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The Effect of Social and Classroom Ecological Factors on Promoting Self-Determination in Elementary School

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Abstract

Promoting the self-determination of students with disabilities as a means to access the general curriculum has been the subject of research in recent years, as has the importance of efforts to promote self-determination during elementary years. To examine the status of such efforts in the field, 203 elementary special educators were surveyed in 23 states to determine how (a) classroom instructional practices or strategies, (b) classroom ecological or setting variables, and (c) self-reported barriers to promoting self-determination affected their perceptions of the importance of teaching self-determination and the frequency with which they did so. Results indicated that special educators' perceived importance of teaching self-determination was not impacted by classroom instructional factors, but was affected by classroom ecological factors. Classroom ecological factors were not, however, significant in the frequency with which teachers provided instruction on self-determination, but classroom instructional practices were. Limitations and implications are discussed, and suggestions for future research are offered.

Promoting the self-determination of students with disabilities has become best practice to ensure a successful transition from secondary school to post secondary life. Multiple research and meta-analytic studies, and reviews of the literature document the benefits of promoting self-determination in achieving positive outcomes for secondary students with disabilities (e.g., Algozzine, Browder, Karvonen, Test, & Wood, 2001; Test, Fowler, Wood, Brewer, & Eddy, 2005; Wehmeyer, Field, Doren, Jones, & Mason, 2004). Research also documents the fact that many youth with disabilities are not as self-determined as their non-disabled peers (Wehmeyer et al., 2004). One solution that has been proposed to remedy this has been for increased attention to fostering self-determination at an early age (Palmer & Wehmeyer, 2003).

Self-determined behavior has been defined as a “volitional action that enables one to act as the primary causal agent in one’s life and to maintain or improve one’s quality of life” (Wehmeyer, 2006, p. 117). An act or event is self-determined if the individual’s action reflects four essential characteristics: (a) the individual acted autonomously, (b) the behaviors were self regulated, (c) the person initiated and responded to event(s) in a “psychologically empowered” manner, and (d) the person acted in a self-realizing manner. The concept of causal agency is central to this perspective. Broadly defined, *causal agency* implies that it is the person who makes or causes things to happen in his or her life. One frequent misinterpretation of self-determination is that it means “doing it yourself.” This model emphasizes the development of self-determination across the life span as children and adolescents learn skills and develop attitudes and beliefs that enable them to be causal

agents in their lives. These skills and attitudes are referred to in this model as *component elements* of self-determined behavior, and include choice making, problem solving, decision making, goal setting and attainment, self-advocacy, and self-management skills.

Research with secondary students with disabilities across categorical areas has identified factors that impact self-determination, including within-individual factors, such as intellectual capacity and adaptive behavior skills (Nota, Ferrari, Soresi, & Wehmeyer, 2007) and external or environmental factors that impact opportunities to make choices or express preferences (Shogren, Wehmeyer, Palmer, Soukup, Garner, & Little, 2007). Self-determination status, or the opportunity to become more self-determined, can also be impacted by attitudinal factors. For example, when teachers have low estimations of their students' capacity for self-determination, their students perceive themselves to have few opportunities to exercise self-determination (Carter, Lane, Pierson, & Glaeser, 2006; Shogren et al., 2007; Zhang, 2001). Studies have also found that teachers believe students with more severe disabilities will not benefit from instruction to promote self-determination because, they believe, they lack the capacity learn skills leading to greater self-determination (Grigal, Neubert, Moon, & Graham, 2003; Wehmeyer, Agran, & Hughes, 2000).

Classroom ecological or setting factors have also been identified in research with secondary age students as important to promote self-determination. Wehmeyer et al. (2000) surveyed special educators and found that respondents working in an inclusive classroom environments were more likely to believe that teaching self-determination to students with disabilities was important, though presence in the general education classroom does not, in and of itself, guarantee that efforts to promote self-determination will occur (Shogren et al., 2007; Zhang, 2001). This is, in part, because of demands placed on general education teachers by school reform demands in recent years (Wehmeyer et al., 2004) which emphasize structuring classroom environments in ways in which teachers facilitate plans, goals, standards, expectations, schedules, rules, directions, challenges, reminders, prompts, models, examples, hints, suggestions, learning strategies, feedback, and other such sources of direction and guidance to guide students to make progress in the general education curriculum (Reeve, 2006). Such environments, though, are not antithetical to the promotion of self-determination (Wehmeyer et al., 2004). For example, Lee, Wehmeyer, Palmer, Soukup, and Little (2008) found that teaching students with disabilities to self-regulate problem solving to set goals, create action plans, and monitor progress toward academic goals resulted both in progress in the academic goals and in enhanced self-determination.

In fact, teaching self-regulation or student-directed learning strategies is one of the primary instructional activities that can promote self-determination and meet the demands of promoting instruction in the general education classroom. The educational efficacy of such strategies has been demonstrated across a wide age range of students with an array of disabilities. Instruction in self-monitoring, self-evaluating, self-reinforcement, self-instruction, goal setting, and self-scheduling has been shown to improve educational goal attainment and self-determination in academic endeavors (e.g., Lee et al., 2008), problem solving (e.g., Agran, Blanchard, Wehmeyer, & Hughes, 2001), and self-directed learning, and on time task (e.g. Agran, Cavin, Wehmeyer, and Palmer, 2006).

Despite these beneficial outcomes, the educational programs of students with disabilities too infrequently include instruction to promote self-determination (Agran, Snow, & Swaner, 1999; Mason, Field, & Sawilowsky, 2004; Thoma, Nathanson, Baker, & Tamura, 2002; Wehmeyer et al., 2000). Although the reasons for this are complex, teachers in these studies identified several factors they perceived as barriers to instruction to promote self-determination, including insufficient training or information about teaching self-determination, lack of time, and the unavailability or lack of knowledge about published curricular or instructional methods (Agran et al., 1999; Grigal et al., 2003; Mason et al., 2005; Thoma et al., 2002).

The circumstance seems similar at the elementary school level. The few studies with elementary students with disabilities that have been conducted suggest that systematic, structured, and explicit instruction of component elements of self-determined behavior can enhance problem solving (Grego, Mastropien, & Scruggs, 2008), self-management (King-Sears, 2008), and academic performance (Martin, Mithaug, Cox, Peterson, Van Dyeke, & Cash, 2003; Palmer & Wehmeyer, 2003), and can reduce problem behaviors (Martin et al., 2003). Despite these benefits, elementary school teachers report that teaching self-determination is less important than do secondary school teachers (Mason et al., 2004). Stang, Carter, Lane, and Pierson (2008) reported no differences between middle and elementary school teachers' perception of the importance of teaching self-determination, but there found a disparity between the importance teachers assigned to teaching self-determination and the actual time they devoted to teaching it in elementary schools, a finding replicated in other studies (Carter, Lane, Pierson, & Stang, 2008; Cho, Wehmeyer, & Kingston, in press; Stang et al., 2008). Stang et al. found that special educators in both secondary and elementary schools did, however, assign a higher importance to teaching self-determination than did general education teachers.

These studies did not, however, examine the impact of the classroom ecological or setting variables, classroom instructional or strategy factors, or teacher perceptions of student capacity on teacher ratings of importance and frequency of implementation. It is important to learn whether elementary special educators' perception of the importance of teaching self-determination and the time they devote to teaching it are affected by classroom ecological and instructional factors, or whether special educators promote self-determination to their students regardless of these environmental factors. It may also be instructive to learn whether elementary special educators who perceive barriers to teaching determination, perceive different barriers based on their students' capacity.

Research Questions

To address these issues, this study examined the following research questions.

Are special educators' perceptions of the importance of teaching self-determination mediated by classroom setting and/or whether they teach a specific self-regulation strategy?

We hypothesized that special educators perceive the importance of teaching self-determination differently based on the classroom setting (general education, resource room,

self-contained, general plus resource, resource plus self-contained, or general plus resource plus self-contained). We also hypothesized that whether or not teachers taught a self-regulation strategy, their ratings of the importance of teaching self-determination would not vary.

Are special educators' reports of the frequency they teach self-determination mediated by the classroom setting and/or whether they teach a specific self-regulation strategy?

We hypothesized that instructional practice (teaching a self-regulation strategy or not) would have more effect on reported importance of teaching self-determination than classroom setting.

Are disability category differences reflected in the barriers teachers perceive that inhibit them from promoting self-determination?

We hypothesized that teachers would perceive different barriers to teaching self-determination based on their students' capacity.

Method

Participants

Participants were 223 elementary school special education teachers from 23 different states, though predominantly four states: Idaho (38%, $n = 71$), Kansas (23%, $n = 52$), Missouri (10%, $n = 22$), and Texas (8%, $n = 18$). The teachers taught students from kindergarten through sixth grade, with 76% ($n = 170$) teaching more than one grade level. Most indicated they taught students in more than one disability category; the most frequent categories being learning disability (84%), speech language impairment (81%), autism (70%), intellectual disability (56%), multiple disabilities (50%), and emotional/behavioral disorders (46%). Twenty-two percent of teachers taught in a school in a large city, 33% in a school in a suburban district, 24% in a school in a town or small city, and 20% in a rural district. Nineteen percent of teachers had three or fewer years of teaching experience, 13% had four to six years of experience, 17% had seven to 10 years experience, and 50% had more than 10 years teaching experience.

Procedure

Participants were recruited through multiple means, including the purchase of an e-mail mailing list of elementary educators with 6,000 randomly selected names, faculty contacts at institutions of higher education, contacts made with professional associations for elementary school principals, and through the Center for Research and Learning at the University of Kansas Strategic Instruction Model (SIM) network. In all cases, an e-mail providing instructions for how to access an online survey was sent to contacts, who, if other than an elementary teacher, forwarded the instructions to one or more elementary school teachers.

The questionnaire items were entered into an online survey using SurveyMonkey.com®, a web survey publishing service, and were then made available to respondents via the internet. Potential participants were e-mailed in the spring of 2009, with the e-mail explaining the

purpose and importance of the study and requesting their participation. Participants had the option of receiving a \$5.00 gift certificate to a retail store if they so chose.

Instrument

We adapted the survey of secondary school special educators utilized by Wehmeyer et al. (2000). The adapted survey had two sections, one to collect demographic information and a second section which asked about the value (importance) teachers placed on teaching their students self-determination, the frequency with which they did so, the self-regulation strategy they taught, if any, and their students' disability categories. The Importance items were accompanied by examples of instructional activities that represented component elements of self-determined behavior, and were the same as those in the original Wehmeyer et al. survey. Items were rated on a 6-point Likert-type format ranging from low (1) to high (6). Frequency items asked educators to rate how often they taught each skill on a 6-point, Likert-type scale ranging from never (1) to very often (6). Teachers were then asked to identify ("yes" or "no") if they were currently teaching or had ever taught any of the following six self-regulation strategies: self-monitoring, self-evaluation, self-reinforcement, self-instruction, goal setting, and self-scheduling. Teachers also were asked to identify which, if any, of 16 items listed they perceived as barriers to teaching self-determination.

Reliability analyses were performed to check the internal consistency of the two parts of the second section. The Importance section was composed of seven items asking about: choice-making, problem-solving, goal setting, self-advocacy/leadership, self-management, self-awareness/knowledge, and decision-making. The Frequency section was composed of six items: choice-making, problem-solving, goal setting, self-advocacy/leadership, self-management, and self-awareness/knowledge. The Importance section showed good reliability, with a Cronbach's Alpha of .90, as did the Frequency section, with a Cronbach's Alpha of .83.

Data Analysis

Descriptive statistics were used to determine the demographic and professional characteristics of participants in this study and to rank order barriers by disability group. Composite scores were created to represent (1) teachers' overall perception of the importance of teaching self-determination skills (Importance) and (2) the overall frequency with which teachers taught self-determination skills (Frequency).

Calculation of Importance composite score—Teachers rated the importance of teaching each of the components of self-determination on a scale from 1 to 6, with 1 being "not important" and 6 being "very important." Each teacher's responses across the seven components were averaged to form the composite Importance score.

Calculation of Frequency composite score—Teachers reported the frequency with which they teach each of the components of self-determination on a scale from 1 to 6, with 1 being "never" and 6 being "frequently". Each teacher's responses across the components were averaged to form the composite Frequency score.

Two series of two-way analyses of variance (ANOVA) were conducted, using the Importance composite score as the dependent variable in the first series and the Frequency composite score as the dependent variable in the second series. Each series of analyses used one of the six self-regulation strategy variables (e.g., Self-Monitoring: Teach versus Do Not Teach) as an independent variable and classroom setting as the second independent variable. Interaction effects were tested first and, if not significant, simple effects were tested. When interactions were significant, follow-up univariate tests were conducted to determine the nature of the interaction.

Results

Perceptions of Importance of Teaching Self-Determination

The first research question asked if special educators' perceptions of the importance of teaching self-determination mediated by classroom setting and/or whether they teach a specific self-regulation strategy. A series of seven two-way analyses of variance were conducted using Importance composite scores as the dependent variable, with classroom setting (general education, resource room, self-contained, general plus resource, resource plus self-contained, or general plus resource plus self-contained) as one independent variable and the teaching of a self-regulation strategy (yes, no) as the second independent variable. Each of these six ANOVAs used a different self-regulation strategy for the second independent variable. Overall, teachers' ratings of the importance of teaching self-determination were high: on a 6 point scale from low (1) to high (6), the mean rating was 5.47 ($SD = 0.65$).

Self-monitoring, self-evaluation, and self-instruction—For three of the two-way analyses of variance, each testing the importance of teaching self-determination by classroom setting and one self-regulation strategy (self-monitoring, self-evaluation, and self-instruction), there were no significant main effects of either setting or strategy, nor were there any significant interactions of the main effects.

Self-reinforcement—Sixty-seven percent ($n = 147$) of the teachers taught self-reinforcement, 33% ($n = 73$) did not. ANOVA found no significant main effect of either classroom setting or teaching self-reinforcement on Importance; however, the interaction was significant, $F(5, 208) = 2.66, p = .02, \eta^2 = .06$. To determine the nature of the interaction, two univariate analyses of variance were conducted as follow-up tests, one for teachers who taught self-reinforcement and one for teachers who did not. In each case, the Importance of teaching self-determination was the dependent variable and classroom setting (less "All" as too few teachers were in this setting) was the independent variable. For teachers who did not teach self-reinforcement, there was no effect of classroom setting on Importance. For teachers who taught self-reinforcement, however, there was a significant effect of classroom setting on teachers' ratings of Importance, $F(4, 137) = 3.84, p = .005, \eta^2 = .10$. Bonferroni-adjusted post hoc comparisons revealed that special education teachers who taught primarily in general education classrooms rated the importance of teaching self-determination significantly lower than teachers from all other classroom settings. No other pairs of settings were significantly different.

Goal setting—Seventy-eight percent ($n = 171$) of teachers said they taught goal setting and 22% ($n = 49$) said they did not. A two-way analysis of variance revealed no main effects of either classroom setting or of teaching goal setting on Importance. There was, however, a significant interaction, $F(4, 209) = 2.68, p = .033, \eta^2 = .05$. Follow-up analyses were two univariate ANOVAs, one for teachers of goal setting and one for teachers who did not. For this analysis, two classroom settings, the “All” and the Resource Plus Self-Contained, were removed from the analysis because there were fewer than two teachers in these categories in at least one condition. Teachers who did not teach goal setting did not differ from each other in their ratings of Importance by classroom setting; however, teachers who did teach goal setting did vary by classroom setting, $F(3, 153) = 3.35, p = .02, \eta^2 = .06$. Bonferroni-adjusted post hoc, pairwise comparisons revealed that teachers from general education settings rated Importance lower than teachers from self-contained classroom settings as well as lower than teachers from the combination general plus resource room settings.

Self-Scheduling—Forty-seven percent ($n = 104$) of teachers said they taught self-scheduling and 53% ($n = 116$) said they did not. In a two-way analysis of variance, there was no main effect of teaching self-scheduling, but there was a significant main effect of classroom setting on Importance, $F(5, 208) = 3.25, p = .008, \eta^2 = .07$. There was also a significant interaction, $F(5, 208) = 4.27, p = .001, \eta^2 = .09$. Follow-up analyses were performed with one classroom setting removed, the “All” setting, because there were fewer than two teachers in this category in one condition. Teachers who did not teach self-scheduling did not differ from each other in their ratings of Importance by classroom setting; however, teachers who did teach self-scheduling did vary by classroom setting, $F(4, 94) = 4.37, p = .003, \eta^2 = .16$. Bonferroni-adjusted post hoc comparisons showed that teachers from general education settings rated Importance lower than teachers from all other classroom settings.

Reports of Frequency of Teaching Self-Determination

The second research question asked if special educators’ reports of the frequency they teach self-determination mediated by the classroom setting and/or whether they teach a specific self-regulation strategy. We conducted a series of two-way analyses of variance with classroom setting (general education, resource room, self-contained, general plus resource, resource plus self-contained, or general plus resource plus self-contained) and the teaching of self-regulation strategies (yes, no) as the two independent variables with the Frequency composite score as the dependent variable. Classroom setting and the teaching of a self-regulation strategy were again the independent variables. As in research question one, each of these six ANOVAs used a different self-regulation strategy for the second independent variable. Teachers rated the frequency with which they taught self-determination on a six point scale from Never (1) to Frequently (6). Overall, the mean frequency rating was 4.46 ($SD = 0.85$).

Self-monitoring—Eighty-four percent ($n = 178$) of the teachers said they taught self-monitoring, and 16% ($n = 34$) said they did not. A two-way analysis of variance found no significant main effect of classroom setting, but there was a significant effect of teaching self-monitoring on frequency of teaching self-determination, $F(1, 200) = 2.66, p = .03, \eta^2$

= .02. Teachers who teach self-monitoring reported higher frequencies of teaching self-determination ($M = 4.6$, $SD = 0.78$) than teachers who did not teach self-monitoring ($M = 3.77$, $SD = 0.83$). The interaction was not significant.

Self-evaluation—Eighty-six percent ($n = 182$) of teachers taught self-evaluation and 14% ($n = 30$) did not. A two-way ANOVA of frequency of teaching self-determination by classroom setting and self-evaluation found that the main effect of classroom setting was not significant. The effect of teaching self-evaluation, however, was significant, $F(1, 202) = 10.97$, $p = .001$, $\eta^2 = .05$. Teachers who teach self-evaluation taught self-determination more frequently ($M = 4.60$, $SD = 0.83$) than teachers who did not teach self-evaluation ($M = 3.86$, $SD = 0.83$). The interaction was not significant.

Self-reinforcement—Sixty-seven percent ($n = 141$) of the teachers taught self-reinforcement, while 34% ($n = 71$) did not teach it. A two-way analysis of variance revealed no significant main effects of either classroom setting or self-reinforcement, nor was there a significant interaction of the two.

Self-instruction—Fifty-seven percent ($n = 121$) of teachers said they taught self-instruction, while 43% ($n = 91$) said they did not. A two-way analysis of variance found the main effect of classroom setting was not significant, but the main effect of teaching self-instruction on frequency of teaching self-determination was significant, $F(1, 201) = 11.56$, $p = .001$, $\eta^2 = .05$. Educators who taught self-instruction taught self-determination more frequently ($M = 4.70$, $SD = 0.82$) than teachers who did not teach self-instruction ($M = 4.16$, $SD = 0.80$). The interaction was not significant.

Goal setting—Seventy-seven percent ($n = 164$) of the teachers said they taught goal setting, while 23% ($n = 48$) said they did not. Analysis of variance revealed no main effect of classroom setting; however, there was a significant effect of teaching goal setting on the frequency of teaching self-determination, $F(1, 201) = 10.80$, $p = .001$, $\eta^2 = .05$. Teachers who said they did teach goal setting more frequently taught self-determination ($M = 4.65$, $SD = 0.80$) than did their colleagues who did not teach goal setting ($M = 3.84$, $SD = 0.69$).

Self-scheduling—Forty-seven percent ($n = 99$) of the teachers said they teach self-scheduling, while 53% ($n = 113$) said they did not. A two-way analysis of variance found that neither of the two main effects, classroom setting and the teaching of self-scheduling, was significant, nor was the interaction significant.

Disability Category Differences and Barriers

The third research question asked if disability category differences were reflected in the barriers teachers reported that inhibit them from promoting self-determination. Special educators were presented with a list of potential barriers and asked to indicate which, if any, they felt deterred them from teaching self-determination to their students. Responses were tabulated in a descriptive analysis to determine the frequency with which barriers were chosen by teachers, grouped according to the disability categories of the students they taught.

By far the most frequently cited barrier was *students have other more urgent instructional needs* (61.5%), followed by *insufficient time* (35%), *insufficient training* (28%), and *difficulty communicating* (28%). Broken down by disability category, *other more urgent instructional needs* was the most frequently cited barrier (50% - 73%) for all disability categories except teachers of students with deaf/blindness: 30% of these teachers ($n = 3$) chose this barrier, but 40% ($n = 4$) selected *difficulty communicating* as their top barrier. *Insufficient time* was perceived as one of the top five barriers by teachers of all disability categories (20% - 39% selected it) except teachers of students with orthopedic impairment and teachers of students with visual impairments. *Difficulty communicating* and *insufficient training* were also among the top five barriers (22% - 40%) for all categories except by teachers of students with learning disabilities (difficulty communicating was the sixth for these teachers, 22%), and by teachers of students with multiple disabilities and students with hearing impairment (cited by 33% and 29%, respectively; difficulty communicating was the sixth most cited for these teachers). Only one barrier to teaching self-determination was in the top five for just a single group of teachers: *students would not benefit*, selected by 19% of educators who teach students with traumatic brain injury. Barriers that were cited by few teachers in any disability category included *difficulty collaborating* (5%), *someone else responsible* (4.5%), and *difficult to empathize* (1%).

Discussion

Prior to discussing the implications of these findings, it is important to note several limitations. First, since most teachers in this study have students in several different disability categories, findings concerning elementary teachers' barriers based on these categories should be viewed as preliminary. Disability category is an important topic to pursue, but future research will need to take a different approach to more clearly identify its impact on teacher perceptions. Second, we were unable to compare special educators with general educators with regard to their perceptions of the importance of teaching self-determination and their frequency of teaching it because we had insufficient numbers of special educators from the general education classroom setting. Since most elementary students with disabilities are included in the general education setting, future research should compare general and special educators' use of self-regulation strategies on the importance and frequency of teaching self-determination. Third, we had insufficient knowledge of the instructional materials or instructional technology, such as computer-based instruction or computer-assisted instruction, that teachers in this study may have used in teaching self-determination. Future research should examine whether the use of educational technology can increase teachers' effectiveness in delivering self-determination instruction to their students. Fourth, teachers' self-reported teaching behavior was not verified by independent observation. Such self-reporting may be subject to social desirability bias. Research should also be undertaken to learn whether students believe their teachers' instructional styles tend to support self-determined behavior.

Given these caveats, we believe this study contributes new knowledge and extends previous findings. We found that whether or not special educators used a self-regulation strategy, all thought teaching self-determination was important, but teachers who taught self-regulation strategies more frequently taught self-determination. We also found that the classroom

setting seems to have a subtle effect on special educators' perceptions of the importance of teaching self-determination but, with regard to the frequency of teaching self-determination, may not affect instruction. Special educators who taught in resource rooms plus self-contained rooms plus general education classrooms tended to place more value on teaching self-determination than those who taught only in general education classrooms. This finding is similar to that of Zhang (2001), who determined that students with disabilities were less likely to engage in self-determined actions in general education settings than in special education settings. The reasons for this are most likely related to the perceived role of the special educator in each setting (e.g., teaching academic versus functional content) and, perhaps, the mistaken belief that promoting self-determination is a "special education" area. As Lee and colleagues (2008) determined, teaching self-determination and academic content are not mutually exclusive activities and, as emphasized by Wehmeyer and colleagues (2004), general education standards emphasize the importance of component elements of self-determination for all students, not just students with disabilities.

Second, Wehmeyer et al. (2000) reported that secondary special educators used self-reinforcement, self-evaluation, and goal setting. We found that elementary special educators who teach the self-regulation strategies of self-monitoring, self-evaluation, goal setting, and self-instruction tend to teach self-determination more frequently than special educators not using these strategies. One could argue that this finding is, to some degree, tautological, in that teaching self-regulation strategies are frequently identified as ways to teach self-determination. While acknowledging this, we would note that there are also findings to suggest that such relationships are better classified as reciprocal. For example, Williams-Diehm, Wehmeyer, Palmer, Soukup, and Garner (2008) found that student involvement and self-determination had a reciprocal relationship, with students more involved also more self-determined, but students who were more self-determined also being more likely to be involved. We suspect that the relationship between teaching self-determination and self-regulation has a similar reciprocal relationship, with instruction in one leading to greater likelihood of the other.

Third, like previous secondary special educators' surveys, we identified several factors—such as the lack of sufficient training or information to teach skills related to self-determination, the lack of time to teach self-determination related skills, and the unavailability of instructional methods for teaching self-determination—that were perceived as barriers to instruction to support self-determination (Agran et al., 1999; Grigal et al., 2003; Mason et al., 2005; Thoma et al., 2002). We found that "student would not benefit" was perceived to be a reason not to teach self-determination by very few teachers. This is in contrast to the findings of previous studies by Wehmeyer et al. (2000), in which a number of teachers reported that they felt that the students they taught, particularly students with more severe disabilities, would not benefit from instruction to promote self-determination because they lacked the capacity to learn self-determined behavior (Shogrin et al., 2007; Wehmeyer et al., 2000), and suggests that attitudes about instruction to promote self-determination may be changing as the construct's importance becomes more widely recognized.

Finally, in the present study, teachers (other than teachers of students with learning disabilities) often cited communication difficulty as a reason for not teaching self-

determination. It is possible that special educators who perceive communication difficulties as a barrier may also perceive their students to have “other more urgent instructional needs,” and that these other instructional needs relate to problem behavior and relationship difficulty. It should be noted that students who have difficulty communicating demonstrate problem behaviors or maladjustments in developing relationships with their peers and teachers in school. Research shows that intervention with augmentative and alternative communication devices reduces problem behaviors and increases social skills and socially appropriate conversation skills (Downing, 2004). Research indicates that social skills are associated with increased self-determination in adults with intellectual disability (Nota, Ferrari, Soresi, & Wehmeyer, 2007) and youth with disabilities (Pierson, Carter, Lane & Glaeser, 2008).

Implications for Practice

If, as is generally accepted, the development of self-determination is life long and begins early in life, it is important to begin instructional efforts to achieve this outcome early in a student’s educational career. It is clear from these findings and other studies that in-service and preservice training about the teaching of self-determination needs to be designed and implemented, preferably for both special and general educators. Students in teachers’ colleges should have coursework that gives them an understanding of effective ways to teach self-determination, including instructional strategies to promote self-regulation. A starting point would be training pertaining to existing instructional models, such as the Self-Determined Learning Model of Instruction used by Lee et al. (2008) to promote student progress in the general education curriculum and self-determination, or on teaching student-directed learning strategies.

Additionally, most special educators stated *lack of time* and *communication difficulty* as major barriers. Technology should be useful in helping students with disabilities integrate into the general education classroom. Augmentative or alternative communication devices allow students with disabilities alternative means to interact with classmates without disabilities. Self-determination requires social appropriateness and various combination skills. The development of appropriate self-determined behavior results from interaction with peers in the general education classroom environment.

Finally, researchers, elementary teachers, and administrators should collaborate to find ways to improve the promotion of self-determination and the use of relevant curricula in elementary schools.

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