



Making Sense of Experience:

A Model for Meaning-Making

by Ted Ansbacher

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Meaning-making has become a widely accepted term for what visitors do at a museum exhibit. It puts a focus on the visitor's active involvement—making—and validates the meaning the individual derives from this, even as that may vary from accepted knowledge. In the Fall 1999 issue of *Exhibitionist* (Ansbacher) I described a model of the process by which people make sense of their experiences of the world they live in—broadly called *experience-based learning*. It encompasses a wide range from the process used naturally by young children to its most refined form as science. Meaning-making falls comfortably within this model as a form of experience-based learning. Though the model is simple, it has proved useful, particularly in its diagram form, in clarifying the process of meaning-making and how it relates to exhibit development.¹

The Basic Model

The basic model of experience-based learning is shown in Figure 1. It divides the universe into two parts, our *mind* and the *physical world* we live in, connected by the interface between them. The interaction of these three elements results in changes in the mind—what broadly may be called learning, or my own preferred term, making sense of experience.

A *mind* is something each of us has; yet each mind is unique. The study of the mind is, of course, an enormous and in many ways mysterious subject unto itself. Yet complex though the mind is, for the purposes of this model two qualities serve to define it—it has the capacity of *memory* and it is capable of conscious *thought*. Memory holds the accumulated content of the mind and allows it to

compare events from different times as well as different places. *Thought* refers broadly to any activity in which the mind works with the contents of its memory, and it includes not only thinking and reasoning, but also imagining, feeling, etc. Both qualities are present to some degree at birth, and they continue to develop as the individual grows, reaching different levels in different individuals. To the best of our present knowledge the mind is wholly a function of the brain, but they are not the same thing.

The *physical world* is all that lies outside the individual mind. It is where objects exist and events happen, and it includes other people. There is assumed to be only one physical world that exists independently of any mind and is the origin of all sensory stimulation.

The third element of the model is the *interface* which connects the physical world and the mind. It consists of the five senses—touch, hearing, sight, taste, and smell—and the brain. In passing through this interface, physical sensory stimulation is transformed into perception which registers in the mind. For example, pressure waves in air become music, electromagnetic radiation becomes images and colors, etc. These perceptions can be called *direct experience* and may be stored in memory. The interface is not a one-way path, however; it also connects the mind back to the physical world. The mind via the brain directs muscles which act in the physical world, resulting in the creation of new sensory experiences. Together the three elements of the model establish the possibility of a cycle—of world to mind and back to world—which can be self-perpetuating.

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Making Meaning: The Process of Understanding

As this cycle goes on and experiences are gathered in the mind, it seems to be a part of human nature to want to make sense of our experiences—to *understand*, to find *meaning in*, or to *explain them*. What that means, in this context, is that the mind looks for *regularities* and *relationships* among the experiences, general ideas which can tie together a group of experiences. As regularities and relationships continue to be found, they may form the basis of a mental model. The model of experience-based learning being presented here, for example, is just such a model. There is no recipe for doing this. These are creative acts, and the meanings an individual may make will depend on what experiences are already in the mind and its level of thinking ability. In the diagram of Figure 1 this mental activity is represented by the upward sweeping arrow on the left side.

As has been noted, a key feature of meaning-making is that it forms a cycle. Once some level of understanding has been attained, the process can continue and go back to the physical world to see how the new understanding actually holds up. This is represented in the diagram by the downward sweeping arrow on the right. If new experiences that are found do not fit into the existing understanding, the mind can continue in the cycle and seek to enlarge or alter the previous understanding. Infants and young children are clear examples of this. Since so many of their experiences are new, they are working almost full-time to construct new understandings. Adults, on the other

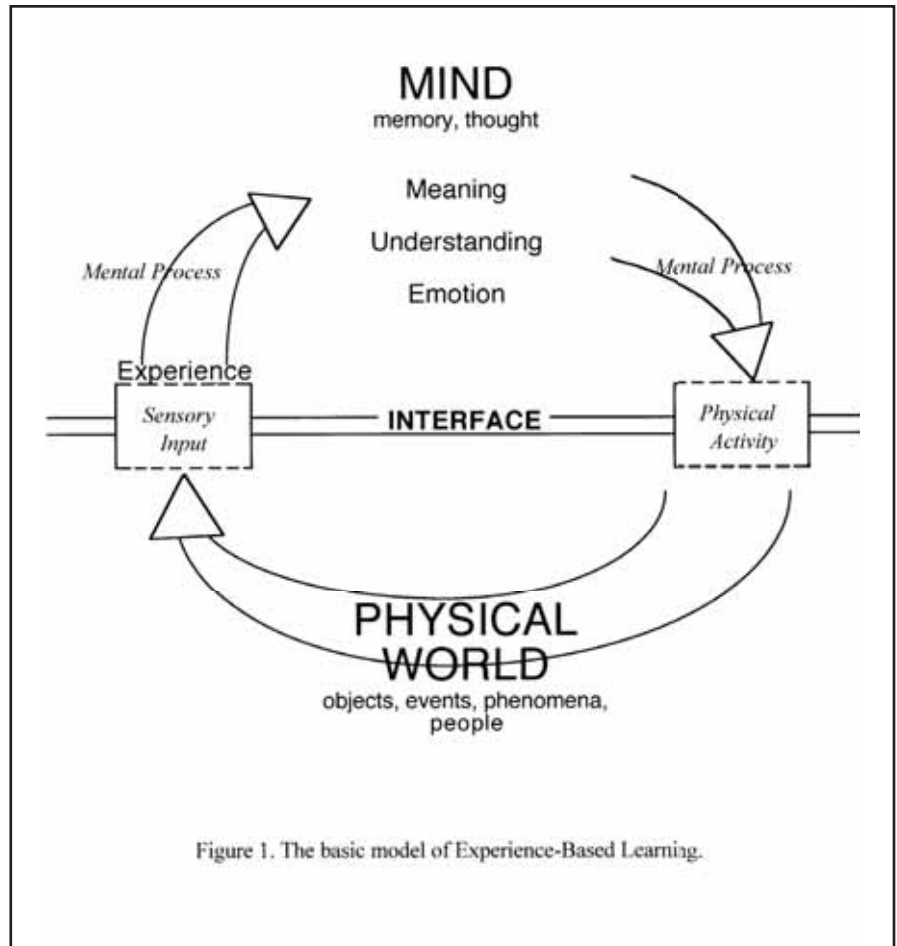
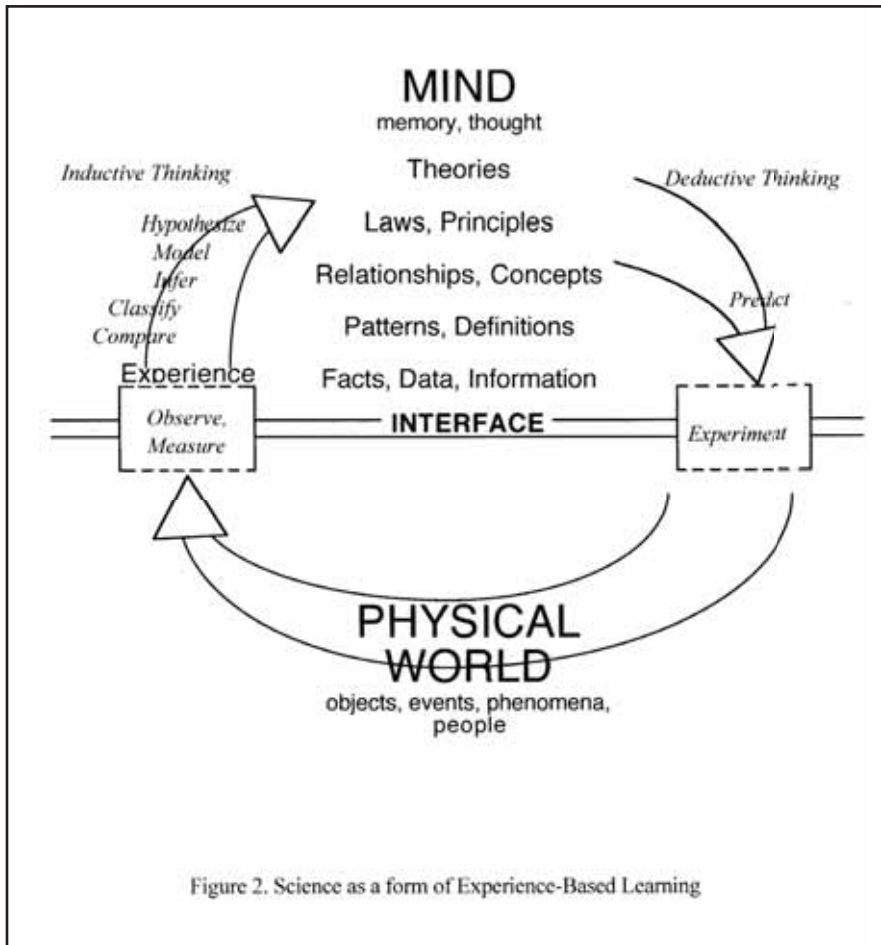


Figure 1. The basic model of Experience-Based Learning.

hand, have relatively few experiences that do not fit existing understandings. Still for them even a variation of a familiar experience, such as finding something new in a familiar work of art, can set the meaning-making cycle in motion. In any case, it is the continuing cycle, the back and forth between the mind and the physical exhibit, that is the true interaction of “interactive” exhibits and not simply physical manipulation.



Implications of the Model

Simple though the experience-based model is, it can provide answers to several of the questions posed by Jay Rounds in the Fall 1999 issue of *Exhibitionist* (Rounds) about meaning-making.

- *What do we mean by “meaning”?* Meaning is whatever results from our minds processing sensory experiences. It may be emotional as well as intellectual and does not depend on external validation.
- *What are visitors making meaning about?* Visitors make meaning about what they see and do at an exhibit, often by connecting new experiences with previous experiences and meanings.
- *Is meaning-making an esoteric or everyday activity?* Meaning-making is part of the broader process of experience-based learning; it is both an everyday casual activity and, in its most sophisticated form, it is the process of science.
- *Is meaning-making a personal or social activity?* Meaning-making is a personal activity which takes place in the individual mind, but social input can be a vital part of the process.
- *Do we really need to do anything about it?* No, meaning-making is what happens, no matter what we do. And yes, we need to understand the process better so that we can

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...it seems to be a part of human nature to want to *make sense* of our experiences—to *understand*, to *find meaning* in, or to *explain* them.

The most formal use of the experience-based learning cycle is what we know as *science*. Figure 2 shows how components of “the scientific method”—which are often just listed in textbooks as separate items—fit within the framework of experience-based learning. The hallmark of science is in the way it uses the step from the mind going back to the physical world to verify its understandings. It does this by using *deductive reasoning* to make a *prediction*, and then performing an *experiment* to see if the predicted events actually do occur. Most of what goes on at exhibits may not qualify as rigorous science, but these mindful interactions can still involve active participation in the experience-based learning cycle and can produce meanings which are satisfying for the individual visitor.²

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support and enrich the meaning-making process; so that we can set appropriate exhibit goals to replace the traditional communication goals.

- *How can we tell if it is working?* We can tell if it is working by observing visitors' engagement—what they see and do—with the exhibit and by asking them about their reactions.

Meaning-making, as described by the experience-based learning model, contrasts sharply with the more traditional information-transfer model of learning in the goals that each establishes for exhibits. For information-transfer the goal is for visitors to receive and retain subject matter content, and the developer's focus is on the exhibit content. The shortcoming of this is that while it may create the appearance of knowledge, it does not necessarily connect with the peoples' own experience or develop their own understanding. For meaning-making exhibits the goal is to provide experiences which may engage a visitor in the learning cycle; the exhibit developer's focus is on what there is to see and do. The anticipated result is an exhibit that produces a deeper understanding and connection with the individual's own prior experiences.

The model makes clear that meanings and understandings are all in the visitor's mind, while the only things the designer

controls are the physical exhibit and its surrounding environment. This sets a new challenge for exhibit developers. You can only put physical objects and phenomena on the museum floor; you cannot directly exhibit ideas or concepts. So ideas and emotions have to be approached indirectly, as part of the meanings that arise from connecting new experiences with existing memories. The VietNam Memorial is an excellent example of this. Although the physical exhibit is a simple granite slab with carvings on it, viewing it is a strongly emotional experience for most people because of the associations it engenders.

The ideas of experience-based learning have been with us for a long time, going back at least 100 years to John Dewey, and some would say even as far as Socrates. I believe meaning-making, seen as a manifestation of experience-based learning, will continue to guide exhibit development in the future. We are now at a point where technology is having a big impact on educational practice, largely in the service of information transfer. Particularly as the human-computer interface continues to improve, it will be possible to create ever more realistic simulations that will allow experience-based learning to be available to a greatly expanded audience. Museums can take a lead in this, and the ideas of meaning-making should prove helpful in guiding those efforts. ✨

Endnotes:

1. Although I believe this model and diagram of experience-based learning and science is original, it is the model and diagram—the way it is presented—which are original, not the process of science or experience-based learning itself. My conception of meaning-making does not differ in any substantial way from other presentations given in the Fall 1999 *Exhibitionist*, but I have found that expressing it as a diagram clarifies the relation of the physical exhibit to the visitor's mental activity in a way that leads to more engaging exhibits.

2. At this point the reader may want to pause and consider whether he or she can accept this model. It purports to describe the way people actually do learn, not the way we may think they should or ought to learn. The model is simple, yet implicitly encompasses much cognitive psychology, educational theory, and philosophy of science. The critical assertion of the model is that the only input to the mind is through the five senses. I believe this is correct for the purposes of the model, but there are some who may find it too restrictive.

References:

Ansbacher, T. (1999). Experience, inquiry, and making meaning. *Exhibitionist*, 18(2), 22-26.

Rounds, J. (1999). Meaning making: A new paradigm for museum exhibits. *Exhibitionist*, 18(2), 6-8