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Examining Types of Goals Set by Transition-Age Students With Intellectual Disability

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Abstract

Goal setting and attainment are critical skills for young people with disabilities as they plan for their postschool lives in areas such as employment, postsecondary education, and community life. This article presents an analysis of the types of goals set by transition-age students with intellectual disability over 3 years while supported by teachers to use an evidence-based practice to promote self-determination, the *Self-Determined Learning Model of Instruction* (SDLMI). Teachers implemented the SDLMI as part of a statewide effort to enhance the transition to integrated employment for students with intellectual disability exiting high school. Findings reflect students' desire to plan for multiple aspects of their lives in the adult world and the criticality of examining teacher expectations and how they relate to instruction and supports for students engaging in the goal-setting process. Limitations and implications for research and practice are discussed.

Keywords

goal setting, transition, intellectual disability, self-determination

Goal setting and attainment are critical skills in the lives of young people with disabilities, especially as they prepare for the transition from school to the adult world. Goal setting is defined as the process through which a person creates a target or plan for something they want to accomplish or achieve (Sands & Doll, 2000). Goal setting is associated with volitional action, one of the three essential characteristics of self-determination (Shogren, Wehmeyer, Palmer, Forber-Pratt, et al., 2015). Setting postschool goals is central to transition planning services required under the Individuals with Disabilities Education Improvement Act (IDEIA) of 2004. Postschool activities to be addressed during transition planning listed in IDEIA include postsecondary education, vocational education, integrated employment (including supported employment), continuing and adult education, adult services, independent living, and community participation. As such, goal setting is frequently embedded in self-determination interventions (e.g., the *Self-Determined Learning Model of Instruction* [SDLMI]) that can be used during transition planning.

The SDLMI (Shogren, Raley, et al., 2018; Wehmeyer et al., 2000) is a model of instruction in which trained facilitators (e.g., teachers) teach students self-regulated problem-solving skills that can be applied to setting and going after goals. The SDLMI comprises three distinct phases—*Phase 1: Set a goal, Phase 2: Take action, Phase 3: Adjust goal or plan.* Teachers provide instruction and supports to enable students to answer four Student Questions per phase that guide them through a self-regulated problem-solving process (for a total of 12 Student Questions in the model) that is repeated over time. *Teacher Objectives* are linked to each Student Question and serve as a roadmap for what teachers want to achieve in supporting students to respond to questions. Teachers provide direct instruction on skills associated with self-determination (i.e., choice making, decision-making, goal setting and attainment, planning, problem-solving, self-advocacy, self-awareness, self-knowledge, self-management; Shogren, Wehmeyer, Palmer, Forber-Pratt, et al., 2015) through *Educational Supports* corresponding to each Student Question. Students typically work through the model one to two times over the course of an academic semester and can set and work to attain multiple goals over the course of a school year. Thus, students experience multiple opportunities to learn and practice the self-determination abilities targeted.

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The SDLMI is an evidence-based practice for enhancing self-determination and postschool outcomes for transition-age students with disabilities (National Technical Assistance Center on Transition, 2019). In a review of the literature, Hagiwara et al. (2017) identified 21 studies, including single-case, quasi-experimental, and large-scale, randomized controlled trial studies, using the SDLMI. Such research provides evidence of the impact of the model on goal attainment (e.g., Shogren et al., 2012) and overall self-determination (e.g., Wehmeyer et al., 2012). However, despite the centrality of goal setting to the model, limited research includes specific analyses of the content of goals students are supported to set using the SDLMI and how goal content may affect goal attainment, particularly during transition planning.

Given the significance of goal setting to the SDLMI, better understanding of the content of goals set by students using the SDLMI could advance training and implementation supports for facilitators. Content experts have begun to develop materials to support teachers and other facilitators with implementing the SDLMI across contexts, such as with students with complex communication needs (Shogren et al., 2019b) and during the transition planning process (Shogren et al., 2019a). Content experts can enhance such materials and related trainings with knowledge of the types of goals transition-age students with disabilities choose to set using the SDLMI. Furthermore, it may lead to enhancements of the SDLMI coaching process for teachers (Hagiwara et al., 2020) to enable coaches to provide teachers with strategies to promote high expectations for goal content and to identify areas that may be overemphasized or underemphasized by teachers in the goal-setting process.

Relatedly, there is a need for research on the degree to which skills associated with self-determination are included within goals students are supported to set using the SDLMI and how this may affect goal attainment. Research has shown the positive impact of promoting both overall self-determination and specific associated skills (Algozzine et al., 2001; Burke et al., 2018). Key terms used by teachers in instruction throughout the SDLMI problem-solving process—goal, problem, plan, evaluate—relate to the skills associated with self-determination described previously (Shogren, Raley, et al., 2018). Skills associated with self-determination have been described as "component elements of self-determined action that enable the expression of the essential characteristics" (Shogren, Wehmeyer, Palmer, Forber-Pratt, et al., 2015, p. 260). Thus, the degree to which teachers' supports for students focus on such skills (as represented in their goals) is important to understand and could enhance future implementation supports.

Purpose of the Study

The purpose of this study was to analyze the goals set by students using the SDLMI in a specific context (i.e., a statewide effort to enhance the transition to integrated employment for students with intellectual disability exiting high school) to inform future research and practice. In 2015, special education teachers across the state of Rhode Island (RI) began implementing the SDLMI. This was precipitated by the state entering into a Consent Decree with the U.S. Department of Justice due to "unnecessary over-reliance upon segregated sheltered workshops and facility-based day programs" for adults with intellectual disability (*United States of America v. State of Rhode Island*, 2014b, p. 2). Recognizing the role of transition in shaping postschool outcomes, the state began enhancing transition planning supports for teachers and schools. One component of change efforts was promoting student self-determination through the SDLMI by providing teachers with standardized training and ongoing supports for implementation. Evidence from 3 years of implementation has shown the positive impact of the SDLMI on self-determination and goal attainment for students with intellectual disability (Shogren, Burke, Anderson, et al., 2018; Shogren, Burke, Antosh, et al., 2018; Shogren, Hicks, et al., 2020).

The focus in RI was for teachers to implement the SDLMI to support students to set goals related to the transition to employment (e.g., career exploration, developing specific job-related skills, identifying job or internship opportunities), but the SDLMI can be used to target goals across many areas (e.g., academics, postsecondary education, home living, social and relationships, community access, transportation, finances, leisure and recreation, communication) based on students' interests and preferences. SDLMI implementation protocols promote flexibility, particularly when initially using the model, in supporting students to set goals of interest to them. It is hypothesized the abilities learned with any goal can then be generalized to other goal areas (e.g., employment). However, there is limited research on the types of goals students set when supported to use the SDLMI. Such work will inform research on students' goal interests during transition planning and provide guidance for teachers to enhance individualized instruction and supports based on students' preferred goal interests related to transition planning. The following research question and subquestions were addressed:

1. What types of goals did transition-age students with intellectual disability set when supported by their teachers to use the SDLMI to enhance postschool outcomes?
    a. How many students had goals across areas and/or multiple goals in the same area (e.g., academics, vocational education and employment, postsecondary education, home living, social and relationships)?
    b. Within goal areas, what subtopics were represented (e.g., academic goal subtopics may

include content mastery, class participation and engagement, study skills)?

c. How many goals that incorporated skills associated with self-determination were taught using the SDLMI (e.g., choice making, decision-making, problem-solving)?

Method

Sample

This analysis includes 1,546 goals set by transition-age students in RI with an educational classification of intellectual disability. It is part of a series of studies on the impact of the SDLMI for transition-age students with intellectual disability in RI (Burke et al., 2019; Shogren, Burke, Anderson, et al., 2018; Shogren, Burke, Antosh, et al., 2018; Shogren, Burke, et al., 2020; Shogren, Hicks, et al., 2020). Researchers previously examined levels of goal attainment, but this is the first analysis of goal content.

The present sample of goals was collected over 3 years of project implementation (2015–2016, 2016–2017, 2017–2018). Students set goals during Phase 1 of the SDLMI, and teachers then recorded goals on a Goal Attainment Scaling (GAS) form as part of standardized outcome data collection procedures. After recording the student goal, teachers created a GAS rubric later used to provide ratings of goal attainment from the teacher's perspective. In the present analysis, however, we focused only on the goal set by students and recorded by teachers on the GAS form, not ratings of attainment.

Teachers recorded student goals for 161 students in the 2015 to 2016 school year, 268 students in the 2016 to 2017 school year, and 238 students in the 2017 to 2018 school year. Student demographics are provided in Table 1. The primary focus in the present analysis was the 1,546 goals set by students and recorded by teachers, collapsed over time and across students. We did, however, examine if, in a given year, students (a) set multiple types of goals and/or (b) repeated the same goal, which is encouraged under SDLMI implementation protocols if students did not achieve the level of goal attainment they targeted. We did not explore the nesting of goals within students across years, primarily because of issues with merging collected data due to the rapid implementation in response to the Consent Decree. While future research is needed on longitudinal change in the types of goals set by students supported using the SDLMI, this initial work on the overall types of goals set by students will help guide this work.

Procedures

Intervention. Trained special education teachers implemented the SDLMI with support from content experts (e.g., coaching, ongoing implementation material distribution; see Shogren, Burke, Antosh, et al., 2018; Shogren, Burke, et al., 2020; Shogren, Hicks, et al., 2020). The target was for teachers to support students to set two to three individualized learning goals related to transition and employment outcomes each year using the SDLMI. With instruction and supports from teachers, students worked through the three phases of the SDLMI repeatedly within each year to set a goal, create and implement an action plan, and evaluate progress toward their goals. When students did not feel they had attained their goal at the end of Phase 3, they had the option to refine their goal and action plan during the next cycle of the SDLMI or to target a new goal or goal type. Teachers instructed students using the SDLMI approximately twice per week (e.g., during designated transition planning periods), with the amount of time per lesson/activities varying by student and class needs. Teachers also embedded opportunities for students to practice skills associated with self-determination related to their goal in natural contexts throughout the school day (see Shogren, Raley, et al., 2018 or self-determination.org for more information on SDLMI implementation).

Student goals measured by GAS. As described, the goals used for analysis were extracted from GAS forms (Kiresuk et al., 1994). GAS is a measure of goal attainment, originally used in counseling and clinical settings (Kiresuk & Sherman, 1968) and extended to educational contexts (Carr, 1979). In this project, teachers created the GAS rubrics. First, the teacher recorded the student's self-set goal from Phase 1, Student Question 4 of the SDLMI. The teacher then established a five-point rating scale to quantify the level of attainment (e.g., number of opportunities correct, engagement in activity) specific to each student's goal. After the student completed Phase 3 of the SDLMI, the teacher came back and recorded the level of attainment on the scale.

Data analysis. We utilized a directed approach to content analysis with both inductive and deductive category development to examine the types of goals set by students (Hsieh & Shannon, 2005). The first step was to review all 1,546 goals to develop initial codes for the types of goals (e.g., academic, employment, higher education, social) with corresponding criteria (e.g., goals categorized as academic pertain to classwork, grades, or academic skills such as study habits or class participation) based on prior research on transition-related content areas for students with disabilities (Bouck, 2009; Patton et al., 1997). The second step was to review and categorize each goal in a primary goal area. The final step was to develop subcategories within each primary goal area based on content and finalize these subcategories after all goals were reviewed. The final codebook included 10 primary goal area categories and associated subcategories: (a) academics, (b) vocational

Table 1. Student Descriptive Statistics by School Year.

	2015–2016		2016–2017		2017–2018	
Demographic characteristic	*n*	%	*n*	%	*n*	%
Gender						
Male	68	42	167	62	150	63
Female	24	15	92	34	72	30
Missing	69	43	9	3	16	7
Race/ethnicity						
White	44	27	130	49	106	45
Hispanic/Latino	18	11	58	22	57	24
Black/African American	14	9	23	9	24	10
American Indian or Alaska Native	1	<1	2	<1	1	<1
Asian	1	<1	5	2	8	3
Two or more races	1	<1	8	3	1	<1
Other	0	0	1	<1	2	<1
Missing	82	51	41	15	39	16
Level of support needs (2017–2018 only)						
No support needed	—	—	—	—	2	<1
A little support needed	—	—	—	—	53	22
A lot of support needed	—	—	—	—	78	33
Support needed all the time	—	—	—	—	63	26
Missing	—	—	—	—	42	18

Note. Total of percentages for each category may not be 100% due to rounding.

education and employment, (c) postsecondary education, (d) home living, (e) social and relationships, (f) community access, (g) transportation, (h) finances, (i) leisure and recreation, and (j) communication. Table 2 shows counts and descriptions for all goal categories and subcategories with examples.

We then identified the number of students who selected multiple goals within the same focus area during a school year (e.g., three goals on social skills and relationships), the number of students who selected goals across more than one focus area during a school year (e.g., one goal focused on academic skills and one goal focused on employment skills), and the number of students with a goal repeated during a school year. We also coded each goal ("0" for no, "1" for yes) for whether it addressed skills associated with self-determination (i.e., choice making, decision-making, goal setting and attainment, planning, problem-solving, self-management, self-advocacy, self-awareness, self-knowledge) based on a set of keywords for each skill.

Interrater reliability (IRR). The primary researcher trained a graduate student with expertise in special education and transition on the codebook with definitions for all codes and examples from goals not designated for IRR. The graduate student practiced coding goals until reaching ≥90% agreement with the primary researcher. The graduate student then coded 389 of the 1,546 goals (25.2%) with criteria of ≥90% agreement. The primary researcher reviewed the graduate student's coding each time they completed coding for approximately 30 goals. The primary researcher and the graduate student reviewed coding disagreements and discussed the items to reach consensus before moving on to the next set. The calculation for IRR was the percentage of agreement across all ratings (dividing the number of agreements by the total number of ratings and then multiplying the number by 100). IRR was 97.3%.

Results

There were 1,546 goals across the 3 years of SDLMI implementation (318 goals in 2015–2016, 649 goals in 2016–2017, and 579 goals in 2017–2018). Students in 2015 to 2016 set an average of 2.0 goals, while students in 2016 to 2017 and 2017 to 2018 set an average of 2.4 goals.

After extracting the data on student goals as recorded by teachers on the GAS form, we noted the majority of teachers recorded goals from the student perspective (e.g., "I will . . . "; $n = 918$ goals, 59.4%), as would be expected based on SDLMI instruction, but some teachers worded goals from the teacher perspective (e.g., "The student will . . . "; $n = 381$ goals, 24.6%). In addition, a subset of teachers recorded only the goal action (e.g., "to complete a job application"; $n = 247$ goals, 16.0%) without either a student (e.g., "I") or teacher (e.g., "the student") perspective.

Table 2. Goals and Examples by Category.

Category	Description	*n*	%	Subcategory	*n*	%	Example goal description
Home living	Goals related to daily living and self-care and not primarily addressing one of the other goal areas	386	25				
				Cooking and baking	170	11	"I want to be able to make chocolate chip cookies."
				Knowledge of personal information	62	4	"Want to learn my address."
				Hygiene and self-care	37	2	"I will apply deodorant every morning."
				Motor skills	35	2	"To be able to walk longer distances and for longer periods of time."
				Nutrition	34	2	"I want to learn to eat healthy."
				Cleaning	20	1	"I want to learn how to clean my room."
				Laundry	17	1	"I want to learn how to get the laundry ready to wash."
				Dressing	5	<1	"Remove his coat."
				Toileting	4	<1	"Student wants to become more independent using the bathroom. He currently is walked to the bathroom by his 1:1 assistant."
				Living arrangements	2	<1	"To get an apartment."
Vocational education and employment	Goals related to career exploration and current/future employment	316	20				
				Career exploration	62	4	"I am interested in cosmetology and would like to explore a job in this field."
				Job-specific skills	60	4	"I want to improve on sweeping the stands."
				Nonspecified job skills	56	4	"I will complete a vocational task with less than 3 prompts."
				Job attainment skills	38	3	"To complete job application with decreasing prompts to fill in correct information."
				Classroom jobs and chores	34	2	"Student wants to be able to do classroom shredding."
				In-school job experiences	33	2	"I want to be able to complete my second floor recycling job."
				General workplace skills	23	2	"Student wants to learn how to be more social when at work."
				Worksite behavior	6	<1	"Student will improve on their behavior when they are at work."
				Volunteering	4	<1	"I would like to volunteer at a local day care."
Academics	Goals related to specific academic content areas, general academic skills, or school behavior	277	18				
				General academic skills	84	5	"Student wanted to make arrangements to visit a computer classroom to determine if it would be a class he might want to take next year."
				School behavior	74	5	"Goal is to earn points in the behavior goal of 'following directions'."
				Writing	31	2	"I want to write my senior reflection before May 15th."
				Reading	30	2	"I will read independently or have someone read aloud to me for 15 minutes each day."
				Math	29	2	"I can memorize more of my multiplication facts."
				Science	19	1	"I want to complete the smells experiment."
				Other class-specific content	10	<1	"I will learn more words in Spanish."
				Social studies	0	0	Not applicable
Leisure and recreation	Goals related to activities engaged in for personal enjoyment and not related to academics or employment; also not focused on engaging with others—i.e., social and relationships	227	15				
				Trips, outings, and nonspecified leisure activities	60	4	"Student will choose a leisure activity and complete the activity."
				Sports and physical activities	54	4	"I want to learn how to catch a ball."
				Arts	49	3	"I would like to learn how to play the guitar."
				Games	30	2	"Student will learn how to play tic tac toe."
				General exercise	17	1	"I will exercise for at least 15 minutes a day."
				Technology	17	1	"I want to watch parades on YouTube."

(continued)

Table 2. (continued)

Category	Description	*n*	%	Subcategory	*n*	%	Example goal description
Communication	Goals which specifically addressed skill-based aspects of communication, as opposed to relationship-building, and did not address academics or employment	100	6				
				Expressing wants and needs and making requests	50	3	"The student wanted to communicate her wants and needs better by learning more sign language and using more spoken words."
				General speech and language skills	20	1	"To speak clearly in English/Spanish so he can be understood."
				Email	15	1	"I want to learn how to send an email."
				Conversation skills	9	<1	"I will greet people when they enter the room."
				Phone	6	<1	"I want to learn how to transfer phone calls."
Transportation	Goals related to driving, taking the bus, biking, taking the train, or other modes of transportation and related safety elements	94	6				
				Driving	45	3	"I will learn different ways to get a license."
				Taking the bus	25	2	"I want to learn how to read bus schedules."
				General transportation knowledge	21	1	"I want to learn a new sign in order to be better prepared to work, travel on a bus, and go to school so I can be an active member of my community and school."
				Biking	3	<1	"I want to learn about how to be safe when riding my bike in the community."
Social and relationships	Goals related to interactions, activities, or relationships with others	74	5				
				Activities with others	33	2	"To go to a WWE show with my friend."
				Meeting new people	21	1	"I want to become more involved in student activities and meet new friends."
				Engaging in conversation with others	10	<1	"To have positive interactions with other people."
				School or community activities and programs	8	<1	"I want to go to the junior prom."
				Dating	2	<1	"I want to learn how to get a girlfriend."
Finances	Goals related to personal finances such as banking, currency, and budgeting	36	2				
				Identifying and counting currency	19	1	"I want to improve on counting dollar amounts larger than $20 and change amounts that include nickels and dimes."
				Writing checks or balancing a checkbook	11	<1	"I will learn how to balance a checkbook register."
				Budgeting	5	<1	"To set up an online budgeting tool and use it."
				Completing tax forms	1	<1	"To seek support and participate in filing RI and Federal income taxes."
Community access	Goals related to activities or tasks in the community—i.e., outside of school, employment, or home	33	2				
				Making purchases	26	2	"I want to learn how to buy a Barry Manilow CD."
				Adult services	4	<1	"I want to be able to visit my adult placement setting."
				Making appointments	3	<1	"Make a doctor's appointment for myself."
Postsecondary education	Goals related to exploring, attending, or preparing to attend postsecondary education	3	<1				
				Exploring postsecondary education options	2	<1	"Student wants to be able to go the college with Special Supports."
				Completing applications	1	<1	"To fill out and submit Rhode Island College application for certification program."

Note. Total of percentages for categories and subcategories may not be 100% due to rounding.

Primary Goal Categories and Subcategories

Primary goal categories were home living ($n = 386$; 25.0%), vocational education and employment ($n = 316$; 20.4%), academics ($n = 277$; 17.9%), leisure and recreation ($n = 227$; 14.7%), communication ($n = 100$; 6.5%), transportation ($n = 94$; 6.1%), social and relationships ($n = 74$; 4.8%), finances ($n = 36$; 2.3%), community access ($n = 33$; 2.1%), and postsecondary education ($n = 3$; 0.2%). Table 2 shows the number of goals per category within each school year and examples of goals for all subcategories. Almost half of the students ($n = 315$; 47.2%) had goals across multiple categories within a given school year, and 164 total students (24.6%) had repeated goals (i.e., the same goal more than once) within a school year.

Home living. There were 386 goals in the area of home living, representing 25.0% of all goals. The most common subcategory was cooking and baking ($n = 170$). The focus was often following a recipe, such as "given a visual recipe and staff supervision to ensure safety, the student will make brownies completing 15/19 steps independently." We coded goals focused specifically on nutrition ($n = 34$), which most commonly addressed making healthy choices in the school cafeteria, separately from cooking and baking. Other frequent goal topics within home living included knowledge of personal information (e.g., learning phone number or home address; $n = 62$), hygiene and self-care (e.g., washing face, brushing teeth; $n = 37$), and motor skills (e.g., feeding oneself, walking or using a wheelchair; $n = 35$).

Vocational education and employment. Vocational education and employment goals ($n = 316$) comprised 20.4% of all goals. The most common subcategory was career exploration ($n = 62$), in which many students focused on researching jobs or careers online or by talking to people in specific fields and showing what they learned by creating "brochures" or a list of describing words. Vocational education and employment goals also frequently addressed both job-specific skills ($n = 60$) and nonspecific job skills ($n = 56$). We coded goals as job-specific if they referenced a particular job (e.g., "the student will work as a retail store greeter and engage people/customers in a welcoming manner appropriate to her job description") and as nonspecific if they described learning job skills in general terms (e.g., "the student will complete tasks at his work/job experience with three verbal prompts on average from his job coach"). In addition, some goals focused specifically on activities in the classroom or school, such as classroom jobs and chores ($n = 34$) and in-school job experiences (outside the student's own classroom; $n = 33$).

Academics. There were 277 goals in the area of academics, making up 17.9% of all goals. Notably, the two most common subcategories focused on general academic skills ($n = 84$; such as completing classwork and homework and studying) and school behavior ($n = 74$; such as following directions and class rules). An example of a general academic skills goal was, "I want to do well on my quiz. I will study for my quiz over the weekend so I can earn a grade of 90 or above." The remaining subcategories addressed specific academic content areas, including writing ($n = 31$), reading ($n = 30$), math ($n = 29$), science ($n = 19$), and other class-specific content (e.g., art, physical education, Spanish; $n = 10$).

Leisure and recreation. The leisure and recreation category included 227 goals (14.7%). Leisure and recreation goals were spread relatively evenly across subcategories, with goals most often related to trips, outings, and nonspecified leisure activities ($n = 60$). Such goals generally targeted planning an activity such as "plan a trip to the movies." The second and third most common subcategories were sports and physical activities (e.g., basketball, soccer, catch; $n = 54$) and arts (e.g., filmmaking, drawing, photography, knitting; $n = 49$), respectively.

Communication. A total of 100 goals focused on communication, representing 6.5% of all goals. We classified half of the communication goals as expressing wants and needs and making requests ($n = 50$). Goals in this subcategory included a variety of communication methods, including oral communication, sign language, gesturing, and using an augmentative and alternative communication (AAC) device. An example is "the student will request attention from staff or peers by appropriately tapping their shoulder or using the picture exchange communication system." Remaining subcategories were general speech and language skills ($n = 20$), email ($n = 15$), conversation skills ($n = 9$), and phone skills ($n = 6$).

Transportation. We categorized 94 goals (6.1%) as transportation-related. Almost half of the transportation goals addressed driving ($n = 45$), with most driving goals targeting obtaining a driver's license (e.g., "to learn road signs by taking a picture of them in the community, and keeping a chart of them to prepare for my driver's test"). Other subcategories included taking the bus (e.g., following the correct route; $n = 25$) and general transportation knowledge (e.g., identifying safety signs in the community; $n = 21$).

Social and relationships. There were 74 goals in the area of social and relationships, comprising 4.8% of all goals. Social and relationship goals were most frequently related to activities with others ($n = 33$). For example, "I want to play UNO with my friends." Goals were also focused on meeting new people ($n = 21$) and often joining activities to

meet this purpose (e.g., "I want to become more involved in student activities and meet new friends").

Finances. Finance-related goals ($n = 36$) represented 2.3% of all goals. Many finance goals addressed identifying and counting currency ($n = 19$; e.g., "I want to improve on counting dollar amounts larger than $20 and change amounts that include nickels and dimes"). Remaining subcategories included writing checks or balancing a checkbook ($n = 11$), budgeting ($n = 5$), and completing tax forms ($n = 1$).

Community access. Community access goals ($n = 33$) represented 2.1% of all goals and had only three subcategories: making purchases ($n = 26$), adult services ($n = 4$), and making appointments ($n = 3$). Goals about making purchases included both goals about typical in-store purchases (e.g., "the student will improve her ability to determine the next dollar amount when making a purchase") and also ordering and paying for items at a restaurant (e.g., "I want to order and purchase a bagel independently").

Postsecondary education. Postsecondary education was the least common category, with only three goals (0.2%). There were two subcategories: exploring postsecondary education options (i.e., researching, visiting; $n = 2$) and completing applications ($n = 1$). For example, "the student will be able to list her needs to go to college and meet the entrance requirements."

Skills Associated With Self-Determination

Table 3 includes examples of goals for all skills associated with self-determination. Choice making ($n = 85$; 5.5%), self-advocacy ($n = 68$; 4.4%), planning ($n = 58$; 3.8%), and decision-making ($n = 52$; 3.4%) were the most common. No goals specifically addressed goal setting and attainment as the student's objective, which is not entirely unexpected, given students were already actively engaged in a goal-setting and attainment process using the SDLMI.

Discussion

The purpose of this study was to examine and describe the types of goals transition-age students with intellectual disability set as part of statewide implementation of the SDLMI. Researchers have previously documented increases in overall self-determination and goal attainment for participating students (Shogren, Burke, Anderson, et al., 2018; Shogren, Burke, Antosh, et al., 2018; Shogren, Hicks, et al., 2020). The focus of this study was to analyze the types of goals set by students as part of this process. Examining transition-related goals set by students with the SDLMI provides the potential to understand more broadly (a) students' goal interests and (b) how goals may be shaped by instruction and supports from teachers.

Results showed several key trends in the goals set by students using the SDLMI with instruction from their teachers. First, despite the primary focus in RI on promoting postschool integrated employment, students' goals were spread across categories. This finding likely reflects the diversity of interests of high school students, as well as how teachers may have shaped their instruction to align with and even expand students' interests in thinking about the many components of their postschool lives—such as living arrangements, employment, leisure and recreation, and relationships. Notably, how goals were worded by teachers as they transferred students' goals to the GAS form may suggest some teachers were significantly shaping and perhaps even directing the goal-setting process; this differs from the intent of the SDLMI and its focus on shifting goal setting from teacher-directed to student-directed (Shogren, Raley, et al., 2018). While some teachers recorded goals from the student perspective (e.g., "I will . . . "; $n = 918$ goals, 59.4%) as would be expected, other teachers worded goals from their own perspective (e.g., "The student will . . . "; $n = 381$ goals, 24.6%). This finding was unexpected. The rewording alone does not necessarily indicate goal setting was more teacher directed than student directed, as teachers were not provided with specific instructions on recording goals on the GAS form. Teachers may have been wording goals in a way that simplified the GAS rubric writing process or aligned with their understanding of how to write goals, such as how they learned to write goals for Individualized Education Programs (IEPs).

The language used in some goals (even some written from the student's perspective), however, suggested a strong teacher-directed approach, such as "the student will complete tasks at his work/job experience with three verbal prompts on average from his job coach." It seems unlikely a student would write this goal for themselves, without significant influence from a teacher or other supporter particularly during Phase 1 of the SDLMI. Phase 2, Take Action, focuses on developing an action plan and involves creating self-management and prompting systems when students learn to get more specific in the steps they will take to reach their goals. It may be students would set increasingly precise goals over time. Wording of the recorded goals in the present analysis suggests the need for ongoing professional development and consideration of implementation protocols and coaching supports provided for teachers related to promoting student self-direction and agency over goals. The SDLMI is designed to promote student agency as students set and go after goals for their future. Teachers shift toward the role of a supporter rather than a director of goal setting, and the wording of goals is a reflection of buy-in to this process.

Table 3. Goals Addressing Skills Associated With Self-Determination.

Skill	*n*	Example goal description
Choice making	85	"Student will read the course catalog and choose seven courses for the following year."
Self-advocacy	68	"Student will navigate to familiar places in the school without her 1:1 assistant (asking for help if needed)."
Planning	58	"Plan a field trip."
Decision-making	52	"The student will identify three ways to improve grades and try one."
Problem-solving	17	"Student will increase his ability to multiply accurately and fluently in order to better solve multi-step problems when in the inclusion classroom."
Self-management and self-regulation	13	"I will independently access strategies when I feel overwhelmed and need a break to allow me to have safe behavior."
Self-awareness and self-knowledge	11	"Student will recognize when he needs a break and ask for one independently."
Goal setting and attainment	0	Not applicable.

The call for high expectations as part of transition supports and services for students with disabilities has grown over the last several decades (e.g., Grigal et al., 2011; McGrew & Evans, 2004). There are related implications based on the goals set by students with instruction and support from teachers using the SDLMI in this study. Through instruction and supports, teachers play a role in shaping students' goals, and the content of some goals indicates some teachers may have shaped students' goals to reflect areas that have too frequently been the exclusive focus of instruction for students with intellectual disability (e.g., "given a visual recipe and staff supervision to ensure safety, the student will make brownies completing 15/19 steps independently"). For example, the most common goal category was home living, making up a quarter of goals in the sample ($n = 386$; 25.0%). While maintaining a home is an important aspect of adulthood, most goals focused on cooking and baking (11.0% of all goals across years). Cooking and baking can be an important daily living skill in terms of food preparation and a personal interest (i.e., hobby), but the frequency of cooking and baking goals may indicate an overemphasis on such skills during students' educational and transition experiences. Researchers have repeatedly suggested low expectations continue to permeate transition supports for students with intellectual disability (Grigal et al., 2011; McGrew & Evans, 2004). These low expectations may relate to poor postschool outcomes, as students with intellectual disability have less instruction, support, and opportunity to explore and consider other relevant postschool domains (e.g., employment, postsecondary education, personal relationships).

The frequency of home living goals is corroborated by findings from another analysis of the content of goals set by transition-age students with disabilities. Kleinert et al. (2014) analyzed 288 self-selected goals for students aged 7 to 21 years with significant support needs set through the SDLMI and, as in the present study, found a wide variety of goals set by students. They also noted the frequency of communication and life skills goals and lack of academic or social goals, particularly for students with multiple disabilities as compared with their peers. Information was not available on the level of adult support provided for students during goal selection, and the authors noted school personnel may have actually selected goals for students with more significant support needs. The frequency of communication and life skills goals and lack of academic or social goals for students found in this study may suggest lower adult expectations for students with significant support needs, similar to our finding of the high frequency of home living goals.

In another goal content analysis, Williams-Diehm et al. (2010) asked 332 students with disabilities in middle school and high school and their teachers to describe goals the student was working on (i.e., both teacher- and student-reported goals), although goal-setting instruction or activities were not part of the study. The most common goal type was academic, underscoring the importance of school within adolescents' lives and the connection to future success postschool. In the present analysis, academic goals were the third most common goal type selected by students, comprising 17.9% of all goals. The findings from Williams-Diehm et al., in combination with this study, suggest transition-age students with disabilities identify academics as important in their current lives and when planning for the future. Furthermore, it brings up the issue of how academics are targeted for students with intellectual disability. The most common academic subcategory in the present analysis was "general academic skills" (e.g., improving grades, completing graduation requirements, selecting classes, completing classwork and homework), which may reflect students' desire to develop generalizable skills that will benefit them across environments.

Despite the frequency of academic goals in the present study, there were only three postsecondary education goals in the sample (0.2%). The lack of goals related to postsecondary education may reflect transition-age students with intellectual disability and their teachers are still not

considering postsecondary education as a viable option. This is despite the increasing number of authentic, inclusive postsecondary education opportunities for students with intellectual disability (Grigal et al., 2013).

The second most common goal area was employment, which was not unexpected, given the explicit focus on enhancing postschool integrated employment outcomes in RI. However, it was positive to see this result, given—as noted in a complaint filed in the case related to the Consent Decree entered into by the state of RI—"only approximately 5% of transition-age youth with intellectual disability who transitioned from Rhode Island secondary schools between 2010 and 2012 transitioned into jobs in integrated settings" (*United States of America v. State of Rhode Island*, 2014a, p. 13). While data are not yet available to link students' goals to postschool employment outcomes, the increasing emphasis on employment and employment-related goals represents a promising finding. The majority of employment goals focused on career exploration, specific and nonspecific job skills, job attainment, classroom and in-school job experiences, and general workplace skills. All these areas relate to one or more evidence-based predictors of improved postschool outcomes for students with disabilities (i.e., career awareness, community experiences, paid work experience, vocational education; Test et al., 2009).

Overall, the findings suggest the importance of and need for high expectations from adults supporting students in the goal-setting process. It may be as expectations for students with more significant support needs are raised within the field (Grigal et al., 2011), expectations for goal types (e.g., home living vs. employment) will continue to change. Work is needed to explore how best to support teachers to enable students to set their own goals, dealing with challenges teachers encounter with their perceptions of what is a "realistic" goal or letting go of what they have learned about writing "quality" goals for students, and enabling students to identify goals for themselves based on their own preferences and interests with the opportunity to learn from achieving (and not achieving) goals related to these interests. Furthermore, continued efforts are needed to move away from traditionally overemphasized goal areas (e.g., home living) and push for high expectations for goals related to employment, postsecondary education, and academic learning.

Limitations and Implications for Future Research

In interpreting the findings, it is important to consider the limitations of the present study and implications for future research. First, the data in this analysis are part of a larger project being implemented in the state of RI. Due to rapid implementation related to changes mandated in the Consent Decree described previously, the development of data collection systems occurred alongside implementation. Consequently, demographic information from the first year is limited. Similarly, student data cannot be linked across the 3 years of the project included in this analysis. As such, data cannot be analyzed longitudinally for growth and change, and thus, future research should prioritize collecting linkable, multiyear data on student goals.

Second, student goals used in these analyses may reflect teachers' reworded versions or even interpretations of students' self-set goals. The frequency of rewording is unknown, but may have been shaped by teachers' expectations for students. Future research should compare the content and language of goals as they are set by students using the SDLMI and as they are recorded by teachers, in addition to changes in the wording and precision of goals set by students over multiple years. Future research should also explore teachers' perceptions of their role with the SDLMI, how teachers' expectations for students may affect goal types, and how longitudinal data on goals may reflect change from a teacher-directed approach to a more student-directed approach, particularly as students learn and grow in their goal-setting and self-determination abilities. Changes that may emerge over time could inform expectations and planning for how and when to provide more and less support in the process.

Finally, limited information was available on individualized adaptations and modifications made to the goal-setting process, particularly for students who may have required more intensive supports in selecting their goals. This may have also contributed to goals being recorded from a teacher perspective in a format more similar to IEP goals, perhaps indicating a lack of teacher knowledge of how to create supports for students with significant support needs to communicate their own goals. Future research should explore the role of educators in supporting students with goal selection to better understand this process and the supports teachers need to engage students with a wide range of support needs.

Implications for Practice

There are multiple implications based on the findings of this study. First, the wide variety of goals set by students suggests transition-age students with intellectual disability are interested in and are being supported by teachers to pursue a broad range of goals. Students are also repeating some goals within a year. This likely narrows the focus of their action plan for a goal to enhance goal attainment, as addressed in Phase 3 of the SDLMI, Adjust Goal or Plan. Second, teachers utilizing the SDLMI within the context of transition planning may benefit from specific training, coaching, and supports as they work to enable students to explore goals for their futures across domains (e.g., employment, postsecondary education, living arrangements, social activities and relationships). While previous research has shown teachers

perceived themselves as able to implement the SDLMI with fidelity (Shogren, Burke, Antosh, et al., 2018; Shogren, Burke, et al., 2020), there are unique considerations for implementation of the SDLMI depending upon the students engagement in the process, the setting, and the context (Burke et al., 2020). The SDLMI can be implemented with a whole class, in small groups, or one-to-one. This and other factors may affect how teachers provide goal-setting instruction and guidance. Third, findings suggest the SDLMI can be used over time and promote student engagement in goal setting during transition. The number of goals students set per year across all categories increased following the initial year of implementation (2.0 goals on average in Year 1 and 2.4 goals on average in Years 2 and 3). Engagement, critical in the transition planning process (Martin & Williams-Diehm, 2013), may reflect enhanced instruction and supports by teachers as they become more experienced, a finding which should be explored in future research.

Fourth, students' integration of self-determination skills into a subset of goals in this analysis suggests students can learn to take ownership and integrate these abilities into their goal-setting and attainment activities. More work is needed to support the integration of key self-determination skills into goals set by students and to explore how this develops over time, particularly with repeated exposure to the SDLMI. Current work suggests students grow in goal attainment and self-determination over time when using the SDLMI (Shogren, Burke, Anderson, et al., 2018; Shogren, Burke, Antosh, et al., 2018; Shogren, Hicks, et al., 2020), but no work has focused on how this relates to goal content or quality changes over time. Finally, while the goals students set within the context of planning for their futures were explored, information on postschool outcomes was not available. Such information, particularly on the targeted outcome of integrated, community-based employment, may provide additional evidence on the long term impacts of supporting students to engage in self-determined action with evidence-based practices. This might include instruction on the SDLMI and the relationship between self-determination and postschool outcomes (Shogren, Wehmeyer, Palmer, Rifenbark, et al., 2015).

Overall, the results provide further evidence of the impact of the SDLMI and identify the range of goal types students are interested in setting and working toward for their future. Students' self-selected goals reflect a desire to plan for multiple aspects of their adult lives. Thus, researchers must work with transition practitioners to continue to explore how best to support students to work toward a range of goals and the impact of such practices on postschool outcomes. Furthermore, findings underscore the criticality of examining teacher expectations for transition-age youth with intellectual disability and how these expectations relate to instruction and supports provided for students engaging in the goal-setting process to enhance postschool outcomes across multiple domains.

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