Agency Drives Growth:

My Theory of Learning and Instruction

James Hardaway

College of Education, NC State University

ECI 517: Theoretical Foundations of Advanced Learning Environments

Dr. McKeown

August 29, 2021

Agency Drives Growth: My Theory of Learning and Instruction

The path to developing my personal theory of learning and instruction is inextricably linked to the reasons I chose to pursue a graduate degree in education. My experiences as a student, as an Army instructor, and as a parent exposed me to the myriad struggles faced by both teachers and students in navigating institutional bureaucracies designed more to make learning efficient rather than effective. Add to that the mounting challenges of instructional design in the internet age, where intellectual focus must compete with a digital information landscape that is "always on," yet rarely on topic. My experiences learning, developing military professionals, and parenting give me deeper insights on how to better understand and fulfill the unique learning demands of each individual student. Developing this theory is the beginning of working towards my goal to be a change agent in the digital learning space by developing tools that aid teachers to better understand their students' needs, leading to more learner-centered outcomes.

My earliest memory of school was in 2nd grade, over 40 years ago. I was seven years old and in trouble, again. The cause? Pure, unadulterated boredom. I'd finish my work too quickly and distract the class as I tried to amuse myself waiting on them to finish. Eventually I landed in a "gifted" program, as the regular classes weren't challenging enough to keep me focused. Pretty sure I wasn't even tested for my ability, but the administrators wanted me somewhere I would be too busy to bother the other kids. I moved around quite a bit in those early years, and rarely were schools able to maintain consistent records of my performance. The pattern of 2nd grade repeated itself in multiple places until I got to middle school. I remained in the same school cohort from 6th through 12th grade, finally finding my niche in both instructional level and teacher patience. I'll never forget, though, the unease I had every time I entered a new school. Always uncomfortable, wondering if this was the right class, if I'd fit in, or how the teacher would react to my abilities or more likely, my issues.

Fast forward 25 years and now I'm an Army dad who's moving his son into a new school every one to two years. The challenges I experienced haven't changed. We lived in multiple states and overseas, all with wildly different academic requirements and testing standards. My son was repeating my behavior patterns from grade school. At the heart of the issue seems to be the schools' inability to characterize my son's abilities and match him with the right intellectual rigor. We were told that without standardized test results from other schools, they had no way to gage his learning level, while state-mandated core competencies rarely challenged him. But those were the requirements, and most schools were reluctant to bypass them. From both mine and my son's experience, I've become a strong proponent of students being at the center of any instructional model. Understanding their backgrounds, their abilities, and what interests them should inform which learning cohorts they're placed in to better surround them with the appropriate resources to succeed.

While my K-12 experience ended positively, I soon discovered there were plenty of gaps in my preparation for learning at the undergraduate level. Good grades in high school do not necessarily translate to quality study skills for college. Not only had the good secondary school grades come with relative ease but knowing that I was destined for the Army after college took some of the wind out of my motivational sails to exceed the minimum standard. I eventually earned that engineering degree, but barely. I discovered the shift from what I had to learn to what I chose to learn depended greatly on my personal level of interest in the subject as well as how it impacted my future goals. This transition from pedagogy to andragogy was not near as distinct as it should have been due to my own failure to recognize an opportunity to take control of my learning path. College felt more like an extension of high school rather than a new opportunity to change how I learned.

The bachelor's degree enabled my commission as an Army Intelligence Officer and began a professional educational odyssey spanning more than 25 years. In that time, I spent at least three years in academic coursework and close to two more taking dozens of smaller,

single-topic courses lasting from one to six weeks. What was termed *professional military education* was often just skills training, but I did have a couple of opportunities to experience true adult learning. Analysis, planning, critical thinking, and strategic problem solving were a few of the topics that drove my professional scholarship. The ability to envision how these newly acquired ideas could benefit my professional goals was plenty to motivate me to apply the rigor to not just pass but get as much out of the experience as I could. A mark of any true profession is its disciplined approach to acquiring and growing a body of knowledge specific to that field. I had finally found a purpose for learning!

In 2003, my ninth year as an Army officer, I became an instructor at the Army's intelligence school. For two years I designed curriculum, taught in the classroom, graded assignments, and got evaluated by students. I even developed and taught a class on how to use information technology that relied on "big data" and rudimentary algorithms, an early version of machine learning. Here I gained my initial insights into instructional design from a teacher's perspective. From students' struggles to their accomplishments, I saw how course design impacted the learning experience. The variability of learning styles in a class of 30 students shocked me. I was completely unprepared to adjust my teaching to account for such a wide variance in student abilities. Platform teaching cemented in my mind the significance of understanding the relationship between theories of learning and instruction. While I had no idea at the time, my work at the intelligence school planted the seeds that would grow into a passion for understanding the science behind learning.

My journey from student to professional convinced me that at its most basic level, learning is a process of change. Change, specifically, in how someone visualizes, interprets, and engages with new information. My transition from bored 2nd grader to engaged 6th grader was a result of transforming how I related to new learning stimulus. My teachers challenged my level of understanding by building more complex feedback loops. Rather than simple regurgitation of new concepts, I was called on to apply my new knowledge in practical, real-

world scenarios. In high school, science labs and collaborative projects forced another change as I learned to design a hypothesis, then test that idea by gathering evidence and "proving" the efficacy of my logic to others. This empirical model was more student-centric, with the teacher acting as facilitator. As the student, I got to decide where to focus my learning. My curiosity was the key driver to how this learning unfolded. From college to military professional, I experienced yet another shift in personal motivation to learn. Future job prospects and quality of life became intrinsic drivers to change what I knew about my profession and to seek opportunities to expand that knowledge and develop completely new ideas and theories. Combined, these experiences resulted in a personal educational philosophy grounded in the belief that learners, young and old, **desire opportunities to grow** in their understanding of the world around them. While each may have very different internal motivations, they seek the **confidence** that stems from being able to **independently** achieve a level of **competence** in following their **passions**. Turning this philosophy, this belief system, into something actionable is why I began my current quest in the Learning Design & Technology program. To that end, I plan to work on transitioning these values into a concept that is fit for the classroom.

Theories in general are designed to explain why something happens or what could happen in the future according to a specific set of principles. Theories can be explained as logic equations describing a process of turning inputs into results:

INPUTS + MEANS (process) = RESULTS (outputs)

A theory of learning, therefore, is a construct that explains how educational principles work to produce a set of learning outcomes. The inputs are those resources, tools, or experiences that enable learning, while the means are the proposed methods to achieve learning. These elements combine to produce a change in learner performance, or the results. Numerous

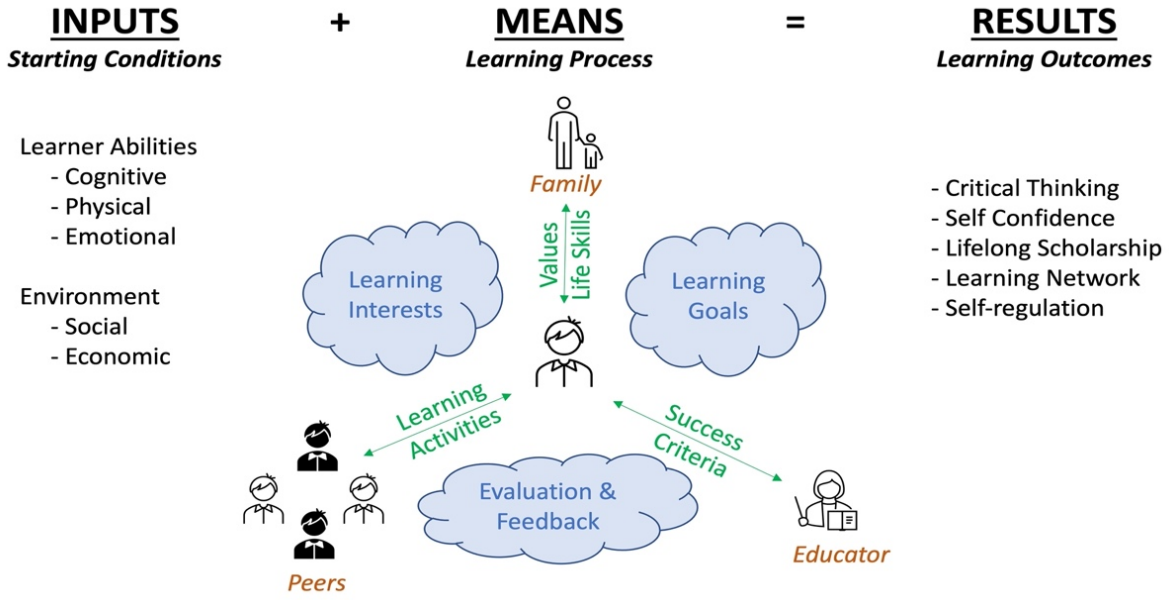
criteria and/or qualities may be used to evaluate the utility and potential effectiveness of a given theory. Some criteria I currently use to judge new concepts include:

- *Simplicity* – Is the theory easily understood or explained?
- *Utility* – Can you visualize a context for use?
- *Observation* – Are there data/facts showing practical use?
- *Limits* – Where is it impractical to apply the theory?

The assumptions driving my personal epistemology on learning are **interpretivist** in nature (Driscoll, 2004)**.** I believe students arrive at the learning experience holding personal and varied understandings of their surroundings. These contextual truths drive how they reason and construct explanations as they accept and internalize new ideas. If I view my educational philosophy through this contextual lens, the result is a learning theory (see Figure 1) that can be described as **learner agency driving personal growth.**

Figure 1

Personal Learning Theory



The core building block of this theory is a learning network comprised of multiple participants in the educational process with the student at the center. In this network, the targeted learner has singular ties to each of the participants (educator, family, peers) while the external participants maintain shared responsibility for developing key aspects of the environment (interests, goals, feedback). A student's capability and achievement are a direct result of their active participation in developing a personalized vision of growth. A key assumption in my theory is that a student should not be limited by their presumed innate abilities or environmental factors out of their control. While all learners arrive at a given point, the goal is to affect change in how they perceive and engage with the world around them. The method to achieve this end state is student-centered, driven by personal learning goals, and built on a foundation of trust. Using the four criteria I listed above, below is how I would evaluate this theory:

- *Simplicity* – Verbally, "learner agency driving personal growth," is straightforward and direct. The description conveys a process that is student-centric, a popular method that should be easily recognizable. The graphic depicts the student at the center of a learning network comprised of family, peers, and educator nodes. The image also shows what those relationships provide with some nodes connecting directly to the learner while others are shared across multiple nodes.
- *Utility* – This theory should be applicable to young as well as adult learners. Educational institutions and corporations could employ this learning theory.
- *Observation* – Numerous studies on the interpretivist theories putting students driving learning goals exist and can be referenced for historic views on this type of theory and its underlying assumptions.
- *Limits* – While young learners could benefit from driving their personal learning journey, there will obviously be some topics that are driven by external requirements. State and

federal K-12 policies may dictate topics or testing that would drive inclusion of subjects some student may have no interest in and perform poorly as a result.

As theories of learning describe a proposal for how people learn, theories of instruction explore methods for how to teach. It's really a comparison of receiving information versus delivering information. Additionally, the application of an instructional theory should be informed, at least in part, by theories of learning. The key difference in instructional theories is that the output is focused on the instructional environment or conditions rather than student achievement goals:

INPUTS + MEANS (process) = RESULTS (outputs)

↓	↓	↓
Learner Assumptions	Instructional Methods	Learning Conditions

The resultant *learning conditions become* a key ingredient or input for my learning theory described above. However, as each individual learner develops personal learning goals, the instructional methods to achieve those goals will differ depending on the criteria to achieve a specific learning outcome. While I have an initial theory on how I believe learning could occur, I'm not convinced there exists a single instructional method that can be applied broadly to all desired outcomes. As I experienced and as my son is still experiencing, a one size fits all approach to education rarely achieves the best result for each individual learner. On the contrary, this method leads to students being brought down to the lowest common denominator of ability within their cohort.

My experiences as a student, professional, and parent underpin my philosophy that learning drives change in how we see, interpret, and engage with our environment. This change manifests as learners gain confidence in their ability to develop skills and competencies in fields they choose. My beliefs and values on education have led to the development of a concept based in learner agency driving growth. This agency is a product of educators, peers, and family

maintaining a network of relationships that provide the student with timely and relevant feedback as they approach their desired learning outcomes. As I continue to curate my own learning path in this program, I look forward to experimenting, testing, and modifying my theory into a product that could change how we design instruction that values the individual learner.

References

Driscoll, M. P. (2004). *Psychology of learning for instruction* (3rd ed.). Allyn and Bacon.