Evaluating the Validity and Reliability of a Student Self-Advocacy Teacher Rating Scale

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Abstract

Self-advocacy skills are critical to high school and post-secondary success. Unfortunately, students with disabilities often times struggle with self-advocacy. While there are effective, evidence-based programs to teach self-advocacy skills, there are few scales that directly measure self-advocacy. The current research study was conducted to develop and evaluate a valid and reliable self-advocacy teacher-report scale. The scale was developed, piloted, and evaluated with high school students with disabilities. The study results from the study indicate that the self-advocacy scale is a valid and reliable measure of a student's self-advocacy behavior, and that the scale help explain a notable amount of variation of classroom success. Implications, future research and limitations are discussed.

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Self-advocacy can be defined as a person's ability to seek out and request supports based on his or her specific needs (Wood et al., 2004). When someone self-advocates, the individual recognizes that he or she has a need for support in one or more areas, is able to identify the types of supports required, identify someone who is able to provide said supports, and then actively request the supports (Wehmeyer, 2015). The actions are seen as explicit, purposeful, and intentional (Test et al., 2005). These behaviors can begin early in life, but it is during the high school and post-secondary years, when students are perceived to be more independent and better able to self-monitor, that the quality of self-advocacy, or lack thereof, has an increasingly noticeable impact on daily functioning (Wehman, 2013).

High school students are expected to independently seek out and request necessary supports (Powers et al. 2001), recognize when content is not understood and seek out clarification, reflect on the quality of their learning, request accommodations and modifications, and clarification and support on assignments and tests (Durlak, Rose, & Bursuck, 1994). Given these expectations, it is understandable that students with higher levels of self-advocacy tend to have higher rates of academic achievement and higher rates of productivity (Cobb et al., 2009).

Whereas self-advocacy skills are important to high school success, they are critical to post-secondary transition success (McCall, 2015; Seong et al., 2015). Individuals with well-developed self-advocacy skills have better levels of adjustment across both school and career (Doren & Kang, 2015); are more likely to live independently, acquire and maintain employment, and have higher earnings (Wehmeyer & Schwartz, 1997); and are more likely to have higher levels of self-efficacy and resilience (Grover, 2005). In post-secondary academic institutions, students are required to seek out and request desired accommodations from universities, discuss those needs with professors, utilize university resources, and seek academic help from teachers (Brinckerhoff, 1994). Outside of post-secondary academic institutions, the responsibility to self-

advocate is placed primarily on the individual (Rothman, Maldonado, & Rothman, 2008), and the focus of the advocacy shifts towards more non-academic needs like such as searching out employment, transportation, health care, mental health support and living arrangements (McConnell et al., 2013).

Students with disabilities are found to frequently struggle with self-advocacy, both in high school and in post-secondary settings (Gil, 2007). It can pose an even more significant challenge for students enrolled in post-secondary academic institutions due to the higher expectations academically, behaviorally, and socially (Getzel & Thoma, 2008). Potential reasons students with disabilities struggle with self-advocacy include not being aware of their own needs, not knowing what supports are available where to go to get supports, and how to request the supports (Schreiner, 2007). Often time they might feel self-conscious about asking for help, or be overwhelmed by the amount of academic or cognitive resources necessary to complete the tasks (Rothman, Maldonado, & Rothman, 2008).

Due to the nature of their specific needs, it is a common for high school students receiving support through an individualized education plan (IEP) to have instruction and goals on self-advocacy (Pham, 2013; Wehmeyer, Argan, & Huges, 2000). This is especially true those students with learning disabilities (Algozzine et al., 2001) and intellectual disabilities (Fowler et al., 2007). Research has shown that students with disabilities show an increase in self-advocacy skills after receiving direct self-advocacy instruction (Test & Neale, 2004). This instruction often takes the form of direct instruction within the classroom or on a consultative-basis (Newman, Madaus, & Javitz, 2016; Field at el., 1998), and instructional components include a focus on knowledge, skills training, and self-awareness (White, 2014). Students are better able to maintain and generalize the learned skills when the skills are directly taught and modeled, they are given feedback about their performance, and they are given the opportunity to practice their skills across different environments (Durlak, Rose, & Bursuck, 1994).

While there are multiple evidence-based programs to teach self-advocacy skills (Brinckerhoff, 1994; Phillips, 1990), there are few scales that directly measure self-advocacy. Among the few existing rating scales, almost all reflect the student's perception of his or her own abilities, and do not allow for valuable input from outside raters (Miller et al, 2014; Cleary & Callan, 2013). This poses a potential challenge to the validity of the transition assessment process because high school students can have a distorted view of their own abilities, may not be completely accurate in their reporting, and may be unreliable narrators (Bandura, 2012; Stone & May, 2002; Levine, Clarke, & Ferb, 1981).

One solution to enhance validity and utility of self-advocacy assessments is to utilize teacher-rating scales, which allows for comparison of behaviors across settings (Mazzotto et al., 2009; Neubert & Leconte, 2013). Teacher reports can assess student behavior across environments, helping teachers target a student's specific strengths and weaknesses (Hoge & Coladarci, 1989). The current research study was conducted to develop and evaluate a valid and reliable self-advocacy teacher-report scale that, in effect, can be used to evaluate the current level of a student's self-advocacy skills.

Method

Participants

The study included participants from a high school located inside an urban midwestern city. The high school has approximately 1,500 students. 77% of the students are Caucasian, 13% Hispanic, 5% Asian, 3% Black, 1% American Indian/Alaskan Native, and 1% Pacific Islander. Approximately 23% of the students are on free/reduced lunch. It has a graduation rate of 93%.

All of the data were collected through the special education evaluation process. All of the students were in the process of a three-year special education reevaluation. From a group of 70 students going through a special education evaluation, a total of 24 students were randomly selected. Of those students, 10 were female and 14 were male. The ages of the students ranged from 14 to 18: 7 students were age 14, 11 were age 15, 3 were age 17, and 3 were age 18. The average student was in 9th grade: 18 students were in grade 9, 3 were in grade 11, and 3 were in grade 12. Of the population sampled, 10 were diagnosed with a Specific Learning Disability, 11 with an Other Health Disability, and 3 with an Autism Spectrum Disorder. All of the students were Caucasian.

Materials

Test et al. (2005) developed a conceptual framework for self-advocacy consisting of four different components: knowledge of the self, knowledge of one's rights, communication skills, and leadership ability. Knowledge of self and rights provided the foundation to the framework, as one needs to know about one's self and their rights before being able to advocate for one's needs. Once this awareness exists, effective communication of those needs becomes the next component. Finally, one can advocate for the various rights of others (Test et al., 2005).

The scale was developed utilizing the conceptual model developed by Test et al. (2005). The items were reviewed by content experts (e.g. special education teachers, social workers, and school psychologists) to establish content validity, understandability, and usefulness, or the ability for the questions to be developed into IEP goals.

The scale then was piloted at the start of the school year. The initial scale had 19 questions all on a four-point Likert scale. Eight teachers, four special education teachers and four general education teachers, were randomly selected to complete the scale. Two teachers were sampled from each grade. Each teacher was asked to think of one general education student and one special education student who they felt performed at an average level, and fill out the scale, once for each student. The scale was provided to the teachers through an online format. Item analysis was run to identify questions that were least consistent with the overall concept of self-advocacy. Any item with a total correlation below .80 was deleted.

Procedures

Data collection occurred over the course of 6 month. During the data collection phase, the primary investigator reviewed the survey information with each teacher. The teachers were informed that they would be completing an assessment as part of a special education evaluation. An administrator described the purpose of the test to the teachers. Teachers were then sent a link to an online survey. The instructions on the survey clearly described the assessment procedures.

Results

A listing of test items can be found in Table 1. Descriptive information regarding students' scores can be found in Table 2 and Table 3. It is recommended that the scores be interpreted with caution due to the small sample size. Overall, males showed slightly higher levels of self-advocating behavior when compared to females, and individuals with Other Health Impairments showed slightly higher levels compared to those students with Specific Learning Disabilities and Autism Spectrum Disorders.

Table 1.
Test Items

Item	Question
1	Asks adults for help with difficult tasks
2	Demonstrates he or she knows where to go for help
3	Accepts teacher help and corrections
4	Clearly communicates thoughts, opinions, wants, and needs
5	Uses emotional language and blame when receiving teacher feedback
6	Proactively requests support/clarification prior to the start of a task
7	Allows other to talk during a conversation without interrupting
8	Follows the procedure for asking for support
9	Has trouble understanding and applying feedback
10	Makes claims of unfairness, negligence, or personalization of attacks

Upon examination of the individual survey items, the highest scores were yielded from question four ("Allows others to talk during a conversation without interrupting") and question six ("Uses emotional language and blame when receiving teacher or student critiques and feedback"). The lowest scored item was question seven ("Proactively requests support/clarification prior to the start of a task"). The results indicate that the majority of surveyed students were able to hold a conversation and use calm or neutral language when conversing with a teacher, and that many students struggled with requesting help prior to starting an activity.

Table 2.
Descriptive Table of Total Score

	Mean	Standard Deviation
Overall Sample	31.96	7.07
Male	34.00	7.52
Female	29.10	5.51
Specific Learning Disability	31.60	7.35
Other Health Impairment	32.45	7.80

Autism Spectrum Disorder	31.33	4.93

Table 3.
Descriptive Statistics for Individual Questions for Overall Sample

Item	Mean	Standard Deviation
1	2.04	.81
2	2.46	.78
3	2.67	.87
4	3.13	.74
5	2.33	.82
6	3.63	.65
7	1.71	.69
8	2.46	.72
9	2.50	1.14
10	2.63	1.01

Internal consistency of the scale was measured using Cronbach's alpha, and the value for the total number of items was .91, indicating that the test contains a set of reliable items assessing a similar construct. Next, multiple regression was run to test if the overall score for each student was related to the end-of-semester grade he or she earned in the class taught by the rater (r^2 = .32, $F(1, 22) = 10.2$, $p<.01$). The data indicates that a student's overall score on the scale can account for 32% of the variance in that student's earned letter grade.

Finally, exploratory factor analysis (EFA) was conducted to explore the optimal number of factors presented by the data that represent student performance. Analysis was run using oblique rotation and the factor loadings were estimated using maximum likelihood. The results for the factor analysis can be found in Table 4.

Table 4.
Factor Loadings for Proposed Self-Advocacy Models

	Model 1	Model 2		Model 3		
Item	F1	F1	F2	F1	F2	F3
1	.81	**.79**		**.42**		.39
2	.75	**.64**	.19	.18	.26	**.41**
3	.72	.30	**.54**	.22	**.59**	
4	.72	**.73**		**.81**		-.11
5	.65	-.15	**1.08**		**1.21**	-.27
6	.82	**.91**		**.52**		.43
7	.78	**.84**		**1.30**	-.21	-.28
8	.66	**.88**	-.27	-.28	-.22	**1.31**
9	.83	**.58**	.31	**.49**	.31	.12
10	.63		**.87**	-.25	**.99**	

The factor loadings in Model 1 range from .63 to .83, in Model 2 range from -.27 to 1.08, and in Model 3 range from -.28 to 1.31. Using guidance from MacCallum et al. (1991; 2001), factor

loadings of .60 or greater were considered to have practical significance due to the small sample size. Models 2 and 3 have multiple loadings that fall below this threshold, indicating that Model 1, which utilizes a single overall factor, is a better representation of the data.

Discussion

The current research study was conducted to develop and evaluate a valid and reliable self-advocacy teacher-report scale. The overall results from the study suggest that the self-advocacy scale is a valid and reliable measure of a student's self-advocacy behavior. Analyses indicate that the scale has adequate reliability and validity. The internal consistency figure falls into what is considered the excellent range of reliability (Streiner, 2003), suggesting that scale's items shared covariance and may be measuring the same concept. Exploratory factor analysis was conducted to further identify the possibility that the scale items represent one or more constructs representing self-advocacy behavior. The factor analysis results indicate that the scores best represent a single construct, and that the total scale yielded by the scale may likely be a good representation of one's self-advocacy skills. Finally, as a measure of classroom utility, the scale was evaluated as a predictive measure of classroom success. The results indicate that the self-advocacy scale may be able to explain a notable amount of variation of classroom success.

The results from the current study support the conceptual model of self-advocacy developed by Test et al. (2015) that proposed self-advocacy consists of knowledge of the self, knowledge of one's rights, communication skills, and leadership ability. The current assessment was developed around this framework. While results from the factor analysis suggest that a single score on the test is a more accurate representation of one's self-advocacy skills then using multiple scores to represent the different model areas, the different components are still representative of one's overall self-advocacy ability. The results also support the findings from Fowler et al. (2007) that levels of self-advocacy are correlated with academic achievement.

The results indicate that the proposed self-advocacy scale may be one useful tool when conducting transition assessments. In a secondary setting, the scale can likely be used to set goals and monitor progress on a student's self-advocacy skills, evaluate program effectiveness, and provide information on a student's classroom performance. The scale's uses in a post-secondary setting can be similar; it can be used to help gauge an individual's skills so appropriate programming and supports can be implemented.

When interpreting the results of the study, it is important to consider the study's limitations. First, the study used a small sample size. Typically, a minimum sample size of 50 individuals is recommended for exploratory factor analysis. However, smaller sample sizes have been found to be acceptable with factor analysis (de Winter, Dodou, & Wieringa, 2009). Further research should expand the sample size. The second limitation is that the sample utilized was a convenience sample of existing special education students. While special education students are considered the target population for the scale, further research should evaluate the statistics across a larger, more stratified sample. Third, while the scale was designed to be smaller and more practical for teachers to complete, fewer items may have an impact on the ability to establish more accurate factor loadings (Costello & Osborne, 2005). Future research should look to expand on the scale and develop new, more comprehensive assessments. Finally, the validity

and reliability of the scale was assessed in a limited environment. Future research should expand on those characteristics, including its construct and predictive validity outside of the school setting.

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