Incorporating Mindful and Motivational Regulation Strategies into Online Learning

There is convincing data that, in adults, mindfulness improves health and well-being. Neuroscience offers insights into how and why mindfulness training may offer such support. Research on the neurobiology of mindfulness in adults suggests that sustained mindfulness practice can enhance attentional and emotional self-regulation. In self-regulated learning, the regulation of motivation is often necessary. This article applies the existing research on mindfulness and motivational regulation strategies to online courses to improve the learning experience.

Accelerated, intensive courses and programs are becoming more common within higher education in an effort to meet learner’s busy personal and professional lives and their demand for flexibility (Christensen & Eyring, 2011; Christensen, Horn, & Johnson, 2011; Williams, Mackness, & Gumtau, 2012). The rate of change in the 21st century has become so fast that it requires people to react quickly and to adapt to consistent shifts in their environment (Marques, 2012; Tatum, 2010). This shift towards an accelerated pace of life has caused a growing demand for accelerated and intensive classes (Marques, 2012; Johnson, 2009). Accelerated courses have the same credit hours (e.g., 3 credit hours), but the course length is shortened (e.g., from 16 weeks to 8 weeks) (Tatum, 2010). Even though accelerated courses have shortened lengths, it is still important to ensure students are learning, but in many cases shortening the length can cause increased stress and anxiety.

Today’s work environments emphasize the importance of focus, clarity, creativity, compassion, and critical thinking (George, 2014). TIME magazine’s 2014 article, The Mindfulness Revolution, points to the growing need of leaders to possess the ability to understand the increasing time pressures facing workers in this digital world (Pickert, 2014). Ways need to be found to help students achieve these characteristics, so that they can be successful in their work environments. Health administration programs have found that incorporating mindful learning strategies into teaching and learning have provided their students
a competitive edge when entering the workforce (Molinari, Freshman, & Tan, 2015). There are increasingly convincing data that, in adults, mindfulness improves health and well-being by: reducing stress, anxiety, and depression; enhancing neuroendocrine and immune system function; improving adherence to medical treatments; diminishing need for medication; altering perception of pain; increasing motivation to make lifestyle changes; and fostering social connection and enriched interpersonal relations (Ludwig & Kabat-Zinn, 2008; Ruff & Mackenzie, 2009).

Neuroscience offers insights into how and why mindfulness training may offer such support. Expanding interest in the plasticity of the brain, the brain’s ability to produce new neurons and neural connections across the lifespan, has prompted an exponential increase in cognitive and affective neuroscience research. Siegel (2007) observed that mindful awareness alters the connection between the prefrontal cortex and the limbic system this shows the connection between learning and our emotions as part of the affective learning domain. Affective education defines by Lang (1998):

“significant dimension to the educational process which is concerned with the feelings, beliefs, attitudes and emotions of students, with their interpersonal relationships and social skills. This dimension is likely to involve a concern for their moral, spiritual and values development (p. 4)”

Research on the neurobiology of mindfulness in adults suggests that sustained mindfulness practice can enhance attentional and emotional self-regulation and promote flexibility, pointing toward significant potential benefits for both teachers and students. In self-regulated learning, the regulation of motivation is often necessary. Researchers in the field of motivational regulation have identified several strategies that aim to increase motivation (e.g. Wolters, 2003).
Early research results on three illustrative mindfulness-based teacher-training initiatives suggest that personal training in mindfulness skills can increase teachers’ sense of well-being and teaching self-efficacy, as well as their ability to manage classroom behavior and establish and maintain supportive relationships with students (Meiklejohn, et al., 2012).

One goal of education is to promote the academic, social, and emotional well-being of our students. Helping students focus and concentrate, especially in online learning environments, has spurred interest into connecting education with mindful strategies. In addition, improving student self-regulation and motivation can assist them in achieving academic success. Adding mindful learning strategies in combination with motivational regulation strategies to online courses can help promote educational goals by channeling attention towards completion of productive individual tasks to achieve academic success. This article will discuss how to incorporate mindful learning strategies and motivational regulation strategies to the design of online courses.

**Background**

**Mindfulness**

Mindfulness has been described as “the awareness that emerges through paying attention on purpose, in the present moment, and nonjudgmentally to the unfolding of experience moment by moment” (Kabat-Zinn 2003, p.144). Mindfulness involves learning to direct our attention to our experience as it unfolds, moment by moment, with open-minded curiosity and acceptance. Rather than worrying about what has happened or might happen, it trains us to respond skillfully to what is happening right now, be that good or bad. Mindfulness helps students get in touch with their thoughts and feelings to keep them relaxed to increase their reflection and learning.
The addition of mindful strategies to intensive, online courses has the potential to increase student’s academic experiences and their social and emotional learning (Burke & Hawkins, 2012; Griggs & Tidwell, 2015). Mindful practices including non-judgmental, present-moment awareness of our mental states developed through stillness, breath meditation or focused movement, can help develop reflective skills through which self-knowledge and empathy become embedded in the learning process.

**Mindful Learning Process**

Glick and Aviram (2011) discuss that designing courses with a Mindful Learning Process (MLP) creates a meaningful course for students. MLP consists of four interconnected elements of learning theory, learning environment, learning process, and assessment to create a harmonious environment for learning. The MLP supports early works on learning theories and online learning.

Learning theories play a key role in the learning process. Learning theories help to conceptual how learning occurs by attempting to explain the learning process. Learning theories provide a vocabulary and a conceptual framework for interpreting the examples of learning that is observed (Ormrod, 2012). The theories do not give us solutions, but they do direct our attention to those variables that are crucial in finding solutions.

Online learning environments are the most accessible learning path for working individuals. In designing these learning environments, instructional designers must be cognizant of learner needs and design instruction for these needs using learning and instructional theories. Cicciarelli (2007) found that online instructors utilized the several theories to guide their course design: Theory of Multiple Representations, Theory of Immediacy and Social Presence, Elaboration Theory, Moore’s Theory of Transactional Distance, Merrill’s Instructional Theory,
Gagne’s Conditions of Learning, Cognitive Flexibility Theory, and Bruner’s Three Form Theory; however, use of dual coding theory was not found to be significant.

Learning process is a stage in which the learner realizes the course outcomes through a variety of interactions. Learning takes time and patience. It is a process — a journey. A self-directed learning process is arguably the most powerful model for facilitating and inspiring individual, group and organizational learning and development. Anderson (2003) argues that interaction is a critical component to the learning process and should include three types of interaction: student-student, student-instructor, and student-content.

Segal, Williams, and Teasdale (2002) suggest that, rather than consisting in any particular method or approach, there are ‘many different methods and techniques’ for cultivating mindfulness. The process implies: “Developing and refining a way of becoming more intimate with one’s own experience through systematic self-observation. This includes intentionally suspending the impulse to characterize, evaluate and judge what one is experiencing. Doing so affords multiple opportunities to move beyond the well-worn grooves of our highly conditioned and largely habitual and unexamined thought processes and emotional reactivity” (p. viii). Siegel (2007) observes that a ‘useful fundamental view is that mindfulness can be seen to consist of the important dimensions of the self-regulation of attention and a certain orientation to experience’ (p. 11). Bishop et al. (2004, p. 232) proposed the following two key stages or elements of the process:

- The self-regulation of attention so that it is maintained on immediate experience, thereby allowing for increased recognition of mental events in the present moment.
- A particular orientation towards one’s experiences in the present moment, an orientation that is characterized by curiosity, openness and acceptance.
Motivational Self-Regulation Strategies

Self-regulated learning refers to students’ active participation in their own learning by setting goals, monitoring and controlling their cognition, motivation and behavior to appropriately transform their mental abilities into actual performance for goal attainment (Pintrich, 2000; Zimmerman & Schunk, 2011). In general, self-regulated learners have been characterized as reflective individuals, who possess a repertoire of strategies and have the ability to deliberately implement needed strategies with ease (Wolters, 2003). Research has shown that self-regulation has a positive influence over students’ achievement and motivation (Pintrich, 2000).

As one of the areas of self-regulation, MSR refers to the process in which learners use a variety of strategies deliberately and actively to initiate and control their level of motivation or motivational processing in order to achieve optimal motivation for goal completion (Wolters, 2003). Most of the previous studies on self-regulation have mainly focused on cognitive and metacognitive regulation although sustaining one’s motivation for goal attainment has been incorporated in many self-regulation models (Pintrich, 2000; Zimmerman, 2000).

MSR is a very important aspect of self-regulation for the following two reasons. First, cognitive self-regulation (e.g., engaging in strategies such as elaboration and rehearsal) and behavioral self-regulation (e.g., engagement, choice of tasks, persistence) are inherently effortful, challenging and time-consuming processes, which require students to engage actively in monitoring and using self-regulatory strategies (Pintrich & Zusho, 2002). It is not uncommon that students do not use self-regulatory strategies even though they have the knowledge about them (Pintrich & Zusho, 2002). It can be that students do not have the interest, see the value or feel self-efficacious to engage in using these strategies. Second, students’ motivation may change
over the time of task engagement (Wolters, 1999). The academic situations in which cognitive and behavioral self-regulation are required are not always naturally engaging and motivating. According to the social cognitive model of self-regulation (Pintrich, 2000), for each area of self-regulation, there are four phases: 1) forethought, planning, and activation, 2) monitoring, 3) control and regulation, and 4) reaction and reflection. Each of them has four different areas for regulation: cognition, motivation/affect, behavior and context.

**Integrating MLP and Motivational Self-Regulation Strategies**

Many courses may follow Glick and Aviram’s (2011) MLP framework by incorporating all four interconnected elements, but incorporating motivational regulation strategies along with this framework may assist students in being successful. Motivational self-regulation which can be defined as the more or less conscious control over one's own motivation which mostly serves to increase effort and persistence (Wolters, 2003). A number of studies have shown that students who use certain strategies to regulate their motivation put more effort into learning tasks when faced with obstacles or difficulties (Schwinger, Steinmayr, & Spinath, 2009; Wolters & Benzon, 2013). Motivational regulation strategies include: 1) enhancement of situational interest, 2) increasing personal significance of the task, 3) mastery self-talk, 4) performance approach self-talk, 5) performance avoidance self-talk, 6) self-consequences, 7) proximal goal setting, and 8) environmental control (Schwinger et al., 2009).

Wolters (1998) combined several strategies under the label of extrinsic (Performance Self-Talk and Self-Consequating) vs. intrinsic regulation strategies (Mastery Self-Talk, Interest Enhancement, and Efficacy Enhancement). Wolters (1998) found that students who used intrinsic regulation strategies) were more likely to engage in deeper level cognitive strategies such as elaboration, critical thinking, metacognitive strategies even after accounting for learning
goals. However, intrinsic self-regulation strategies were not related to course grade (Wolters, 1998). Extrinsic regulation strategies, however, did not relate to any of the cognitive strategies studied (rehearsal, organization, elaboration, critical thinking, metacognition) but were related to course grade (Wolters, 1998).

To enhance learning in online, accelerated learning environments the cognitive and affective domains need to be harmonized. Many of these courses are designed with the cognitive domain and promote the key features of adult learning - such as self-directedness, experiential techniques, and problem solving (Knowles, 1970) to promote a student-centered learning approach. However, the instructor can promote mindful learning strategies and motivational regulation strategies through their instructor presence in the course. Stand-alone courses exist the focus on Mindfulness Based Stress Reduction (MBSR) and Mindfulness-Based Cognitive Therapy (MBCT) strategies and these strategies along with MSR can be added to any course.

Direct instruction involves explicitly explaining different strategies to students, as well as how those strategies are used and what skills are involved in those strategies. When instructors model and explain thought processes necessary for completing activities and assignments, students are more apt to understand and begin to use those processes on their own. This instruction can occur through frequent announcements that alter students to mindfulness and MSR.

Motivation, engagement, and self-regulation are the primary determinants of students’ learning outcomes, and whether or not they will persist through challenging tasks. By teaching students to be more self-regulative, teachers may experience greater success in promoting academic achievement, motivation, and life-long learning. Spending a marginal amount of time each day demonstrating how specific self-regulation strategies can improve students’ learning
can go a long way to helping them prepare for challenging learning tasks and assessments. Ultimately, if our goal is to create successful life-long learners, then we must first ensure that we teach them the strategies necessary for that journey. To promote student self-regulation teachers must assist students to engage flexibly and adaptively in metacognitive activities (task analysis, strategy selection and self-monitoring). Key instructional targets include promoting students' construction of metacognitive knowledge about academic work, strategies for analyzing tasks, metacognitive knowledge about task-specific strategies, skills for implementing strategies, and strategies for self-monitoring and strategic use of feedback. It is also important to focus on how students adapt strategies reflectively and flexibly within recursive cycles of task analysis, strategy use, and monitoring. By teaching students to be more self-regulative, teachers may experience greater success in promoting academic achievement, motivation, and life-long learning. Once self-regulatory skills are developed, students and teachers will both benefit by having more productive learning experiences.

**Conclusion**

All students are likely to encounter learning situations that challenge their motivation. Educators should provide students with the declarative, procedural and conditional knowledge related to a variety of MSR strategies and encourage students to frequently reflect upon their level of motivation and engage in MSR strategies when they are needed. Educators should also model MSR strategies themselves, especially intrinsic MSR strategies such as mastery self-talk, interest enhancement, relevance enhancement and efficacy enhancement. The addition of mindful strategies and MSR strategies as an instructional practice can have many benefits to improving the learning experience of students by creating an increased sense of community, reducing stress, and increasing self-reflection. Teaching includes many facets that go beyond just
the content in our courses, instructors need to promote student well-being by incorporating instructive feedback and guidance. The type of climate instructors develop in their courses can motivate students to take risks and persist to complete each course. Focusing on the student’s learning while supporting them in developing life skills is an incredible combination and leads to mindful students.

References

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