

Promising Practices in Developmental Education

Michael C. McConnell, Editor

Fall 2017

The Texas Success Initiative Professional
Development Program

Texas Development Education
Professional Community Online
(TX DEPCO)

Grant Funded by the
Texas Higher Education Coordinating
Board

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“I believe it is essential that students are taught how to become more strategic and self-regulated learners.”

—Claire Ellen Weinstein

We dedicate this monograph to our beloved Dr. Claire Ellen Weinstein. May your legacy of helping others turn dreams into realities shine on!

The Many Legacies of Dr. Claire Ellen Weinstein, Part 1 Tribute: Learning Frameworks Courses

Russ Hodges & Taylor W. Acee
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“Much have I learned from my teachers, more from my colleagues, but most from my students.” ~Talmud, Ta'anit 7b

Dr. Claire Ellen Weinstein was Professor Emeritus at the University of Texas at Austin. Weinstein is renowned for groundbreaking research on learning strategies, her Model of Strategic Learning, and as senior author of the *Learning and Study Strategies Inventory*. Weinstein’s research and practice in strategic learning has helped to define theoretically-based postsecondary academic success courses, curriculum, and instruction across the U.S. and abroad, and especially in Texas; her legacy lives on in her many students and her students’ students. Of particular interest for this tribute (Part 1) is her college-level, 3-credit, learning frameworks course, created in 1975 at the University of Texas at Austin offered within the Department of Educational Psychology. EDP 304, Strategic Learning for the Twenty-First Century (formerly EDP 310, Individual Learning Skills),

explores a wide range of subjects in educational psychology that impact student learning, including theories of cognition and motivation, and applying them to academic work.

Appropriate for students...seeking to improve performance in their classes, as well as those experiencing difficulty succeeding academically at the University (College of Education, 2017, para. 2).

Course content is driven by Weinstein’s Model of Strategic Learning, which emphasizes that strategic learning emerges from the interactions among elements within four major components: skill,

will, self-regulation, and the academic environment. Weinstein attributes many of her ideas about strategic learning to one of her mentors, Wilbert J. McKeachie, and his research at the University of Michigan on strategic teaching (Weinstein, 1994; Weinstein, et al., 2012). McKeachie and his colleagues also developed a 4-credit hour learning framework course in 1982 titled Learning to Learn (Pintrich, McKeachie, & Lin, 1987).

In 1999, the Texas Higher Education Coordinating Board (THEBC) authorized formula funding of up to three credit hours for courses following a learning frameworks curriculum, which must include, “...1) research and theory in the psychology of learning, cognition, and motivation, 2) factors that impact learning, and 3) application of learning strategies” (Hill, 2000, para. 4). The policy change was a result of two learning framework course studies, one from the University of Texas at Austin (focused on EDP 310, Individual Learning Skills) and the other from Texas State University (focused on EDP 1350, Effective Learning), which presented statistically significant effects of these learning framework courses on student retention and graduation rates, compared to students who did not enroll in these courses (Hill, 2000).

While many colleges have developed academic success courses and programs to help students negotiate the transition into tertiary education, Weinstein’s course differed significantly in pedagogy. Traditional study skills instruction teaches students specific techniques and methods, usually in isolation—such as time management, note-taking, textbook annotation—focusing on acquisition of a skill or strategy but not a comprehensive understanding of why and how learning can be enhanced by using that technique. Many study skills courses are taught in tandem with developmental or remedial course sequences incorporating curriculum to help rectify students’ basic skills deficits. Additionally, many first-year experience courses combine study skills with curriculum to prepare and guide incoming freshmen students as they transition from high school to college. According to Nordell (2009), many of these programs also focus on the social aspects of this transition such as creating new social networks and adjusting to independent college living. Weinstein developed her course to focus on learning strategy applications, but also to inform students of

research and theoretical frameworks that underpin each strategy. Students first assess their own learning strengths and weaknesses (e.g. LASSI) so that, once introduced to learning theories and strategies, students can better understand the reasons for engaging in specific studying behaviors. Practicing learning strategies with their other course content is essential for the transfer of this knowledge (Hodges & Acee, 2009; Hodges, Sellers, & Dochen, 2012). Weinstein cleverly interweaved behavioral, affective, and cognitive domains of learning theories and strategies to help increase students' self-regulatory abilities, self-efficacy, motivation, metacognition, deep learning processes, and goal orientation—among many other topics derived from her Strategic Learning Model.

While learning frameworks courses are offered throughout U.S. postsecondary institutions, Texas has been at the forefront; approximately 90% of 2-year institutions and 75% of 4-year institutions offer multiple sections of these courses. Many of Texas's 2-year institutions now require all first-year students to enroll in the course while 4-year institutions more typically offer the course to special populations such as conditionally-admitted students or students on academic probation. High schools are also now beginning to offer learning frameworks courses as dual-credit courses (Acee & Hodges, 2017).

Dr. Claire Ellen Weinstein was a pioneer in postsecondary access and success; she knew that every student could learn, and she dedicated her life to that end. Learning frameworks courses are one of her many legacies. We honor her memory as we continue to expand the reach and effectiveness of these courses and help students to become more strategic and self-regulated lifelong learners.

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The Many Legacies of Dr. Claire Ellen Weinstein, Part 2 Tribute: Strategic Learning Assessment

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If you see a student who finds it as hard as iron to study, it is because his studies are without system." ~ Talmud, Ta'anit

In Part 1 of our tribute to Dr. Claire Ellen Weinstein, we discussed her pioneering work on learning frameworks courses (Hodges & Acee, 2017). In Part 2, we examine Weinstein's contributions to the development of strategic learning assessments.

Weinstein is senior author of the *Learning and Study Strategies Inventory (LASSI)*, which assesses students' use of learning strategies related to developing knowledge and skills, generating and sustaining motivation, and intentionally self-regulating thoughts, feelings, and behaviors to reach learning goals. Weinstein's groundbreaking dissertation research on cognitive learning strategies (Weinstein, 1975), and her subsequent work with the U.S. Army and Department of Defense (Weinstein, 1978), helped to show that students' could be taught to use learning strategies intentionally, and learning strategies instruction could help students to create more meaningful and retrievable memories about the information they are trying to learn. This line of research led to the development of Weinstein's Model of Strategic Learning (MSL; see Weinstein & Acee, 2013, for a detailed description), which serves as the theoretical foundation of the *LASSI*.

The MSL (Weinstein, Acee, & Jung, 2010) highlights many of the factors that research has shown to be causally related to students' academic success, and amendable to change through educational intervention. The MSL (see Figure) organizes these factors under three major components: skill, will, and self-regulation. Skill involves

knowing what to do (e.g., knowing about effective note-taking strategies) and knowing how to do it (e.g., being able to effectively and efficiently use note-taking strategies across different situations).

Summarizing the material in one's own words, generating analogies, teaching the material to someone else, and creating graphic organizers are all examples of learning strategies that fall under the skill component of the MSL. Will refers to the "wanting to" of learning, and involves various psychological factors that influence

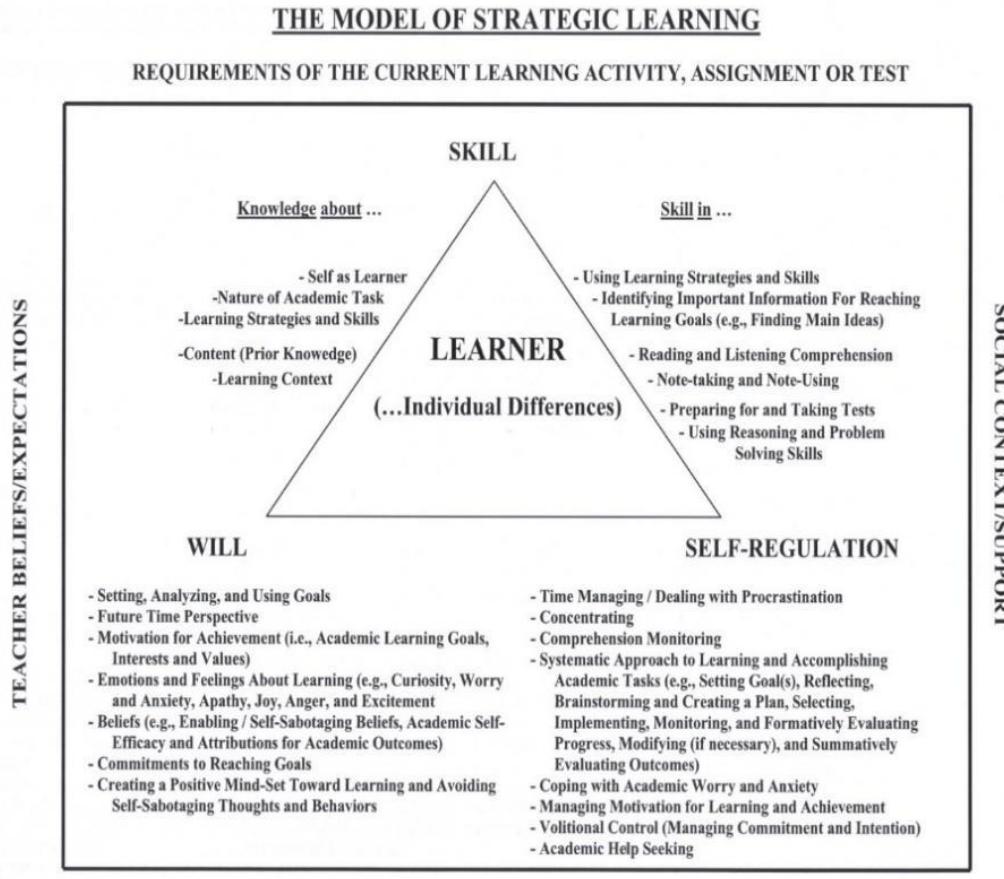


Figure. The Model of Strategic Learning (MSL) is from Weinstein, C. E., Acee, T. W., & Jung, J. H. (2010). Learning strategies. In B. McGaw, P. L. Peterson, & E. Baker (Eds.), *International Encyclopedia of Education* (3rd ed., pp. 323-329). New York, NY: Elsevier. Copyright 2006 by Claire Ellen Weinstein. Reprinted with permission.

students' motivation such as their beliefs, values, goals, and mindsets. Examples of learning strategies that fall under the will component include: analyzing one's goals, developing a future time perspective, using positive self-talk, generating reasons for why learning is important, and cultivating a growth mindset. Self-regulation involves actively monitoring and managing the entire learning process. Learning strategies that fall under the self-regulation component of the MSL include concentrating, time managing, comprehension monitoring, and help seeking (Weinstein, Acee, & Jung, 2010).

The MSL emphasizes that students can intentionally use learning strategies related to their skill, will, and self-regulation to increase their chances of success in college and other postsecondary settings. The MSL also includes a fourth component, the academic environment. Although the academic environment is typically not under students' direct control, it is important for students to develop knowledge about the academic environment (e.g., learning about available resources on campus and their teachers' expectations) so they can be more strategic.

The *LASSI* measures students' use of learning strategies related to their skill, will, and self-regulation, and it is intended for use with students in postsecondary educational and training environments (although other versions of the *LASSI* have been developed for use with students in high school and online learning environments). The *LASSI* is widely used across the United States and around the globe by over 3,000 institutions ("LASSI," 2017) and has been translated into over 30 languages (C. E. Weinstein, personal communication, 2010, October 12). The *LASSI* 3rd Edition has 10 scales and 60 items, 6 items per scale (Weinstein, Acee, & Palmer, 2016a). The *LASSI* scales include: Anxiety, Attitude, Concentration, Information Processing, Motivation, Selecting Main Ideas, Self-Testing, Test Strategies, Time Management, and Using Academic Resources (see Appendix for scale descriptions and example items). The *LASSI* 3rd Edition Manual (Weinstein, Palmer, & Acee, 2016b) provides information about the extensive development work that helped to establish the reliability and validity of the *LASSI*, and the procedures used to construct national norms.

Weinstein published the first edition of the *LASSI* in 1987 to help address increasing enrollments of students in postsecondary

educational settings who were underprepared or at-risk of low performance. At that time, there were no strategic learning assessments that measured cognitive, metacognitive, motivation, and affective learning strategies. Dr. Weinstein needed such a measurement tool in order to provide students with feedback about their use of learning strategies, and to measure their growth over time in response to strategic learning interventions, such as learning frameworks courses. Accordingly, the *LASSI* can be used to provide informative feedback to students, practitioners, and researchers about (a) students' baseline status as a strategic learner, (b) which areas related to strategic learning to address in instruction for individual students and the class, or cohort, as a whole, (c) how students' use of learning strategies changes over time, and (d) the effectiveness of interventions for students (for more detailed uses, see Weinstein, Palmer, & Acee, 2016b).

Dr. Claire Ellen Weinstein's significant contributions to learning strategies research, learning frameworks courses, and strategic learning assessments helped to shape research, policy, and practice in many disciplines, but especially in postsecondary developmental education and learning assistance. Her lasting legacy of student-centered support lives on through the work of her students and colleagues.

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Appendix
LASSI 3rd Edition Scale Descriptions and Example Items

LASSI Scale	Description of Scale	Example Item
Anxiety	Worry and nervousness about school and academic performance.	“I feel very panicky when I take an important test.”
Attitude	Attitudes and interest in college and succeeding academically.	“I only study the subjects I like.”
Concentration	Ability to direct and maintain attention on academic tasks.	“My mind wanders a lot when I study.”
Information Processing	Use of rehearsal, elaboration, and organizational strategies to learn new information.	“I try to find relationships between what I am learning and what I already know.”
Motivation	Self-discipline and willingness to exert effort and persist in college.	“When work is difficult I either give up or study only the easy parts.”
Selecting Main Ideas	Skill at identifying important information for further study.	“I have difficulty identifying the important points in my reading.”
Self-Testing	Use of reviewing and comprehension monitoring techniques to assess understanding.	“I stop periodically while reading and mentally go over or review what was said.”
Test Strategies	Use of strategies to prepare for and take examinations.	“I have difficulty adapting my studying to different types of courses.”
Time Management	Use of time management principles for academic tasks.	“I find it hard to stick to a study schedule.”

Using Academic Resources	Strategic use of academic resources commonly available at postsecondary institutions.	“I am not comfortable asking for help from instructors in my courses.”
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Note. The scale descriptions were adapted from Weinstein, Palmer, & Acee (2016b), with permission.

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