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PEER SOCIAL COMPETENCE AS A PREDICTOR OF READING FLUENCY

by

Keaston Byrd Julian

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Abstract

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The present research evaluated peer social competence as a predictor of reading fluency for fourth through sixth graders. Using an information-processing, peer social competence and reading fluency are related in the cognitive tasks performed: *decoding*, *interpreting*, and *responding*. Peer social competence variables were considered in terms of levels of social complexity: individual, relationship, and group. Individual-level measures were self-perception of sociability and global self worth; the relationship-level measure was number of mutual friends; and group-level measures were peer respect and liking. Silent reading fluency was assessed by pencil-and-paper inventories. A series of hierarchical regression analyses were performed to determine predictive value of the models. Relationship-level number of mutual friends emerged as a significant, negative predictor of reading fluency. Group-level peer liking emerged as a moderately significant, negative predictor of reading fluency. Findings are discussed in comparison to current literature. Limitations are outlined, as well as a call for further research.

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Peer Social Competence as a Predictor of Reading Fluency

Literacy is defined as the ability to read and write and is necessary for achievement in every area of academia (Adams, Snowling, Hennessy, & Kind, 1999; Hinshaw, 1992; Pressley, 2002). Reading fluency is a core component of literacy. Being able to read, and to comprehend what one reads, allows a person to acquire and retain knowledge (Stage & Jacobsen, 2001). If children have difficulty reading, they are at risk for having difficulties with other subjects in school (Adams et al., 1999). Furthermore, academic difficulty has been shown to be associated with social outcomes such as internalizing and externalizing behaviors (Hinshaw, 1992). Conversely, peer social competence has been shown to affect school adjustment, classroom participation, and academic achievement (Chen, Chen, & Kaspar, 2001; Chen, Li, Li, Li, & Liu, 2000; Ladd, Birch, & Buhs, 1999). Using the information-processing model proposed by Dodge (1986), which suggests that children go through the processes of *decoding*, *interpreting*, and *responding* during social interactions, the present study further examined the link between social competence and academic achievement by exploring the association of peer social competence to reading fluency. By way of introduction, the definitions of, and assessment procedures for, reading fluency and peer social competence are outlined. Common components that relate these constructs are presented.

Reading Fluency

Because reading fluency facilitates the comprehension of what is read, it is viewed as an important skill and one that is mastered in middle childhood (Fuchs, Fuchs, Hosp, & Jenkins, 2001; Klaua & Guthrie, 2008; Kuhn & Stahl, 2003). Reading fluency is defined as the ability to read quickly, accurately, and with appropriate expression

(prosody; National Reading Panel, 2000). Fluent readers are able to (1) *decode* the combination of symbols that form words; (2) *interpret* the lexical meanings of the word; and (3) *respond* appropriately to the word and surrounding words using the correct prosody. After mastering these abilities, an individual would be considered a fluent reader. Oral reading fluency is typically developed prior to silent reading fluency, due to phonics instruction (Chall, 1996). Silent reading fluency continues to develop through late elementary school. By grade 4, children are transitioning from “learning to read” to “reading to learn” and are expected to be polished fluent readers (Chall, 1996). Failing to become fluent by this time could keep a child from attaining the knowledge needed to be proficient in later subject areas (Chall, Jacobs, & Baldwin, 1990).

Both oral reading fluency and silent reading fluency are assessed by having a child read passages of literature appropriate to the individual’s grade in school. Oral reading fluency is commonly assessed using curriculum-based measures. The child is told to read a grade-appropriate passage until stopped by a proctor. While the child is reading, the proctor marks any missed or misread words.. The number of correctly read words in the allotted time results in the child’s score. To ensure accuracy and to assess comprehension, the child is asked to give a brief retell of the passage.

Silent reading fluency is assessed in a number of ways, including self-paced methods that elicit the use of expensive, sophisticated computers and software (e.g., eye-tracking, window methods, etc.; Haberlandt, 1994; Rayner, 1998). Pencil-and-paper inventories are a more cost-efficient way of assessing silent reading fluency. These inventories consist of the child reading grade-appropriate passages silently. When a proctor indicates the end of the session, the child marks or circles the last word read

(Fuchs et al., 2001). The number of words read is calculated, resulting in the child's score.

Reading fluency is likely influenced by more than cognitive variables. The social dynamic of the peer network could disrupt or encourage development of basic reading skills. A child with poor peer relations may have disadvantages during this period (e.g., in the form of withdrawal from participation). It seems likely that peer social competence and peer acceptance or rejection could play a role in the development of reading fluency, due to the social nature of early reading activities. It is our assertion that silent reading fluency is affected indirectly by social competence by hindering development of oral reading fluency, which then leads to silent reading disfluency.

Peer Social Competence

Peer social competence is defined as “the ability to achieve personal goals in social interactions while simultaneously maintaining positive relationships with others over time and across situations” (Rubin & Rose-Krasnor, 1992). In order for individuals to be considered socially competent among peers, they must be able to understand peer interactions to the extent that they can promote healthy relationships while attaining favorable outcomes. Dodge (1986) proposed an information-processing model for peer relations. To benefit from a peer interaction, an individual must be able to (1) *decode* the interaction; (2) *interpret* the meaning of the interaction; and after pulling information from long-term memory, (3) *respond* appropriately to the situation. Decoding is simply recognizing that the interaction is occurring. Interpreting the interaction involves understanding the meaning of the interaction or what is going on during the interaction. Responding appropriately involves an individual taking what they have learned from the

interaction and applying this knowledge and prior interactional knowledge in the form of a response (Crick & Dodge, 1994; Dodge, 1986; Pietromonaco & Barrett, 2009).

Borrowing from Hinde's (1992) theory of social complexity, Rubin, Bukowski, and Parker (1998) organized peer relations into levels. The individual level includes the thoughts and beliefs of the individual. For example, how one feels about a peer group affects peer relations. The relationship level is defined by interactions with others in which there is a history and expectations. Friendship is the most studied peer relationship. Lastly, the group level includes norms, values, etc., established by collections of individuals and sets of relationships.

A child with good peer social competence exhibits high perceived self sociability and global self worth, has friends, and is liked and respected by the peer group (see Rubin et al., 2006). Some children with poor peer social competence are actively rejected by peers. Rejected children are usually either withdrawn or aggressive and are at risk for later maladjustment as well (Asher, 1983; Dodge, 1983; Ladd, 2006; Monfries & Kafer, 2001; Newcomb, Bukowski, & Pattee, 1993). Not only are socially competent children unlikely to exhibit internalizing or externalizing behaviors and are likely to have friends (e.g., see Ayllon & Roberts, 1974; Buhs & Ladd, 2001; Chen et al., 2001; Ladd et al., 1999), peer social competence is also associated with positive school adjustment (Chen et al., 2001; Chen et al., 2000; Ladd et al., 1999). Children who are able to function well in social settings typically gain more friends, more easily adjust to school, and have higher academic achievement (Adams et al., 1999; Caprara, Barbaranelli, Pastorelli, Bandura, & Zimbardo, 2000; Chen et al., 2001; Chen, Rubin, & Li, 1997; Ladd et al., 1999; Lubbers, Van Der Werf, Snijders, Creemers, & Kuyper, 2006; Wentzel, 1991). Ladd, Birch, and

Buhs (1999) found that having friends was positively correlated with classroom participation and academic achievement in a sample of kindergarteners (see also Valiente, Lemery-Chalfant, Swanson, & Reiser, 2008). In addition, they found that initial behavioral orientations as children entered school were associated with peer acceptance, which influenced adjustment, participation, and achievement in the classroom setting. Aggression and acting out behaviors were negatively associated with academic achievement (Dodge, 1983; Hay, Payne, & Chadwick, 2004; Hinshaw, 1992; Ladd et al., 1999; Wentzel & Asher, 1995).

School satisfaction, adjustment, and achievement have been shown to be positively associated with both peer social competence and literacy (e.g., see Adams et al., 1999; Buhs & Ladd, 2001; Ollendick, Weist, Borden, & Greene, 1992; Schwanenflugel, Hamilton, Kuhn, Wisenbaker, & Stahl, 2004; Schwartz, Gorman, Nakamoto, & McKay, 2006; Wang, 2009). Externalizing behaviors are negatively associated with both peer social competence and literacy (Adams et al., 1999; Hinshaw, 1992; Ladd et al., 1999). Given that research has demonstrated relations among academic achievement, literacy, and peer social competence, and because reading fluency is an integral part of literacy, the current research evaluated the relation between peer social competence and reading fluency.

Present Research

It is the contention of the present research that the cognitive processes required for peer social competence and for reading fluency are analogous (Bell-Dolan, 2010). For peer social competence, one must *decode* social cues from peers: facial expressions, gestures, etc.; for reading fluency, one must *decode* the order of the symbols that are the

word. To be socially competent, one must be able to *interpret* what social cues mean; a fluent reader must *interpret* the lexical meanings of a word automatically and effortlessly. Socially competent individuals must *respond* to social cues appropriately, with the correct emotion, action, etc.; fluent readers must be able to take the meaning of the word in syntactical combination with other words and *respond*, using the correct emotions and inflection tied to these words.

The present research addressed the question of whether peer social competence predicts reading fluency for late elementary school children. With fourth through sixth graders, peer social competence and reading fluency were examined. Because Jenkins and Jewell (1993) suggested that silent reading fluency may be a more accurate measure of reading ability in late elementary school and due to the advanced achievement level of the children in the sample used in the study, silent reading fluency was used as the reading fluency measure. Measures of peer social competence were considered in terms of the levels of social complexity offered by Rubin et al. (2006). Controlling for gender and age, a series of hierarchical regression analyses were performed to determine which of the peer social competence variables were associated with the reading fluency measure. It was hypothesized that peer social competence would emerge as a significant predictor of silent reading fluency. Further, individual level measures were hypothesized to be the strongest predictors of silent reading, consistent with the link between self-efficacy, self-concept, and academic performance. Flook, Repetti, and Ullman (2005) found evidence supporting the idea that peer acceptance in the classroom predicts self-efficacy and self-concept. In turn, these constructs were found to predict academic performance.

Method

Participants

Participants attended a university-affiliated public elementary school. During the fall term of the 2008-2009 school year, children were assessed on peer social competence and social behaviors. In the weeks following the collection of the peer social measures, reading fluency data were collected. Participants who completed both social competence and reading fluency measures were 35 fourth-grade, 24 fifth-grade, and 22 sixth-grade students ($N=81$). Students' ethnicity was 61.7% European American, 27.2% African American, and 11.1% other; 56.8% were girls. The families were predominantly middle class socioeconomic status as evidenced by less than 20% of the students being eligible for free or reduced-priced lunches. All children attended general education classes, and none were excluded on the basis of reading disability or other special education eligibility. Permission to conduct the research was approved by the university IRB.

Materials

As noted in the Introduction, and following Rubin et al. (2006), peer social competence measures were conceptualized as corresponding to three levels of social complexity: individual, relationship, and group and are presented below under these headings.

Individual-level measures. Self-reports of competence were derived from the social and global subscales (six items each) of the Harter Self-Perception Profile for Children (Harter, 1985). For each item the child first selected from between two statements (e.g., "Some kids find it hard to make friends. OR Other kids find it's pretty easy to make friends."), and after selecting, the child indicated whether the statement

chosen was *Sort of True for Me* or *Really True for Me*. Reliabilities have been shown to be acceptable for both the social and global subscales (.80 and .81 respectively; Harter, 1985).

Relationship-level measure. Number of mutual classroom friends was determined as an index of relationship level functioning. Children were provided with a complete classroom roster and instructed to circle the names of their friends with no limit to the number of nominations. Children who nominated each other were considered mutual friends.

Group-level measures. Two group-level measures were collected. On a roster of classmates, children were asked to circle the names of the children they respected. The children were allowed an unlimited number of “respect” nominations. For sociometric ratings, children were given a class roster of their classmates with a rating scale of 1 to 6 by each child’s name. Children were instructed to rate how much they liked each person by circling the corresponding number beside the child’s name, where “1” indicated a very low rating and “6” indicated a very high rating. To aid in the determination of how much the child “liked” their classmates, a rating scale was presented at the bottom of the page. A rating of “1” was beneath a nearly empty glass and labeled “very little,” and a rating of “6” was beneath a nearly full glass and labeled “very much” (Coie, Dodge, & Coppotelli, 1982).

Reading fluency. Reading passages for the silent reading assessments were selected from the Oral Reading Fluency subtest of the Dynamic Indicators of Basic Early Literacy Skills (DIBELS; Good, Kaminski, & Dill, 2002). The DIBELS has available 20 passages for each grade level from kindergarten through sixth grade. Using mean z-

scores, 6 passages (3 groups of 2 passages: groups A, B, and C) were selected from within each grade. Passages ranged from 304 to 371 ($M = 339.0$) words in length for the fourth grade, 315 to 366 ($M = 339.1$) for the fifth grade, and 320 to 376 ($M = 343.8$) for the sixth grade. Silent reading fluency was assessed using a pencil-and-paper test. The procedures for this assessment included the child reading two passages for one minute each. When the examiner called time, the child circled the last word read. If the child finished the passage before the one minute, the exact reading time was recorded. To ensure the passages were read, a one-minute retell was requested. Reliability and validity coefficients were .86 (WPM) and .66 for the paper-and-pencil tests.

Procedure

Social competence data were collected in October and November during the school year. The order of the presentation of materials within each session as well as the order of the sessions was counterbalanced across classrooms. Children completed all tasks at their own desks. Before beginning the session, an examiner told the children that they were not obligated to participate, although their participation was very helpful. Each child was given a booklet that contained all of the measures that were to be completed during the session. The children were told not to look at each other's papers and not to discuss their responses with one another. An examiner gave the children directions at the beginning of each task. The instructions were printed at the top of each page as well. The students were given time to complete each task, and at least three additional examiners walked around the room to help any students. Examiners monitored the completion of tasks and were careful to ensure that children did not discuss their responses with anyone in the classroom.

In the weeks following the peer social competence data collection, reading fluency assessments were given. Written parental consent and child assent was required for participation in the reading fluency assessments. Reading passages were grouped into three sets of three passages (i.e., group A, B, and C) and were counterbalanced within each measure to control for reading passage effects. These group administered assessments were conducted with the entire class or with participants collapsed across grades when appropriate. All measures were administered by graduate students in psychology and were trained by the lead investigator. All administrators reached 95% agreement of interrater reliability on DIBELS Oral Reading Fluency prior to the beginning of data collection. Their first day of administration was then observed by the trainer to ensure procedural adherence with the remaining individual assessments. Children received a small token gift (i.e., a pencil) as thanks for participating in the study.

Results

Preliminary Analyses

Due to differences in the number of children per classroom, peer social competence scores were standardized by classroom. A 2 x 2 x 2 (gender by grade by sample) MANOVA was conducted to compare performance on the social measures of the reading fluency sample to those children who did not take the reading fluency assessment. Importantly, no main effects or interaction effects were found based on type of sample.

Correlations were conducted between all variables (see Table 1). Age in months was negatively associated with both number of mutual friends, $r(80) = -.295$, and peer liking, $r(80) = -.299$. Silent reading fluency was also negatively correlated with these

two measures, $r(80) = -.245$ and $r(80) = -.243$, respectively. Gender was not significantly related to any of the measures.

Primary Analyses

A series of regression analyses were performed, regressing reading fluency on peer social competence. The regressions investigated the link between social competence and reading fluency at each level of social complexity.

The regression analyses were performed as follows. On step 1, age in months and gender were entered, controlling for any effects these demographic variables could have on the overall model. On step 2, the peer social competence measures (self perceived social and global competence, number of mutual friends, sociometric liking ratings, or respect nominations) were entered separately by level of social complexity. That is, regressions were performed on the individual level measures (perceived self sociability and global self worth), number of mutual friends as the relationship level, and on the group level measures (respect nominations and liking ratings).

When regressed on individual-level measures, reading fluency returned no significant results, $F(4, 73) = .555, p = .696$ (see Table 2), showing no predictive value for perceived sociability or self worth. The relationship-level number of mutual friends yielded a significantly negative predictive model, $\beta = -.257, p = .033$ (see Table 3); however, the overall regression model did not significantly predict reading fluency, $F(3, 77) = 1.896, p = .137$. Group-level measures did not significantly predict reading fluency, $F(4, 76) = 1.553, p = .195$ (see Table 4); however, liking was marginally significant in predicting reading fluency, $\beta = -.306, p = .064$. Being liked was inversely related to reading fluency. In sum, number of mutual friends, generally, was a significant

predictor of reading fluency, and peer liking emerged as a marginally significant predictor independent of the group-level model. Both significant predictors were negatively oriented.

Discussion

Literacy is important in order to be successful academically, and a core component of literacy is reading fluency. Uncovering predictors of reading fluency in peer relations was the aim of the current study. We examined social competence as a predictor of reading fluency at different levels of social complexity, basing our approach on the information-processing model proposed by Dodge (1986), that is, that both constructs include the same cognitive processes in their performance: decoding, interpreting, and responding.

Number of mutual friends emerged as a significant predictor of reading fluency. Negative directionality was an unexpected finding, suggesting that the more mutual friends one had, the lower one's reading fluency scores. This finding is not supported by Ladd (1990), who found that the more the number of mutual friends, the more one favored school and, thus, were more successful academically. Likewise, peer liking was a moderately negative significant predictor of reading fluency, suggesting that the more a child was liked, the lower their reading fluency scores were. This finding is not supported by the literature (see Glick, 1969; Ladd et al., 1999).

It should be noted that the regression analyses that produced the findings above were not particularly robust in that the overall regression equation was not consistently significant making conclusions difficult. A limitation and possible explanation for the unexpected findings lies in the nature of the data set. Due to the advanced reading ability

of most of the students at the school where the study was conducted, the reading fluency data was positively skewed, with a small range of fluency scores. Since the reading fluency scores did not result in a normal distribution and there was such a small range in scores, variability in the data was limited. Due to this limitation, the data may artifactually suggest a negative correlation between peer social competence and reading fluency. In addition to the sample and data set, the choice to use only silent reading fluency may have negatively impacted the results.

The age of the sample could have also skewed the data. Considering the nature of early reading practices, it is possible that younger children's reading ability would be more affected by social competence. Younger children practice learning to read in the social environment with much of the early reading activities consisting of reading aloud in front of the class (i.e., choral reading). As children enter the later elementary school grades, reading takes on a more private, withdrawn status, with children often reading alone silently. Going through this transition of "learning to read" to "reading to learn" may lead to the lessening effect of social interaction on reading ability.

Future research on peer social competence and reading fluency should be performed in order to attain a clearer understanding of the relationship between these two constructs. Using both oral and silent reading fluency scores and having a larger, more representative sample could yield more conclusive findings.

In conclusion, peer social competence did not emerge as a significant predictor of reading fluency in the present research. Although a predictive link between peer social competence and reading fluency was not established in the current research, a few inferences can be made. Further research should be conducted on the subject to

substantiate these findings. Peer social competence is important to the research on academic achievement, and further research on peer social competence affecting learning ability looks promising in the future of developmental psychology.

References

- Adams, J. W., Snowling, M. J., Hennessy, S. M., & Kind, P. (1999). Problems of behaviour, reading and arithmetic: Assessments of comorbidity using the Strengths and Difficulties Questionnaire. *British Journal of Educational Psychology, 69*, 571-585.
- Asher, S. R. (1983). Social competence and peer status: Recent advances and future directions. *Child Development, 54* (6), 1427-1434.
- Ayllon, T., & Roberts, M. D. (1974). Eliminating discipline problems by strengthening academic performance. *Journal of Applied Behavior Analysis, 7* (1), 71-76.
- Bell-Dolan, D. J. (2010). Social cue interpretation of anxious children. *Journal of Clinical Child & Adolescent Psychology, 24* (1), 1-10.
- Buhs, E. S., & Ladd, G. W. (2001). Peer rejection as an antecedent of young children's school adjustment: An examination of mediating processes. *Developmental Psychology, 37* (4), 550-560.
- Caprara, G. V., Barbaranelli, C., Pastorelli, C., Bandura, A., & Zimbardo, P. G. (2000). Prosocial foundations of children's academic achievement. *Psychological Science, 11* (4), 302-306.
- Cauce, A. M. (1987). School and peer competence in early adolescence: A test of domain-specific self-perceived competence. *Developmental Psychology, 23* (2), 287-291.
- Chall, J.S. (1996). *Learning to read: The great debate*. New York, NY: McGraw-Hill.
- Chall, J., Jacobs, V., & Baldwin, L. (1990). *The reading crisis: Why poor children fall behind*. Cambridge, MA: Harvard University Press.
- Chen, X., Chen, H., & Kaspar, V. (2001). Group social functioning and individual socioemotional and school adjustment in Chinese children. *Merrill-Palmer Quarterly, 47* (2), 264-299.
- Chen, X., Li, D., Li, Z., Li, B., & Liu, M. (2000). Sociable and prosocial dimensions of social competence in Chinese children: Common and unique contributions to social, academic, and psychological adjustment. *Developmental Psychology, 36* (3), 302-314.

- Chen, X., Rubin, K. H., & Li, D. (1997). Relation between academic achievement and social adjustment: Evidence from Chinese children. *Developmental Psychology*, 33 (3), 518-525.
- Coie, J. D., Dodge, K. A., & Coppotelli, H. (1982). Dimensions and types of social status: A cross-age perspective. *Developmental Psychology*, 18 (4), 557-570.
- Crick, N. R., & Dodge, K. A. (1994). A review and reformation of social information-processing mechanisms in children's social adjustment. *Psychological Bulletin*, 115 (1), 74-101.
- Dodge, K. A. (1983). Behavioral antecedents of peer social status. *Child Development*, 54 (6), 1386-1399.
- Dodge, K. A. (1986). A social information processing model of social competence in children. In M. Perlmutter (Ed.), *Minnesota Symposia on Child Psychology* (Vol. 18, pp. 77-125). Hillsdale, NJ: Erlbaum.
- Flook, L., Repetti, R. L., & Ullman, J. B. (2005). Classroom social experiences as predictors of academic performance. *Developmental Psychology*, 41 (2), 319-327.
- Fuchs, L. S., Fuchs, D., Hosp, M. K., & Jenkins, J. R. (2001). Text fluency as an indicator of reading competence: A theoretical, empirical, and historical analysis. *Scientific Studies of Reading*, 5, 239-256.
- Glick, O. (1969). Person-group relationships and the effect of group properties on academic achievement in the elementary school classroom. *Psychology in the Schools*, 6 (2), 197-203.
- Good, R. H., & Kaminski, R. A., & Dill, S. (2002). DIBELS Oral Reading Fluency. In R. H. Good & R. A. Kaminski (Eds.), *Dynamic Indicators of Basic Early Literacy Skills* (6th ed.). Eugene, OR: Institute for the Development of Educational Achievement.
- Haberlandt, K. (1994). Methods in reading research. In M.A. Gernsbacher (Ed.), *Handbook of Psycholinguistics*. San Diego, CA: Academic Press.
- Harter, S. (1985). *Self-perception profile for children*. Denver, CO: University of Denver.
- Hay, D. F., Payne, A., & Chadwick, A. (2004). Peer relations in childhood. *Journal of Child Psychology and Psychiatry*, 45 (1), 84-108.
- Hinde, R. A. (1992). Developmental psychology in the context of other behavioral sciences. *Developmental Psychology*, 28 (6), 1018-1029.

- Hinshaw, S. P. (1992). Externalizing behavioral problems and academic underachievement in childhood and adolescence: Causal relationships and underlying mechanisms. *Psychological Bulletin, 111* (1), 127-155.
- Hsueh, Y., Zhou, Z., Cohen, R., Hundley, R. J., & Deptula, D. P. (2005). Knowing and showing respect: Chinese and U.S. children's understanding of respect and its association to their friendships. *Journal of Psychology in Chinese Societies, 6* (2), 229-260.
- Jenkins, J. R., & Jewell, M. (1993). Examining the validity of two measures for formative teaching: Reading aloud and maze. *Exceptional Children, 59* (5), 421-432.
- Klauda, S. L., & Guthrie, J. T. (2008). Relationships of three components of reading fluency to reading comprehension. *Journal of Educational Psychology, 100* (2), 310-321.
- Kuhn, M. R., & Stahl, S. A. (2003). Fluency: A review of developmental and remedial practices. *Journal of Educational Psychology, 95* (1), 3-21.
- Ladd, G. W. (1990). Having friends, keeping friends, making friends, and being liked by peers in the classroom: Predictors of children's early school adjustment? *Child Development, 61* (4), 1081-1100.
- Ladd, G. W. (2006). Peer rejection, aggressive or withdrawn behavior, and psychological maladjustment from ages 5 to 12: An examination of four predictive models. *Child Development, 77* (4), 822-846.
- Ladd, G. W., Birch, S. H., & Buhs, E. S. (1999). Children's social and scholastic lives in kindergarten: Related spheres of influence? *Child Development, 70* (6), 1373-1400.
- Lubbers, M. J., Van Der Werf, M. P., Snijders, T. A., Creemers, B. P., & Kuyper, H. (2006). The impact of peer relations on academic progress in junior high. *Journal of School Psychology, 44*, 491-512.
- Monfries, M. M., & Kafer, N. F. (2001). Neglected and rejected children: A social-skills model. *The Journal of Psychology, 121* (4), 401-407.
- National Reading Panel. (2000). *Report of the national reading panel*. Washington, DC: NRP.
- Newcomb, A. F., Bukowski, W. M., & Pattee, L. (1993). Children's peer relations: A meta-analytic review of popular, rejected, neglected, controversial, and average sociometric status. *Psychological Bulletin, 113* (1), 99-128.

- Ollendick, T. H., Weist, M. D., Borden, M. C., & Greene, R. W. (1992). Sociometric status and academic, behavioral, and psychological adjustment: A five-year longitudinal study. *Journal of Consulting and Clinical Psychology, 60* (1), 80-87.
- Pietromonaco, P. R., & Barrett, L. F. (2009). Valence focus and self-esteem lability: Reacting to hedonic cues in the social environment. *Emotion, 9* (3), 406-418.
- Pressley, M. (2002). Effective beginning reading instruction. *Journal of Literacy Research, 34* (2), 165-188.
- Rayner, K. (1998). Eye movements in reading and information processing: 20 years of research. *Psychological Bulletin, 124*, 372-422.
- Rubin, K. H., Bukowski, W., & Parker, J. G. (1998). Peer interactions, relationships, and groups. In W. Damon & N. Eisenberg (Eds.), *Handbook of child psychology, 5th ed.* (Vol. 3, pp. 619-700). Hoboken, NJ, USA: John Wiley & Sons, Inc.
- Rubin, K. H., & Rose-Krasnor, L. (1992). Interpersonal problem solving and social competence in children. In V. B. Van Hasselt & M. Hersen (Eds.), *Handbook of social development: A lifespan perspective* (pp. 283-323). New York, NY, USA: Plenum Press.
- Schwanenflugel, P. J., Hamilton, A. M., Kuhn, M. R., Wisenbaker, J. M., & Stahl, S. A. (2004). Becoming a fluent reader: Reading skill and prosodic features in the oral reading of young readers. *Journal of Educational Psychology, 96* (1), 119-129.
- Schwartz, D., Gorman, A. H., Nakamoto, J., & McKay, T. (2006). Popularity, social acceptance, and aggression in adolescent peer groups: Links with academic performance and school attendance. *Developmental Psychology, 42* (6), 1116-1127.
- Stage, S. A. & Jacobsen, M. D. (2001). Predicting student success on a state-mandated performance-based assessment using oral reading fluency. *School Psychology Review, 30* (3), 407-419.
- Valiente, C., Lemery-Chalfant, K., Swanson, J., & Reiser, M. (2008). Prediction of children's academic competence from their effortful control, relationships, and classroom participation. *Journal of Educational Psychology, 100* (1), 67-77.
- Wang, M.-T. (2009). School climate support for behavioral and psychological adjustment: Testing the mediating effect of social competence. *School Psychology Quarterly, 24* (4), 240-251.

- Wentzel, K. R. (1991). Relations between social competence and academic achievement in early adolescence. *Child Development, 62* (5), 1066-1078.
- Wentzel, K. R., & Asher, S. R. (1995). The academic lives of neglected, rejected, popular, and controversial children. *Child Development, 66* (3), 754-763.

Table 1

Correlations between Demographic, Peer Social Competence, and Reading Fluency Variables

	Age	Reading Fluency	Perceived Sociability	Global Self Worth	Mutual Friends	Liking	Respect
Gender	0.119	-0.109	-0.017	-0.088	0.192	0.029	0.040
Age	—	-0.002	0.142	0.009	-.295**	-.299**	0.015
Reading Fluency		—	-0.062	-0.075	-.245*	-.243*	-0.148
Perceived Sociability			—	.463**	.264**	.292**	.305**
Global Self Worth				—	.182*	0.048	0.095
Mutual Friends					—	.538**	.386**
Liking						—	.736**

Note. * $p < .05$. ** $p < .01$.

Table 2

Summary of Hierarchical Regression Analysis for Individual-Level Variables Predicting Reading Fluency (N=78)

Variable	Model 1			Model 2		
	<i>B</i>	<i>SE B</i>	β	<i>B</i>	<i>SE B</i>	β
Gender	-18.746	14.958	-0.145	-19.775	15.154	-0.152
Age	0.177	0.745	0.027	0.223	0.760	0.035
Perceived Sociability				-4.802	16.414	-0.038
Global Self Worth				-8.905	15.961	-0.072
R^2		0.021			0.029	
F for change in R^2		0.778			0.555	

Note. * $p < .05$. ** $p < .01$.

Table 3

Summary of Hierarchical Regression Analysis for Relationship-Level Variable Predicting Reading Fluency (N=81)

Variable	Model 1			Model 2		
	<i>B</i>	<i>SE B</i>	β	<i>B</i>	<i>SE B</i>	β
Gender	-14.301	14.696	-0.110	-6.640	14.789	-0.051
Age	0.072	0.742	0.011	-0.471	0.767	-0.072
Mutual Friends				-15.617	7.207	-0.257*
R^2		0.012			0.069	
F for change in R^2		0.474			1.896	

Note. * $p < .05$. ** $p < .01$.

Table 4

Summary of Hierarchical Regression Analysis for Group-Level Variables Predicting Reading Fluency (N=81)

Variable	Model 1			Model 2		
	<i>B</i>	<i>SE B</i>	β	<i>B</i>	<i>SE B</i>	β
Gender	-18.746	14.958	-0.145	-19.775	15.154	-0.152
Age	0.177	0.745	0.027	0.223	0.760	0.035
Respect				3.819	9.717	0.061
Liking				-20.288	10.796	-0.306
R^2		0.021			0.029	
F for change in R^2		0.778			0.555	

Note. * $p < .05$. ** $p < .01$.

THE UNIVERSITY OF MEMPHIS

Institutional Review Board

To: Katherine Price
Psychology

From: Chair, Institutional Review Board
for the Protection of Human Subjects
Administration 315

Subject: Silent Reading Fluency Assessment (E09-33)

Approval Date: September 30, 2008

This is to notify you that the Institutional Review Board has designated the above referenced protocol as exempt from the full federal regulations. This project was reviewed in accordance with all applicable statutes and regulations as well as ethical principles.

When the project is finished or terminated, please complete the attached Notice of Completion and send to the Board in Administration 315.

Approval for this protocol does not expire. However, any change to the protocol must be reviewed and approved by the board prior to implementing the change.

Chair, Institutional Review Board
The University of Memphis

Dr. B. Meisinger

THE UNIVERSITY OF MEMPHIS

Institutional Review Board

To: Robert Cohen
Psychology

From: Chair, Institutional Review Board
for the Protection of Human Subjects

Subject: A Comprehensive Analysis of Children's Peer Relations (H0150-08)

Approval Date: August 14, 2008

This is to notify you of the board approval of the above referenced protocol. This project was reviewed in accordance with all applicable statutes and regulations as well as ethical principles.

Approval of this project is given with the following obligations:

1. At the end of one year from the approval date an approved renewal must be in effect to continue the project. If approval is not obtained, the human consent form is no longer valid and accrual of new subjects must stop.
2. When the project is finished or terminated, the attached form must be completed and sent to the board.
3. No change may be made in the approved protocol without board approval, except where necessary to eliminate apparent immediate hazards or threats to subjects. Such changes must be reported promptly to the board to obtain approval.
4. The stamped, approved human subjects consent form must be used. Photocopies of the form may be made.

This approval expires one year from the date above, and must be renewed prior to that date if the study is ongoing.

Approved