Daniel Townsend
Course Reflection for EDUC 588: Masters Capstone B
USC Rossier LDT Master's Program

Growing up, I was a sponge for what I now know as declarative knowledge—names, dates, places, and so forth—so much so that I equated it with intelligence. In retrospect, I am embarrassed by the haughty yet arbitrary gatekeeping that I was committing internally based upon who in my life knew what and how this jaded and anachronistic view has crept into my work as both a student and a teacher. The Learning Design and Technology master's program at USC Rossier has helped to bring about a major paradigm shift for me through the work of Robert Gagné, Paolo Freire, and others, as well as the Universal Design for Learning framework, which have made me consider learning, motivation, knowledge, and intelligence from entirely new perspectives.

The learning experiences I design rest on the assumption that all learners are capable of achieving at high levels, albeit not in a uniform way, and place a premium on examining learners' backgrounds—their experiences, interests, and attitudes—before analyzing the tasks to be performed in order to optimize learners' value, establish a mastery orientation, and foster a sense of community. Varied and customized delivery of content helps to increase access, manage learners' cognitive load, and ensure that learner diversity is reflected in the instructional materials. Through authentic practice and feedback, ideally with real-world situations, learners' self-efficacy is built, their metacognition is activated, and their transfer of learning is maximized.

All of these elements converge in the spirit of equity with the idea that all learners are capable and responsible for making their own meaning in collaboration with their peers and the learning facilitator, but may need varying levels of support to accomplish this successfully. The science behind these learning constructs is powerful because it can be applied to practically any subject, field, or age of learners. In doing so, instructional designers can promote learning that is meaningful and long-term, and ultimately brings about further learning.

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The overall instructional design model used for this capstone was the ADDIE model, which stands for Analysis, Design, Development, Implementation, and Evaluation. Other models and procedures of instructional design that were also incorporated include Smith and Ragan's discrepancy model of needs assessment during analysis; Gagné's learning outcome types, Clark's Cognitive Task Analysis (CTA) procedures, and Smith and Ragan's information processing analysis procedures during design; Gagné's events of instruction, Bloom's Taxonomy, Anderson and Krathwohl's knowledge types, Smith and Ragan's generative and supplantive instructional strategies model, Clark's Guided Experiential Learning (GEL) model and media selection principles, and Universal Design for Learning (UDL) during development; and the Kirkpatrick Model of Evaluation during implementation and evaluation. Social Cognitive Theory, Cognitive Load Theory, Information Processing Theory, and the Cognitive Theory of Multimedia Learning were also vital in providing a scientific undergirding.

The ADDIE model was appropriate for the development of this professional learning curriculum, as long as it is acknowledged that it was executed in an iterative, rather than a linear fashion. Considerations of implementation and evaluation were made prior to most of the development, but this was helpful in getting a clear picture of the desired results to inform development, as suggested by Wiggins and McTighe's backwards design model. The iterative execution of the ADDIE model also draws parallels with the spiral model of iterative design and rapid prototyping, both of which take into account that changes to the initial design may happen throughout and as a result of development, implementation, and evaluation. A purely linear execution of the ADDIE model would have been inefficient and may have led to a less effective curriculum. Other models that may have been useful are Keller's ARCS model, which focuses on motivation, as well as the ASSURE model and Edmondson's cognitive apprenticeship.

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In building the capstone, the most valuable, and perhaps most time-consuming element of design was the creation of the major steps, which became learning goals that were in perfect, or in Dr. Yates' words "simple yet elegant" alignment with the terminal learning objectives for the development phase and the critical behaviors for the implementation and evaluation phases. Every time that shifts occurred in the learning goals, adjustments had to be made to the terminal objectives and critical behaviors, which then necessitated changes to the lesson analysis, learning activities, assessments, and evaluation tools. This was a very iterative process that required patience, persistence, and perseverance, and helped me to realize how important it is for instructional designers to align learning objectives and critical behaviors and incorporate evaluation of those behaviors as evidence that learning has taken place.

The other most time-consuming portion was the completion of these final reflections! It is a daunting task to succinctly synthesize all the science behind instructional design, as well as learning and motivation; lifespan development; diversity, equity, and inclusion; and research methods in a way that both demonstrates command of the subject and shows personal connection to the material via the capstone. The entire capstone project has instilled in me that there may be many ways of approaching a particular problem of practice, and that any of these ways can be valid as long as there is a clear rationale laid out, including evaluation practices to gauge effectiveness. This particular curriculum emphasized self-efficacy, which, as my capstone states, includes cognitive, behavioral, and attitudinal components. For both myself and my students, I hope to go beyond expecting mastery of only the cognitive component, which is covered by declarative knowledge, to including authentic practice and feedback, which covers the behavioral component, and thoughtful considering aspects such as value, which cover the attitudinal component, in my own learning and my design of learning experiences.