The Self-Determined Learning Model of Instruction and Students with Extensive Support Needs

in Inclusive Settings

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Abstract

There is a strong link between the development of skills associated with self-determination (i.e., choice-making, decision-making, problem solving, goal setting and attainment, planning, self-management, self-advocacy, self-awareness, and self-knowledge) and positive school (e.g., academic achievement) and postschool (e.g., employment, community access) outcomes.  In this article, we advocate for an examination of research related to the impact, usability, and cultural sustainability of an evidence-based intervention intended to enable students to enhance the skills associated with self-determination, the *Self-Determined Learning Model of Instruction* (SDLMI), when used to support students with extensive support needs, including students with intellectual and developmental disabilities (IDD).  Theoretical foundations of the construct of self-determination and its applicability for all people and extant research on implementation of the SDLMI and students with extensive support needs are presented.  Implications for researchers are addressed, including the impact, usability, and cultural sustainability of the SDLMI for students with extensive support needs, and the potential of the SDLMI to support all students in inclusive settings when implemented as a universal support.

*Keywords*: self-determination, extensive support needs, inclusive education

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Meta-analytic research has established a strong relation between self-determination status and positive school and postschool outcomes (Burke et al., 2018).  Specifically, when students with and without disabilities are provided explicit instruction in and opportunities to develop skills associated with self-determination, they achieve self-selected academic goals while in-school (e.g., Raley, Shogren, & McDonald, 2018; Shogren, Palmer, Wehmeyer, Williams-Diehm, & Little, 2012), resulting in positive postschool outcomes, including employment and community access (e.g., Shogren, Wehmeyer, Palmer, Rifenbark, & Little, 2015).  Higher self-determination has also been linked with positive quality of life and life satisfaction (e.g., Nota, Ferrari, Soresi, & Wehmeyer, 2007).  Additionally, and specifically for students with disabilities, including students with IDD, the "access to the general education curriculum" mandates introduced in the 1997 and 2004 reauthorizations of the Individuals with Disabilities Education Act (IDEA) required that all students receiving special education services have goals and modifications necessary so they can be involved with and make progress in the general education curriculum.  In addition to this federal mandate for access to the general education curriculum, research has consistently demonstrated students with disabilities are most likely to have access to the general education curriculum when they are in the general education classroom (Lee et al., 2008; Soukup, Wehmeyer, Bashinski, & Bovaird, 2007; Wehmeyer, Lattin, Lapp Rincker, & Agran, 2003).  However, there is a need to support teachers (including general and special education) to implement interventions that will promote access to core content in general education classrooms as well as interventions to promote self-determination, given that these interventions can promote academic learning and engagement.  Thus, the purpose of this article

is to (1) describe the an evidence-based practice to promote self-determination and its use in

educational contexts, (2) examine the impact, usability, and cultural sustainability of an

evidence-based intervention designed to enable students, including students with extensive

support needs, to develop the skills associated with self-determination in general education

environments and (3) identify areas of needed work to guide future research, practice, and

policy.

**Self-Determined Learning Model of Instruction**

The *Self-Determined Learning Model of Instruction* (SDLMI; Shogren, Raley, Burke, &

Wehmeyer, 2018) is an evidence-based model of instruction used by teachers to enable students

to achieve educationally relevant goals and enhance self-determination.  Teachers can use the

SDLMI across multiple contexts, including core content areas and transition planning, to

increase student opportunities to self-direct their learning as they solve problems related to

setting and attaining goals related to their learning.  By student-directed learning, we do not

mean to imply that every student has to perform every task independently to achieve their goals;

rather, student-directed indicates that students are causal agents in the learning process because

they are active leaders in the SDLMI process and act intentionally as they set and work toward

goals.

Implementation of the SDLMI consists of a three-phase instructional process that is

repeated over time (see Figure 1).  Within the three phases of the SDLMI (i.e., Phase 1: Set a

Goal, Phase 2: Take Action, and Phase 3: Adjust Goal or Plan), teachers systematically provide

students with opportunities to engage in self-regulated problem-solving to learn and practice

skills associated with self-determination as they set and work toward self-identified goals.

Specifically, each of the three phases of the SDLMI presents a problem that the student must

solve with support from the teacher.  The student solves each problem by answering a series of

Student Questions (four per phase) that guides them in the problem-solving sequence, and the

solution to the problem in each phase leads to the problem-solving sequence in the next phase.

For example, after students set their goal at the end of Phase 1, they are prepared to problem

solve and develop their action plan to achieve that goal in Phase 2.  Additionally, each Student

Question is associated with Teacher Objectives, which provide a roadmap for teachers to guide

them in supporting students' answering to the Student Questions.  There are also specific

Educational Supports (e.g., communication skills instruction, self-monitoring instruction) that

teachers utilize to meet the Teacher Objectives.  For example, for Student Question 8: When will

I take action?, an associated Teacher Objective is enabling the student to determine a schedule

for implementing their action plan and a teacher might provide an Educational Support of self-

scheduling instruction to enable the student to develop their schedule for implementation.  For

more information on the SDLMI, see Shogren, Raley et al. (2018).

**Outcomes Associated with Implementing the SDLMI**

Positive effects of the SDLMI on in-school and postschool outcomes include enhanced

self-determination (Palmer & Wehmeyer, 2003), academic achievement (Shogren et al., 2012;

Agran, Cavin, Wehmeyer, & Palmer, 2006), access to the general education curriculum (Agran,

Blanchard, Wehmeyer, & Hughes, 2001), improved classroom behavior (Kelly & Shogren,

2014), transition planning (Benitez, Lattimore, & Wehmeyer, 2005), and career development

(Wehmeyer et al., 2003).  For example, Shogren et al. (2012) examined the impact of the SDLMI

on the attainment of academic and transition goal attainment of 312 secondary students aged 13

to 21 years old with learning disabilities and intellectual disability, and found that participants

who engaged in the SDLMI demonstrated significantly higher goal attainment over the course of

a school year than their peers that did not engage with the SDLMI. There has also been recent

research related to utilization of the SDLMI by teachers that support students with extensive

support needs, which will be described in the next section.

**Supporting Teachers in Implementing the SDLMI**

As a teaching model, the SDLMI has demonstrated efficacy in supporting teachers to

enable all students, including students with extensive support needs, to become causal agents and

work toward goals in their life. Students with extensive support needs are defined here as

students who are served under the educational classification of intellectual disability, autism

spectrum disorders, or multiple disabilities, who typically qualify for their state's alternate

assessment, and have support needs across multiple domains (e.g., home, community, school;

Taub, McCord, & Ryndak, 2017). In a statewide implementation, Shogren, Burke, Antosh et al.

(2018) examined the effects of the SDLMI with 184 students with intellectual disability, many of

whom had extensive support needs. Findings indicated that special education teachers

implemented the SDLMI with fidelity, students set and achieved educationally relevant goals,

and teachers reported changes in aspects of student self-determination from the beginning to the

end of the year. Despite these positive findings, more research is needed to examine the impact

of implementing the SDLMI in real-world and inclusive contexts with students with extensive

support needs.

**Assisting in the Design and Implementation of Tiered Models of Support**

Recent calls for school reform in the design and implementation of tiered models of

support to provide high-quality instruction for all students and targeted intervention for students

that need additional support have prompted an expansion of SDLMI implementation efforts.

Within the framework of multitiered system of supports (MTSS), Tier 1 or universal supports is

the starting point for all students and more intensive supports (Tiers 2 and 3) are only provided

after effective Tier 1 strategies are attempted with fidelity (Lane, Menzies, Kalberg, & Oakes,

2012). In the MTSS model, all students receive high quality, evidence-based, and universally

designed instruction that is responsive to their unique linguistic and cultural backgrounds and

support needs (Tier 1). For students that require more targeted supports after Tier 1 supports

have been provided with fidelity, Tier 2 supports are provided in addition to Tier 1 supports.

Some students, who could include students with extensive support needs, might need additional

instruction on top of what they receive from Tier 1 and 2 supports which are the most intensive

supports (Tier 3) and sometimes include individualized instruction and supports. Shogren,

Wehmeyer, and Lane (2016) described how the SDLMI has typically been implemented as an

intensive, Tier 3 intervention with students with extensive support needs absent of the prior

provision of universal (Tier 1) and targeted (Tier 2) supports. They argued, however, that skills

associated with self-determination were critical for students with and without disabilities, and

that *all* students would benefit from receiving instruction with the SDLMI in general education

settings and applied to core content areas. In essence, the SDLMI can be conceptualized as a

Tier 1 intervention to actively engage all students to self-direct their learning processes as they

develop and utilize skills associated with self-determination. As a Tier 1 or universal support,

teachers can implement the SDLMI in general education settings comprised of students with a

broad range of support needs, including students with extensive support needs, to enhance the

development of a critical set of skills that students will utilize in future contexts. Shogren et al.

(2016) also argue that students with extensive support needs might also receive additional Tier 2

and 3 supports, as needed, while concurrently receiving high quality, evidence-based, and

universally designed Tier 1 supports.

In addition to establishing the usability of the SDLMI in inclusive settings with students with varying levels of support needs at a Tier 1 intervention, it is important to ensure that the SDLMI can be implemented in culturally sustainable ways with students from diverse contexts. Shogren, Luckasson, and Schalock (2014) define context as "the totality of circumstances that comprise the milieu of human life and human functioning" (p. 110). Part of context includes independent variables that cannot be manipulated (e.g., age, language, gender) and one of these personal and environmental variables is culture. Multiple personal and environmental variables, including disability and race/ethnicity, define a person's cultural identity, and system factors interact with cultural factors to shape access to opportunities available in communities. As such, it is useful to adopt a broad definition of culture to ensure the inclusion of disability-related support needs in the design of culturally sustainable interventions for all students, while also recognizing the need to address systematic barriers that limit opportunities and create disparities (Shogren, 2011).

Because students and families from diverse backgrounds face more systematic barriers to accessing opportunities to develop self-determination, there are clear disparities in access to interventions and valued outcomes (Leake & Boone, 2007; Shogren, 2012). Recent analyses of a validated self-report measure of student self-determination (*Self-Determination Inventory: Student Report*; SDI:SR) confirmed an interactive effect of disability and race/ethnicity on self-determination scores, and if either was examined in isolation, there would likely be missing information (Shogren, Shaw, Raley, & Wehmeyer, 2018). Within the sample of 1,796 adolescents with disabilities, there was a general pattern of disparities between White adolescents and adolescents from diverse racial/ethnic backgrounds in self-determination scores. Further, disparities based on socioeconomic status emerged, suggesting the impact of systemic

factors, such as poverty and poor educational services and supports, on access to opportunities to develop self-determination. This highlights the importance of examining student self-determination from a broad cultural lens because families from diverse backgrounds may perceive self-determination as operationalized and valued differently in school and home contexts. Therefore, and as described subsequently, we utilize the term "culturally sustaining pedagogy" (Paris, 2012) that explicitly states that in order for instruction to be culturally sustaining, it needs to "support young people in sustaining the cultural and linguistic competence of their communities while simultaneously offering access to dominant cultural competence" (p. 95). Therefore, we chose to use the term "culturally sustainable" because it explicitly includes the maintanence of support for student multilingualism and multiculturalism in practice instead of merely responding to it.

### Directions for Future Research, Practice, and Policy

Given the increasing focus on tiered models of support and the emphasis on high-quality universal instruction for all students, including students with IDD, there is a need to examine, understand, and address barriers that limit the usability of implementing the SDLMI in culturally sustainable ways with students with extensive support needs learning in inclusive environments. The subsequent sections describe areas for future examinations to inform the implementation of the SDLMI with students with extensive support needs and guide research, practice, and policy. Specifically, we will examine (1) the impact of implementing the SDLMI with students with extensive support needs in inclusive settings, (2) the usability of the SDLMI by teachers who instruct students with extensive support needs in inclusive classrooms, and (3) and the implementation of the SDLMI in culturally sustainable ways with students with extensive support needs in inclusive settings.

**Impact of the SDLMI with students with extensive support needs in inclusive settings**

Wehmeyer (2005) described one of the roles of teachers as "enabling students with

severe disabilities to become more self-determined, even if it just a little bit more" (p. 119).

Although teachers, including both special and general educators, typically consider promoting

self-determination as important (Stang, Carter, Lane, & Pierson, 2009), educators who teach

students with extensive support needs perceive that their students have limited knowledge and

ability to engage in self-determined actions (Carter, Owens, Trainor, Sun, & Swedeen, 2009).

Causal Agency Theory posits that the extent to which a person is self-determined is related to the

opportunities they have to practice skills associated with self-determination (Shogren,

Wehmeyer, Palmer, Forber-Pratt et al., 2015).  Therefore, if teachers perceive limited knowledge

and capacity of their students to develop self-determination, then teachers may provide fewer

student opportunities to practice skills associated with self-determination.

The SDLMI can serve as the framework for teachers to provide explicit instruction and

embedded opportunities to practice skills leading to the development of self-determination and,

in turn, increase teachers' perceptions of students' knowledge of and capacities to develop self-

determination (Shogren, Plotner, Palmer, Wehmeyer, & Paek, 2014).  While the SDLMI has

been implemented with students with extensive support needs in some studies, many of these

interventions did not take place in inclusive settings where general education core content

instruction is delivered (Hagiwara, Shogren, & Leko, 2017).  Raley et al. (2018) explored the

implementation of the SDLMI as a Tier 1 intervention in inclusive, mathematics classrooms and

found that after using the SDLMI for one semester, student self-determination was positively

impacted, even though the increase observed was not statistically significant.  Additionally, over

90% of students achieved expected or higher levels of goal attainment on self-selected, academic

goals. Although this study suggested the potential benefits of implementing the SDLMI as a Tier 1 intervention in inclusive contexts, none of the participants had extensive support needs and future research is needed to examine the outcomes of implementing of the SDLMI in inclusive settings with students with extensive support needs.

**Usability of the SDLMI by inclusive classroom teachers who support students with extensive support needs**

The SDLMI is a *teaching model* that allows instructors to support students as they initiate and self-regulate action toward goal setting and attainment as opposed to a comprehensive curriculum. As such, the SDLMI is intentionally designed as a framework which teachers can individualize to meet the needs of their students through educational supports. Thus, the SDLMI can be used with *any student*, including students with IDD. However, it is critical to examine what accessible implementation of the SDLMI may look like for students with extensive support needs.

Feedback from teachers has been valuable in understanding how SDLMI implementation with students with extensive support needs may look in school contexts. In a mid-year survey with 14 teachers of students with intellectual disability engaged in state-wide implementation of the SDLMI (Shogren, Burke, Anderson et al., 2018; Shogren, Burke, Antosh et al., 2018), the two primary challenges reported were time ($n = 9$) and support needs ($n = 4$). Regarding support needs, one teacher explained, "It's very difficult for those that have more profound intellectual disabilities [*sic*]. However, for one of my students I am focusing on one thing for a long period of time so it is doable!" Another described a barrier to implementation: "For students with significant impairments, it is still an extreme difficulty to get them to understand this process, and to initiate." The teachers' feedback should be noted with consideration of the promising

results their students have been achieving. One teacher shared, "I am beginning to see changes in our students as they learn more about themselves, their needs and ability to be self-determined." These students are setting and attaining goals and becoming more self-determined, even though teachers indicate they may not have achieved full accessibility and subsequent usability of the SDLMI.

These teachers shared recommendations on how to make the SDLMI more usable with students with intellectual disability. Because complex communication needs are a consideration for many teachers of students with extensive support needs, teachers suggested more guidance on differentiation in the *SDLMI Teacher's Guide* (Shogren, Raley et al., 2018) and instructional materials with options for modifications. To address this need, ongoing development is occurring to create a SDLMI Supplement for Students with Complex Communication Needs. This product is designed to provide additional information to teachers using the SDLMI with students who communicate in unique ways (e.g., augmentative and alternative communication) to support the teacher's implementation in providing the student opportunities to self-direct their learning. Additionally, teachers shared that additional accessibility features embedded in the SDI:SR would support students with extensive support needs in indicating their perceptions of their abilities and opportunities to be self-determined (e.g., make choices, solve problems). Thus, there is a need to explore the cognitive and communication supports necessary to ensure usability of the SDLMI by teachers and access to the SDLMI for students with extensive support needs.

**Implementation of the SDLMI in culturally sustaining ways with students with extensive support needs in inclusive settings**

Shogren, Luckasson, and Schalock (2014) define context as "the totality of circumstances

that comprise the milieu of human life and human functioning" (p. 110). Part of context includes independent variables that cannot be manipulated (e.g., age, language, gender) and one of these personal and environmental variables is culture. Culture enables people to maintain their sense of identity and understand themselves, and provides the lens through which they perceive and evaluate how others behave (Neal, McCray, Webb-Johnson, & Bridgest, 2003). Cultural identities are influenced by and interact with a number of factors, such as gender, race/ethnicity, and disability (Trainor, Lindstrom, Simon-Burroughs, Martin, & Sorrells, 2008). As such, it is useful to adopt a broad definition of culture to ensure the inclusion of disability-related support needs in the design of culturally sustainable interventions for all students, while also recognizing the need to address systematic barriers that limit opportunities and create disparities (Shogren, 2011).

Trainor (2008) prompted the consideration of a number of questions when considering the effectiveness of interventions to promote self-determination: (1) Are interventions to promote self-determination that have been effective for youth with disabilities who are members of the dominant culture also appropriate and effective for instruction for youth from marginalized groups? and (2) Do school personnel implement interventions to promote self-determination in similar ways across groups of youth based on disability status, race/ethnicity, socioeconomic backgrounds, and other demographic characteristics? Cultural identity can be considered a moderating variable for the development of self-determination because what is considered self-determined action and interventions delivered by teachers and other supporters to promote those skills likely vary widely across cultural contexts (Wehmeyer et al., 2011). Therefore, Shogren (2013) advocated for a greater emphasis on cultural variables, including disability, in self-determination research and practices to allow for the development and implementation of

flexible and individualized interventions.

Paris (2012) described how society has evolved to consider diverse cultural and linguistic backgrounds, and coined a term, "culturally sustaining pedagogy" (p. 95). Culturally sustaining interventions sustain linguistic and cultural diversity among students as part of education (Paris, 2012). Characteristics of culturally responsive, evidence-based practices include setting high expectations for students and providing individualized support based on "students' individual and cultural preferences" (Aceves & Orosco, 2014, p. 14). This aligns with Causal Agency Theory and the SDLMI as teachers set high expectations that enable students to self-direct their learning and achieve self-selected goals. For example, in Phase 1 of the SDLMI, students set goals based on individual preferences and interests with support from their teacher to enhance their self-knowledge and reflect on their cultural values and preferences.

Because parenting practices vary across cultural contexts (Wehmeyer et al., 2011), it is critical to involve families in the SDLMI process. Through family-school partnerships that value cultural reciprocity, teachers can understand and incorporate the unique preferences, beliefs, and values held by students and their families (Shogren, 2011, 2012). Given that linking instruction between home and school is a recommended educational practice (Brown, McDonnell, & Snell, 2016), implementing the SDLMI has the potential to strengthen family-school partnerships in culturally sustaining ways, especially when teachers provide opportunities and supports for family members to learn strategies to promote self-determination at home aligned with their cultural values, practices, and preferences. Without considering "the structural and contextual factors that exist within cultures" (Wehmeyer et al., 2011, p. 25), the SDLMI will encounter the risk of being disconnected from students.

**Conclusion**

Evidence of the positive outcomes associated with instruction designed to promote self-determination has been well-documented in the past 30 years (Burke et al., 2018); yet, teachers of students with extensive support needs continue to experience challenges in implementation (Shogren, Burke, Anderson et al., 2018; Shogren, Burke, Antosh et al., 2018).  Although supports for preservice and in-service teachers learning to implement the SDLMI have increased, there remain few supports for implementing the SDLMI with students who have extensive support needs, particularly in inclusive settings.  Thus, the purpose of this article was to examine the impact, usability, and cultural sustainability the SDLMI with students with extensive support needs to develop the skills associated with self-determination to identify areas of needed work to guide future research, practice, and policy.  Although recent work has been conducted examining the implementation of the SDLMI in inclusive, general education contexts as a universal support (Raley et al., 2018), it is imperative to ensure inclusivity for *all* students and therefore the key need is to examine the barriers to implementation experienced by teachers of students with extensive support needs (e.g., usability) and identify technologies and strategies to enhance student participation in culturally sustaining ways to produce positive and valued outcomes.

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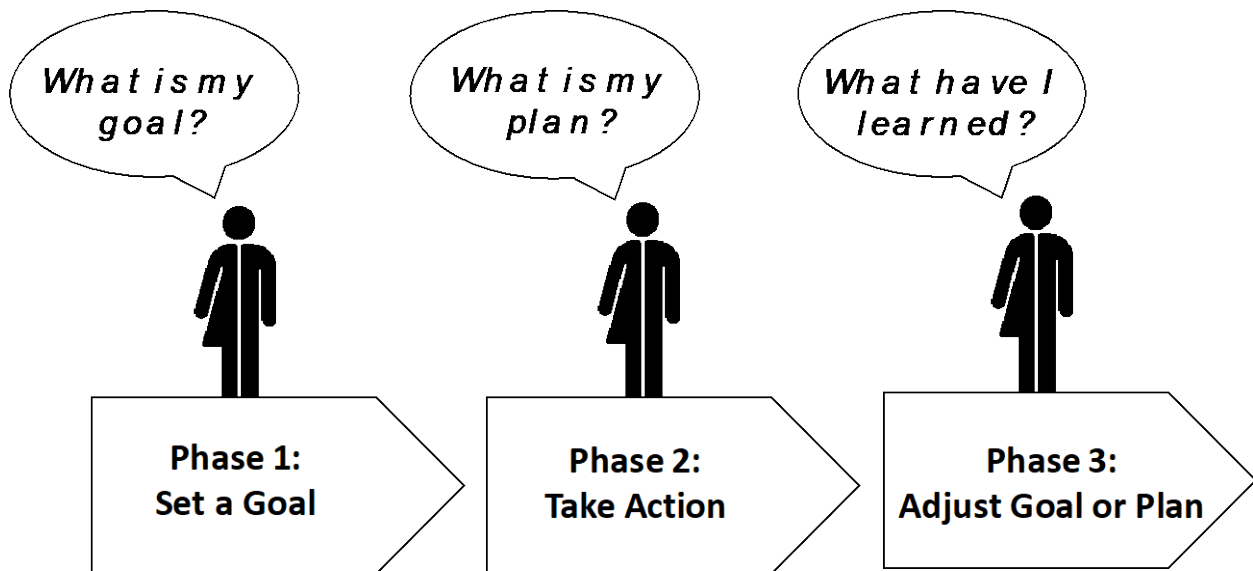*Remedial and Special Education, 24*, 262-272.

*Figure 1*. Three phases of the SDLMI. Reprinted with permission from Shogren, Raley, et al.

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