Current Practice ALERTS

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A focus on: Self-Determined Learning Model of Instruction

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What is the Self-Determined Learning Model of Instruction?

Self-determination has been defined as "the attitudes and abilities required to act as the primary causal agent in one's life and to make choices regarding one's actions free from undue external influence or interference" (Wehmeyer, 1992, p. 305). Self-determination is composed of four subdomains: autonomy, self-regulation, psychological empowerment, and self-realization (Wehmeyer & Kelchner, 1995) and includes both *beliefs* and *skills* that allow students to engage in goal-directed, self-regulated, autonomous behavior (Wehmeyer, 2005). Self- determination *beliefs* refer to students' psychological empowerment, or the perception that they can act on their beliefs, and students' self-realization, or having accurate knowledge of their strengths and limitations. Self-determination *skills* refer to acting autonomously, using self-regulation in goal setting, and utilizing problem-solving skills to attain desired outcomes in school and social contexts.

Self-determination skill development models have been guided by self-determination theory (SDT; Deci & Ryan, 1985). SDT has focused on the social-contextual conditions that enhance the process of self-determination through the active facilitation of student involvement in person-centered planning (Mason, Field, & Sawilowsky, 2004; Ryan & Deci, 2000; Test et al., 2009). The importance of this process has been supported by both theorists and researchers (Ryan & Deci, 2000; Wehmeyer, Palmer, Agran, Mithaug, & Martin, 2000). The Self-Determined Learning Model of Instruction (SDLMI; Mithaug, Wehmeyer, Agran, Martin, & Palmer, 1998; Wehmeyer, et al., 2000) is informed by SDT and is a way to teach the components of self-determination to youth.

For Whom is SDLMI Intended?

Self-determination is considered an important component of successful transition from high school into independent life for all students (e.g., Field, 1996). Difficulties with self-determination continue to be a barrier to achieving postschool success for students with disabilities (e.g., deFur, Getzel, & Trossi, 1996). Students with learning disabilities (LD) report lower self-determination skills (particularly in the self-regulation domain) than their peers without disabilities (Wehmeyer & Kelchner, 1995). Much of the early literature reporting on self-determination in special education has been noncategorical (Field, 1996); however, strategies such as SDLMI have been used with diverse student populations such as youth with intellectual disabilities (ID) (e.g., McGlashing-Johnson, Agran, Sitlington, Cavin, & Wehmeyer, 2003), emotional/behavioral disorders (e.g., Mazzotti, Wood, Test, & Fowler, 2012), and LD (Field, 1996). In particular, over the last decade, there has been a focus on the efficacy of the SDLMI for increasing self-determination skills for students with LD (e.g., Fowler, et al., 2007; Lee, Wehmeyer, Soukup, & Palmer, 2010; Shogren, Palmer, Wehmeyer, Williams-Diehm, & Little, 2012; Wehmeyer et al., 2012). Much of the research has focused on instruction for postschool transition planning (e.g., Williams-Diehm, Wehmeyer, Palmer, Soukup, & Garner, 2008), but research has also shown SDLMI to be effective for improving self-advocacy and goal-setting skills for students with LD after the transition to college (Finn, Getzel, & McManus, 2008) and for increasing self-determination skills in the primary grades (Palmer & Wehmeyer, 2003). These findings suggest that the SDLMI framework may be appropriate for students with LD of varied ages.

How Does It Work?

The SDLMI is a model for how teachers can instruct students to become causal agents in their own lives by leading them to self-directed learning. When teachers implement SDLMI correctly, students learn to problem solve, set goals, identify steps to meet those goals, self-regulate, and adjust their goals. The model consists of a three-phase instructional process: (a) set a goal,

continued on page 2

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How Does It Work? (cont.)

GO for it

(b) take action, and (c) adjust the goal or plan. Each instructional phase of the model includes four student questions. Teacher objectives are linked to each student question and each phase includes educational supports to enable students to self-direct their learning.

Figure 1 depicts the three instructional phases of SDLMI as described by Wehmeyer et al. (2000). As noted by Wehmeyer et al., the questions guide the student through a problem-solving sequence in each instructional phase. In answering the questions in each sequence, students regulate their own problem-solving by setting goals to meet needs, constructing plans to meet goals, and adjusting actions to complete plans. In each phase, teachers teach students how to "solve [the] sequence of problems to construct a means-ends chain—a causal sequence—that moves them from where they are…to where they want to be" (p. 442). Teachers can use SDLMI in whole class, small group, or individual instruction for student goals in any academic or behavioral area.

How Practical Is It?

Unlike "packaged" programs, SDLMI is a model of instruction that can be used to teach self-determination skills in any content area (Wehmeyer et al., 2000). Therefore, teachers may be less likely to feel that they are sacrificing instructional time in core subjects in order to teach self-determination skills. Because the SDLMI can be used in multiple content areas, students may be taught to generalize the skills more readily. In a study by Lee, Wehmeyer, Palmer, Soukup, and Little (2008), 95% of students participating in SDLMI reported increased participation, organization, study habits, and confidence in their high school classes. Eighty-nine percent of the teachers who implemented SDLMI reported its effectiveness in establishing student control/responsibility and improved grades as well as a generalizing of these skills across courses.

In addition, SDLMI requires no special tools or resources. This model may be adapted to curricula at virtually all grade levels (Palmer & Wehmeyer, 2003), and the use of the model across age groups and content areas will increase the likelihood that skills will generalize beyond classroom settings.

INSTRUCTIONAL PHASE 1: SET A GOAL

Problem for Student to Solve: What is my Goal?

Student Question 1: What do I want to learn?

TEACHER OBJECTIVES:

- Enable students to identify specific strengths and instructional needs.
- Enable students to communicate preferences, interests, beliefs, and values.
- Teach students to prioritize needs.

Student Question 2: What do I know about it now?

TEACHER OBJECTIVES:

- Enable students to identify their current status in relation to the instructional need.
- Assist students in gathering information about opportunities and barriers in their environments

Student Question 3: What must change for me to learn what I don't know?

TEACHER OBJECTIVES:

- Enable students to decide whether action will be focused on capacity building, modifying the environment, or both.
- Support students in choosing a need to address from prioritized list.

Student Question 4: What can I do to make this happen?

TEACHER OBJECTIVES:

- Teach students to state a goal and identify criteria for achieving goal.

INSTRUCTIONAL PHASE 2: TAKE ACTION

Problem for Student to Solve: What is my Plan?

Student Question 5: What can I do to learn what I don't know?

TEACHER OBJECTIVES:

- Enable student to self-evaluate both current status and self-identified goal status.

Student Question 6: What could keep me from taking action?

TEACHER OBJECTIVES:

- Enable student to determine plan of action to bridge gap between self-evaluated current status and self-identified goal status.

Student Question 7: What can I do to remove these barriers?

TEACHER OBJECTIVES:

- Collaborate with student to identify most appropriate instructional strategies.
- Teach student needed student-directed learning strategies.
- Support student in implementing student-directed learning strategies.
- Provide mutually agreed upon teacher-directed instruction.

Student Question 8: When will I take action?

TEACHER OBJECTIVES:

- Enable student to determine schedule for action plan.
- Enable student to implement action plan.
- Enable student to self-monitor progress.

INSTRUCTIONAL PHASE 3: ADJUST GOAL OR PLAN

Problem for Student to Solve: What Have I Learned?

Student Question 9: What actions have I taken?

TEACHER OBJECTIVES:

- Enable student to self-evaluate progress toward goal achievement.

Student Question 10: What barriers have been removed?

TEACHER OBJECTIVES:

- Collaborate with student to compare progress with desired outcomes.

Student Question 11: What has changed about what I don't know?

TEACHER OBJECTIVES:

- Support student in reevaluating goal if progress is insufficient.
- Assist student in deciding whether goal remains the same or changes.
- Collaborate with student to determine whether action plan is adequate given revised or retained goal.
- Assist student in changing action plan if necessary.

Student Question 12: Do I know what I want to know?

TEACHER OBJECTIVES:

- Enable student to decide whether progress is adequate, or if goal has been achieved.

FIGURE 1

How Adequate is the Research Knowledge Base?

Previous research has demonstrated the effectiveness of various components of SDLMI on skills in the subdomains of self-determination. A meta-analysis conducted by Algozzine, Browder, Karvonen, Test, and Wood (2001) reported the efficacy of both the self-regulation and problem-solving components of SDLMI on goal setting, academic performance, and self-monitoring. The studies outlined in **Table 1** represent the growing empirical base for the efficacy of the SDLMI model in improving self-determination skills and goal attainment for students with LD. Although these studies involved participants with different disabilities, students with LD made up a large proportion of participants (218 of 312) in the recent Shogren et al. (2012) and Wehmeyer et al. (2012) studies, and significant numbers of participants in the other studies. The studies included a range of research designs, such as randomized between group comparison, within group comparison, and single-case research (multiple baseline design); and of outcomes, such as ratings of goal attainment, observational measures of access to the general curriculum, self- and teacher-ratings of self-determination, observations and teacher ratings of behavior, and ratings of locus of control.

Table 1 Sample of research evidence for SDLMI

STUDY	RESEARCH DESIGN	SAMPLE	OUTCOME ASSESSED	FINDING(S)
Wehmeyer et al. (2012)	Group randomized; modified equivalent control groups (over 3 time points)	312 high school students with learning disabilities (LD) (n = 218) or intellectual disabilities (ID) (n = 94)	Self-determination as measured on AIR Self-Determination Scale (AIR-SDS) and Arc Self-Determination Scale (Arc-SDS)	Statistically significant increases on both measures for the intervention group (not for control group); students with LD in intervention group had significantly higher gain scores on the AIR-SDS than did students with ID in intervention group
Shogren, Palmer, Wehmeyer, Williams-Diehm, & Little (2012)	Group-randomized trial control group (year 1 outcomes)	312 high school students with LD (n =218) or ID (n = 94)	Goal Attainment Scale (GAS) for academic and transition goals; observational data on access to the general curriculum	Significant main effect of treatment for academic and transition goal attainment; significant treatment x disability interaction—significant effect of treatment for students with LD on academic GAS, significant effect of treatment for students with ID on transition GAS; significant gain in access scores for participants with LD in intervention group, but not for participants with LD in control group
Lee, Wehmeyer, Palmer, Soukup, & Little (2008)	Pretest-postest randomized trial control group design	42 high school students with LD (n=32), ADHD (n=6), EBD (n=3), autism (n=1)	GAS and observational data on access to the general curriculum	65% of experimental group attained targeted goal at expected level or higher; no effect of treatment for access scores
Palmer & Wehmeyer (2003)	Pre and post intervention assessment of outcomes	50 elementary students: at risk for LD (n = 16), with LD (n=21), speech/language (n=5), ID (n=6), gifted (n=2)	GAS; student knowledge of goals and interests	Average goal attainment slightly higher than expected by teacher; significant improvement on (a) students knowing the meaning of "goal," (b) teachers' perceptions of students' knowledge about goals, and (c) number of goal examples provided by students; no difference on number of own interests named
Agran, Blanchard, & Wehmeyer (2000)	Delayed multiple baseline	19 students receiving special education services for ID (n = 15) and LD (n = 2)	Targeted academic or transition-related goals	Improvement in performance of target behaviors for 17 of 19 participants from baseline to post-intervention; the 2 students with LD improved from means of 43% and 93% of positive teacher ratings for following direction during baseline to 100% post-intervention
Wehmeyer, Palmer, Agran, Mithaug, & Martin (2000)	Pre and post intervention assessment of outcomes	40 adolescents with LD (n=17), ID (n=13), and EBD (n=10)	GAS, Arc-SDS, locus of control measure	Goal attainment approximating teacher expectations; significant improvement in self-determination and locus of control

How Effective Is It?

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The SDLMI has been shown to have significant effects on goal attainment, self-determination, access to the general curriculum, student knowledge, and locus of control for students with LD *(see Table 1)*. Recent research includes evidence of improved self-determination skills for students with LD in particular. Wehmeyer et al. (2012) and Wehmeyer et al. (2000) found that SDLMI led to significant improvements within groups on self- and teacher-ratings of self-determination (see also Palmer & Wehmeyer, 2003), although Wehmeyer et al. (2012) reported that the improvement was not significantly greater than for participants in a control group of schools. On the Goal Attainment Scale, Shogren et al. (2012) found a significant effect of SDLMI in comparison to a control group and reported that participants with LD in the treatment group experienced significantly improved access to the general curriculum that was not observed for those in the control group; though Lee et al. (2008) did not report significant improvement on access to the general curriculum following the SDLMI. Wehmeyer et al. (2000) reported that participants' locus of control became significantly more internalized following the SDLMI. Several studies reported that the SDLMI resulted in most students achieving their goals at or above levels expected by their teachers (Agran, Blanchard, & Wehmeyer, 2000; Lee et al., 2008; Palmer & Wehmeyer, 2003; Wehmeyer et al., 2000). The SDLMI model has also been highlighted in the *Handbook of Adolescent Transition Education for Youth with Disabilities* (Wehmeyer & Webb, 2012), a compilation of best practices in adolescent transition.

What Questions Remain?

There is some evidence that the kinds of environments that foster the development of self-determination may vary depending on ethnicity and gender (Rodriguez & Cavendish, 2012; Shogren, 2011). Thus, further research may be needed to determine whether the SDLMI needs to be adapted in ways that are culturally sensitive. For example, an emphasis on autonomy may foster self-determination among students from European-American backgrounds who may have been raised to value individualism in their social relationships. However, this approach may not be as conducive to the development of self-determination among Latino students or other cultural groups, who may place a high value on cohesiveness in their interpersonal relationships. There are additional questions about how SDLMI addresses specific skills in the four subdomains of self-determination.

How Do I Learn More?

Listed below are several sources that provide detailed information related to building self-determination and implementing the SDLMI. In addition, the references cited at the end of this Alert can provide additional information about the research on the various components of the model.

Ideas that Work from the U.S. Department of Education:
http://sdsp.uncc.edu/

National Center on Secondary Education and Transition:
http://www.ncset.org/publications/viewdesc.asp?id=962

Steps to Self-Determination: A Curriculum to Help Adolescents Learn to Achieve their Goals (Field & Hoffman)
http://www.cec.sped.org/bk/catalog2/self.html

A Teacher's Guide to Implementing the Self-Determined Learning Model of Instruction: Adolescent Version (Wehmeyer, Agran, Palmer, Mithaug, & Blanchard)
http://www.beachcenter.org/Books/Chapters/PDF/1._Cover_Introduction_and_Chapter_1.pdf

Whose Future is it, Anyway? A Student Directed Transition Process (Wehmeyer & Lawrence)
http://eric.ed.gov/ERICWebPortal/search/detailmini.jsp?_nfpb=true&_&ERICExtSearch_SearchValue_0=ED414660&ERICExtSearch_SearchType_0=no&accno=ED414660

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Each *Alerts* issue focuses on a single practice or family of practices that is widely used or discussed in the LD field. The *Alert* describes the target practice and provides a critical overview of the existing data regarding its effectiveness for individuals with learning disabilities. Practices judged by the Alerts Editorial Committee to be well validated and reliably used are featured under the rubric of **Go For It**. Those practices judged to have insufficient evidence of effectiveness are featured as **Use Caution**.

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