

A Review of the Self-Regulation Strategy Inventory—Self-Report (SRSI-SR)

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Abstract

This work presents a systematic review of the Self-Regulation Strategy Inventory—Self Report (SRSI-SR). Theoretically grounded in Zimmerman's three-phase model of self-regulated learning (SRL), the SRSI-SR provides information about learners' use of three broad types of self-regulation strategies. Google Scholar, PsycINFO, and ProQuest were searched to identify studies referencing the SRSI-SR; 18 studies met the inclusion criteria. Studies were coded based upon: 1) Likert scale type employed, 2) type of study conducted, 3) student grade level, 4) school subject area, and 5) other constructs also examined, such as motivation and achievement. Overall, the SRSI-SR is emerging as a sound measure of SRL strategy use. Validity and reliability information, gaps in current knowledge about the measure, and future research recommendations are also discussed in more detail.

Keywords

Self-Regulation, Learning Strategies, Systematic Review, Motivation

1. Introduction

Students who are self-regulated are metacognitively, motivationally, and behaviorally active participants in their own learning processes (Zimmerman, 1986). Learners who effectively self-regulate are able to optimize learning and performance outcomes (Cleary, Callan, & Zimmerman, 2012) because they plan and monitor their learning. These learners identify errors and change course through application of appropriate and effective learning strategies. Students who effectively self-regulate possess conditional knowledge of these learning strategies, and deploy the appropriate learning strategy for the given learning task. They also actively monitor and control their affect through all phases of learning.

As such, self-regulated learning (SRL) requires coordinated and complex mul-

tidimensional processes. Effective strategy use represents particularly important component SRL processes. The effective use of SRL strategies makes distinctive contributions to academic performance, above general ability (Zimmerman, 1990). Thus, the ability to identify and measure students' strategy use is essential to inform instructional scaffolds and interventions that will promote successful learning.

Researchers measure SRL processes and strategies in multiple ways, including self-report surveys and interviews, think-aloud protocols, trace methodologies, error detection tasks, microanalytic protocols, diaries, and direct observations (Cleary, 2011; Schmitz, Klug, & Schmidt, 2011; Winne & Perry, 2000). Despite the existence of a variety of SRL assessment methods and approaches and despite recognized limitations of SRL inventories (e.g., Muis, Winne, & Jamieson-Noel, 2007; Winne, Hadwin, Stockley, & Nesbit, 1997; Winne & Perry, 2000), inventory measures such as the Self-Regulation Strategy Inventory—Self Report (SRSI-SR) remain a popular method among researchers, likely due to their accessibility, ease of administration, and ability to succinctly report properties and findings.

Self-report inventories provide insight into learners' recollection and interpretations of their actions, as well as their accounts of cognitive and metacognitive processes (Turner, 1995; Winne & Perry, 2000). Students' responses can be targeted to focus on either SRL *in situ* or as representative of general learning traits, and there has been much discussion in the literature regarding whether or not SRL should be measured as a state or trait (e.g., Winne & Perry, 2000). Typically, self-report inventories such as the Motivated Strategies for Learning Questionnaire (MSLQ) and the Self-Regulation Strategy Inventory—Self Report (SRSI-SR) measure SRL as a trait—and provide an aggregate assessment of SRL over multiple time points (Winne & Perry, 2000). However, a common criticism of these types of measures is that students may not remember their cognitive and metacognitive activities, and may not be able to access or reflect upon them.

Nonetheless, existing self-report inventories used to measure SRL strategies in college learners such as the Learning and Study Strategies Inventory (LASSI; Weinstein & Palmer, 1990) and the Motivated Strategies for Learning Questionnaire (MSLQ; Pintrich, Smith, Garcia, & Mckeachie, 1993) measure SRL broadly. Other measures such as the Patterns of Adaptive Learning Scales (PALS; Midgley et al., 1996) and the Metacognitive Awareness Inventory (MAI; Schraw & Dennison, 1994) are used to measure specific subconstructs of SRL such as motivation and metacognition, respectively. The SRSI-SR also measures a subconstruct of SRL, but differs in many ways from the aforementioned measures.

First, the SRSI-SR measures students' strategy use while studying for a content-specific task. This is an important difference because it has been shown that SRL strategy use can be subject and task specific (Cleary et al., 2012; Roth, Ogrin, & Schmitz, 2016). Second, while some measures of SRL do address maladaptive strategy use in the form of negatively-worded questions (e.g., the MSLQ), the

SRSI-SR devotes an entire subscale to maladaptive regulatory behavior. Finally, the SRSI-SR was developed specifically for use with younger learners (primary and secondary school students); many other measures of SRL are used primarily with older learners (post-secondary students).

The inventory, first used by Cleary (2006) to measure students' self-regulated learning strategies, includes three subscales: managing behavior and the environment, seeking information, and maladaptive regulatory behaviors.

Systematic literature reviews and meta-analyses have reported details regarding many of the most popular self-report measures of learning strategies and SRL (Credé & Phillips, 2011; Huang, 2011). Reviews of these types prove useful to researchers and practitioners alike, as they provide a synthesis of reliability, validity, and other psychometric information, and identify strengths and limitations of the measure. However, there has yet to be a systematic review of the SRSI-SR. Thus, this work presents a systematic review of the SRSI-SR (Cleary, 2006), a context-specific self-report measure of self-regulated learning strategies. Specifically, we describe the academic subject areas in which the SRSI-SR has been administered, the age ranges examined, and other constructs with which the SRSI-SR has been compared. In addition, available reliability information, validity evidence, and gaps in psychometric information for the instrument are also evaluated and discussed.

1.1. Theoretical Framework

Self-regulated students set goals, plan, enact strategies, are metacognitively aware, and evaluate their learning process for effectiveness and efficiency. As Zimmerman (1986) describes, a student is self-regulated to the extent that they "are metacognitively, motivationally, and behaviorally active participants in their own learning process" (p. 308). Several SRL frameworks exist; some of the most common include Boekaerts's model of adaptable learning, Winne and Hadwin's four-stage model of SRL, Pintrich's typology of SRL, Borkowski's process-oriented model of SRL, and Zimmerman's three-phase model of SRL (Boekaerts, 1992; Borkowski & Muthukrishna, 1992; Pintrich, 2000; Winne & Hadwin, 1998; Zimmerman, 2000). Though models differ slightly, SRL is comprised of a preparatory/planning phase, continues through a performance phase, and includes an evaluation phase where appraisals and adaptations occur (Puustinen & Pulkkinen, 2001).

Zimmerman's (2008) model of SRL is of particular importance to the current review, as it provides theoretical foundation for the SRSI-SR. Zimmerman's model, situated in social-cognitive theory, presents SRL as a three-phase cyclic process, including forethought, performance, and self-reflection. In the forethought phase, students set learning goals, plan future actions, and select strategies to be used. In the performance phase, students implement strategies, focus attention to relevant stimuli, and observe their actions. During the self-reflection phase, and while completing the learning event, students create self-judgments about their learning and performance *in situ* as well as self-reactions to those

judgments (Erhan, 2016). The self-reflection phase also includes the actions (or non-actions) that students take to maintain or alter their learning. A notable difference among models is whether SRL is viewed as an event or as an aptitude (Winne & Perry, 2000).

One challenge in considering SRL measures, therefore, is whether it is a state or trait. Viewing SRL as a trait, students' levels of SRL are believed to vary over long periods of time, between contexts, and between individuals. However, others argue that SRL is characterized best as a state. That is, learners can effectively engage in SRL to differing degrees, depending on the context or demands of the task (Winne & Perry, 2000). The assumption underlying the state-based view of SRL is that an observed SRL event has a specific beginning and end (Winne & Perry, 2000). Still others contend that SRL is both a state and a trait (Hong, 1998; Schmidt, 2009). In light of the frequent use of trait-based measures of SRL (such as the SRSI-SR), systematic reviews of their use are necessary in order to best inform future SRL research.

1.2. The Current Review

This work aimed to: 1) identify and examine studies that have utilized the SRSI-SR to date; 2) analyze the psychometric properties of the SRSI-SR under different contexts and with varied-aged samples; and 3) describe relations among strategy use, as measured by the SRSI, and other constructs examined in the studies reviewed, 4) identify gaps in current knowledge about the measure, and to offer future research recommendations based on findings.

2. Method

A brief description of the SRSI-SR, including example items for each subscale, is presented in **Table 1**. A literature search was concluded in July of 2018. The search was performed using three mediums: Google Scholar, PsycINFO, and ProQuest. Google's citation index was used first to identify articles that cited Cleary's 2006 article. One hundred twenty-six such articles were identified; each was then examined individually to determine appropriateness for the review. Studies were included in the review if they: 1) reported data from the SRSI-SR, 2) were written in English, and 3) administered at least one of the three complete subscales. Studies were excluded from the review if they 1) did not report data from the SRSI-SR, 2) reported data only from either the Teacher Rating Scale or

Table 1. Descriptive table of the SRSI-SR.

Construct measured	# of items	Example item
Managing environment and behaviour	12	"I try to study in a quiet place."
Seeking and learning information	8	"I ask my teacher questions when I do not understand something."
Maladaptive regulatory behaviour	8	"I try to forget about the topics that I have trouble learning."

the Parent Rating Scale, or 3) were not written in English. All publication dates were included.

PsycINFO and ProQuest were then separately searched using the following search terms: *self-regulation strategy inventory*, *Self-Regulation Strategy Inventory—Self-Report*, *SRSI*, and *SRSI-SR*. Importantly, no unique studies were obtained during these two searches. In addition to the above search strategies, personal contact was made with colleagues known to have published with the inventory ($n = 3$) to identify any current or ongoing studies utilizing the SRSI-SR or unpublished datasets that included SRSI-SR data. This process yielded one unpublished dataset. Based on the established inclusion and exclusion criteria, 18 studies were identified and included in subsequent analyses.

Each identified study was coded based upon the following characteristics: 1) Likert scale type employed, 2) type of study conducted, (correlational or intervention), 3) student grade level, 4) school subject area, and other constructs examined, such as motivation and achievement. **Table 2** presents information about the SRSI-SR codes applied.

Some data were missing from three studies. Efforts were made to contact respective authors and gain access to their primary datasets to address remaining questions about subscale or full-scale reliability, subscale mean values, and use of reverse coding. Two of three studies' full datasets were obtained through these efforts. The third study, whose raw dataset could not be obtained, was included in analyses as appropriate.

Some studies used a 5-point scale instead of the original 7-point scale for students to report on the SRSI-SR. In these cases, a linear transformation was performed to convert the 5-point scale to a 7-point scale so that meaningful comparisons could be made across studies. Further, intervention studies that used the SRSI-SR as a dependent variable often employed a pretest-posttest design, yielding two sets of scores for each participant. In these cases, only data from the first time-point were considered for analysis, as these are data about students' strategy use before any intervention occurred, and can therefore be compared more directly to other non-intervention studies.

Table 2. Codes applied for the SRSI-SR review.

Variable	Description	Codes Applied
Likert Scale Type	Which Likert scale did the study use?	5-point scale, 7-point scale
Use of SRSI	The type of variable the SRSI was used as	Independent, dependent
Grade Level	What grade the participants were in	5 th , 6 th , 7 th , 8 th , 9 th , 10 th , 11 th , 12 th Undergraduate, Graduate
Subject of Use	What academic domain or context was the SRSI used in?	Reading, Math, Biology, Environment, History, Languages (learning English)
Other Constructs Measured	Other constructs that were measured concurrently with SRL strategy use	Achievement/performance, motivation, perceived responsibility, metacognition, affect, calibration, miscellaneous

3. Results

A summary of major findings from the review is presented in four sections. First, a descriptive overview of the samples, school subject areas, and chronology of use is discussed. Second, available, tentative reliability evidence is presented. Third, available, tentative validity evidence is presented. Finally, other constructs that have been measured concurrently with and their relations to the SRSI-SR are reviewed.

4. Current Use

Table 3 presents the characteristics of studies included in the review. Participant characteristics varied widely across studies. As an example, the SRSI was used with student samples in which 90% received free or reduced lunch, and with samples where only about 6% of the school received such aid. Further, the SRSI-SR was administered to language minority learners and native English speakers (Cleary, 2006; Cleary & Chen, 2009). Most studies ($n = 15$) were conducted in the United States, while some studies (Khodarahmi & Zarrinabadi, 2016; Madjar, Kaplan, & Weinstock, 2011; Madjar, Weinstock, & Kaplan, 2017) were conducted outside of the US such as in Iran (Khodarahmi & Zarrinabadi, 2016) and Israel (Madjar et al., 2011, 2017). Additionally, sample sizes investigated ranged greatly in size, from four to 912. Researchers used the SRSI in various subject areas ranging from English-language learning to environmental science settings. There are also Hebrew (Madjar et al., 2011) and Spanish versions (Cleary, 2006). Further, studies that employed the SRSI also varied in terms of student grade level. Most studies ($n = 15$) surveyed middle or high school students, though the overall range of samples included 5th grade to graduate-level students. Interestingly, the SRSI-SR was used mainly in correlational studies and only a handful ($n = 3$) of experimental or intervention-based studies used the instrument. Ten of the 18 studies reviewed used the 5-point Likert scale as opposed to the original 7-point scale.

As indicated in **Table 3**, researchers' use of the SRSI-SR appears to be growing. In the past three years, for example, use of the SRSI-SR has doubled. This growth may be attributed to a number of factors, such as increased availability of validity and psychometric information about the instrument.

4.1. Reliability Evidence

Based on analysis of the studies reviewed, the SRSI-SR appears to show sound reliability as estimated by Cronbach's alpha ($\alpha \geq 0.80$). Reliability was also adequate for the instrument at the subscale level. Estimates of reliability ranged from 0.82 to 0.92 among studies that used and reported the full inventory, with a median Cronbach's alpha value of 0.91.

Factor 1—Managing environment and behavior. Thirteen studies reported reliability data for the first subscale. The reliability of scores on this subscale appeared, overall, to be adequate with median Cronbach's alpha values across the

Table 3. Characteristics of included studies.

First Author's Last Name	Year of Publication	N	Grade or Age	Race/Ethnicity	Context	Subscales Used	Constructs Linked to Scores on the SRSI (type of variable)
Cleary	2006	142	9 th and 10 th grade	76.8% Hispanic, 16.9% African-American	Science	Full-scale	Achievement (Dependent)
Cleary	2008	8	9 th grade	78% African-American or Latino	Biology	Full-scale	Test performance (Dependent)
Cleary	2009	880	6 th (53%) and 7 th (47%) grade	80% white	Math	Full-scale	Interest (Dependent), self-standards of performance (Dependent)
Madjar	2011	118	10 th grade	Jewish Israeli	History	Full-scale	"Intrapersonal" mastery-avoidance goals (Dependent), mastery and performance goals (Dependent), negative affect* (Dependent), positive affect (Dependent)
Cleary & Callan	2013	4	9 th grade	Hispanic, Asian, White, African-American	Biology	Full-scale	Achievement (Dependent)
Cleary	2014	87	9 th grade	53% African-American, 20% white	Math	Maladaptive only	Interest (Predictor), achievement (Outcome)
Delen	2014	80	Undergraduate and Graduate	N/A	Science (online)	Full-scale	Online SRL behavior traces, i.e. note-taking, practice question responses, & supplementary resource use (Dependent)
**DiGiacomo	2014	27	6 th and 7 th grade	N/A	Math	Full-scale	Calibration accuracy (Dependent), math performance (Dependent)
**Nelson	2014	912	10 th grade	74% white, 10% Asian	History	Full-scale	Achievement (Dependent)
Cleary	2015	363	6 th and 7 th grade	42% White, 23% Hispanic, 22% Asian, 6% African American	Math	Full-scale	Self-efficacy (Dependent), perceived instrumentality (Dependent), task interest (Dependent), perceived responsibility (Dependent), office discipline referrals (Dependent), teacher ratings of SRL strategies (Dependent)
**Hogrebe	2015	135	5 th and 6 th grade	63% White, 28.9% Asian	Math	Full-scale	Self-efficacy (Dependent), achievement (Independent)
**Lubin	2015	105	7 th and 8 th grade	59% White, 10.5% Hispanic, 16.2% Asian	Math	Full-scale	Interest (Dependent), self-efficacy (Dependent), course grades (Predictor)
Khodarahmi	2016	187	Ages 12 - 18	Persian	English-language Learning	Full-scale	ESL learning optimism (Dependent), achievement (Independent)

Continued

Follmer & Sperling	2016	117	Undergraduate	N/A	Reading task	Full-scale	Executive function (Predictor), metacognition (Outcome)
Gelbar	2016	51	9 th - 12 th grade	N/A	Reading task	Full-scale	Not linked with reading performance (Outcome)
Follmer, Sperling, & Hu	2016	31	Undergraduate	N/A	Reading task	Full-scale	Learning strategies (dependent), metacognition (dependent), executive functioning (dependent), calibration accuracy (dependent), calibration bias* (dependent), self-reported GPA (dependent)
Madjar	2017	149	10 th grade	Israeli	History	Full-scale	Fear of failure (dependent), Mastery goal orientation (dependent), performance approach goal orientation (dependent), performance avoidance goal orientation (dependent)
Callan & Cleary	2018	100	8 th grade	50% Hispanic, 48% African American	Math	Full-scale	Teacher ratings of student SRL strategy use (predictor)

Note: *indicates a negative relationship with the variable. **indicates a dissertation.

studies as 0.87 (min = 0.66, max = 0.93). In 11 studies, reliability estimates met or exceeded 0.80; two studies reported estimates of 0.66 and 0.69.

Factor 2—Seeking and learning information. Thirteen studies reported reliability data for the second subscale. The reliability of scores on this subscale appeared, overall, to also be adequate, with median Cronbach's alpha of 0.80 (min = 0.71, max = 0.89). In eight of the studies, reliability estimates met or exceeded 0.80.

Factor 3—Maladaptive regulatory behavior. Fourteen studies reported reliability data for the third subscale. Reliability of scores was slightly lower on this subscale than others. That is, median Cronbach's alpha value across the studies was 0.76 (min = 0.64, max = 0.84) and the lowest reliability estimate was 0.64 for this subscale.

4.2. Validity Evidence

Cleary provided initial validity evidence for the SRSI based upon internal structure and relations to other variables. After initial factor analysis of the instrument yielded a three-factor solution, a second principle component analysis was conducted using the three SRSI-SR subscales and two measures of self-motivational beliefs, developed for the study (Cleary, 2006). The three SRSI-SR subscales loaded onto one higher-order factor and the two motivation scales loaded onto a separate higher-order factor. This analysis provided tentative validity evidence

that the strategy-focused SRSI-SR is distinct from those particular motivation scales.

Convergent validity evidence was most commonly examined in the studies reviewed. Cleary & Chen (2009), for example, found that seventh-grade students who were classified as high-achievers exemplified more adaptive motivation and regulatory profiles across measures of interest and self-standards. That is, high achievers reported higher interest in math, higher self-standards, and greater use of adaptive regulatory behaviors compared with their lower-achieving peers. Additionally, Follmer and Sperling (2016) reported SRSI-SR scores correlated significantly with the metacognitive self-regulation subscale of the MSLQ as well as scores on the Executive Skills Questionnaire (Dawson & Guare, 2010). Further, in a study investigating SRL more broadly, Cleary, Dembitzer, and Kettler (2015) noted that the SRSI-SR exhibited statistically significant relations with four motivation measures and two markers of regulation-related behaviors. Finally, Cleary, Platten, and Nelson (2008) implemented an intervention designed to increase SRL behaviors in students and found significant differences from pretest to posttest in students' SRSI-SR scores.

4.3. The SRSI-SR as It Relates to Other Constructs

Other constructs measured in reviewed studies are presented in Table 3 and Table 4. In Table 4, the "Miscellaneous" category included variables such as test taking strategies, learning strategies, use of online learning tools, IQ scores, self-standards, and classroom environment. Because "Motivation" was the most commonly measured additional construct (along with academic achievement or performance), and since there are many theories and dimensions of motivation, this construct was further delineated (see Table 5). Achievement/performance

Table 4. Number of studies that measured other constructs by type of construct.

Construct	Number of Studies*	Factor 1	Factor 2	Factor 3	Total
Achievement/Performance	12	0.08	0.03	-0.09	0.21
Motivation (all)	10	0.15	0.32	0.05	0.52
Adaptive		0.47	0.36	-0.03	0.52
Maladaptive		0.07	-0.01	0.24	N/A
Interest	6	0.51	0.52	-0.05	0.6
Perceived Responsibility	2	0.22	0.22	0.22	0.23
Executive Functioning/Metacognition	3	N/A	N/A	N/A	0.46
Affect (positive)	1	0.16	0.27	-0.22	N/A
Affect (negative)	3	0.01	0.02	0.28	N/A
Calibration	2	N/A	N/A	N/A	-0.03
Miscellaneous	8	N/A	N/A	N/A	N/A

*Note: Not all constructs were included in all of the studies, thus the number of studies does not necessarily represent the number of *r* values that informed the median.

Table 5. Number of studies that measured motivational constructs.

Type of Motivation	Number of Studies
Self-efficacy	7
Perceived Instrumentality	4
Goal Orientation	2

Note: Several studies employed measures of multiple motivation constructs.

was also measured in various ways, most often via test performance (5 studies), course-grades (4 studies), or overall GPA (1 study). As expected, the SRSI relates positively to academic achievement and performance, overall (DiGiacomo, 2014; Hogrebe, 2015). Further, it relates negatively to such constructs as negative affect toward school, and the maladaptive regulatory behavior subscale is positively correlated with performance-avoidance goal orientations (Madjar et al., 2011), and negatively correlated with math performance and the test-taking skills subscale of the LASSI (Cleary & Callan, 2014). Table 4 reports median Pearson's r correlations with the SRSI-SR, by construct. Generally, the correlations between the SRSI-SR and other constructs are in the expected direction and are of moderate strength.

5. Discussion

Despite the variety of academic subjects, age groups, SES, and other constructs with which the SRSI-SR have been measured, a more comprehensive understanding of the instrument is needed. The current work helps elucidate areas in need of further investigation. First, though most estimates of reliability were adequate on the subscale level, some were notably low. The first subscale had a minimum estimate of 0.66 (Madjar et al., 2011). One potential reason for this unexpectedly low estimate is the language in which the measure was administered. The study that reported this value used the Hebrew version of the measure, which may have negatively impacted reliability. Additionally, the third subscale had a minimum alpha value of 0.64 (Delen, Liew, & Willson, 2014). While the authors of this study did use the English version, they also pooled both undergraduate and graduate-level participants into one sample. The differences between these populations of learners may have negatively affected the reliability estimate of this subscale.

While the reported internal consistency estimates were adequate in most studies, little information about the stability of SRSI-SR scores is available. Stability of scores is important because the SRSI measures SRL as a trait, and as such, should be relatively stable over time (Winne & Perry, 2000). In two intervention studies (Cleary & Platten, 2013; Cleary et al., 2008) reliability change index (RCI) values were reported, however, the two administrations of the SRSI-SR in both studies were separated by an intervention for all participants. Of the 12 RCI values reported, (four participants, three subscales; Cleary & Platten, 2013), one value reached significance ($RCI = -2.00, p < .05$). This value corresponded to the

maladaptive regulatory behavior subscale, and indicated that the observed change in scores on this subscale for this participant was not due to random fluctuations in the measure (unreliability). On the other hand, [Cleary et al. \(2008\)](#) reported significant RCI values for all three subscales. Since both of these studies were interventions, the stability of the instrument remains unknown.

Further, though many studies offered convergent validity evidence, only one study ([Cleary, 2006](#)) presented both convergent and discriminant validity evidence. More work needs to be done to ensure adequate evidence of validity for the SRSI-SR. First, more large-sample studies are needed to conduct further factor analytic work to corroborate the factor structure of the SRSI. Without an accurate factor structure, the measure's subscale reliabilities may be negatively affected. Second, future research should investigate how the SRSI-SR relates to other closely-related constructs such as metacognition. Third, the SRSI-SR should be included in more studies using multiple methods of SRL measurement, such as event sampling measures, and trace data. Such additional studies will provide further validity evidence regarding the SRSI-SR, and will provide data for which the common criticisms of self-report measures can be addressed.

As SRL is important during and after the transition from high school to college, sound measures are needed for these students. However, the relative lack of studies administering the SRSI-SR to post-secondary students limits our psychometric knowledge about the measure with this population. Thus, the psychometric properties of the SRSI-SR need further investigation with post-secondary students. Currently, only five studies used the SRSI-SR with students ranging from 11th grade through undergraduate. Further, use of the SRSI has been limited among some undergraduate contexts, such as STEM disciplines. With increasing emphasis placed on STEM education ([Benson et al., 2016](#); [Olson & Riordan, 2012](#)), and the high potential for growth in STEM career fields over the next few years ([Carpi, Ronan, Falconer, & Lents, 2017](#); [Casey, 2012](#)), sound measures of SRL strategy use will be needed for research in these areas. Thus, future research that investigates SRL strategy use in STEM subjects should consider using the SRSI-SR, to see if it performs adequately in these contexts. Finally, another avenue of future work could investigate the psychometric properties of the SRSI-SR when used with non-typically developing students, such as those students with learning disabilities. Only one study has thus far undertaken this task ([Gelbar, Bray, Kehle, Madaus, & Makel, 2016](#)), so future research should build from these initial findings.

Overall, the SRSI-SR is emerging as a sound measure of SRL strategy use. Considering its relatively short length compared to other measures of SRL strategy use, and its relative ease of administration, the instrument could be quite useful for practitioners wishing to assess their students' strategy use. Despite the measure's promising convergent validity evidence, discriminant validity evidence is still lacking. Additionally, the measure's internal structure needs to be confirmed, and future work should also include the SRSI as part of a battery of SRL measures that also includes non-self-report methods.

Conflicts of Interest

The authors declare no conflicts of interest regarding the publication of this paper.

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