

Book Review : Experiential Learning

Reviewed by Andrew Stapleton



Abstract—A review of David Kolb's *Experiential Learning*.

Keywords—learning, experience, experiential, development

I. Introduction

A recent feature of my reading list has been *Experiential Learning* by David Kolb, who was Professor within the Department of Organizational Behavior at Case Western University at the time he wrote the text in 1984 (http://www.amazon.com/Experiential-Learning-Experience-Source-Development/dp/0132952610/ref=pd_bbs_sr_1/104-4011877-9647923?ie=UTF8&s=books&qid=1175600623&sr=8-1).

Now, originally I was going to review this book as a blog entry. However, it soon became apparent that in order to do such a comprehensive book justice, and not wanting to "clog the blog", writing a review in a separate document seemed more appropriate.

Recognizing that the key feature of games (and the motivation of game design) is to provide multifaceted experiences for players, I was attracted to this text for two reasons. Firstly, as someone interested in the nature of experiential learning itself; namely how experience can be recognized and understood as a primary means for learning. And secondly, the relationship and implication of this view of learning for game design for both entertainment and education.

Despite this book being published in the mid-1980s I believe there is enough gold within its pages to share it with a wider audience. Gold is a good metaphor here, as readers of this text will need dig through the predominantly academic writing style to discover the nuggets of information relevant to player experiences. Nevertheless, while the book isn't for everyone, the payoff can be worth the effort for those willing to persevere.

Within its 256 pages the book explores three main areas: (1) *experience and learning*, (2) *the structure of learning and knowledge*, and (3) *learning and development*.

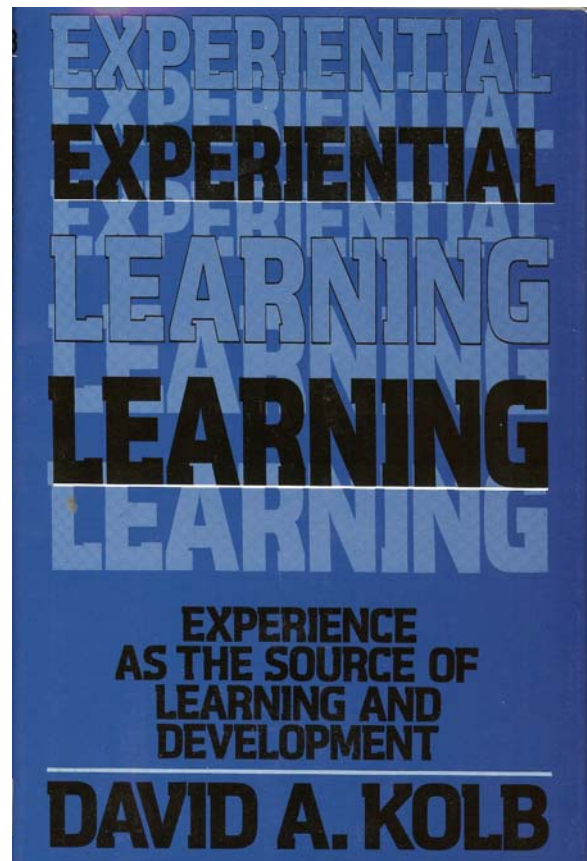


Figure 1: Scan of Front Cover (Dust Jacket)

II. Part I : Experience and Learning

The first part of the book examines both the theoretical foundations and the process of experiential learning. It details the influential work of John Dewey, Kurt Lewin and Jean Piaget in the area of experiential learning, while also recognizing other contributors such as Jung and Maslow.

Kolb then presents key themes within the work of these three influential contributors, as well as the relationship of their work in Kolb's interpretation of experiential learning.

An overview of the *process* of experiential learning from the traditions of Dewey, Lewin and Piaget follows. Each is compared and contrasted, and from this Kolb offers a number of characteristics of experiential learning common to all three traditions such as "Learning is best conceived as a process, not in terms of outcomes", "Learning is a continuous process grounded in experience", and "Learning involves transactions between the person and the environment". Due to the fact that the book was published in the 1980s, some of Kolb's points would be familiar to those who have read contemporary literature on learning, and can be identified with approaches such as *constructivism*. Kolb concludes his examination of the process of experiential learning by offering a definition of learning:

Learning is the process whereby knowledge is created through the transformation of experience. (p.38)

III. Part II : The Structure of Learning and Knowledge

In the second part of his text, Kolb begins with the structural foundations of the learning process. Here he introduces a number of concepts which are critical to his view of experiential learning.

He describes experiential learning as being a four stage cycle that consists of the following four learning modes:

1. concrete experience
2. reflective observation
3. abstract conceptualization, and;
4. active experimentation

These four modes can be regarded as two orthogonal, mutually exclusive, dimensions, with each dimension having two dialectically opposed processes. One dimension consists of an abstract/concrete dialectic which Kolb calls the *prehension* dimension. The *prehension* dimension consists of the opposing processes of *apprehension* and *comprehension*. The former is *grasping* or taking hold of an experience from the senses-what Kolb describes as the tangible, felt qualities of immediate experience-defined as *apprehension*. Experiences may also be grasped at a more abstract, symbolic level through interpretation which is described as *comprehension*.

The *apprehension/comprehension* dimension thereby relates to modes 1 and 3 of the four stage cycle. Modes 2 and 4, namely reflective observation and active experimentation are part of an *active/reflective* dialectic that forms the *transformation* dimension. They represent two opposed ways of *transforming* experience. The first is via *reflective observation* which Kolb terms *intention*, and the second is through active manipulation of the external world termed *extension*.

The figure below, adapted from the diagram Kolb presents in his text, illustrates the connection between these dimensions, their relationship to the four stage experiential learning cycle, and the knowledge forms they generate.

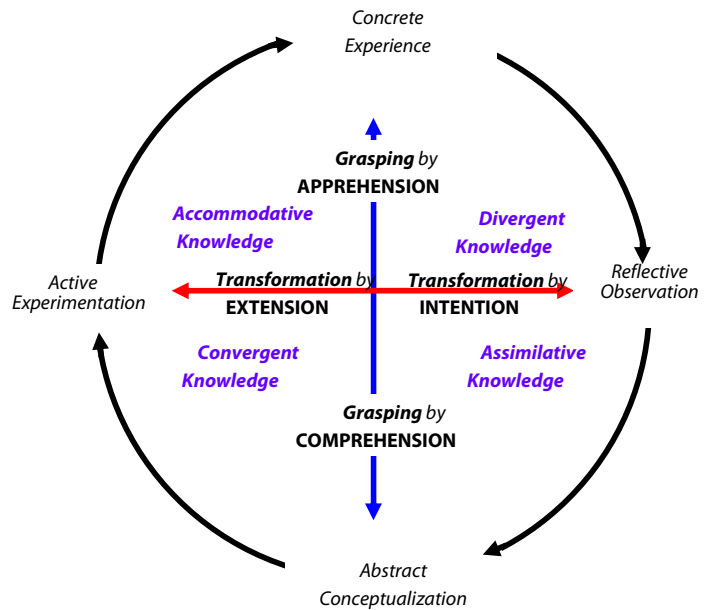


Figure 2: Structural dimensions underlying the process of experiential learning and the resulting basic knowledge forms (Adapted from Kolb(p.42))

Paramount in Kolb's theory of experiential learning-namely, learning that is created through the transformation of experience-is that learning requires both the *grasping* of an experience (the *apprehension/comprehension* dimension) and then *transforming* it (the *active/reflective* dimension). Consequently, learning requires *both* processes.

The outcomes of these learning modes are the four types of knowledge: *convergent knowledge*, *divergent knowledge*, *accommodative* and *assimilative knowledge*.

Now, while a book review doesn't allow for a full exploration of these various forms in detail, suffice it to say that the experiential learning cycle as represented above, its various dimensions and the knowledge outputs form the crux of Kolb's theory and are the keystone for the subsequent examination of learning and knowledge, development and education that appears in the remainder of his text. In sum, a vast majority of the remainder of Kolb's text explores and examines various aspects of the experiential learning cycle.

After presenting this structural view of experiential learning, Kolb explores the concept of individual *learning styles*. He draws on his *apprehension*, *comprehension*, *extension* and *intention* concepts, and views their various permutations and combinations as *styles of learning*. The simplest of these are those which form the outer ring of the

previous diagram such as *comprehension transformed by extension* (the lower left arrow in the figure above). The real world example Kolb provides is that of playing the game of pool. This style of learning is for someone who has an abstract conceptualization of the experience and then actively experiments with the situation.

So, in the example of pool that Kolb offers, the conceptualization of the game is a model of reality (i.e. mental or conceptual model, or theory) relating to how the balls will move allowing the player to predict the ball's trajectory. Physics, and for example *Snell's Law* which relates the angle of incidence of a ball with the angle of reflection, can be used to determine where to strike the cue ball so that it hits a ball on the table into a pocket. Part of this process includes active experimentation, such as using the pool cue to measure out angles and trying alternatives until a satisfactory solution is reached.

Kolb then introduces the *Learning Styles Inventory (or LSI)*, an instrument to assess an individual's orientation toward learning based on the aforementioned learning styles. A number of case studies are provided as evidence.

The relationship between learning style and *personality type* is explored through the introduction of Jungian personality types and the implementation of the Myers-Briggs Type Indicator for assessing an individual's orientation towards a Jungian personality type. Consequently, Kolb presents a matrix which indicates the relationship between the Jungian types-such as extrovert, introvert, sensing, judging, thinking and so on-and the four learning styles of accommodative, converging, diverging and assimilative.

The *LSI* is then correlated with particular education specializations such as mathematics, physics, psychology, business, engineering and the like. Thus, particular fields of study are correlated to particular learning styles. This same approach is used to correlate *LSI* results with professional careers, job roles and work abilities.

The *structure* of knowledge is then explored in more detail and is then related to various fields of inquiry. Consequently, the structure of academic fields are examined and are plotted against the concrete/abstract and active/reflective dimensions.

IV. Part III : Experiential Learning Theory of Development

The final part of Kolb's text is dedicated to the concept of *development*; namely, development of the individual is achieved through the process of learning. As Kolb explains, the traditional view of learning and development has these two processes as being relatively independent.

This [traditional]...perspective, which is shared by the intelligence-testing movement and classical Piagetians, suggests that learning is a subordinate process not actively involved in development. (pp.132-133)

In short, learning is founded on an individual's developmental achievements, however, such learning has no influence on *future* development. Kolb, however, places both learning and development on equal footing, and

introduces the work of Vygotsky, and in particular Vygotsky's concept of the *zone of proximal development* as an explanation for how learning can shape the course of development (p.133).

After exploring the concept of development in more detail, Kolb presents the experiential learning theory of *growth and development*. Based on the learning styles of experiential learning identified earlier, a new *developmental dimension* is added which is orthogonal to the existing two dimensions, and consequently adds a third dimension to the two dimensional stage diagram presented earlier. This new developmental dimension consists of three developmental stages; *acquisition* (birth to adolescence), *specialization* (formal education/career training and early adulthood), and *integration* (the experience of self as *process*).

This notion of learning of development is then placed within the context of higher education. An entire chapter is dedicated to same, and is well worth reading for anyone interested in the ideas of experiential learning, learning styles and career choice, academic performance, professional education, learning environments, and managing the learning process.

Kolb, continues this inquiry into learning and development in the concluding chapter where he delves into notions of lifelong learning and integrative development.

V. Conclusion

All in all, Kolb explains in some detail, his view of experiential learning. As I mentioned in my introduction, the writing style within the book is best described as "academic", and not a particularly easy read. Nevertheless, there are some really fantastic gems of information which are well worth digging for.

You may also recall from my introduction, one of my reasons for choosing the book was to gain a better understanding of experiential learning theory. I felt that the book did indeed provide a strong foundation for understanding experience, and more precisely, the transformation of experience as being the source of learning and development. Now, although this book was published over two decades old, the book remains quite topical as many universities are pursuing-and actively promoting-"experiential learning" as part of their tertiary curriculum.

I also found that the text also generated some ideas in relation to games and simulations for learning, and offered further literature and research to pursue. For example, the KSI interested me as a possible means of exploring learning style and genre preference of players which may be an interesting research area to pursue.

Finally, a word of (financial) warning. The book itself is pricey to buy at a current retail of US\$116 (that's like 150 dollars Australian!), so if you are interested in gaining a copy I'd first suggest try borrowing from a local University/College library before purchasing it from your preferred book seller.