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# Learning Experience as Transaction: A Framework for Instructional Design

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## Abstract

This article presents a framework for understanding learning experience as an object for instructional design – as an object for design as well as research and understanding. Compared to traditional behavioral objectives or discrete cognitive skills, the object of experience is more holistic, requiring simultaneous attention to cognition, behavior, and affect – even agency and identity. An emphasis on learner experience as an object necessarily puts learners front and center of design concerns. But experience involves more than the learner: it is a *transactional* construct involving a person's encounters with their world over time. The framework presents selected individual and situational qualities, as well as temporal dimensions that affect the nature and level of experience. A concluding section considers how a focus on learning experiences might guide professional practice, opening the door for transformative learning and deeper forms of learning impacts.

## Introduction

For a generation instructional design has turned to cognitive learning theory as a bedrock foundation for theory and practice. Prior to that, behavioral learning theory served the same function. In recent years we are seeing signs of movement toward a broader way of thinking about learning and instruction and how to design for it, acknowledging the critical roles of technology, local conditions, situational variables, and the designers' and instructors' professional contributions (e.g., Jonassen & Rohrer-Murphy, 1999; Li, Clark, & Winchester, 2010). Learning and instructional theories can be useful – but there seems to be something missing. There is more to the equation than merely applying a theory or model or principle.

Practitioners sense this tacitly and often resist a “theoretical” approach to a problem (Wedman & Tessmer, 1993). They don't want their rich and challenging worlds to be reduced to the parsing and model-applying that a theory-driven approach might require. Of course, such reductive approaches are not the only ways to use theory – a number of more empowering approaches are being suggested (Yanchar, 2010; Yanchar, South, Williams, Allen, & Wilson, 2010; Wilson, 2010). So this leads to the question: What would instructional design be like if we gave more attention to how people really encounter and engage in instruction – both learners and facilitators alike? To answer that question, we need a more fully articulated way to think about people's *experience*. It may sound mushy and ill defined, but how people experience instruction can have a huge impact on how they engage and respond – and thereby learn – from the encounter.

The purpose of this paper is to outline a framework for understanding the learning experience and show how a focus on experience can open up new ways to guide instructional designs with higher transformative potential. We focus on students and how they encounter instruction, but the same ideas can relate to designers and instructors and how their experience leads to productive designs and resources for learning. After exploring the concept of *experience* and describing its nature and qualities, we suggest that experiences can have varying degrees of impact. Then a framework is offered that outlines the situational and individual qualities that influence the degree of impact that experience can offer. While the framework offered relates as easily to technology-limited as to technology-rich learning environments, the conclusions offer several connections to the application of new learning technologies.

### **Students' Experience**

Students experience instruction through the interactions and activities in class (or online) and through their efforts to read, process, and understand those activities and materials. They can readily tell you about their experience – if they were fully engaged, in the flow, making sense of things, or bored and distracted. Good instruction engages learners through a variety of guided activities and challenges, drawing in learners and giving clear signals to guide their efforts. Good instruction is flexible enough to accommodate diverse learning needs – prior knowledge for example, as well as learning style and differences related to privilege and access. Poor instruction is less successful in engaging and guiding learners – particularly those with special needs and challenges.

Students encounter instruction through their experience – but they encounter everything, in and out of school, in the same way. And those encounters are increasingly driven by heightened forms of mediated experience. Learners’ worlds will be increasingly shaped by mobile, connected, and ubiquitous media. In Dewey’s terms (1934/1989), aesthetics involves *heightened forms of experience* – and surely instruction in future years must inhabit those worlds of heightened experience. We discuss elsewhere ideas linking these heightened forms of experience with transformative learning (Wilson, Switzer, Parrish, & Balasubramanian, 2006; Wilson, current issue). “Media literacy” may be too weak a word to describe this major shift in world making and the changes it will have on learning and instruction.

### **Experience as Transaction with the World**

Experience is often conceived in cognitive terms – the immediate perception of situations and the constructed meaning from those situations (Wilson et al., 2007). A simple model of learning experience would look like this:

Learner -> Immediate Experience + Constructed Experience -> Learning Outcomes

From this viewpoint experience can be seen as an individual cognitive variable “within” the learner that shapes the learning outcome. Reading Dewey (1938/1997) and others, however, we have become convinced that this approach is too narrow – it doesn’t really capture the ways that learners engage situations, and the resulting activity – the mutual pushing back and responding of individuals and their worlds. We have concluded that it’s the joint and mutual activity between people and their worlds that best define experience, and best account for

learning outcomes. Yet it's more than "activity" – it's the conversation between learners and their worlds, wherein each is impacted and shaped over time. Individuals respond, groups respond, and the "world" responds – all in a concerted, connected way. Dewey suggests that this unit of analysis – people and their worlds mutually interacting and co-creating their futures – leads to a *transactional* definition of experience (Dewey, 1925/2000). So learning experience, while in one sense unique to the individual, results from the unfolding interaction and co-creation over time of all the participants and their environment.

Seeing instructional design in these terms does require a stretch of thinking. Activity theory is similar (Engeström, 1993; Jonassen, 2000), but focuses more on external, objective activity, whereas our approach is more inside-and-outside inclusive. Enactivism is a closer support for our framework. Enactivists, beginning from the same humanistic starting point as Pragmatists like Dewey, see the mind as embodied, engaged, and co-evolving with the world (which includes our technologies) through experience, not mind as confronting nature or as something to be considered separately from nature (Li, Clark, & Winchester, 2010; Varela, Thompson, & Rosch, 1991).

We should note that the study of experience is happening in related design disciplines such as product design, human-interface design, and advertising (e.g., Hassenzahl & Tractinsky, 2006; McCarthy & Wright, 2004). These designers realize that the attraction to new commodities is based not simply on functionality and usability, but on the meanings created through experiences with them. A mobile phone is not simply a communications device; it is a lifestyle, a means to an identity. A mobile phone can be transformative. For more discussion of this foundational level of thinking about experience, see Parrish and Wilson (2010).

## The Framework

We offer the following by way of definition. Experience has both internal and external aspects and includes:

- Active engagement with the world, which includes natural and man-made objects, and other people
- Cognition, emotion, agency, and identity – what a person carries into and carries forward from experience
- Construction of meaning, frequently built around a narrative
- Intersubjective, joint construction of meaning within social interactions
- The responses of the world to our actions and thoughts that dynamically change the situation over time

Engagement is perhaps the most critical term in this definition of experience, and has appropriately received increased interest by instructional technologists (Dickey, 2005; Greeno, 2006; Hung & Khine, 2006). Quality of experience and quality of engagement are nearly synonymous in our thinking—they both point to the co-creation discussed above. Designers can influence experience through the affordances for co-creation they offer in their designs.

Because experience is co-created, it exists at several temporal dimensions:

- Experience is *immediate*, in the moment, felt – not just observed or reflected upon.
- Experience *unfolds* over time; an important part is always *in-the-making*.
- Experience is *re-constructed* over time. The meaning of an experience changes as events take on different meanings in reflection.

- Finally, experience is *historically situated*, depending heavily on the history of previous interactions (see Cole, 1996).

Instruction is most frequently future-focused, given the emphasis on goals and objectives, so the unfolding dimension should be familiar to instructional designers. But less familiar is the unfolding *narrative* structure, not just a series of separate learning activities or a simple-to-complex content sequence. Instruction frequently considers the past in terms of learning readiness. The framework would suggest more focus on immediately felt aspects of experience – for example, the ongoing flow and feeling attached to a learning sequence (Reese, in press).

### Levels of Experience

Experience also can be seen pragmatically as occurring at a variety of levels. The levels described below are not necessarily discrete or strictly ordered, but do suggest an order from lower to higher quality.

#### **Scattered or incomplete experience.**

Some nominal investment of engagement occurs, but it is incomplete due to interruptions, poorly structured activities, or impediments such as lack of preparation for next steps – rushing through. Outcomes typically include frustration or low self-esteem. Unfortunately, much of life includes this sort of experience (Dewey, 1934/1989).

#### **Routine.**

Routine experience can be both positive and negative in its outcomes. Mindless routine is characterized by boredom or forced, and therefore limited, attention. One might become discouraged and develop negative attitudes toward learning when this is the norm



(Csikszentmihalyi, 1990; Dewey, 1938/1997). However, at times routine is quite pleasant and has lasting value. Practice, even deep practice or overlearning, is characterized by a type of routine that is often not immediately valued, but gains value in the longer term (Emirbayer & Mische, 1998; Ericsson & Charness, 1994; James, 1976).

### **Challenging endeavors.**

The right level of challenge – just beyond what one perceives as easily within current abilities – can create substantial engagement in an activity, and is most rewarding when the engagement is sustained over time in confronting a difficult situation (Csikszentmihalyi, 1990).

### **Aesthetic experience.**

Aesthetic experience is characterized by challenge and heightened engagement, but also anticipation and a payoff that is more than just an ending (Dewey, 1934/1989). Like a well plotted and well executed novel or film, everything fits together toward a meaningful expression of the intended theme. It is at this level that experience can become memorable and transformative for a learner. Learning experiences at this level may be limited in number, but they can color one's attitudes toward learning for some time to come.

### **Qualities Influencing Learning Experience**

A learning situation contains many elements that have an impact on the quality of a learning experience, including the material, social, and personal. In this section, we describe those qualities we consider most critical to the development of engagement and the potential for a transformative learning experience, or one that leaves a lasting impact on a person's sense of competence or place in the world (see Wilson & Parrish, this issue).

## Situational Qualities

The situational qualities are those traditionally considered in the realm of designable features of instruction.

*Immediacy.* This is a key quality and might also be termed the immersive nature of the situation (Csikszentmihalyi, 1990; Dewey, 1934/1989). A designer achieves immediacy (as in *unmediated*) by attending to the sensual qualities and emotional authenticity of the situation. Continuity of meaning is key to immediacy as well. If a presentation or activity is jumbled or inconsistent, if an interface requires too much irrelevant thought, immediacy is lost. For those teaching technical skills, emotional authenticity might seem a strange quality to include, but technical applications always contain emotions – time pressures, team decision making, sensitive communications, for example – and these can be embraced in instruction for increased immediacy.

*Malleability.* Effective experience requires give and take—the opportunity for individuals to color the experience by what they bring to it and contribute to its unfolding. A learning situation offers malleability by being open to the contributions of learners and leaving room for individualized engagement and ownership. More than just accommodating learning styles, a malleable learning situation offers explorability and adventure, and is provisional, with the final meaning and outcomes to be determined.

*Compellingness.* A compelling learning experience invites learners by offering novelty and interest – a provocative idea, challenge, dilemma, or conflict requiring understanding and resolution (Jonassen, 2005; Wong, Pugh, & The Dewey Ideas Group, 2001). Problem solving is

one approach, but compelling situations can be also merely those that challenge us to rethink beliefs or that create intrigue about what will happen next.

*Resonance.* Rather than feeling separate, a resonant learning experience both connects to our present lives and leaves a residue of ideas and attitudes that will have a clear impact on future experience. When we show learners how instructional content connects to life, and when we demonstrate how content and methods of thinking can be used in future contexts, we increase resonance. The richest experiences we have not only impact the present and future, but can cause us to recast the past with new understanding.

*Coherence.* If instruction moves from event to event without sufficient connection or meaningful sequence, it becomes disjointed and unrewarding. Coherence is almost synonymous with *meaning*, and can include both internal unities of intent and outside connections that complete previous experience. The most rewarding kind of coherence is one that requires struggle to unveil, but eventually is successful in unifying a complex array of elements for learners (Dewey, 1934/1989). Simple coherence, like symmetry, can become boring.

Learners are more likely to achieve a transformative learning experience when instructional providers attend to the texture of experience, provide opportunities for contribution, show connections to the past, present, and future of learners' lives, and create activities that move in concert toward a clear consummation.

## **Qualities of Individuals**

Based on the personal qualities and knowledge an individual brings to a situation, each person colors experience in a unique way. While mostly concerned with situational qualities, teachers and designers can work to call out from learners the qualities that will make the experience more effective for them. Moreover, teachers themselves bring these personal qualities to the table as they interact with learners.

*Intent.* Each learner *has* individual learning goals and interests, but also attitudes, values, hopes, beliefs, likes and dislikes, and assumptions about their role in the world. All of these are subsumed by the concept of *intent* (Husserl, 1982/1999). When learners challenge themselves or are challenged by their instructors to exercise conscious intent, the experience is more likely to become transformative. When one is aware of and honest about one's current intent it becomes more potent, but also more malleable and open to the influence of experience.

*Presence.* *Presence* has at least three components that impact a learning experience, and each presumes a willingness to be vulnerable to the presence of others (Heidegger, 1962). The first, *being-there*, includes physical and mental presence. *Being-with* is the willingness to engage with others in a way that includes empathy and openness to their thoughts and feelings. Finally, *being-one's-self* includes being authentic and genuine in expression of one's own thoughts and feelings. Enhancing a learning experience with a concern for presence includes helping learners become more alive to the present and become more responsible agents who can draw on their pasts and utilize their will to project, imagine, and change their futures.

*Openness.* *Openness* is not being passive, but being willing to submit to challenge and change with personal integrity (Dewey, 1916). Openness admits of dependency on others – but also an interdependency and social capacity that demonstrates personal commitment to the experience as well.

*Trust.* Trust encompasses several essential qualities of effective experience. It suggests faith that positive outcomes can occur – perhaps the willingness to suspend disbelief when this isn't always obvious. It includes anticipation that looks ahead to potential outcomes with mental and emotional engagement. And it also includes forgiveness that every experience can at times fall short of expectations, while knowing that situations and relationships can be repaired and reconciled (Song, Hannafin, & Hill, 2007; Wilson, 1999).

This framework describes what many good teachers already know, that one of the most critical dimensions of learning engagement is developing strong relationships with the content and teacher, a relationship based on willing transaction (Parrish, 2010). This is a lesson IDs sometimes aren't taught and may feel is beyond their responsibilities. But even in a world of online and self-directed learning, instruction can and should be designed to support meaningful relationships.

### **Summarizing the Framework**

The very broad qualities discussed here are not intended to comprise an orthogonal model of effective learning experience. True to the complexity of experience itself, they are to a degree overlapping, mutually influencing, and interdependent. Nor are the qualities offered comprehensive. Even so, we feel they provide a useful framework for instructional design judgment, particularly in this time of rapid technological change and upheaval in standard

modes of communications. We should also acknowledge the potential for a Western cultural bias, particularly with the stress placed on individual intent and situational malleability, which in other cultures might be deemphasized, while social harmony and stability might rise in priority (Parrish & Linder-Vanbershot, 2010).

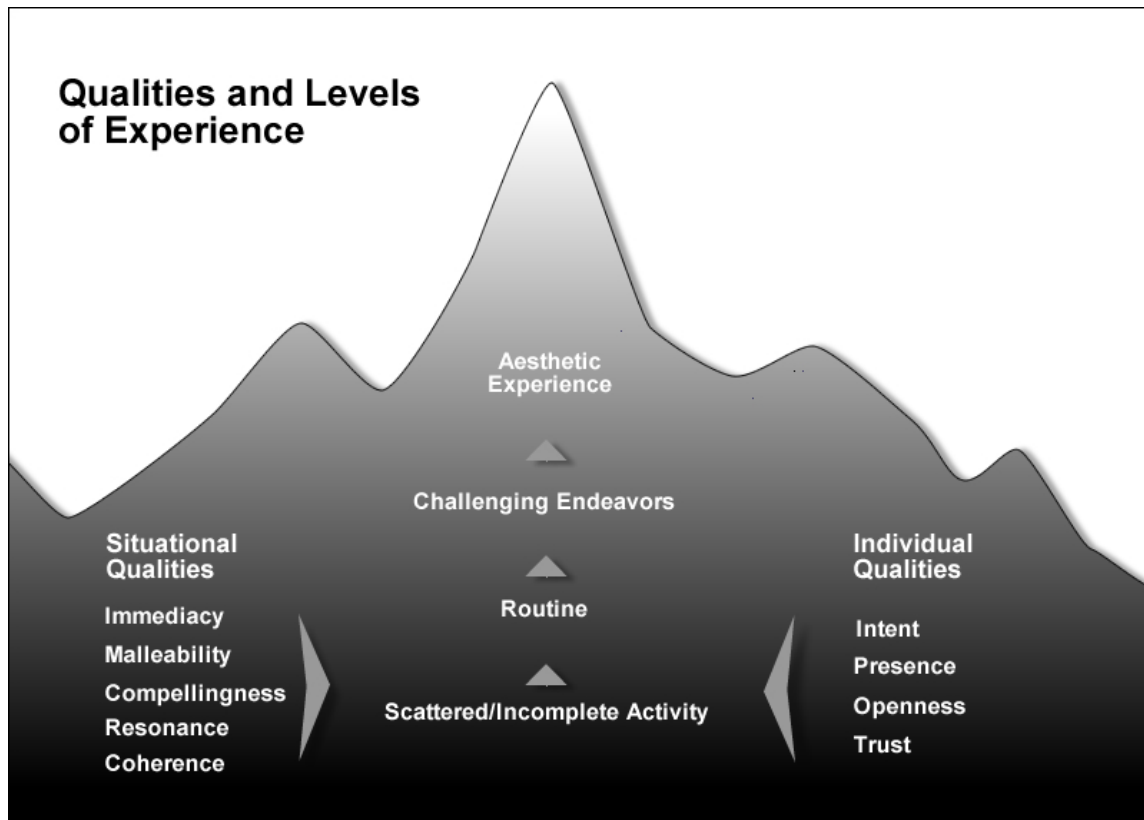


Figure 1: Qualities and Levels of Experience

Because experience is transactional, these qualities of learners and their situations interact to create the resulting level of experience. In fact, the qualities have clear parallels with one another and show complementary natures. For example, individual intent meets situational malleability to increase engagement and effective outcomes. Presence and

immediacy rely upon one another, and openness and resonance combine to heighten an experience. A depiction of these relationships might look like Figure 1. Experience shows peaks and valleys over time depending on the convergence of these qualities.

The complexity of these interrelationships does not rule out the potential for research, however. Veletsianos (2010) examined learner engagement in an open-ended adventure learning activity in higher education, using Web analytics and survey data, reporting that while the level of engagement varied widely, the qualities of openness offered by the activity led to a challenging, fun, and at times even transformative experience, with a high number of participants reporting the feeling of occupying a new role during the activity. Parrish and Botturi (in preparation) attempted to study the changing level of engagement during an instructional event, administering surveys and performing interviews during the events, and found a similarly high degree of variance, indicating not only complex individual contributions, but complex interactions between individual and situational contributions, including a potentially inevitable waxing and waning of engagement. Reese (2008) used an innovative means to investigate the changing qualitative state of flow, showing promise for developing techniques to identify these highly transitory states. In other design fields, researchers have also experimented with new methodologies to understand user experiences (e.g., Hassenzahl & Tractinsky, 2006; Light, 2006). Interestingly, each of the studies employed mixed methods approaches, using both quantitative and qualitative data sources to get at the underlying experiences of engagement. The point of these studies is not to tame experience, but to respect its complexity and understand it from a variety of viewpoints. Given the intrinsically

heterogeneous nature of experience, such research calls for multiple, context-sensitive data collection approaches.

### Concluding Thoughts

An experience-centered approach to instructional design would hold a number of useful implications for instructional practice. With learning experience at the forefront, new priorities emerge. If we view learning as arising out of engagements with a world filled with challenges, delights, and dangers, and the ongoing rhythms created by these contrasting potentials, educators might begin to see themselves as *experience designers*<sup>i</sup>. Below are just a few examples of how a concern for learning experience might guide practice.

- Experiential learning is not a new concept (Kolb, 1984), but current instructional design practice has not fully come to terms with it, perhaps because its outcomes remain indeterminate – they can't be reduced to strict objectives and competencies. Adventure learning (Doering, 2006; Veletsianos & Kleanthous, 2009) is one form of experiential learning that appears to acknowledge and embrace each of the qualities discussed here, allowing students to participate virtually with real-time journeys and adventures, analyzing data, and solving compelling problems
- Role play and dramatic approaches to learning acknowledge the complexity of learning experience and generate openness and immediacy by asking students to immerse themselves in imaginary roles – roles that may approximate the expected roles they might play in their future professions (Anderson, 2004).
- Wong and Pugh's (2001) Deweyan conception of *idea-based* science teaching offers an experiential approach to learning science. Focusing on the narrative, human drama that



motivates scientific advances and theory development reinvigorates the resonance of often otherwise static content.

- Egan's strategy of teaching as storytelling (1986) suggests a similar approach, finding the inherent drama in conflicting ideas from which to base learning activities.
- Digital and other storytelling techniques ask students and instructors to find the resonance of current learning with past experience in compelling, coherent ways. (Lowenthal & Dunlap, in 2010).
- Game-based learning creates a compelling situation that is by definition malleable to the input of learners. (Dickey, 2005)
- The concept of aesthetic learning experience suggests that instructional providers might draw inspiration from a variety of art forms for instructional strategies and design principles (Parrish, 2009; Parrish, 2006).
- Emphasizing the conversational nature of instructional transactions and negotiations (Laurillard, 1993; Song, et al., 2007) is also emphasizing its experiential nature.
- The transactional distance inherent in online learning environments have demanded that faculty use creative techniques to engage learners, employing an array of online tools like Voice-thread, YouTube, Songza, podcasts, etc. to add multi-sensory complexity and a wide array of Web 2.0 and social networking technologies to connect to students in multiple ways (Dunlap & Lowenthal, 2009; Lowenthal & Dunlap, 2010).
- Mobile devices offer not only convenience, but increased resonance by allowing learners to connect to online learning whenever and wherever they feel compelled.

- The experience framework also suggests that design processes themselves need to include techniques for clearing thinking about the nature of learning as experience. Parrish (2006) describes design as composing a narrative, using storytelling to imagine learners in various design scenarios prior to final instructional development decisions.
- Finally, the experience framework described here might guide research into learning experience, suggesting qualities to be explored that will provide thick description of the phenomenon of learning.

Reflecting on experience from the learner's point of view, issues of new media rise to the foreground:

- How do we help learners negotiate the new "attention economy" created by pervasive media? And assuming non-compulsory environments, how do we compete for that attention?
- How can we wring educational potential out of the media that students most frequently use?
- How do we embrace the affordances of immersive media environments, rather than fight for our own islands of attention and learning?
- How do we keep learning from being an exotic specialty, but rather a continuous, ongoing agenda of learners themselves?
- How can we create meaningful engagement for learners, without necessarily caving in to cries for entertainment?

- How do we meet society's calls for educational expediency and accountability, while fostering the challenge, coolness, and fun that can compete with the out-of-school environments?

The experience framework positions instructional designers to address these questions in a promising way. Perhaps the next generation of researchers and practitioners will help create richer and more robust forms of learning experience in the future.

#### Author Notes

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<sup>i</sup> Or experience *agents, brokers, or facilitators*, if it seems vain to suggest one can create another's experience.