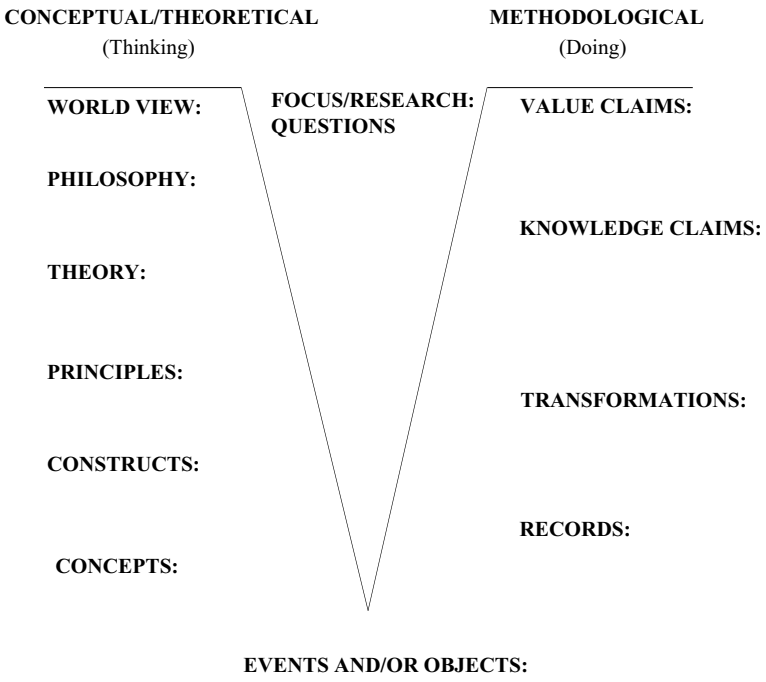

FIGURE 1.1. A skeletal **V** diagram showing its elements.

practices. A skeletal **V** is shown in Figure 1.1. The 12 elements arrayed on the **V** are explained in Chapters 3 through 9.

In describing how to use the **V** diagram for both analyzing and learning about the structure of knowledge we apply Bob Gowin's theory of educating designed to make sense of educative events (social constructions devised by people) using four commonplaces: teaching, curriculum, learning, and governance.[1] This theory of educating is a conceptual approach to problem solving that fosters teacher and student interactions resulting in creating meaning through negotiation of ideas. By centering our attention on the four commonplaces plus the societal environment of educating, we come to understand educating as an eventful process in the reorganization of meaning that becomes a mainstay in our "life's work." This understanding fulfills our intrinsic desire to become self-educated for our own well-being.

[1] For a detailed analysis of the theory of educating see D. Bob Gowin, *Educating* (Ithaca, New York: Cornell University Press, 1981). Reissued Second Printing in paperback 1987.

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EDUCATING

Educating is a process of deliberate intervention in the lives of students in order to *change* the meaning of experience, and it begins in midstream of important events in their lives. The change educating makes happen empowers students to become self-educating; they learn to take charge of their own experience. This change of the meaning of experience requires teachers to teach (teachers cause teaching). *Teaching* is defined as the achievement of shared meaning. The deliberate intervention in the lives of students is aimed at negotiating meaning between teacher, curriculum, and student to the point of mutual understanding. In this process, the teacher brings something, the curriculum presents something, and the student brings something. All three are involved in contributing something toward the empowerment of students so that they become self-educating.

A concept map with the components of "Educating" shows the relationship between the teacher and the learner in the educative process (see Figure 1.2).

Just as teachers cause teaching, students cause learning. The student is therefore responsible for learning. *Learning* is defined as an active, nonarbitrary, voluntary reorganization by the learner of patterns of meaning. The student learns the new with the power of the old; the new unfamiliar materials must become integrated with the old, familiar ideas and meanings the student already knows. Learning is how the student grows from the familiar to the unfamiliar so that these two are progressively integrated and differences are reconciled. The **V** diagram appearing in Figure 1.3 illustrates one example of an educative process.

In this **V** diagram, the components that make up the concept map are evidenced. This example from sports is a player and a coach negotiating meaning of a play intended to make a difference in a future event (the outcome of a game). It is through this discourse that the sharing of knowledge, and the extent to which the same meaning can be ascertained, is accomplished. The concepts, events, and records of facts are instrumental in this meaning-making process. The degree to which this play's meaning is grasped, understood, and executed will be determined by the exchanges that take place in the practice sessions and the actual game. For educating to occur we work together to achieve meaning through the interaction of thinking, feeling, and acting.

Thinking, Feeling, and Acting: The TFA

Thinking is a behavior not directly observable by an objective observer. Teachers know well the mistake of trying to be certain about a

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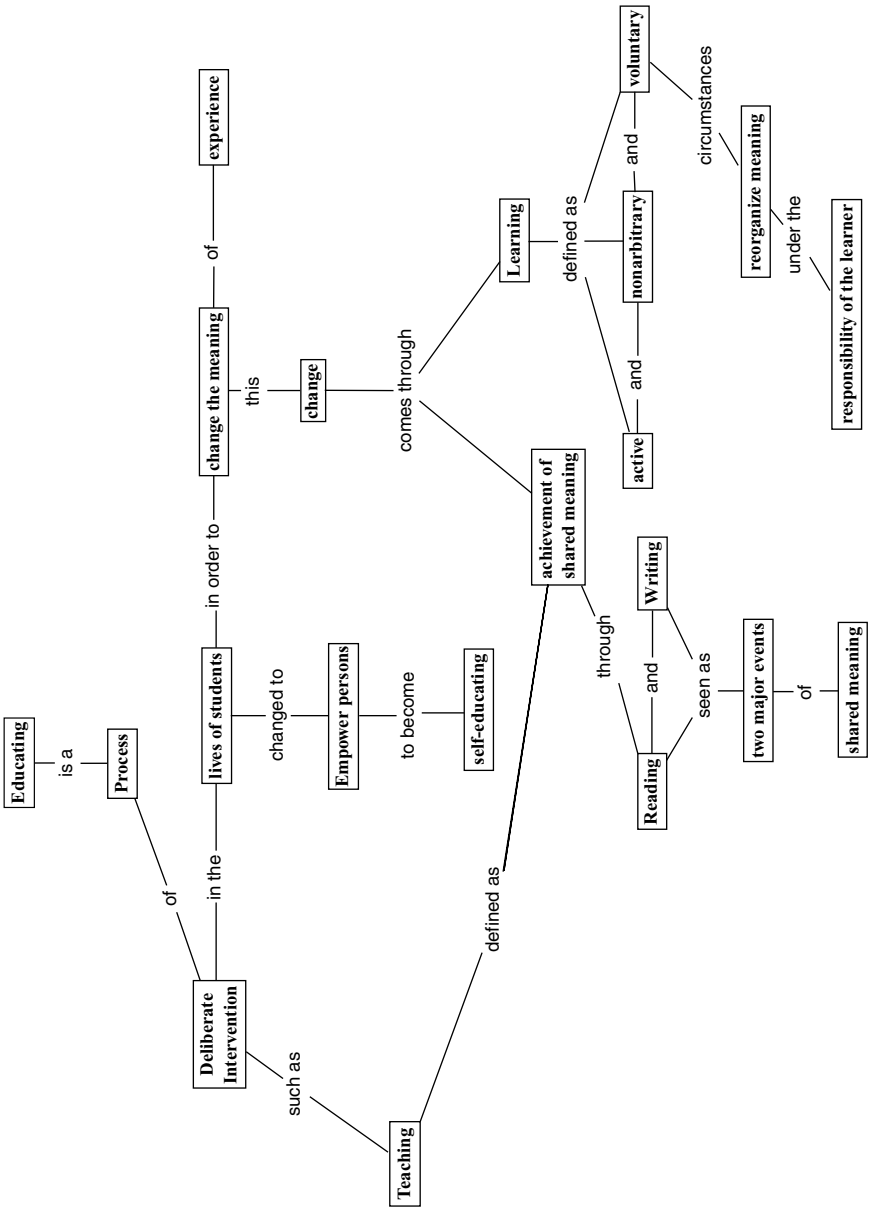

FIGURE 1.2. Educating.

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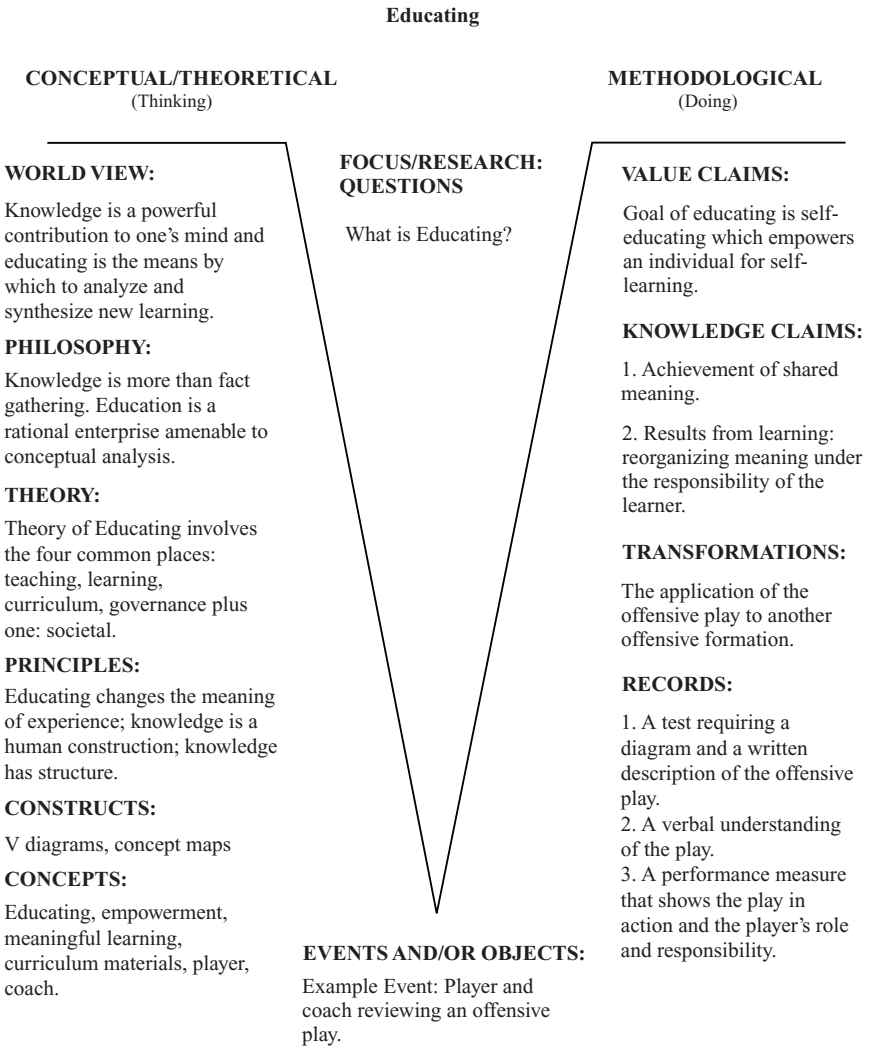

FIGURE 1.3. A **V** diagram example of educating.

student's thinking behavior. Concept maps externalize a student's thinking. Maps provide a shareable document for teachers and students to negotiate meaning.

Feeling is a behavior whose meaning or meanings are difficult to read correctly. We do not yet have any way to ensure that feelings can be correctly shared, negotiated, or reliably repeated. We can ask, "How are you feeling?" The responses we get can lead to further discussions. Up to a point, we can agree that we understand each other's feelings. Up to a point. Mostly, feelings are our own personal, subjective awareness and

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are no one else's business unless we voluntarily put them on the table for discussion. We each have our secrets we believe are still secrets. We declare our independence of our feelings.

Felt-significance is a key concept in this theory of educating. We believe that learners grasp meanings that are not their own, and we believe learners can *feel* the significance of these grasped meanings. Felt-significance is a powerful moment in educating when grasping a meaning and feeling the significance come together. It is a common human event to "get it" and simultaneously recognize the importance of "getting it." Surprises, novel events, new meanings come at us daily. Some of these events we feel are important enough to keep. "Now I see." "So that's it, eh?" "I got the meaning, and now I feel I understand it." "Makes sense to me. I'll remember that!" "I was blind, but now I see." These events of felt-significance are key to educative events. We name felt-significance an educative value; it is an event that can be recorded in human memory and made a keep sake.

Acting is a behavior guided by meaning. Acting is a combination of energy and information, where information controls energy. Explicit meanings guide and direct overt actions. In the best cases we successfully do what we meaningfully intend to do. Often, however, good intentions result in unintended consequences, and we realize we did not know what we were doing. Purposefully acting in a stage play is a good example of an acting behavior.

Educative events can bring about a flourishing integration of thinking–feeling–acting.

Example 1: An Educative Event (Arithmetic $2 + 2 = 4$ versus Chemical $2 + 2 \neq 4$)

You mean two plus two is less than four? How can that be?

That's not true in counting, you know! So, can you explain your crazy claim? So, tell me. Teach me. Show me! OK, you want me to pour two ounces of water into this measuring cup and then pour two ounces of alcohol into the same measuring cup. Wait a minute! Why doesn't the liquid rise to four ounces?

You mean that when the two different kinds of liquids are combined into one measuring cup that it is less than four? In this case, two plus two is not four? Why does this happen? You say because the molecules that make up water and those that make up alcohol are shaped in such a fashion that when they are combined they are able to fit closer together and therefore take up less volume than when they are separate?

So, you say a counting event and a chemical event are different events? Yeah? Arithmetic deals with numbers. Chemistry deals with factual events of chemical behavior. So? So what? It is very important? Oh. Now I see: The logical and the empirical are two different events. Not the same kind of event.

Example 2: An Educative Event ($1 + 1 = 1$)

Let's see if I can make an analogy to molecules taking up less volume when combined.

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I play tennis, and the tennis balls come three in a cylinder. If I had a box that contained ten empty cylinders and a box that contained 30 tennis balls I would have two boxes: $1 + 1 = 2$. But if I took the 30 tennis balls in the box and combined them by putting three into each cylinder I would have one box instead of two. This is because the size of the cylinder holds three tennis balls and takes up less volume, therefore eliminating the need for the other box. I now have two boxes that now are one box: $1 + 1 = 2$, but 2 combine into 1. Wow! I get it. $1 + 1 = 1$. You have boggled my mind!

I GET IT! Using the measuring cup in the first example and then using an example with which I am familiar helps me to better understand this principle than if I just hear it told to me.

There is more? I didn't get it all? You just helped me to understand that $1 + 1 = 1$? One box holds all that two boxes did. OK, so two boxes collapsed into one box. Sure, I get it.

There is still more? Arithmetic deals with numbers. Chemistry deals with factual events of chemical behavior. In this case, the molecules when combined take up less volume. So? OK. What don't I get now?

Oh. Now I see: the *events* are different. The *logical* and the *empirical* are NAMES for two different KINDS of events. They are not the same kind of event. Logical empiricism made a career of that simple distinction. Egad, that's significant!!! I REALLY GET IT NOW! I understand the difference within and between the two examples. Oh, yes but that philosophy's dead, right? Ha! OK. The distinction is still alive, and that's the significance!

In these two examples, the sensation of felt-significance is evident in the thinking, feeling, and acting that take place in these educative events. The person being taught reveals these actions through a series of spontaneous "I get it" reactions, which are so necessary in the educative process.

FOUR COMMONPLACES OF EDUCATING PLUS ONE

The belief that we should seek simplicity but preserve complexity is illustrated in the four commonplaces of educating plus one network of relations between *teaching*, *learning*, *curriculum*, *governing*, and *societal learning environments*. The simplifying comes from integrating complex events of educating.

In these commonplaces of educating, *teaching* is achieving shared meaning through negotiation rather than telling; *learners* are responsible for their actions; the *curriculum* is emergent and constructed rather than given and fixed; *governance* is the way we control meaning to control effort; and the *societal environment* is an important factor to be considered if formal school practices are to be meaningful. Incorporating students' out-of-school experiences into the formal school curriculum strongly influences and has an impact on new learning. This theory is based on the premise of a Constructivist epistemology (the idea that both individuals and groups of individuals construct ideas about how the world works). For educating to occur,

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we work together to achieve meaning through the interaction of thinking, feeling, and acting.

Teaching

Teaching is the achievement of shared meaning in the context of educating. While it is agreed that teachers are the efficient cause of teaching, they are not the efficient cause of learning. The teacher acts intentionally to change the meaning of the student's experience. The aim is a shared meaning between the student and the teacher. The teacher is responsible for seeing to it that the meanings of the materials the student grasps are the meanings the teacher intended for the student to take away. The student is responsible for seeing to it that the grasped meanings necessary to the student's new learning are the ones the teacher intended. Providing sufficient time for negotiated meaning is important. Grasping the meaning is something that each of us must do; it is not part of what the lesson contains. When learning has educational worth, it requires the grasp of meaning.

The teacher is responsible for providing teaching methods and materials that learners can relate to their experience. These methods and materials are intended to help learners become active minds rather than passive participants. The focus of these methods and materials is for the student and teacher to share and achieve new shared meaning. Together they must agree on the key new meaning. In an educative event, the teacher initiates the event by using meaningful materials and instructional methods to teach students so that they are able to understand the meaning of concepts and facts contained in these materials. The teacher helps students to become aware of what they already know and helps students see the importance of making use of their prior knowledge and experience. Learning connects the old with the new. Explicit expression of and use of key concepts is the most simple and compelling way to negotiate meaning and simplify complexities. *Facts do not explain themselves. Concepts do*. Conceptual grasp leads to satisfying explanations of what is happening.

Educational Episodes. When we think of educational episodes as having a beginning, middle, and end, we can see that the actions of the role of the teacher will vary. This movement through time involves changing meanings during these stages as the teacher's role changes from initiator, to facilitator, evaluator, and discussant. In the final phase of an episode, the teacher assumes the role of a master teacher.

A master teacher organizes the many different roles teachers can play. Any teacher will have many different lesson plans. When these plans of action are drawn up around the **V**, you can clearly see the different questions the teacher must ask and the different events that are required. In these final episodes, the teacher can emphasize the contextual nature of

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knowledge claims. The fact is that the meaning of knowledge statements is a function of the context of inquiry that produced them. When contexts change, the meaning changes.

Further, the fact is that conclusions have important limits to their generalizability, and there is always the possibility that different ways of viewing the same phenomena might produce an enlightened view. This is an exciting prospect. All knowledge is a good ground for the new conceptual entertainment of unrealized unknown experienced events. New thinking emerges. All knowledge claims can be phrased as questions for further inquiry to answer. The "Parade of **V**s" shows clearly these significant changes.[2]

Teaching is consummated when the meaning of the material that the student grasps is the meaning (or sets of meaning) the teacher intends the material to have for the student. The deliberate finding, testing, and explication of meaning found in materials characterize educational episodes involving teaching. If teaching changes the meaning of the student's experience then the student's subsequent experience will be changed also. Two changes occur: (1) a change in the meaning of experience and (2) a change in the experience of meaning. The student's power to better control a later experience is grounded not so much in the teacher's authority as in the student's understanding of how the educative materials enhance and enlarge the range of his or her own experience. This shift in power can cause increased motivation to learn. The teacher's responsibility is to see that what the student takes from the educative materials does in fact help the student in this increased understanding. When the student feels increased power over events, he or she can also feel increased responsibility. Sometimes conflict arises from students' increased power and responsibility. At this point, frankness, honesty, and the openness of negotiated meaning are appropriate. Integrating thinking and feeling and acting takes time and practice. Mistakes will be made. Interesting questions will arise.

The teacher's greater knowledge of the conceptual structure of the field of study permits him or her to judge the difference between an important question and one that is mere piffle. Too often silly and overly simple ideas are thrown in the mix of strong ideas. The student may try to answer the question before reaching this understanding. Any genuine question is about future events. When the questions are clear the next step concerns techniques and methods to be used for answering the questions. Again, the teacher, who may already know what to expect, can assume the role of stimulator by refusing to tell directly the most appropriate and sophisticated methods of work and letting the students try it out and see what happens. By stimulating students to try to find workable methods

[2] See Chapter 6 for a description and example of a "Parade of **V**s."

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