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December 1st, 2017

My Learning Theory Toolkit

Before studying learning theories in-depth, I expected there to be an overarching theory of learning that encompasses the entire learning process from beginning to end. However, after spending a semester in an advanced learning theories course, reading supplemental academic literature, and applying learning and motivational theories to my own instructional programs, I see how naïve I was. There is not a single theory of learning as there is a single theory of gravity. Practitioners and academics alike have helped build many theories of learning, instruction, and motivation; each theory has its strengths and weaknesses, and some theories are more suitable to certain situations than others. It is up to me, the learning experience designer, to piece together research-backed pieces from multiple learning theories; this ensures that my design decisions are grounded in research rather than intuition. Therefore, rather than follow a single theory of learning, I adopt appropriate learning principles for the experience at hand—similar to how an artist would choose appropriate colors for a painting or a mechanic would use appropriate tools for a job.

To begin with, I incorporate behaviorist principles in a wide array of learning experiences. Beyond offering verbal praise and encouragement as positive reinforcement, I plan to incorporate digital rewards in eLearning and gamified experiences. When the learner answers a difficult question correctly, completes a learning path, or returns to the LMS for the seventh day in a row, I can encourage them by offering points, badges, or certificates as secondary reinforcement. This adds an additional, almost primal level of motivation for continuing the experiences and learning more. It may seem superfluous, but any gamer can comment on the draw of earning points or “leveling up.” When combined with other learning theories, behaviorist principles can swiftly and effectively modify learner behavior.

Furthermore, I pull heavily from cognitive information processing theory when designing curriculum or drafting learning content. This theory emphasizes the importance of activating prior knowledge during a learning experience: as information moves from sensory memory to short-term memory, then short-term memory to long-term memory, there is a much better chance for the learner to encode the information into long-term memory if relevant anchors have been attended to. Additionally, drawing attention to these anchors will help the learner recall the information that is already in long-term memory. There are many ways to facilitate this process, such as having students complete word associations, offering brief recaps of the previous lesson, or asking thought-provoking questions that require the learner to access prior knowledge.

Beyond encoding and recall, it is impossible to ignore cognitive load theory. Knowing the differences between intrinsic, germane, and extraneous load makes it easy for me to remove unnecessary information and focus solely on what will help the learner achieve the learning objective. Any extraneous information could increase cognitive load, causing the learner to focus on information that will not facilitate the learning goals. More specifically, the research on auditory vs. visual information processing channels is crucial when designing multimedia or

eLearning; if the learner has either of these channels overloaded, they will not be able to process fully the information that they are expected to learn. To combat this potential cognitive overload when I design eLearning, I do not force the learner to attend to on-screen text as well as narration. I only use visuals when they enhance learning, and I will not house an important diagram next to a paragraph of important text on a single slide. This allows the learner to attend to important information as it comes rather than feel as if they must struggle to soak in everything that is in front of them at once.

When the budget and environment allow for situated cognition learning experiences, the outcome can be excellent for the learner. Situated cognition theorists advocate for learning on-the-job or in real-life settings. These experiences are so powerful because they enhance transfer so effectively, giving the learner a chance to observe and practice the skills that they will be expected to use after the experience is complete. When the situation permits, I plan to incorporate situated learning experiences into the overall curriculum. Cognitive apprenticeships help the learner observe and exhibit not only the behaviors that will be expected of them, but the beliefs, attitudes, and decision-making processes that they will be expected to perform as well. Finally, assessment in-situ ensures that these learners will not be given only a multiple-choice test; assessment must occur in the real-life situation that the learner has immersed themselves within.

I also plan to help learners join communities of practice when it makes sense for them to do so. As a member of the instructional design and eLearning communities of practice, I see the benefits that these communities have to offer: they are places to discuss industry best-practices, keep up-to-date on the latest trends, share knowledge, help others, and receive help in turn. When it is feasible for such a community of practice to exist for a topic on which a learner is being trained, I plan to provide resources and direction for engaging with the community. For example, pointing the learner to relevant Twitter accounts, LinkedIn groups, or forums will give the learner an opportunity to learn socially, informally, and over a longer period of time than an eLearning module would.

When it comes to motivation, I am sure to address each element of the ARCS model: Attention, Relevance, Confidence, and Satisfaction. For the learner to be motivated, they must be engaged with the experience and confident that they can learn the new skills or knowledge. They also must feel that it is relevant to their lives or jobs and feel satisfied with what they are able to accomplish either during or after the learning experience. When all of these elements are satisfied, it is much more likely that the learner will be motivated to continue the experience; I plan to adopt these practices in my eLearning and face-to-face training.

However, I am also a proponent of Gagne's 9 Events, and each of the ARCS elements can be satisfied by these events. I have seen several blog posts and LinkedIn articles denouncing Gagne's research-backed events of instruction, but every article seems to assume that each event must be satisfied in a 'boring' way. Grabbing attention can be fun: introduce the learner to a quirky character with a strong personality, and then have that character guide the learner through the experience. Activate recall of prior knowledge by having the learner complete a low-stress word association, and encourage practice by allowing the learner to partner up with a co-worker

or peer. With each experience that I create, I aim to satisfy each of Gagne's events; it is hard to avoid this after learning about each of the learning theories and seeing how Gagne incorporates so many of them into his practical events of instruction. I also find that these events do not need to be implemented in order; as long as each event is satisfied, the experience will be comprehensive and in accord with the research-backed best practices.

In a word, there is no perfect theory that can guide all learning. I am guided by learning principles from behaviorism, cognitive information processing, and situated cognition theory. Behaviorism principles are powerful for modifying human behavior. Cognitive information processing helps us understand what happens within the learner's mind while learning occurs, and understanding this makes it much easier to present content in the most learner-friendly way. When possible, situated cognition experiences can be ground-breaking for the learner due to the real-life context that they provide. And, when it comes to developing instruction, I incorporate the ARCS model and Gagne's 9 Events to ensure that the experience is compelling and comprehensive. By pulling from many schools of psychological thought and a wide range of research, I have developed a learning-theory toolkit that allows me to design the most effective experiences for the learner depending on the situation at hand.