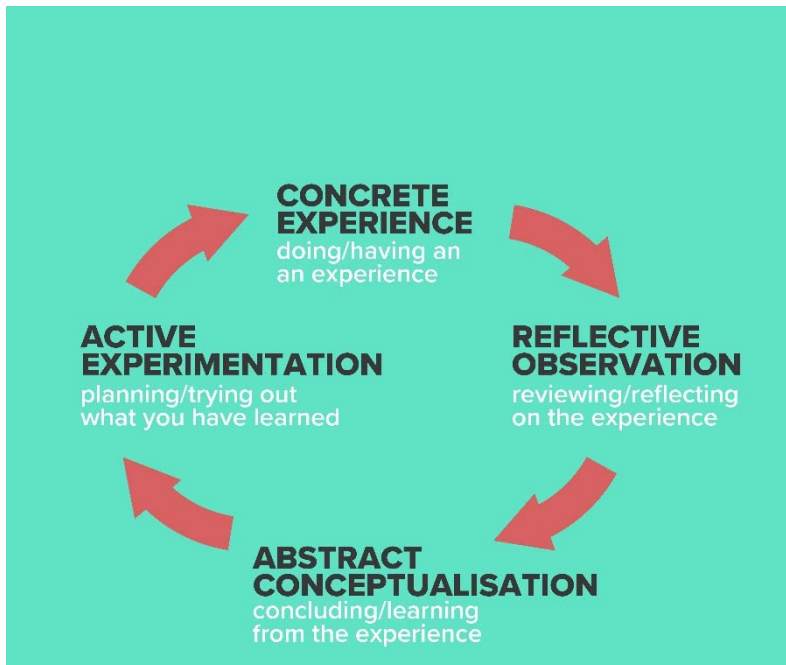


## Learning Theories

From a theory perspective, simulation can be attached to various schools of thought. One that many of us align with and find sort of easy to relate to is the concept of Experiential Learning. Experiential Learning was described by David Kolbe and can be thought of as four segments:



There may be an **experience** of some kind, followed by some **reflection**, which then leads to the drawing of conclusions and some **learning**, and then some **planning** and **experimenting** with what was learned.

This is not that radical an idea. It's not that unique for what we do in life - you know, you do this all the time! The thing I want to highlight about it as a theory is that, you know, we can enter this learning cycle at any point - it doesn't have to start with a concrete experience. It could be started with an idea or a test. Experiential learning is complicated - it entails more than reading and memorizing facts - it's really about everything. It's for the experiences, and so it contains all the environmental factors like the sights and the sounds, even the smells; [and] it includes our emotions and how that all adds up to

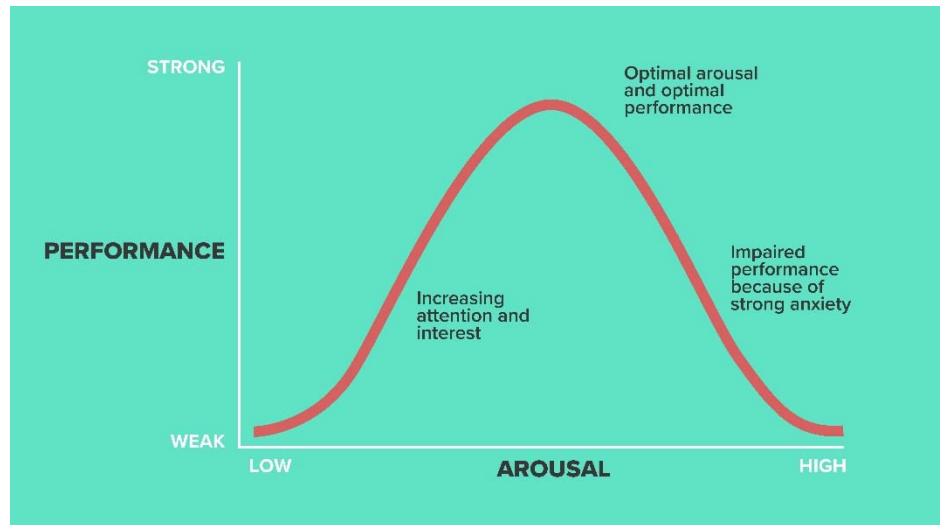
influence our intuitions and the way we make our decisions. And all these factors combine to create these things that we'll call knowledge, and skills, and attitudes - which then inform our behaviors and our experiences.

So during simulations and during clinical practices, we can debrief and explore all of these factors and how they influence our current state, and we can look back and see how these previous experiences - how they've coloured our current context. So, debriefing enables us to find these gaps in ourselves, and within our peers, and with our teams - and when we can learn with someone about each other, we can get highly motivated to learn and improve. Simulation provides us with a powerful teaching and learning opportunity, and like every other learning and teaching strategy it might not always be the right choice of method - it can be costly, it can be time-consuming, and it can be quite labour-intensive to learn this way. So, it is beneficial for us to ask the question, "Where in the learning continuum should we use simulation?" We'll come back to that.

It's awful to think about - when it's not well-planned though, and if it's not facilitated well - because simulation, when not done well, really runs the risk of creating some significant negative experiences and negative emotions, which can cause distress and really turn people off from participating in future simulations.

What I like to say is, you know, our equipment comes with warranties. If our piece of equipment breaks, I can send it away to get repaired. What I can't do though, is replace the will of a learner, or the integrity of a facilitator - that, I don't know how to fix that if it breaks. So, I think it's important that we think about how it is we're going to go about doing this work. As we talk about and think about some of the emotions here, I want to reflect for a minute on the relationship between emotions, and level of arousal, and performance.

As you can see in this graphic that as arousal goes up, performance increases. But there's a cap to that - you can see how there's an optimal point where arousal gets high and performance becomes optimal, but we do not want to go past that point - we don't want people falling off that edge. We don't want to assure that we don't overwhelm our learners and our participants - likewise, we don't want to underwhelm our learners, so we've got to try to find that sweet spot. Learning to navigate that...it's a bit of a challenge, and a bit of an art. So, we do that sometimes by increasing the arousal level and increments we'll explore that further during in person portion of the simulation facilitation workshop.



As you may be realizing, there's a lot of moving parts to this simulation business, and we really haven't quite answered this question about where - where does simulation fit in the learning continuum. So - and how does one decide really what type of simulation is the right method, and then, how do you decide what to focus on? Well, it really comes down to learning objectives - deciding what learners are really meant to learn, and what it is that we actually want them to walk away with - and this can be deceptively difficult, because, often, we want learners to learn it all, and we also have to find ways to address whatever learning needs arise during the simulation. And, of course, we have to address whatever learning needs are identified by our participants. So, while writing objectives, we have to keep in mind that we may have to leave some of them behind. And because we have to balance the performance gaps that we identify, and that our participants identify, and how we go about doing that, again, we'll talk about during our in-person workshop.

Once learning objectives have been established though, we can then start to determine what kind of methodology will best suit our learners - whether it be a simulation scenario, or a skills training, or perhaps what we call a rapid cycle deliberate practice. You know, we have to sort through what's the best strategy, and if you're not familiar with what some of those strategies are, please take a look at the "Resources" section on this page.

All of these things together - let's call them learning objectives, methodology, and levels of fidelity and such - will also be discussed later in the "Stages of Simulation: Pre-course" video. Figuring out all of this - figuring out how to meet our learning objectives with what strategy - is often referred to as functional task alignment. We're going to talk about that too. So, thanks for watching and really appreciate your interest in simulation, and we look forward to working with you.