

# Eight important things to know about The Experiential Learning Cycle

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The experiential learning cycle is the most widely recognised and used concept in Experiential Learning Theory (ELT) (Kolb 2015; Kolb & Kolb 2017). The simplicity and usefulness of the four stage cycle of experiencing, reflecting, thinking and acting is the main reason for its popularity (see Figure 1). It is an adaptable template for the creation of educational programs that actively engage learners in the learning process, providing an alternative to the overused and ineffective traditional information transmission model. In a typical application, the educator provides a direct concrete experiencing event, such as a field trip, a lab experiment, or a role play, and then organises personal or group reflections on the experience. The conceptualisation phase focuses on understanding the meaning of the experience often with the addition of related subject matter lectures or reading. Learners are then asked to apply what they have learned in their own life and work context. There have been countless applications of the learning cycle concept in educational programs ranging from individual class sessions, to courses and training programs, degree programs, the total school and university curriculum, and even to national curricular policies and standards in New Zealand (NZ Ministry of Education 2004) and Singapore (Singapore Ministry of Education 2015).

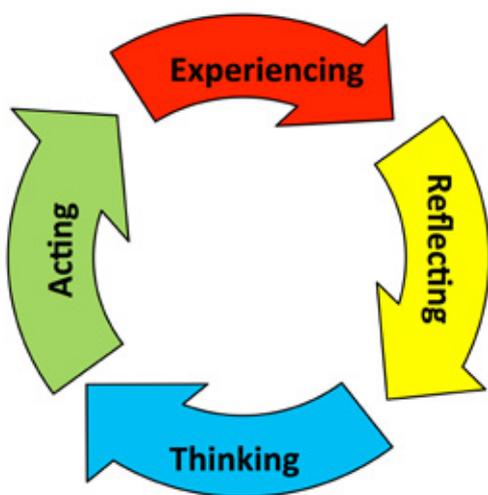


Figure 1. The Experiential Learning Cycle

In our own work, we have met many colleagues who, based on what they have learned about it from popular reports, have used the learning cycle in their teaching for many years. When we explained the deeper foundations of the learning cycle in Experiential Learning Theory to them, they adopted new perspectives on their practice and discovered new ways to improve their teaching with experiential learning. In this article, we will outline eight of these important insights from ELT along with corresponding tips for educator practice:

1. Learning is an endlessly recurring cycle not a linear process.
2. Experiencing is necessary for learning.
3. The brain is built for experiential learning.
4. The dialectic poles of the cycle are what motivate learning.
5. Learning styles are different ways of going around the learning cycle.
6. Full cycle learning increases learning flexibility and development.
7. Teaching around the learning cycle.
8. The learning cycle can be a rubric for holistic, authentic assessment.

## 1. Learning is an endlessly recurring cycle not a linear process

The first thing to know is that the learning cycle is an endlessly recurring process of exchange between the learner's internal world and the external environment. Learning is like breathing; a lifelong process of taking in and putting out. For educators, it is about impression and expression - impressing learners with the knowledge necessary to live and work in today's world and coaching them to express what they have learned in highly skilled ways.

The learning cycle is a recursive circle or spiral as opposed to the linear, traditional information transmission model of learning used in most education where information is transferred from the teacher to the learner. Paulo Freire (1992) called this the 'banking concept of education' where ideas are deposited in the minds of passive learners. In the cycle of learning, learners receive information through concrete experiences and transform it through reflection and

thinking and then transform it again through their actions to change the world. They are both receivers and creators of information.

**A tip for educators:** Organise your course or curriculum as a series of learning cycles to form a deepening spiral of learning that expands in complexity and application. The learning modes are revisited, and students' understanding is developed further each time. They discover more about the practical limits and the wider applications of their new knowledge by taking what they have learned in one situation and using it in another.

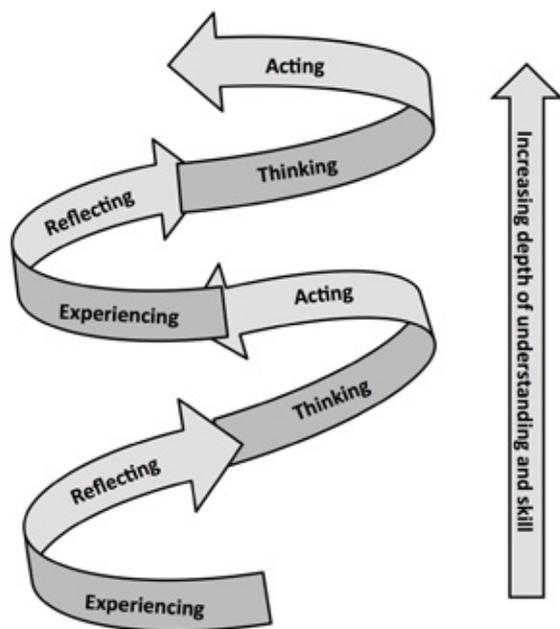


Figure 2. The Experiential Learning Spiral

## 2. Experiencing is necessary for learning

A Google image search of 'learning cycle' or 'experiential learning cycle' shows that the Concrete Experience, a.k.a. Experiencing mode of the ELT learning cycle, is widely misunderstood. A number of the cycle images seem to equate experiencing with doing while others have no place for experiencing at all. This is unfortunate since the experiencing mode of the learning cycle has particular significance for learning. All modes of the learning cycle are experiences, but it is here-and-now *experiencing* that initiates learning. Everyday experience and behaviour are notoriously conservative and automatic, being habitual and culturally mediated by many previous trips around the learning cycle. An experience may appear fresh and new, but it is saturated with the interpretations of past generations. John Dewey emphasised that to initiate reflection and learning this normal flow of experience must be interrupted by deep experiencing, such as when we are 'stuck' with a problem or difficulty or 'struck' by the strangeness of something outside of our usual experience. William James (1977) called this 'pure experience'.

While many have stressed that critical reflection is of primary importance for learning from experience, we see here that a concrete 'pure' experience that violates the expectations of previous convictions and habits of thought is necessary to activate such reflection in the first place. While some learning probably occurs from everyday experience, it is probably the kind that reinforces previous conclusions or refines thought or behavior in small ways. For bigger changes in beliefs and behaviour, a 'shock' that disrupts life may be required.





**A tip for educators:** As educators it is important to create learning experiences such as field projects, role plays and other experiential exercises where learners are *experiencing* and not just going through the motions of a class exercise. The experiential approach places the subject to be learned in the centre to be experienced by both the educator and learner. As Parker Palmer states, in the subject-centred classroom, ‘the third thing (the subject) has a presence so real, so vivid, so vocal, that it can hold teacher and students alike accountable for what they say and do’ (1998, p. 117).

### 3. The brain is built for experiential learning

There have been a number of studies that examine the relationship between the learning cycle and brain functioning (Eagleton 2011; McCarthy 1987), but the most systematic examination of the neurological basis of the learning cycle is James Zull’s research reported in his two great books, *The Art of Changing the Brain* (2002) and *From Brain to Mind* (2011). His aim was to understand how Piaget’s concept of constructivism in learning could be understood in neurological terms. His basic idea was that knowledge resides in networks of neurons in the neo-cortex constructed through learning from experience. Learning from experience results in modification, growth, and pruning of neurons, synapses and neuronal networks; thus learning physically changes the brain and educating is the art of changing the brain. Zull says: ‘The learning cycle arises from the structure of the brain’ (Zull 2002, pp. 18-19; Zull 2011). While acknowledging the greater complexity of brain functioning, he proposed that the regions of the brain described below were heavily, but not exclusively involved in the modes of the learning cycle (see Figure 3). Their respective functions of sensing (CE), remembering (RO), theorising (AC) and acting (AE), he called the four pillars of learning:

- *Concrete experience and sensing in the sensory cortex.* The sensory cortex receives information from the outside world through the senses.
- *Reflective observation and remembering in the back integrative cortex.* The back integrative cortex integrates sensory information to create images and meaning.
- *Abstract conceptualisation and theorising in the front integrative cortex.* The frontal integrative cortex uses short term memory to choose, plan, problem solve and make decisions to accomplish a goal.
- *Active experimentation and acting in the motor cortex.* Action closes the learning cycle and reconnects the processing inside the brain with the world. It generates consequences that create new experiences that begin the cycle anew.

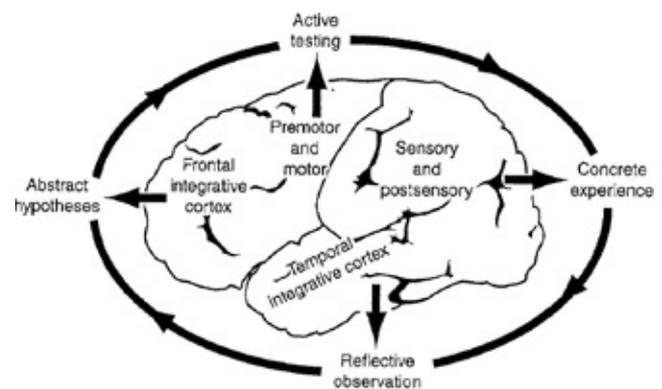


Figure 3. The learning cycle and the brain  
Reprinted from *The Art of Changing the Brain: Enriching the Practice of Teaching by Exploring the Biology of Learning* by James E. Zull with permission of the publisher, Copyright © 2002, Stylus Publishing, LLC.

**A tip for educators:** Zull’s books are filled with implications and recommendations for educators and learners. Here are a few related to experiential learning:

- The opportunities for deep learning are enhanced with a balanced use of all four learning modes and their corresponding parts of the brain.
- The learning cycle’s four modes give the brain four times the chance to remember. It is metacognitive and produces episodic memory central to future deliberate transfer of learning.
- Emotion influences thinking more than thinking influences emotion. Positive emotions (e.g. joy) enhance learning.
- Physical changes occur in the brain when we learn. Begin with existing neuronal networks which are the physical form of prior knowledge and build on it.
- Learning how to learn should be a focus of education.
- It is better to start with concrete examples rather than abstract principles. Abstract principles are where we are, not where the learners are.
- Real experiences that flood all the senses are the best for learning. Rich experiences, such as those which change and surprise, are more memorable.
- Be careful to not overload the limited capacity of working memory. Shoving information in at one end only pushes out information at the other.
- Always provoke an active reaction from learners. A safe environment for failure can help in this.

#### 4. The dialectic poles of the learning cycle are what motivate learning

What makes the learning cycle go? What motivates us to learn? The answers to these questions lie in the dialectic poles of opposing modes of the learning cycle. Concrete sense experience and abstract thinking are two fundamentally different ways of understanding experience. William James (1977) called these percepts and concepts. Perception exists in the here and now; conceptions point to the past or future. James uses the analogy of a pair of scissors - in the same way we need both blades to cut, we need both concrete experience and abstract thinking to make sense of the world.

Reflecting and acting are similarly opposing ways of transforming this understanding. The great educator Paulo Freire (1992) stressed the importance of naming one's own experience in dialogue with others, emphasising praxis, the transformative dialectic between reflection and action. When either action or reflection is overemphasised, dialogue becomes impossible.

These opposing dialectic poles give us a 'stereo' perspective that motivates learning. When one pole dominates the other, learning ceases. Hyper-activity or withdrawal into reflection both inhibit learning. Dogmatic beliefs leave us closed to new experience while total immersion in experience clouds clear thought. On the other hand, the 'shock and awe' of an intense experience can cause reconsideration of an entrenched belief, while a new idea can reshape the way we experience things. Reflection on the consequences of action can serve to correct errors and refine future actions while acting on reflections can stop incessant rumination.

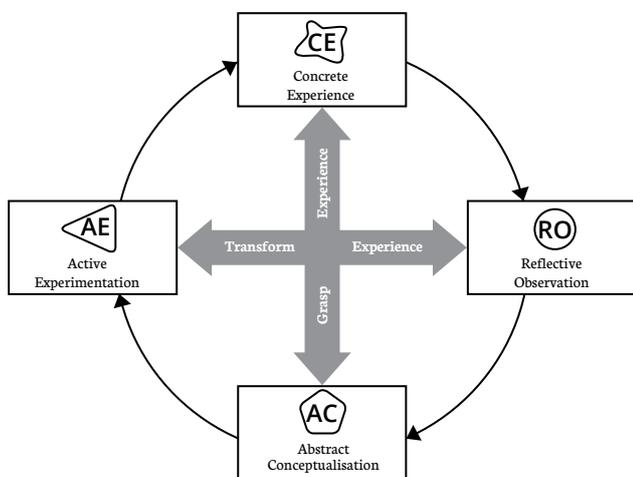


Figure 4. The motivating dialectic poles of the learning cycle

**A tip for educators:** Design educational programs to engage the dialectic polarities of the cycle, e.g. add systematic reflection and conceptual analysis to a concrete and active internship program. Activities that stimulate curiosity and active problem solving are great motivators for learning. Avoid designs that only emphasise one learning mode such as lectures or field trips with no de-briefing.

#### 5. Learning styles are different ways of going around the learning cycle

Learning style is another popular concept in Experiential Learning Theory. It is important because it emphasises that individuals learn in different ways and that educators can better facilitate their students' learning if they understand the unique way that they learn.

The idea is much discussed in education today and there is considerable confusion about its usefulness, in part because there has been a proliferation of over 100 learning style instruments that vary widely in their conceptual basis and psychometric soundness. Criticism of the concept has tended to lump all of these approaches together (Scott 2010), resulting in some misunderstanding of the unique nature of the ELT learning style concept.

As a result, ELT learning style has been mischaracterised as a static trait and not a dynamic state in the learning cycle process. Styles in ELT are habitual preferences for the interdependent poles of the dialectics of action and reflection and experiencing and thinking. Learning style is a habit of learning that is formed when one or more of the learning modes are preferred over others to shape experience. Seen this way, learning style loses its static stereotype prone character. The recognition of a style opens the possibility of learning flexibility and the challenge of full cycle learning - to develop the ability to engage all modes of the learning cycle in a holistic and fluid manner.

The Kolb Learning Style Inventory (KLSI) describes the unique ways individuals spiral through the learning cycle. In the KLSI, a person's learning style is defined by their unique combination of preferences for the four learning modes defining a 'kite' shape profile. Because each person's learning style is unique, everyone's kite shape is a little different. Our latest research with the KLSI 4.0 (Kolb & Kolb 2011; Peterson & Kolb 2017) has identified nine style types that individuals use (see Figure 5):

- The Initiating style - initiating action to deal with experiences and situations.
- The Experiencing style - finding meaning from deep involvement in experience.
- The Imagining style - imagining possibilities by observing and reflecting on experiences.
- The Reflecting style - connecting experience and ideas through sustained reflection.
- The Analysing style - integrating ideas into concise models and systems through reflection.
- The Thinking style - disciplined involvement in abstract reasoning and logical reasoning.
- The Deciding style - using theories and models to decide on problem solutions and courses of action.
- The Acting style - a strong motivation for goal-directed action that integrates people and tasks.
- The Balancing style - adapting by weighing the pros and cons of acting versus reflecting and experiencing versus thinking.

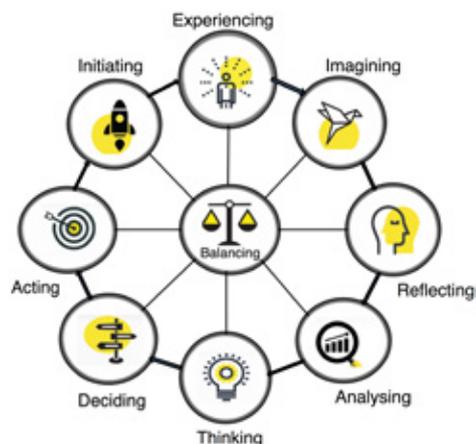


Figure 5. The nine learning styles and their place on the learning cycle

Lead Article

**A tip for educators:** Because of the learning style differences in the way individuals apply the learning modes, the learning cycle should be considered an idealised depiction of the learning process that can vary widely in application. Learners may begin with their preferred style and engage the learning modes in their own way regardless of the educator’s plan.

The idea that learning must always begin with concrete experience and proceed through the other stages around the cycle is not an iron law, although a number of our experiential educator friends are strong advocates of beginning learning experiences with a direct concrete experience. They have strong arguments for the practice. They argue that beginning with a shared direct experience ‘brings the subject into the room’, democratising the learning process between educator and learners. In addition, the puzzles or problems presented by direct experience involve learners and motivate inquiry and reflection, initiating the learning cycle.

**6. Full cycle learning increases learning flexibility and development**

When one can engage all learning styles in their learning process, they are using the most powerful form of learning that we call full cycle learning. Full cycle learning is the ability to engage all of the learning style types in a holistic and fluid manner in a given situation. This requires learning flexibility. Many individuals feel that their learning style accurately describes how they learn most of the time. They are consistent in their approach to learning. Others, however, report that they tend to change their learning approach depending on what they are learning or the situation they are in. They may say, for example, that they use one style in the classroom and another at home with their friends and family. These are flexible learners. Studies show that some learners are able to flex their learning styles according to the demand of different learning tasks and some suggest that students can shift their learning style to match the learning demands of a particular discipline.

**A tip for educators:** To increase learning flexibility and full cycle learning capacity when planning educational activities, it is useful to consider the specific learning style skills that you want to develop in students for each activity. The KLSI 4.0 includes a measure of learning flexibility and identifies the ‘back-up’ learning styles that individuals use to learn different things. This can be useful information for learners to know in order to set meaningful learning flexibility developmental goals.

**7. Teaching around the learning cycle with dynamic matching of teaching role**

The confusion in the learning style literature has resulted in the oversimplified prescription that educators should match their teaching style and methods to the learning style of the learner. The dynamic matching model of ELT is a more complex but more realistic model for guiding educational practice. In addition to considering the relationship between educator and learner, one must also consider the match of learning approach with the subject matter. Matching teaching style with learning style has been shown to be important initially to connect with and engage learners, but most learning requires that they continue to actively move around the learning cycle using other learning styles to acquire increasingly complex knowledge and skills.

We have created an educator role framework (see Figure 6) to assist educators in the application of the ELT concepts of the learning cycle and learning style in the dynamic matching model of teaching around the learning cycle. It describes four common educator roles – Facilitator, Subject Expert, Standard-Setter/Evaluator and Coach. Most of us adopt each of these roles to some extent in our educational and teaching activities. While the role profile model depicts an idealised sequential progression through the educator roles and the learning cycle, in most cases a curriculum design will be based on a sequence of activities and instructional techniques that fit the subject matter and learning objectives that may or may not occur in such an orderly progression.

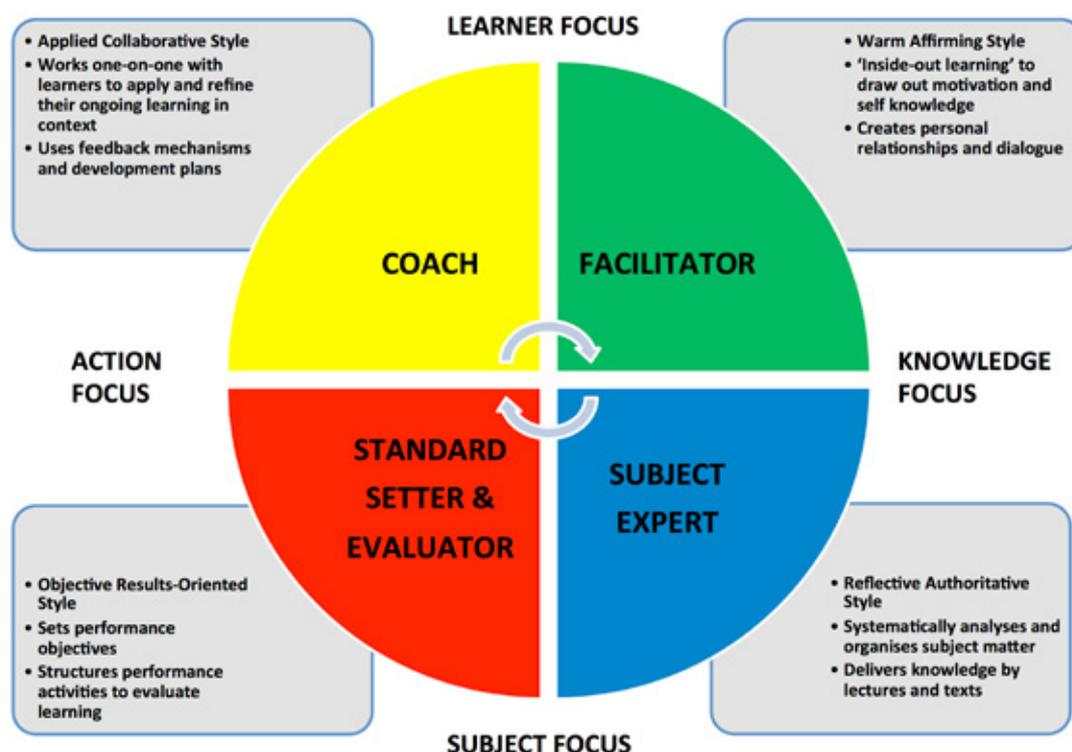


Figure 6. Educator Role Profile

- **The Facilitator role:** When facilitating, educators help learners get in touch with their personal experience and reflect on it. They create personal and trusting relationships with learners.
- **The Subject Expert role:** In their role as subject expert, educators help learners organise and connect their reflections to the knowledge base of the subject matter. This knowledge is often communicated through lectures and texts.
- **The Standard-Setter/Evaluator role:** As a standard-setter and evaluator, educators help learners master the application of knowledge and skill in order to meet performance requirements. They create performance activities for learners to evaluate their learning.
- **The Coaching role:** In the coaching role, educators help learners apply knowledge to achieve their goals. They assist in the creation of personal development plans and provide ways of getting feedback on performance.

**A tip for educators:** Using the Educator Role framework to teach around the learning cycle is a high art; and you, the educator are its prime instrument. How can we best promote learning for our students? Should we be learner-centred and draw out their budding interests? Should we be subject-centred and deliver our special knowledge, developing learners' capacity for reflective thinking about our field? Should we focus on the pragmatic applications and implications of the ideas; or should the emphasis be on the deep meaning of these ideas and concepts, their origins and connections to other ideas and fields of study? In the abstract, we would probably answer all four questions affirmatively, but in a practical context there are very real constraints that require trade-offs between the learner and subject focus and the action and meaning focus - time limitations, learner needs, the amount of subject matter to be 'covered', its complexity and required evaluation standards, to name a few, as well as your own teaching role preferences and skills. (To assess your educator role preferences, take the free Educator Role Profile at: <http://survey.learningfromexperience.com/>).

## 8. The learning cycle can be a rubric for holistic, authentic assessment

The multidimensional teaching and learning strategies of experiential learning require equally diverse and complex assessment methods that adequately and fairly evaluate students' effective integration of the affective, perceptual, cognitive, and behavioural dimensions of learning. Assessment becomes holistic when the focus is on all four of the learning modes.

Authentic assessment means learners should demonstrate knowledge and skills in their real-life context. The goal of authentic evaluation is to draw education close to real life. If we want our assessment of students to be authentic, the subject-centred question, 'What should my students know?' can only be appropriately addressed in conjunction with the learner-centred question: 'How can I help my students learn skills and knowledge and be able to transfer what they have learned in a real life context?'

**A tip for educators:** Try using the Personal Application Assignment (PAA) available at: <https://learningfromexperience.com/research-library/evaluating-experiential-learning-the-personal-application-assignment.md/>. PAA is an essay/journal based holistic, authentic assessment rubric using the learning cycle framework.



## Lead Article

In the PAA, participants:

- select an experience, occurring either in or out of the training session, and chronicle the actual events of the experience
- review their thoughts and feelings about the experience, making observations about it from a fresh perspective
- develop concepts or theories that make sense of the experience
- create future action plans based on what they have learned from the experience.

The rubric includes a scoring system for grading the essays.

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