DEFINING EFFECTIVE LEARNING THEORIES FOR MASSAGE THERAPY EDUCATION

A Modern Approach

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INTRODUCTION

The delivery of entry-level massage therapy education exists in a variation of organizational formats: privately owned trade school, corporate proprietary school, and public institution. The Entry Level Analysis Project (ELAP) Blueprint and Final Report is the only generally accepted document that outlines the educational core content taught in various forms and levels throughout the country. The ELAP was produced in 2013 with the intent to provide structure to entry-level education through the creation of a comprehensive educational product that with proper execution can ensure quality skills and knowledge to enter the massage therapy profession (ELAP Blueprint, 2013). The ELAP contains a detailed blueprint outlining core content considered essential for an entry-level educational program and an extensive descriptive rationale for each included element. Additionally, the sole specialized accrediting agency for massage therapy education, the Commission on Massage Therapy Accreditation (COMTA), has incorporated the ELAP substantively into its evaluative processes of educational competencies. COMTA accredited schools and programs have demonstrated solid execution of the ELAP through high percentages of program completion and national licensure exam passing rates; however, very few massage therapy schools and programs nationwide have been able to achieve COMTA accreditation standards (American Massage Therapy Association, 2018). To improve massage therapy educational quality and structure, thorough examination of the learning theories applied in the ELAP needs to be accomplished so that further standardization and improvement in the establishment of entry-level massage therapy education can occur.

This synthesis investigates the applications of the ELAP-derived learning taxonomy and educational theory applications as demonstrated in prescriptive learning experiences. The ELAP Blueprint specifically cites three main theories woven into the project: brain-based learning theory; Lewinian experiential theory; and Wlodkowski's philosophy of adult motivation. A discussion of each theory and its application into the ELAP framework provides a rationale of its

validity in adult educational concepts. Further analysis suggests alternative approaches and a proposal to demonstrate the perspective offered.

The ELAP Taxonomy, Learning Objectives and Outcomes, and Learning Experiences

To better understand how this framework was built, an examination of the unique ELAP taxonomy, an examination of the rationale for the derivation of learning objectives and outcomes for topics and subtopics included in the ELAP, and an analysis of the prescriptive learning experiences provided to achieve the level of taxonomy is explored.

THE ELAP TAXONOMY

The ELAP work group considered the foundational taxonomy as created by Benjamin Bloom and decided to adapt it to suit their vision for more practicality in massage therapy education (ELAP, 2013). Bloom's Taxonomy has three learning domains: cognitive, affective, and psychomotor, relegated respectively to knowledge, attitudes, and skills in terms of categorical design of instruction (Clark, 2015). Corresponding to these domains are hierarchical classification levels for learning objectives. The work group claims to have consulted several resources on learning theories and created a taxonomy that is reflective of their perceptions of entry level massage therapy professional skills and practice.

FIGURE 1: *ELAP Learning Taxonomy (ELAP Blueprint, 2013)*

DOMAINS	COGNITIVE	PSYCHOMOTOR	AFFECTIVE	INTERPERSONAL
Level 1: Receive and Respond	Attain and Comprehend	Observe and Imitate	Receive and Respond	Seek and Support
Level 2: Apply	Use and Connect	Practice and Refine	Value	Communicate and Negotiate
Level 3: Problem Solve	Choose and Plan	Naturalize and Adapt	Integrate and Internalize	Compromise and Resolve

The Blueprint discusses how it arrives at the three aptitude levels and uses samples of learning objectives from each domain achieved by the massage therapy learner. The examples given are indicative of Bloom's phrasing style, but they seem very simplistic in learning depth (e.g., Practice

body mechanics during application of massage methods.). Another unique element of the ELAP Taxonomy is its addition of an Interpersonal domain (ELAP Blueprint, 2013). Since the field of massage therapy is a personal interactive service, this addition seems like a valuable area to assess.

ELAP LEARNING OBJECTIVES AND OUTCOMES

The ELAP Blueprint has three parts to achieving the learning outcomes of each topical content area: (1) conditions; (2) behaviors; and (3) criteria (ELAP Blueprint, 2013). The Conditions section is intended to describe the minimum parameters of which the learning of a content area will occur, expressed in hours of instruction and overarching descriptive learning objectives to be achieved (e.g., Having completed 20 hours of hands-on practice in demonstrating the integration of body mechanics principles.) (ELAP Blueprint, 2013). In the Behaviors category, it lists the specific learning objectives within the domain level to be achieved, in a measurable vernacular (e.g., List three principles or guidelines of nutritious eating.) (ELAP Blueprint, 2013). The last element, Criteria, is intended to provide specifics of how a student should perform a skill. This area seems a bit problematic in that it overlaps the premise of the Behaviors section and is difficult to demonstratively measure in meeting the learning objective distinctively. Moreover, the Criteria section is not fluently apparent in the Blueprint or Report, so it does not seem to meet the intent of designating it as a separate entity for evaluating learning objectives and outcomes (ELAP Blueprint, 2013; ELAP Report, 2013).

Apart from the three levels, the Blueprint goes on to describe the purpose of creating well-written learning objectives is to provide clarification on the extent of which a skill should be achieved in the learning environment. It further delineates that learning objectives should follow a progression of complexity in the taxonomy showing a depth in learner knowledge and it suggests using a scaffolding approach in instructional design and teaching methods to achieve it (ELAP Blueprint, 2013).

ELAP PRESCRIPTIVE LEARNING EXPERIENCES AND LEARNING THEORY TENETS

The Blueprint states that no single learning theory represents the best approach to teaching massage therapy skills; however, its suggestions of brain-based learning theory and Lewinian's Experiential Learning Model in addition to its mention of Wlodkowski's philosophy of motivation in adult learning are indicative of an intent to steer educators in this direction (ELAP Blueprint, 2013).

Moreover, further examination of the Final Report, which provides lesson planning examples in each content skill area, shows that the instructional design is more than just suggestive and its applied throughout the framework (ELAP Report, 2013). To understand the ELAP workgroup's intent, further discussion of these three noted theories and ELAP's interpretation of them through examples of application within the framework is needed.

Brain-Based Learning Theory

Brain based learning (BBL) theory is primarily attributed to the concept that the physiological activities of the brain have a direct correlation to patterning that occurs in learning; it involves activities that happen within conscious and unconscious processes (Haghighi, 2012). BBL is based on an explanation of the brain's components and how it learns and processes and its capabilities to organize markers attached to a wide spectrum of incidents and experiences. It further contends that the brain correlates to emotion creating repetitive behavior patterns in a multi-tasking fashion which involves reflection and reasoning that will be unique to an individual (Haghighi, 2012; Kane, 2013). BBL also proposes that it is the brain's development of emotional intelligence tied to learning as well suggesting that learning is enhanced with a positive challenge and inhibited if a stress-induced event creating a fight or flight response is sensed (Haghighi, 2012; Kane, 2013). As mentioned in the ELAP Blueprint (2013), BBL can be applied in some topical areas in the classroom environment that could involve warm-up exercises, working in peer groups, and open discussion.

Lewinian Experiential Theory

Kurt Lewin is mostly noted for his contributions to organizational change as it relates to experiential learning theory (Burnes, 2004). Additionally, Lewin is attributed for conceptualizing John Dewey's progressive learning through experience theory by creating a cyclical diagram schematic highlighting the four components of the learning process (Arsoy & Ozad, 2004). This cycle was further expanded later by Kolb and redefined as the more widely accepted theory of the experiential learning cycle (Arsoy & Ozad, 2004). The purpose of the cycle is to differential between how knowledge is acquired and when we

consider that it becomes knowledge rather than just knowing a concept or experience (Arsoy & Ozad, 2004).

FIGURE 2: *Lewinian Learning Cycle (Arsoy & Ozad, 2004)*
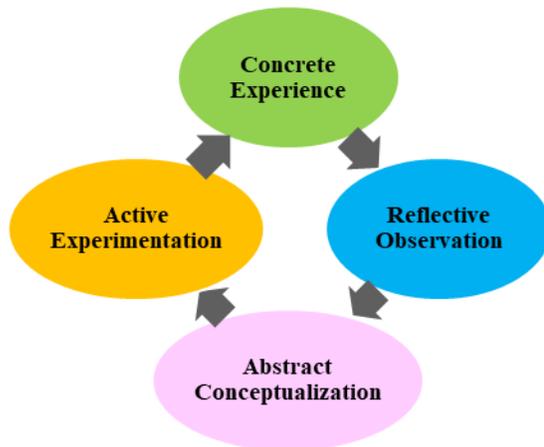
Lewin uses this model as a means of application to bringing about change as he suggests in his change theory, which has three steps: (1) Unfreezing or Cognitive Redefinition; (2) Moving, Insight or Trial-and-Error Learning; and (3) Refreezing (Burnes, 2004; Schein, 1996). Lewin states that bringing about change requires disconfirmation of what is considered the status quo, researching the possibilities of change and testing them, and attempting to re-stabilize with new behaviors as the norm (Burnes, 2004). Comparatively, the ELAP Blueprint demonstrates the Lewinian theory as having a slightly different set of three components: here-and now experience; observation and reflection; and testing implications of concepts (ELAP Blueprint, 2013) which are not entirely congruent with known Lewinian theory. ELAP gives a classroom example of theory application such as doing an exercise where learners must keep a client covered for modesty while exposing only the necessary body part while performing a massage (ELAP Blueprint, 2013).

Wlodkowski's Adult Motivation Theory
Motivation to learn is a key component for adult learners. Wlodkowski (2008) suggests that adults choose to learn because it has relevance to the learner albeit for many reasons such as career skills, personal enrichment, financial gain, or specific need. It maintains that a culturally responsive teaching model is the best approach for adult learners due to four essential conditions: (1) Establishing inclusion; (2) Developing attitude; (3) Enhancing meaning; and (4) Engendering competence (Wlodkowski, 2008). Adult learners have a few

essential needs or objectives that they must regularly acquire from their learning experiences for it to be successful.

- Content must be relevant to sustain their interest.
- Judgment about the value of what they are learning engages regular and frequent critique as well as self-assurance.
- Demonstrate reluctance to learn content if establishment of value and usefulness to achieving their goals cannot be established.
- Require respect from their instructors as an environmental condition of learning.
- Real world or life application that can be tested and experienced.
- Use of prior learning and experiences in context.
- Integration of new learning within their existing life roles (Wlodkowski, 2008).

Furthering the concept of adult motivation, Wlodkowski proposes that using a scaffolding approach is an effective method of garnering learner motivation. Transparency with time commitment for learning content, which includes studying, homework assignments, and participation in activities and creating entry and exit points for content proficiency, are key elements to this method. The success of the instructor and the learners lies with the creation of a positive attitude on both fronts which leads to maintaining motivation (Wlodkowski, 2008). In a recent study, Akpur (2017) tests the relationship between procrastination, motivation, anxiety, and academic achievement and demonstrates that there are significant indicators between them. Conversely, it is suggested that motivation can be affected by dispositional variables acquired from childhood experiences or situational variables tied to life situations which influences adult learning motivation (Ahl, 2006). Considering both classifications of variables, Ahl (2006) brings forth the concept to add to Wlodkowski's overarching themes of adult motivation in the classroom which bears consideration for instructional designing for adult learners. It is these standpoints where it can closely relate to the ELAP Blueprint. It explicitly states in the Blueprint that based solely on Wlodkowski's theory, the ELAP workgroup recommends that minimal homework should be included in the instructional design. It further establishes that massage therapy education is strictly a vocational education model and that programmatic design should keep this in mind in terms of academic rigor and the personal obstacles present with adult learners (ELAP Blueprint, 2013).

ANALYSIS

The ELAP Blueprint basing its construction on some notable learning theories is exemplary in intent; however, it seems to be too prescriptive in the structure and presentation of content, not allowing for much creativity in application of multi-faceted approaches for classroom assessment to determine learning transfer. Areas of concern stem from the ELAP workgroup's seeming desire to create a framework that is not firmly supported by researched learning theory, assessment technique, and instructional design from a professional educational standpoint. Examples of this are in the development of ELAP's own taxonomy, weak interpretations of some widely known learning theories and their applications in classroom practice, and the overall construction of learning objectives.

Traditional vs. Unique Taxonomy

The ELAP Blueprint (2013) opted to create its own taxonomy with three hierarchal achievement levels among four domains: cognitive, psychomotor, affective, and interpersonal. No research evidence is provided to support the design of this unique taxonomy that would make it more applicable to massage therapy education. In the discussion about learning experiences, the Blueprint recommends that to achieve learning outcomes in Levels 2 and 3 of the ELAP Taxonomy using case studies, real-world application, and simulation activities is ideal (ELAP Blueprint, 2013). Further examination of the ELAP main topic and subtopic areas shows there are very few instances where Level 3 is achieved with their unique taxonomy (ELAP Blueprint, 2013). Moreover, in taking a closer look at the most current, revised Bloom's taxonomy, the model in which most higher education is constructed, it seems a much stronger educational foundation for the framework could be provided to achieve the desired results.

A recent study where the efficacy of case-based learning activities was tested using the newer Bloom's taxonomy is an applicable parallel. The study evaluated undergraduate students on the four constructs of knowledge application, higher-order thinking, practice evaluation knowledge, and knowledge improvement (Nkhoma, Lam, Sriratanaviriyakul, Richardson, Kam, & Lau, 2017). The research question is supported in three key concepts using case study activities and exercises: knowledge application positively increases higher-order thinking; higher-order thinking positively increases practical

evaluation knowledge; and practice evaluation knowledge positively increases knowledge improvement (Nkhoma, et al., 2017). Similarly, in massage therapy education, practical application of knowledge and higher-order thinking is required for successful professional practice. A similar model to Nkhoma, et al. (2017) can be easily applied to massage therapy educational framework in numerous content topic areas that would elevate students to synthesis and creativity levels that the ELAP taxonomy is limited in scope.

Learning Theory Comprehension and Demonstration

Another area of inconsistency is shown in the interpretation and application of known learning theories in the ELAP Blueprint framework. As mentioned previously, the Blueprint discusses three main theories as basis for the constructional approach: brain-based learning (BBL), Lewinian experiential learning model, and Wlodkowski's adult motivation theory. The document misses the mark in a few areas. The discussions regarding BBL and experiential learning seemed loose in interpretation in their applications to massage therapy education within the Blueprint. With BBL there are some significant correlations to experiential learning models that suggest that they tend to work together in some adult learning processes, which is one area of capitalization that would be beneficial to the ELAP framework. According to Duman (2010), a schematic is derived that parallels the experiential learning cycle as conceptualized by Kolb and the natural learning cycle in the cerebral cortex of the brain. It further suggests that BBL integrated with experiential learning methods in lesson planning creates higher levels of academic achievement for students (Duman, 2010). Additionally, application of experiential learning theory in its truest sense, is not best depicted with Lewin's interpretations for massage therapy education. Consider course design as suggested by Hamilton and Klebba (2011) where it examines the cognitive and knowledge dimensions of Bloom's taxonomy and identifies techniques in relation to experiential levels of learning. This approach would be more beneficial as a best practice for massage therapy education because a spectrum of classroom activities displayed for educators to select based on specific learning objectives of a content area and in turn offers dimensions of thinking processes that will meet the intended target (Hamilton & Klebba, 2011). The combination of more accurate interpretation of learning theories and application of a recognized taxonomy promotes more consistency in the educational product and advocates for instructional quality that could become a nationwide standard of massage therapy education.

The interpretation of the Lewinian experiential learning model is not completely applicable in the context that ELAP suggests in the Blueprint. Lewin's change theory model intends to create organizational change as it relates mostly to an industry or corporate environment. Experiential learning theory concepts are indeed utilized in Lewin's approaches within the main elements of field theory, group dynamics, and action research (Burnes, 2004); however, the manner of application to the experiential models of Lewin's change theory is not relatable in massage therapy education as ELAP attempts to demonstrate. Case in point, what unfreezing is needed with adult learners seeking massage therapy educational training? While there are preconceptions about the field of massage therapy from the general public, an adult learner who has committed to a training program to learn these skillsets should need very little "unfreezing" or "refreezing" for successful learning outcomes (Schein, 1996). Additionally, it can be achieved more effectively with other learning theory methods or simply in the more direct form of experiential learning as is presented by Kolb which has been researched and proven (Hamilton & Klebba, 2011).

Inaccuracy of Adult Motivational Perspectives

One specific area of contention in the ELAP Blueprint is its perspectives on adult learner motivation and the suggested accommodations for adult learners in vocational programs such as massage therapy education. It specifically states that the assigning of more than one hour of homework is not recommended in the Blueprint and should be considered a minimal component to the educational programmatic design as supported by Wlodkowski (ELAP Blueprint, 2013). Further examination of adult motivational learning theories does not support this claim. Wlodkowski (2008) states that creating relevant learning experiences along with positive attitudes towards the instructor and the learning content are the key aspects to motivating adults. A suggestion of being transparent with time commitments on activities and assignments along with the correlation of the real-world learning value applied provides a successful approach to creating motivation with adult learners (Wlodkowski, 2008). The Culturally Responsive Teaching Model, outlined in detail in the book and intended to cross multiple disciplines, is structurally designed to help educators "create compelling learning experiences in which adults can maintain their integrity as they attain relevant educational success" (Wlodkowski, 2008).

There is no specific mention of homework volume as a component of the theoretical approach.

As it pertains to the makeup of a typical current adult learner in massage therapy schools, it is acknowledged that many adults work full- or part-time jobs and have many personal challenges along with their educational pursuits; however, the ELAP Blueprint jumps to the conclusion that these adults are automatically not motivated due to their circumstances. It further assumes that since massage therapy education is more vocationally skill-based, the levels of academic rigor should skew lower than as expected of college-based learners (ELAP Blueprint, 2013). Wlodkowski (2008) indicates specifically that the strategies framed in his adult motivational framework are geared toward working-age adults, nontraditional college students, and older adults in which all strategies, principles, and models can be applied unless specifically stated. Ahl (2006) substantiates that lack of motivation is not really tied to this concept at all, but rather the loss of direction and control, many times influenced by factors outside the classroom, and irrelevant to the instructional design and methods. It is suggested that most college students can be classified as nontraditional learners and there seems to be too many generalizations to interpret their characteristics and learning tendencies (Wlodkowski, 2008). Furthermore, since massage therapy education is delivered in a myriad of formats from small privately-owned schools to larger corporate trade schools to public institutions such as community colleges (AMTA, 2018), the perspective on academic rigor cannot be universally applied. If a massage therapy education program resides in a college offering a degree track, a certain level of academic rigor is expected from the institution itself beyond ELAP. Moreover, in comparison to similar allied health professional education programs such as nursing or respiratory therapy for example, the adult student demographical makeup is similar and contains an acceptable level of academic rigor as it pertains to these vocations. The ELAP Blueprint should refrain from taking any stance on these aspects until a more universal approach to massage therapy education can take place.

ALTERNATIVE THEORIES AND REFLECTION

Overall, the ELAP Blueprint and Final Report offers an initial framework desperately needed for massage therapy education. It attempts to incorporate reliable educational theory and practice into its construction, having cited 16 separate sources referencing instructional design and teaching practices (ELAP Report, 2013); however, utilization of an effective learning taxonomy with corresponding objectives and further detailed explanation and methodical application of learning theories would offer a more comprehensive structure that could translate into more successful massage therapy institutional models and create a further push for standardization of competencies and curriculum in massage therapy education. There are components of the ELAP where it applies learning theories that are appropriate for a profession that is hands on, but it misses elements that will concurrently emphasize some intellectual approaches so that learners are not only prepared to successfully pass the national licensing exam, which is more knowledge based in scope, but also engages higher levels of critical thinking as needed in professional practice and beyond. The application of primarily experiential learning, transformative learning, and embodied learning theories as components of high impact practices in massage therapy education would provide the necessary instructional framework to make the blueprint more comprehensive and transcendent across educational models.

Kolb's experiential learning theory model offers many opportunities to benefit massage therapy education in theoretical application. Atkinson and Murrell (1988) offer that Kolb's model is a good fit for career skill exploration because the cycle of progression from concrete experiences flowing to active experimentation creates higher levels of awareness. Massage therapy is a hands-on profession so there are many instances where experiencing concepts helps to drive home the importance or validity of learning them. Decision-making in action is a higher order skill that will continually evolve beyond their entry-level training and must be achieved so it can be repeated effectively (Atkinson & Murrell, 1998), particularly as it relates to massage therapy practice in working with clients and patients.

The employment of transformative learning is a good pairing to further emphasize learning beyond experience. Treatment planning and decision-making when working with clients is a foundational skill for massage therapists. The use of the four main concepts of transformative methods achieves this goal:

(1)focus on change as primary beyond knowledge attainment, (2) reveal behaviors in a real-world context, (3) highlight internal and external influences on behavior, and (4) inclusion of a problem-solving approach that will need an end-result solution (Chen & Martin, 2015). Techniques that utilize the transformative learning process include simulations, role-play, and active application of knowledge in real-world laboratories and other environments can help to promote sustainable behavior (Chen & Martin, 2015).

Massage therapy is considered a holistic and integrative modality in health care; therefore, adult learners wishing to enter the profession should be expected to understand and learn from the body itself. Embodied learning would emphasize self-introspection in connection with the neurobiological processes and their integration with experiences past, present, and future as it applies to mindfulness; it intertwines with the concepts of consciousness and embodiment (Swartz, 2012). In its application with nursing students learning how to help patients in adopting healthier lifestyles post discharge or with chronic illness management, embodied learning engaged a more humanistic stance in patient education procedures and approaches through experiential anatomy which translated into helping patients make a connection with the lived body and its existence in the world through the development of the clinical action pedagogy (Swartz, 2012). A similar approach would be useful with massage therapy education in viewing learned concepts not just through the

cognitive lens but also through the embodiment of what is being learned and how it affects oneself as a mindfulness application in practice with clients.

Other areas of refinement involve clarification of learning objectives and an applicable learning theory. Further suggestion is to fully employ Wlodkowski's motivational theories as intended but not piece meal as it is presented in the Blueprint. Additionally, the learning objectives written within the contextual guidelines of Bloom's taxonomy would propel lesson planning from lower to higher order levels that are clear in their intention for learning. A demonstration of this proposed concept applied to a selected content area that is currently within the ELAP framework would garner the needed evidence to support some reconstruction. Moreover, as with any profession, particularly those based in health care where scientific research often changes the current fabric of practice and application, it would be prudent to plan a five-year interval in which the ELAP framework should be thoroughly reviewed and updated accordingly based on the most recent data. Drawing from personal education experiences, things taught five, ten, or more years ago became obsolete to newer approaches and concepts in learning. Massage therapy education framework should follow this effective and valuable practice of current relevance. The ELAP Blueprint and Final Report is due for modification to conform to more concrete instructional design, learning theory application, and refined learning objectives.

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