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Validation of a Reader Self Perception Scale (RSPS2) for Use in Grades 7 and Above

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Clearly, the attitudes, values, expectations, and beliefs that individuals possess about literacy will play a vital role in shaping their engagement with reading, writing, and other language processes. Students who report positive associations with literacy will tend to read and write more often, for greater periods of time, and with heightened intensity. The past decade or so has witnessed some noteworthy progress in assessing these aspects of literacy (e.g., McKenna & Kear, 1990; Henk & Melnick, 1992, 1995, 1998; Kear, Coffman, McKenna & Ambrosio, 2000). To date, however, no reader self-perception instrument exists for grades 7 and above despite the fact that such a tool would have considerable utility for both practitioners and researchers. The present study represents a significant effort toward remedying this important gap. Grounded in Self-Efficacy Theory (Bandura, 1977, 1982; Schunk, 1984), the instrument predicts that students take four basic factors into account when forming literacy self-perceptions: Progress, Observational Comparisons, Social Feedback, and Physiological States. Student response data (n=3,031) to the pilot instrument provides evidence of construct validity through a principal components analysis of the factor structure. Alpha reliabilities by factor are reported.

For more than 40 years, educational researchers have explored a wide array of affective influences on the way that individuals perceive their own ability and that of others (Blumenfeld, Pintrich, Meece, & Wessels, 1982; Borko & Eisenhart, 1986; Canney & Winograd, 1979; Cohen, McDonell, & Osborn, 1989; Edwards, 1958, 1962; Filby & Barnett, 1982; Freppon, 1991; Gordon, 1990; Johns, 1974; Johns & Ellis, 1976; Miller & Yochum, 1991; Nicholls, 1979; Stipek & Weisz, 1981). The persistence of this interest in the field of literacy is not altogether surprising. We know, for instance, that the affective stance students take toward reading, around such constructs as attitude, motivation, and self-perception, all play significant roles in shaping reading behaviors

and ultimate proficiency levels.   The current paper builds upon this interest in the affective domain generally (Cramer & Castle, 1994; Henk & Melnick, 1998; Mathewson, 1985; Turner & Paris, 1995) and specifically reports on the development of a new instrument that taps the construct of reader self-perception as it applies to students in the early secondary grades. The new instrument is called the *Reader Self-Perception Scale 2 (RSPS2).*

Need for the Instrument

Research over the past ten years clearly illuminates the very unique needs of adolescent readers. Whether these needs are deemed a crisis (Alliance of Excellent Education, 2006) or an opportunity (Jacobs, 2008), it is clear that secondary reading instruction is a national priority. For example, the National Governor's Association (2009) notes that positions requiring college and higher level literacy skills will generate about 46 percent of all job growth between 2004 and 2014. Yet, in 2007, only 31 percent of eighth-graders performed at proficiency on the National Assessment of Education Progress (NAEP), with score gaps between white and minority students not narrowing since 2005. Also contributing to the heightened concern for adolescent literacy is the passage of the 2004 Individuals with Disabilities Education Act (IDEA). This legislation now requires K–12 school systems to undertake a system of early intervention services. Response to Intervention (RTI), as it is now commonly called, requires intensive interventions be provided in regular education to the most at-risk students prior to a degree of school failure that would result in special education identification (Juel, 1988;Torgesen, Rashotte, Alexander, Alexander & MacPhee, 2003). Such a mandate

presents many challenges for secondary educators and administrators with perhaps the greatest of these being the disengaged reader.

In recent years, researchers have identified a critical reciprocity that creates skill and will in academic settings. Students who do well in school have developed *self-efficacy*, that is, they believe they can perform an academic task. They have also internalized a high level of *self-regulation*, believing they can control the factors necessary to perform the task. A growing number of studies have documented that both self-efficacy and self-regulation are critical in order for adolescents to become proficient readers. (Alvermann, 2008; Strahan, 2008). As a result, many literacy and learning organizations have recognized the importance of continuing literacy instruction beyond the elementary grades, especially for students at the middle and high school level (e.g., National Reading Conference, International Reading Association). In addition, these advocates note that perceptions of how competent young people are as readers will affect how motivated they are to learn in their subject area classes (e.g. science, social studies, mathematics, and literature). Consequently, the literature suggests that if academic literacy instruction is to be effective, it must address both self-efficacy and engagement.

Specifically, the values, expectations, attitudes, and beliefs students hold toward reading are likely to impact many important processes associated with effective reading including attention, focus, cognitive investment, and perseverance when engaged in the act. Over time, these influences on individual episodes of reading will influence practice habits in a recursive way and determine in large measure the extent to which students' reading capacity will increase. In effect, we know that students who report positive associations with reading will tend to interact with text more regularly, for longer periods of time, and with greater resolve. Accordingly, this more intense engagement translates

to superior overall reading ability (Anderson, Fielding, & Wilson, 1988; Foertsch, 1992). Conversely, we know that when children feel less positively toward reading, their achievement tends to languish (Spaulding, 1992). These disaffected students will either evade reading tasks altogether or read grudgingly and with limited enthusiasm and commitment.

Unfortunately, although there has been widespread interest in affective variables and their influence on literacy, there has been a distinct lack of genuinely valid and reliable instrumentation to measure these constructs (Henk & McKenna, 2004). This is regrettable insofar as such tools would benefit not only researchers, but also practitioners and ultimately learners. Over the past decade or so, however, some noteworthy progress has been realized in terms of affective instrument development. A case in point would be the emergence of the *Elementary Reading Attitude Survey* (*ERAS*), a valuable instrument that enjoys widespread usage as a way to tap children's attitudes toward both academic and recreational forms of reading in grades first through sixth (McKenna & Kear, 1990). Somewhat more recently, another affective instrument known as the *Reader Self-Perception Scale (RSPS)* was developed to measure how children in grades four through six feel about themselves as readers (Henk & Melnick, 1992, 1995). Building on the success of the RSPS, the *Writer Self-Perception Scale (WSPS)* was created to assess how children at these same grade levels feel about themselves as writers (Bottomley, Henk, & Melnick, 1997). And, even more recently, Kear, Coffman, McKenna, and Ambrosio (2000) introduced the *Writing Attitude Survey (WAS)*, an affective instrument for gauging children's attitudes toward composition in grades Kindergarten through 12.

Despite these advances, there are still many affective constructs left to explore in relation to a host of different populations and contexts. The present study represents an

effort to bridge one of these gaps. More specifically, its intent was to create a reader self-perception instrument for use with students in grades 7 through 10. No such instrument currently exists, and it stands to reason that the *RSPS2* would not only differ along developmental lines from the *RSPS*, but would benefit the field in similarly meaningful ways.

Self-Efficacy and Reading Self-Perceptions

The validation of the *RSPS2* is grounded in Self-Efficacy Theory (Bandura, 1977, 1982; Schunk, 1984). As we have interpreted the self-efficacy model elsewhere (Bottomley, Henk, & Melnick, 1997; Henk & Melnick, 1995), students appear to take four basic factors into account when forming literacy self-perceptions. These factors are: Progress (how students' current reading performance compares with past performance), Observational Comparison (how their reading performance compares with that of their classmates), Social Feedback (verbal and non-verbal input from teachers, classmates and parents about their reading ability), and Physiological States (how students feel inside when they engage in reading). Using this theoretical framework, we set out to create an instrument that would validly and reliably measure the reader self-perceptions of students in seventh through tenth grades.

In thinking about the four sources of information used in making reader self-perception judgments, it is important to note that they operate in an interrelated fashion (Marshall & Weinstein, 1984). That is to say, the categories overlap very naturally in practice. Consider, for example, that personal perceptions of progress (PR) will be predicated to some extent not only upon children's observations of how their performance compares with classmates (OC), but also upon the types of positive or negative social

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feedback (SF) they receive, and the internal well being they experience during the act of reading (PS). It is fair to say that the scales connect sufficiently well to one another that interactions among them are essentially inevitable.

Collectively, these interactions highlight the notion that literacy learning is both complex and socially situated (Alvermann & Guthrie, 1993). Individual children may value one or more source over others in making self-perceptions of reading ability, and a good deal of this process of valuing will be reliably associated with the social context in which the literacy learning occurs. By their very nature, observational comparison and social feedback are obviously situated socially. For that matter, even aspects of the physiological states category include social dimensions, particularly with regard to internal feelings experienced during oral reading (Filby & Barnett, 1982). When viewed through a social lens, it turns out that the classroom, the home, and nearly any place that public forms of reading ensue represent an opportunity to learn more about oneself as a reader.

Method

The initial item pool was developed by including items from the original RSPS and then adding items that matched the factors 60 students in grades 7 through 9 associated with good readers during probed interview sessions. Each student was asked a series of questions such as "How do you know if someone is a good reader?" and "What is the difference between the best reader in your class and the worst reader?" Thoughtful, insightful student responses pointed to important differences in how older children think about their own reading. Thus, while the original RSPS tended to deal with reading very generally, the newer version incorporates more specific reading-related aspects including

vocabulary knowledge, higher level comprehension, giving and receiving help, expressive reading, word recognition and analysis, fluency, handling challenging materials, and reading grades and test performance identified in the interviews. Such higher order thinking about their own reading distinguishes older children from younger children and impacts their perceptions of their own reading.

The instrument development process as described by Gable and Wolf (1993) guides this investigation. The major steps include: identifying the constructs and conceptual definitions, developing operational definitions and generating the potential item pool, conducting a judgmental review of items, preparing a draft and final instrument, gathering and analyzing pilot data from appropriate samples, revising the instrument, conducting a final pilot study, producing the final instrument, conducting additional validity and reliability analyses, and preparing documentation for the instrument. Students in grades 7 through 10 (n=3,031) completed a pilot version of the instrument.

Data Sources: The content review involved 56 graduate students in reading at two major universities. They were given a list of 66 items and asked to place them into one of five possible categories (i.e., progress, observational comparison, social feedback, physiological states, and other) and to rate the extent to which they believed the item fit the category. Items that were rated by over 85 % of the respondents as belonging to the expected category and whose confidence ranking exceeded 2.5 (on a scale of 1 to 3) were retained. Five items were eliminated on this basis. The remaining 61 items were pilot tested with 488 students in grades 7 through 10. Based upon that pilot, 14 items were deleted from the original pool resulting in the current 47 item instrument.

For this study, districts in rural, suburban, and rural areas were included. Of the sample population, 146 students (4.7%) were from rural districts, 2,501 (79.9% percents) were from suburban districts, and 485 (15.5%) were from urban districts. In addition, 49.8% were male and 50.2% were female. Principal components analysis and internal consistency reliability estimates were used to guide interpretation of the data and to determine the composition of the final instrument.

Results

A principal components analysis was utilized to determine the most meaningful explanation of the variance observed. The results of that analysis yielded a total of four meaningful factors (Progress, Observational Comparisons, Social Feedback, and Physiological States) with eigenvalues greater than 1.0. Readers should note that these factors parallel the *a priori* scales we intended in developing the instrument. Table 1 provides the text of the items by factor along with the resultant factor loadings. As can be seen in the table, all items loaded on the intended factors with loadings of at least .40.

The factors (i.e., scales) resulting from the principal components analysis were then subjected to an analysis of the internal consistency reliabilities for each of the four scales. Alpha reliabilities for affective measures should be at least .70 or higher. Note in Table 2 that the alpha reliabilities range from a low of .88 (Social Feedback) to a high of .95 (Progress).

Educational Importance of the Study

The instrument has implications for both literacy practitioners and researchers. For practitioners, information obtained from the upper grade *Reader Self-Perception*

Scale2 can be used for both whole group and individual assessments and interventions. Teachers can gain a sense of how the general classroom climate affects children's self-efficacy judgments in reading can also monitor individual children in terms of changes in self-perception over time.

For researchers, the new RSPS sub-scales could be used in experimental studies as outcome measures, blocking variables, or covariates, and in descriptive research, they could function as trait indicators or as predictors or criterion variables in regression analyses.

Table 1.1: Factor loadings by scale—Progress

FACTOR I – Progress	Factor Loading
2. I read better now than I could before. (P)	.779
3. I can handle more challenging reading materials than I could before. (P)	.695
7. When I read, I don't have to try as hard to understand as I used to do. (P)	.641
9. I am getting better at reading. (P)	.755
18. I understand what I read better than I could before. (P)	.796
19. I can understand difficult reading materials better than before. (P)	.706
21. When I read, I recognize more words than before. (P)	.643
24. I have improved on assignments and tests that involve reading. (P)	.544
31. I can figure out hard words better than I could before.(P)	.736
33. I can concentrate more when I read than I could before. (P)	.574
35. When I read, I need less help than I used to. (P)	.736
38. I read faster than I could before. (P)	.718
39. Reading is easier for me than it used to be. (P)	.781
41. My understanding of difficult reading materials has improved. (P)	.709
45. I can analyze what I read better than before. (P)	.705
47. Vocabulary words are easier for me to understand when I read now. (P)	.663

Table 1.2: Factor loadings by scale—Observational Comparisons

FACTOR II – Observational Comparisons	Factor Loadings
5. I need less help than other students when I read. (OC)	.631
10. When I read, I can figure out words better than other students. (OC)	.721
12. I read better than other students in my classes. (OC)	.762
13. My reading comprehension level is higher than other students. (OC)	.754
15. I read faster than other students. (OC)	.668
20. When I read, I can handle difficult ideas better than my classmates. (OC)	.703
27. When I read, my understanding of important vocabulary words is better than other students. (OC)	.675
37. I seem to know the meanings of more words than other students when I read. (OC)	.668
43. I am more confident in my reading than other students. (OC)	.563

Table 1.3: Factor loadings by scale—Social Feedback

FACTOR III – Social Feedback	Factor Loadings
3. Other students think I'm a good reader. (SF)	.431
8. My classmates like to listen to the way that I read. (SF)	.664
28. People in my family like to listen to me read. (SF)	.650
29. My classmates think that I read pretty well. (SF)	.599
36. I can tell that my teachers like to listen to me read. (SF)	.720
11. My teachers think I am a good reader. (SF)	.462
16. My teachers think that I try my best when I read. (SF)	.497
40. My teachers think that I do a good job of interpreting what I read.(SF)	.474
46. My teachers think that my reading is fine. (SF)	.470

Table 1.4: Factor loadings by scale—Physiological States

FACTOR IV – Physiological States	Factor Loadings
1. Reading is a pleasant activity for me. (PS)	.732
6. I feel comfortable when I read. (PS)	.531
14. I feel calm when I read. (PS)	.583
17. Reading tends to make me feel calm. (PS)	.674
22. I enjoy how I feel when I read. (PS)	.782
23. I feel proud inside when I think about how well I read. (PS)	.579
26. I feel good inside when I read. (PS)	.757
30. Reading makes me feel good. (PS)	.832
34. Reading makes me feel happy inside. (PS)	.748
32. I think reading can be relaxing. (PS)	.772
42. I feel good about my ability to read. (PS)	.490
44. Deep down, I like to read. (PS)	.766

Table 2

**Number of items and internal consistency
reliabilities for each scale**

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Scale	Number of items	Alpha
Progress	16	.95
Observational Comparison	9	.92
Social Feedback	9	.88
Physiological States	12	.94

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Note: The RSPS for Secondary Grades consists of 47 items with 46 items representing the four scales shown here plus 1 general item ("I think I am a good reader"). n=3031.

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