
Self-Determination for Students with Disabilities: A Narrative Meta-Synthesis

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Purpose

Seven narrative and systematic reviews published since 2000 and focusing on self-determination for individuals with disabilities are reviewed in this narrative meta-synthesis. This work is different from other meta-synthesis work because it is a *narrative meta-synthesis* that includes both narrative reviews and meta-analyses. The seven reviews used in this narrative meta-synthesis focused on different disability groups, different intervention curricular and instructional techniques, and different outcomes.

Conceptual Framework

The purpose of this narrative meta-synthesis is to explore what appear to be the most consistent theoretically and empirically derived effects across the seven reviews. There is not a lot of guidance on how to actually conduct and report the findings of a narrative meta-synthesis. Syntheses of meta-analyses in education have appeared in the literature for over two decades (e.g., Anderson, 1983; Gresham, Van, & Cook, 2006; Hattie, 1992), and developmental work and critiques of the methodology of meta-synthesis has appeared in both education (e.g., Eysenck, 1995; Mostert, 1996; Mostert, 2003; Sipe & Curlette, 1997) and with much greater elaboration, in medicine (Moher, Cook, Eastwood, Olkin, Rennie, & Stroup, 1999). Perhaps the most detailed description of the method of meta-synthesis and a corresponding example in education can be found in Torgerson's (2007) "tertiary review" of meta-analyses of literacy learning of English.

This work provides excellent guidance for summarizing across meta-analyses, but little for summarizing across theoretical reviews and meta-analyses. Forness, Kavale, Blum, and Lloyd (1997) and later Forness (2001) have provided a far less technical and potentially more practitioner-friendly format for summarizing across meta-analyses. To accomplish our purpose, we used a combination of the reporting formats of Forness and the table structure of Mostert (1996), along with a question and answer discussion section.

Background

Self-determination as a construct is multi-faceted, and is reflective of both a psychological trait (i.e. locus of control) and a behavioral skill set (i.e., communication abilities). For students with disabilities, it appears that increasing their self-determination status correlates with increased

quality of life in their future. The skills of self-determination should be taught and modeled at school and at home.

Search Strategy

Information on sources and search terms used in this review can be found in the full document located at http://www.nsttac.org/?FileName=what_works.

Results

Descriptive Information

Six journal articles and one dissertation were identified for this meta-synthesis; several descriptive characteristics of these seven reviews are displayed in Table 1. As can be seen in Table 1 most of the seven reviews included studies from the early 1970's, and six of the seven required the studies to be published in peer-refereed journals. Four of the seven reviews included studies whose samples ranged from pre-kindergarten to college age or adulthood; two of the reviews did not report age ranges; and one meta-analysis included studies of only college students.

Results of Individual Reviews

Each of these seven reviews is described briefly below in terms of these criteria and their major findings (see Table 2).

Algozzine et al. (2001) review. Algozzine, and his colleagues published a review of literature and meta-analysis on the effects of self-determination interventions (Algozzine et al., 2001). They located 51 articles between 1972 and 2000; 22 articles were included in the meta-analysis – nine that used a group design and 13 that used a single-participant design. Studies that had individual study samples that ranged across all disability types and from pre-kindergarten to adulthood were included. No minimum methodological standards must have been met and described by the original study authors in order for their study to be included in this review. Although the outcome measures (dependent variables) across all included studies ranged across a variety of social/psychological dimensions, only those dependent variables that measured a sub-component of self-determination, or global self-determination were included in the statistical meta-analysis of this review. The median redundant effect size for studies with multi-group designs was $d = .60$, reflecting a moderately strong effect, and one that Forness et al. (1997) called substantial. Overall effects of studies using single-participant designs were also quite high with a median PND (percentage of non-overlapping data points) at 95%. Scruggs and Mastropieri (2001) have recommended that PND's of 70-90% should be considered "effective". Algozzine and his colleagues also concluded that regardless of design, instructional interventions that included more self-determination focal areas and for longer treatment periods yielded greater positive effects than those with fewer focal areas and for shorter instructional durations.

Malian and Nevin (2002). Malian and Nevin (2002) completed a narrative review of the literature on self-determination. There was a relatively narrow period of time in which included

studies were published – 1992-1999, but both theoretical and empirical studies were included and there were no restrictions placed on interventions typologies, outcome constructs, or methodological standards. Eleven studies were included in their review, and these researchers found six themes developed from a theoretical analysis of patterns across the 11 studies, and not from a statistical meta-analysis. First, they found that self-determination changes throughout the lifespan and it involves “parallel fields of continuous development” emotionally, socially, in communication, and in behavior. Second, they concluded that self-determination is teachable – students learn self-determination through a variety of integrated curriculum and instruction. Third, self-determination is valued by teachers, students, and family members who evidently all see value in teaching and learning self-determination. Fourth, self-determination involves psychological components such as independence, self-efficacy, and self-management. These components are fluid and must be practiced in a variety of settings. Fifth, “self-determination is a predictor of successful transition to adult life” (p. 73) and therefore, should be taught to students as early as possible. Sixth, and finally, advocacy and support from others enhances a student’s development of self-determination. Support and encouragement can go a long way to helping students evaluate themselves and their needs, make choices, problem solve, and attain their own goals.

Wood et al. (2005). Wood her colleagues at UNC Charlotte followed up their work on the Algozzine et al. (2001) review with a review focused exclusively on self-determination interventions for individuals with severe disabilities. They keyed on studies first included in the Algozzine et al. review and added studies published from 2000-2005, staying consistent with other Algozzine et al. inclusionary criteria such as including students with all types of severe disabilities, including only published journal articles, and restricting their focus on dependent variables in the included studies that measured global self-determination or a sub-component of self-determination. Twenty-one studies were included in their review, 20 of which used a single-participant design and 1 used a case study design. No effect size data were reported in this review. The authors concluded that all studies showed positive effects for at least one participant, and with one exception, all studies that measured multiple components of self-determination for their outcome measure resulted in increases in all participants in the study.

Chambers et al. (2007). Chambers et al. (2007) published a narrative literature review that focused exclusively on including studies that measured global self-determination. This narrowing of inclusionary criteria notwithstanding, these authors included almost no other restrictions on what types of studies they included in their narrative review and ended up with 31 reports that fell into three categories of work: descriptive studies (14), perception research (9), and intervention research (10). No quantitative synthesis of effects was reported. Chambers et al. then summarized the collective results across each of these three groups of research by indicating that: (a) there is correlational (but not causal) evidence that high levels of self-determination lead to more positive adult outcomes; (b) self-determined behavior appears valued by teachers, parents, and individuals with disabilities, but the data are incomplete; and (c) the intervention efficacy literature base is weak, at least with respect to its efficacy on global self-determination outcomes.

Bae (2007). Bae’s meta-analysis focused only on postsecondary students with disabilities and only on correlational evidence relating global or component measures of self-determination to academic achievement as measured by grade point average. Twenty-four studies were included initially, but effects from only 18 studies were reported due to the removal of six studies with

correlational values that were extreme outliers. Bae included studies that appeared from 1982-2005 and from both two-year and four-year colleges and universities, but restricted the studies to those occurring in the United States. Results indicated no significant correlation between one or more components of self-determination and academic achievement in postsecondary education, as measured by GPA.

Fowler et al. (2007). Fowler and her colleagues at the University of North Carolina at Charlotte extended the deep meta-analytic research agenda on self-determination interventions for individuals with disabilities with a review focused exclusively on academic outcomes for students with developmental disabilities. Their literature searching processes, study sample criteria, and types of research designs included in this review were nearly identical to the review published two years earlier by Wood et al. (2005). Not coincidentally, the design characteristics that Fowler et al. ended up with mirrored those of Wood et al. with a total of 11 studies, including 10 single-participant designs. Unlike Wood et al. before them, however, Fowler et al. encountered a much greater variety of intervention components with self-management interventions predominating, but with interventions focusing on choice-making, goal-setting, and self-advocacy also appearing. Also, Fowler et al. calculated PND estimates of effect sizes. Median PND's, aggregated across differing intervention components but disaggregated by differing outcome types ranged from a high of 100% for assignment organization skills to a low of 11% for mathematics quality. Conversely, median PND's, aggregated across all outcome types but disaggregated by intervention components ranged from 100% for multi-component interventions to a low of 11% on self-advocacy instruction. The authors concluded that effects were generally stronger (more positive) on organizational skills needed to produce academic assignments than for academic outcomes *per se*, and that studies of multi-component interventions generated larger effects than studies of single-component interventions.

Konrad et al. (2007). In the last of the 2007 meta-analyses to appear from the University of North Carolina at Charlotte, Konrad et al. (2007) deviated from the searching and inclusionary criteria largely in the focus only on academic outcomes for students with learning disabilities, as opposed to the focus on students with developmental disabilities of Fowler et al. (2007) and the focus on students with severe disabilities of Wood et al. (2005). Because of the focus on learning disabilities, the variance in designs utilized by studies included in this review varied somewhat more, with a total of 31 articles reporting on 34 discrete studies – 27 of which were single-participant studies and seven which were multi-group studies. Thirty of the 34 studies used self-management, either by itself or coupled with one or more other components of self-determination instructional interventions, and 12 of the studies used goal-setting, either singly or with other components. The two most frequent interventions, then, were self-management alone, and combinations of self-determination components.

Effect sizes were calculated for both the multi-group and single-participant studies. For those studies using single-participant designs, PND's were calculated separately for academic productivity and quality measures, with fairly weak positive median effects for both types (60%) across all components of self-determination instruction. Studies using group designs showed even less positive effects with an average effect size across all dependent variables of $g = -.22$; separating the measures out produced near zero or negative effects across writing, spelling, and reading. However, goal-setting instruction did demonstrate a moderately strong effect ($g = .72$) for math achievement only. Perhaps the most promising finding was the effect when self-management

instruction was combined with other component instruction in self-determination, at least with the single-participant studies. Here, Konrad et al. (2007) found moderately strong PND's across all dependent variables (median = 81.5%) and very strong effects for academic productivity outcomes specifically (median = 94%).

What Can We Take Away From This Review?

First, it is evident that self-determination as a construct is extraordinarily multi-faceted and complex, similar to other important constructs particularly in secondary intervention literature in special education like dropout prevention and transition.

Second, one pattern of empirical results that seems evident from these reviews is that positive outcomes seem best achieved or maximized by instructional/ curricular interventions that contain multiple components. This is extremely important for curriculum developers, researchers, and practitioners as they develop, research, and implement these types of interventions.

Third, in those reviews that measured academic quality effects, self-determination interventions did not appear to be very effective. If academic achievement enhancement for students with disabilities is what local practitioners are looking for in an instructional package, then it appears they should look elsewhere than at self-determination instructional and curricular packages.

Fourth, we know from the reviews that only included studies with self-determination outcome measures, that these outcome skills can be effectively enhanced by targeting instructional interventions to them. These findings were supported by reviews that examined skills that may help enable academic achievement, but were not achievement outcomes *per se* and that self-determination outcome skills development in school correlate strongly and positively with positive adult independent living outcomes.

Fifth, the next generation of research and development efforts on self-determination instructional/curricular intervention packages might target their work on *transitional* outcomes – i.e., outcomes associated with the four domains identified by Wehmeyer et al. (1997) of behavioral autonomy, self-regulation, psychological empowerment, and self-realization, and not academic outcomes.

Finally, when some form of time series or regression metric can be validated for meta-analyzing single-participant data, we may find an enormous power boost by being able to combine, either directly or indirectly, the results of multi-group and single-participant studies. Then, systematic reviews in special education will become more fully integrated into the research synthesis practices of general education.

References

The list of references used in this review can be found in the full document located at http://www.nsttac.org/?FileName=what_works

Table 1

Summary of Descriptive Characteristics of Narrative and Systematic Reviews of Self-Determination Literature

Review	Years included for studies	Literature sources	Peer reviewed or not	Types of disabilities included	Age/grade range of participants	Only original research or not	Restrictions based on outcome measures	Restrictions based on methodological quality
Algozzine et al. (2001)	1972 - 2000	Electronic searches Hand searches Reference lists searches Solicitations of researchers	Must be published and peer reviewed	All	Age three to adulthood	Quantitative or qualitative studies	Must focus on a component of self-determination for dependent variable	No
Malian & Nevin (2002)	1992 – 1999	Unclear, but asserted	Published	All	Unclear	Both theoretical and empirical	No	No
Wood et al. (2005)	1972 – 2005	Electronic searches Hand searches Reference lists searches	Must be published and peer reviewed	Severe intellectual disabilities	Pre-kindergarten through adulthood	Quantitative or qualitative studies	Must focus on a component of self-determination for dependent variable	Yes

Table 1 (continued)

Summary of Descriptive Characteristics of Narrative and Systematic Reviews of Self-Determination Literature

Review	Years included for studies	Literature sources	Peer reviewed or not	Types of disabilities included	Age/grade range of participants	Only original research or not	Restrictions based on outcome measures	Restrictions based on methodological quality
Chambers et al. (2007)	No information	Electronic searches	Must be published and peer reviewed	All	No information	Both theoretical and empirical	Must measure global self-determination	No
Bae (2007)	1982 – 2005	Electronic searches Hand searches Conference programs Govt. reports Reference lists searches	All	All	Current or former students with disabilities in two and four year colleges and universities	Quantitative, including correlational studies; U. S. colleges and universities only	Any academic skill	No
Fowler, et al. (2007)	~1972 – 2005	Electronic searches Hand searches Reference lists	Must be published and peer reviewed	MRDD students only	Pre-kindergarten through college	Experimental, pre-experimental or qualitative	Any academic skill	Yes

Table 1 (continued)

Summary of Descriptive Characteristics of Narrative and Systematic Reviews of Self-Determination Literature

Review	Years included for studies	Literature sources	Peer reviewed or not	Types of disabilities included	Age/grade range of participants	Only original research or not	Restrictions based on outcome measures	Restrictions based on methodological quality
Konrad et al. (2007)	1972 - 2005	Electronic searches Hand searches Reference list searches	Must be published and peer reviewed	All plus ADHD	Pre-kindergarten through college	Experimental and pre-experimental	Any academic skill	No

Table 2

Summary of Descriptive Characteristics of Narrative and Systematic Reviews of Self-Determination Literature

Review	Number of Included Studies	Designs of Included Studies	General Topic of Review	Primary Treatment Components in Studies	Major Review Findings
Algozzine et al. (2001)	51 total studies 22 in meta-analysis 29 in narrative only	Multi-group Single-subject One-group, pre-post Qualitative	Focuses on wide range of interventions, but self-determination outcomes only	Choice-making skills Problem-solving skills Self-regulation skills	Group-designed studies with LD students yielded modest positive effects while single participant studies for students with moderate to severe disabilities yielded much stronger positive effects. Instructional interventions that included more self-determination focus areas and for longer treatment periods yielded greater positive effects than those with fewer focal areas and for shorter instructional durations.
Malian & Nevin (2002)	11 studies	Single-subject Longitudinal follow-up Qualitative	Focuses on results of model evaluations, assessment validation, and instructional strategy effectiveness	Comprehensive models Discrete instructional strategies	Self-determination outcomes can be successfully taught to students presenting a wide range of disabilities and severities. Self-determination is a dynamic, developmental phenomenon that can be modeled, taught, and generalized. Positive self-determination skills are a predictor of successful transition to adult life.

Table 2 (continued)

Summary of Descriptive Characteristics of Narrative and Systematic Reviews of Self-Determination Literature

Review	Number of Included Studies	Designs of Included Studies	General Topic of Review	Primary Treatment Components in Studies	Major Review Findings
Wood et al. (2005)	21 studies	20 single – subject 1 qualitative	Focuses on intervention studies promoting self-determination skills	Predominantly instructional interventions in choice-making, problem-solving, and self-regulation and self-reinforcement	All studies showed positive effects for at least one participant (but no metric for effect size reported). With one exception, all studies that measured multiple components of self-determination resulted in increases in all participants. Many components self-determination outcomes have not been adequately measured in intervention studies.
Chambers et al. (2007)	31 studies	Descriptive Intervention Perception	Focuses on studies that use global self-determination as outcome	Largely branded curricula and multi-component instructional interventions	Correlational evidence of enhanced adult outcomes for more self-determined students. More restrictive adult living environments correlate with lower levels of self-determination skills even controlling for level of disability. Teachers seem to value self-determination but do not always teach it due to various reasons. Branded intervention packages generally showed increased self-determination skills attainment.

Table 2 (continued)

Summary of Descriptive Characteristics of Narrative and Systematic Reviews of Self-Determination Literature

Review	Number of Included Studies	Designs of Included Studies	General Topic of Review	Primary Treatment Components in Studies	Major Review Findings
Bae (2007)	24 initially included, but 18 in final analyses due to exclusion of outliers	Not stated, but only correlational information collected for review purposes	Focus was on the correlation between self-determination and postsecondary academic achievement	The “treatment” for each study in this review was a measure of one or more components of self-determination	There is no significant correlation between one or more components of self-determination and academic achievement in postsecondary education, as measured by GPA Measures of core components of self-determination need further psychometric work on reliability, validity, and generalizeability for use with individuals with disabilities.
Fowler, et al. (2007)	11 studies	10 single-subject 1 multi-group	Focus was on effects of self-determination instruction or curriculum on academic achievement	The modal intervention component was self-management instruction, followed by multiple components	Effects were generally stronger (more positive) on organizational skills needed to produce academic assignments than for academic outcomes <i>per se</i> . In general, studies measured effects of self-determination interventions on non-academic outcomes rather than actual academic outcomes. Studies of multi-component interventions generated larger effects than studies of single-component interventions.

Table 2 (continued)

Summary of Descriptive Characteristics of Narrative and Systematic Reviews of Self-Determination Literature

Review	Number of Included Studies	Designs of Included Studies	General Topic of Review	Primary Treatment Components in Studies	Major Review Findings
Konrad et al. (2007)	31 articles reporting on 34 discrete studies	27 single subject 7 multi-group	Focus was on effects of self-determination instruction or curriculum on academic achievement	Most studies (30) used self-management component either by itself or coupled with other components (i.e. goal setting) 12 studies used goal setting by itself or with other components	Studies of multi-component interventions generated larger effects than studies of single-component interventions. Effects ranged from very weak to very strong, but were strongest when interventions were used to increase students' productivity. Effects are stronger on producing self-determination skills (choice-making, problem-solving) than on generic academic achievement.