ACADEMIA │ Letters

Reflections on Teacher's Role in SRL

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Background of SRL

In the past two decades, significant research has been published on self-regulatory learning (SRL) in adult higher education but very little on how this learning process is shaped by the cognitive and emotional process. Self-regulatory learning has been published by academic researchers on a global scale, across many cultures and social settings. Published literature cover strategies to better understand and implement effective self-regulatory learning and assessment (Springer International Publishing Switzerland, 2014). With the onset of COVID-19, online teaching and learning have become the new norm in higher education, placing greater demand on learners to take a primary role in self-directing, self-motivating, self-pacing, and self-assessment in the learning process. Traditional student to teacher relationship has always been a cornerstone of learning. However, SRL has upended this traditional relationship and has triggered the need to redefine the role of instructor in the SRL environment, especially from a cognitive and affective perspective. This paper discusses the critical role instructors play in adult SRL learning and assessment environment, especially from an affective, neuro-teaching and neuro-learning perspective.

Dyadic Relationship and Neurobiology of SRL

Self-regulated learning has become a cornerstone in adult education for some time now, driven more so with the onset of COVID-19 and stay-at-home regulations. What makes SRL compelling is the notion that the adult leaner is self-motivated, knows what her/his educational needs are, and has voluntarily decided to initiate the effort to learn something new (Knowles,

1979). Self-regulated learning fits the needs of the working adult learner because she/he has greater control over workplace hours and household time management. SRL allows the adult learner to control the navigation, pacing, and cognitive learning process (Broekaerts & Cascallar, 2006). However, anxiety and uncertainty are built into the SRL process. Fear of failure or underperformance is a constant worry that is either impeded or facilitated by the relationship between the instructor and student. The instructor role in overcoming emotional barriers is crucial in the student-teacher relationship. We know that the adult learner makes emotional choices that pivots on what is the perceived value of the course, content difficulty, and course expectations, factors that are defined by the instructor. Unfortunately, despite a plethora of teaching theories, teachers are not taught to use affective approaches in ways that are strategic and purposeful. Affective teaching as a tool in the classroom or online teaching is not taught in educational psychology or in teaching curricula. Yet, neuroscience informs us that learning is an emotional process to which the brain absorbs, processes, and retains knowledge based on the engagement of the limbic system, especially the amygdala and hippocampus.

Challenges with SRL Self-Assessment

Competency in a knowledge domain is ultimately the learning outcome in higher education. However, measuring competency in SRL models remains ambiguous. Such measuring tools as thinking aloud protocols, classroom observations, microanalysis, sequential and temporal analysis and self-reporting all remain incomplete. Student self-assessment, however, has emerged as a significant part of SRL, the theory being that student can best identify the starting point in the learning process, in the various intervening formative benchmarks, and culminating summative self-assessment. The problem with self-assessment or self-reporting in SRL, however, is that it is difficult to properly evaluate academic performance, given institutional standards, local site expectations, course expectations, range of teacher idiosyncrasies required from the learner, and the learner's own criteria of what constitutes knowledge retention. Student self-assessment tends to be deeply personal and difficult to disclose in an objective manner (Andrade, 2010). Therefore, evaluation of student self-learning outcomes remains inaccurate, which could lead to undermining student's self-esteem (Schunk, 1996). Studies show that students are aware that teacher is the expert on the topic and thus harbor ambivalence toward self-assessing themselves when required to do so (Gao, 2009; Panadero, Brown, & Courtney, 2014; Peterson & Irving, 2008). To this end, teachers ultimately play a significant role in assessing the performance of SRL learners. Teacher's use of rubric models, for example, can be used to help guide SRL students in self-assessment without losing critical presence as the "expert". In this guidance role, teachers implant validation of performance

and deepens the affective learning process.

Catalyst Role of Teacher in SRL Deep Learning

In higher education, Carnegie time units are used to measure learning. Yet, research shows little correlation between instructional time and cognitive learning (Chen, 2017). However, robust brain studies show emotional impact experienced in the learning process contributes to enhanced cognition, long-term memory, creativity, and deep reflective learning (Immordino-Yang, 2016, Taylor & Marienau, 2016, Whitman & Kelleher, 2016). Decades of neuroscience research on how the brain learns have demonstrated that emotions play a central role in the learning process with stress identified as the single most significant obstacle to creativity, cognition, and long-term memory (Roberson (2014). Purposeful application of neurotransmitters such as dopamine, oxytocin, serotonin, and endorphin in designing curricula activities, facilitating in-class learning and online teaching create deep learning environments. The teacher is central to the creation of a positive affective learning environment. Because the act of teaching is a dyadic relationship, whether in-person or online, this relationship is at the heart of learning between the "expert" and the self-regulating student and where the instructor shapes the emotional framework that motives, inspires, and rewards the SRL student to learn in ways that encourage deep learning and a momentum for life-time learning.

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