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## Resiliency among Third Graders and their Classmates and Associations with Reading Skill Gains

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### Abstract

This study examined if indicators of resilience were associated with students' reading skill gains and whether the resilience of classmates was associated with students' literacy learning overall. Third grade students (n=478) from a large, diverse school district were given a battery of assessments. The indicators of resilience measured were the Social Skills and Problem Behaviors scores on the Social Skills Rating System, the Resiliency Scale for Children and Adolescents (RSCA), the picture vocabulary subtest of the Woodcock- Johnson Tests of Achievement III, and the Woodcock-Johnson Passage Comprehension test. To categorize the poverty level of the schools, the percentage of students qualifying for the federal Free and Reduced Lunch Program (FARL) was used. Stronger skills on one indicator were correlated with strong skills on other indicators. Resilience indicators were higher at schools where fewer students qualified for FARL, except on the Emotion Scale Standard Score. A factor analysis of the entire sample revealed two variables. There was a Teacher and Student Perception of resilience, and these were used in remaining analyses. In schools with a FARL of greater than 50%, students who displayed higher scores on the Teacher Perception indicators of resilience also demonstrated greater gains in reading skills compared to students with lower scores for resilience. When looking at the impact of classmates' resilience, the relationship between the spring Passage Comprehension scores and the class factor of resilience was not significant.

*Keywords:* resilience, literacy, poverty

THE FLORIDA STATE UNIVERSITY  
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RESILIENCY AMONG THIRD GRADERS AND THEIR CLASSMATES AND  
ASSOCIATIONS WITH READING SKILL GAINS

By

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## Introduction

Some children have the ability to positively adapt to adversity, such as poverty. This has been called resilience. Certain child characteristics are associated with resilience. These include good relationships with adults and friends (i.e., social skills), intelligence, and controlling behavior (Masten, Herbers, Cutuli, & Lafort, 2008). As a construct, resilience is important because children who are more resilient are more likely to have stronger academic achievement (Anthony, Alter, & Jenson, 2009). At the same time, nationwide, students are not reaching a level of reading proficiency that is necessary for school success. Around 33% of fourth graders were below the level of basic reading ability. This number increases to 49% when considering high poverty schools (National Assessment of Educational Progress, 2009).

One of the adverse conditions that can affect children's outcomes is poverty. Underprivileged children have a tendency to score lower in both reading and math than more well-off children over time. Some demonstrate the lowest achievable scores and improve minimally, if at all. On the other hand, there is a considerable percentage of children who are at risk (homeless, poor, etc.) that reach levels comparable to those of others across the nation and even better (Masten, 2009), and when they do, they are considered to demonstrate resilience. The purpose of the proposed research is to examine the possible impact of multiple social factors and behavior, as indicators of resilience, on third graders' literacy learning in the context of higher poverty schools.

### *Social Skills and Academics*

Research shows that certain child characteristics are associated with greater resilience. Among the most important are strong social skills. Having strong social skills can help children overcome adversity such as stereotyping. It can also encourage parents and teachers to interact

with the child more, which can lead to better academics and resiliency in areas where the child is more likely to score lower. There is a correlation between positive social behaviors and subsequent academic achievement (Welsh, Parke, Widaman, & O'Neil, 2001). When investigating boys' reading abilities and girls' mathematics abilities, stronger relationships between teachers and students (i.e., social skills) may be associated with greater gains in reading and mathematics respectively (Konold, Jamison, Stanton-Chapman & Rimm-Kaufman, 2010). Research has also highlighted associations among the classroom environment, students' social skills, and academic achievement. In third and fifth grade classes, for example, literacy abilities were predicted by the quality of emotional relationships in the classroom (Pianta, Belsky, Vandergrift, Houts, & Morrison, 2008).

There is some bi-directionality between academic and social achievement. From first to second grade and second to third grade, academic ability strongly influences social aptitude (Welsh, Parke, Widaman, & O'Neil, 2001). Reaching age-appropriate milestones of development like following rules, interacting with peers, and performing well in the classroom predict achievement in the future (Masten, 2009). Social skills are also correlated with Letter-Word Identification and Applied Problems, especially in younger children (Konold, Jamison, Stanton-Chapman & Rimm-Kaufman, 2010).

This relationship also applies to inadequate achievement, and poor academics are associated with poor social skills (Welsh, Parke, Widaman, & O'Neil, 2001). Children who are seen as quiet are also viewed as "less intelligent" by their peers and teachers (Rubin, Coplan, & Bowker, 2009). For elementary age children with internalizing problems, being dependent on the teacher leads to problems with peer acceptance (Henricsson & Rydell, 2006). In children with Autism Spectrum Disorders, as reading comprehension decreases more and more below

students' intellectual level, there are increasing problems with communication and social skills (Jones et al., 2009). Academic and social deficiencies may be improved using academic or combined academic and social interventions (Welsh, Parke, Widaman, & O'Neil, 2001). Enhancing social skills this way can have beneficial repercussions. When children's social skills are perceived as positive, for example, adults tend to interact in a way that encourages growth in reading (Konold, Jamison, Stanton-Chapman & Rimm-Kaufman, 2010).

The good news is research indicates that resilience can be encouraged. This can be accomplished in a variety of ways including minimizing the exposure to risk, increasing available resources, and supporting the adaptive systems of the child (Masten, 2009). Strong attachments to caregivers are also helpful. Resilience can be promoted by having capable parents and by possessing stronger cognitive skills for children that have faced great misfortune (Masten, 2009). Positive encounters at school and a productive school environment contribute to resilience as well (Masten, Herbers, Cutuli, & Lafavor, 2008). For example, those who participated in the Out-of-School Time Program that focused on risk and resilience showed a significant advance in reading from the beginning to the end of the school year, as well as higher grades when they spent more time in the program. These children also showed a significant increase in self-efficacy over the school year (Anthony, Alter, & Jenson, 2009). Children with high resiliency have also tended to show higher internal motivation than others (Solberg, Carlstrom, Howard, & Jones, 2007).

### *Self-Regulation*

One social skill that can be related to both academic achievement and the classroom environment is self-regulation. It is possible that students who start school already being able to self-regulate are more apt at gaining from lessons on literacy, and the opposite is true (Connor,

Ponitz, Phillips, Travis, Glasney, & Morrison, 2010). Being able to recall directions, pay attention, and manage themselves, allows students to perform well in the classroom. This ability to self-regulate can predict growth in literacy. While students who attend high-poverty schools tend to display weaker self-regulation than those who attend schools with more resources, there appears to be very little impact of SES on the effectiveness of classroom settings that support the progress of regulatory competence. Therefore, by changing teaching techniques and the environment of the classroom, it appears to be possible to raise levels of self-regulation and literacy (Connor et al., 2010).

As this shows, the atmosphere of the classroom can have a substantial impact on students. If children feel emotionally relaxed and encouraged in class, they may be more likely to enjoy school (Pianta et al., 2008). In many cases, the emotional availability and teaching style of the teacher can play a large role in children's advancement. For first graders, superior emotional support from teachers leads to faster progress in sound awareness (Curby, Rimm-Kaufman, & Ponitz, 2009). For children who are typical readers, the quality and quantity of instruction are connected to reading achievement. Contrastingly, in those children who develop reading abilities faster than most, the level of instruction does not foretell further growth between first and fifth grade (Pianta et al., 2008).

Similarly, a good classroom environment might lead to improved mathematics scores, which may be due to "increasing motivation, attention, and engagement" (Pianta et al., 2008). The average achievement of peers greatly influences learning (Hanushek, Kain, Markman, & Rivkin, 2003). The focus in the classroom is also important. When a greater amount of time is spent on a subject, for instance mathematics, there may be stronger mathematics achievement in third and fifth grade (Pianta et al. 2008).

The purpose of the current study was to examine whether certain characteristics of children in third grade classrooms, specifically characteristics associated with more and less resilience, are generally associated with literacy learning overall. The following research questions and hypotheses were posed:

1. What is the nature and variability of a number of indicators of resilience in a sample of third graders who attend schools that vary in rates of poverty? These indicators include students' social skills, vocabulary (used as a proxy for intelligence), lack of behavior problems (used as a proxy for self-regulation), and direct student report on a resilience scale.
  - a. It was hypothesized that there would be variability among children on these indicators.
  - b. It was predicted that these indicators would be positively correlated with each other.
  - c. It was hypothesized that children who attended higher poverty schools would generally be less likely to show higher scores on indicators of resilience compared to students at more affluent schools but that this would vary and that some children at high poverty schools would show higher scores on the indicators.
2. To what extent are both child specific indicators of resilience and the characteristics of classmates on indicators of resilience associated with children's literacy skill gains?
  - a. It was predicted that children who scored higher on indicators of resilience would show great literacy gains.

- b. It was hypothesized that the percentage of students in the classroom with characteristics associated with resiliency would significantly contribute to students' literacy gains overall.
3. For children who attend higher poverty schools, to what extent are child specific indicators of resilience associated with children's literacy skill gains?
  - a. It was hypothesized that students who displayed higher levels of resilience would be more likely to show greater gains in reading skills.

## **Methods**

### ***Participants***

Four hundred seventy-eight third graders participated in this study. The mean age of participants was 8.58 years, with a range of 7.8 to 11.25 years. Of these, 47% were male, and 53% were female. Approximately 51% were Black/ African American, 36% were White, 3% were Asian, 3% were Hispanic, 4% were Multiracial, and 3% belonged to other racial groups. Of these students, a randomly selected sample (n=433) was administered an additional battery of assessments including child resilience.

There were 33 teachers, all of whom met state certification. All had Bachelor's Degrees, and thirty were in a field associated with education. Seven had degrees or certifications above a Bachelor's. The number of years that the teachers had been teaching varied from zero to thirty.

The students and teachers were from seven different schools. These schools were in a large, diverse district located in North Florida. The percentage of students per school that met requirements for the federal free and reduced price lunch program (FARL) reached from 4% to 92%, with 47% of the children in the study qualifying for FARL.

## *Measures*

### **Indicators of Resilience**

#### *Social Skills and Lack of Behavior Problems*

The Social Skills Rating System (SSRS) was used to assess children's social skills and behavior problems. There are two versions, a teacher report and a parent report. There are three domains that are assessed- Social Skills, Problem Behaviors, and Academic Competence. The Social Skills scale is made up of five subscales: Cooperation, Assertion, Responsibility, Empathy, and Self-Control. Ratings consider both the frequency and importance of behaviors, and there is a mean reliability of 0.91. The Problem Behaviors domain looks at Externalizing Problems, Internalizing Problems, and Hyperactivity, with a reliability of 0.88. The Academic Competence domain relates to the academic ability of students and has a reliability of 0.95.

#### *Resiliency*

The Resiliency Scale for Children and Adolescents (RSCA) was used to measure each child's resiliency. This is a student self-report assessment that measures the characteristics of the children that are important in resiliency. It is made up of three scales: Sense of Mastery, Sense of Relatedness, and Emotional Reactivity. Sense of Mastery measures adaptability, self-efficacy, and optimism. The Sense of Relatedness Scale measures comfort, trust, tolerance, and support. The Emotional Reactivity Scale measures recovery, impairment, and sensitivity.

#### *Vocabulary*

Children's vocabulary skills, which are used as a proxy for verbal cognitive skills, were evaluated using the picture vocabulary subtest of the Woodcock- Johnson Tests of Achievement

III (WJ), which is given individually. It has good reliability and validity for third grade students (reliability= 0.77, Woodcock, McGrew, & Mather, 2001).

### ***Literacy Outcome***

Reading comprehension was tested using the WJ Passage Comprehension test (reliability = 0.83), which is a cloze task. Children read a sentence or short passage that is missing a word and are asked to provide the missing word. For example, given a picture of a duck on a pond, the children read, “The duck is swimming on a \_\_\_\_\_.”

### **School SES**

The publically available school-wide percentage of children who qualify for the federal Free and Reduced Lunch Program (FARL), a commonly used metric of poverty, was used to characterize the poverty level of the school.

### **Procedures**

Assessments were conducted in a quiet place near the students’ classrooms by trained research assistants. Scores were checked and entered in a digital database where they were checked again. The data for this study were collected in 2009-2010. Although I received training and administered these assessments with fourth grade students, I did not collect additional data for this study.

### ***Analytic Strategies***

Again, this study explored whether indicators of resiliency were associated with students’ reading skill gains and whether the composition of the classroom with regard to the proportion of children with characteristics associated with resilience was associated with students’ literacy learning overall.

To answer research question 1, regarding the nature and variability of key indicators of resilience, I examined descriptive statistics, including means, standard deviations, and ranges overall and by school SES. I also examined correlations among the variables.

To answer research question 2 regarding individual and classmates resilience, classroom level variables of the key construct, social skills from the SSRS and vocabulary, were created in two ways. First, the classroom mean standard score for the social skills metric and vocabulary was computed. Second, the percentage of children in the classroom with social skills and vocabulary standard scores fall one or more standard deviations below the mean was computed. Similar variables were created using the RSCA.

To answer research question 3, regarding whether child specific indicators of resilience predict reading gains, a regression analysis using PASW (version 17) was conducted with reading comprehension as the outcomes, controlling for fall score. Then children's individual social skills, vocabulary, behavior problem standard scores, and RSCA raw were entered into the model.

## **Results**

*What is the nature of and variability in a number of indicators of resilience, specifically vocabulary, social skills, behavior problems, and student report (emotion, mastery, relatedness scales)?*

Overall, the hypotheses were supported but not entirely. The hypothesis that children would demonstrate individual differences was supported. The means, standard deviations, and ranges are provided in Table 1. As can be seen, in general, students are performing within normal expectations for their age and grade with means for vocabulary, social skills and behavior falling within two points of standard score means (i.e., 110, SD = 15) on these standardized

assessments. This, however, varied as demonstrated by the range of scores across measures. Notably, vocabulary scores tended to show less variation than the standardized sample whereas social skills showed more, based on standard deviations.

It was predicted that the indicators would be associated and this hypothesis was also supported as shown by the correlations in Table 2. In general, children who had stronger scores on one indicator tended to have stronger scores on all of the other indicators although the correlations were generally small. Note that higher scores on the behavior problem scale indicate more behavior problems and so it was expected that these correlations would be negative.

Table 1. Student Standard Scores

	Mean	Standard Deviation	N
Vocabulary	98.24	11.173	498
Social Skills	101.87	17.258	475
Problem Behaviors	99.34	14.682	475
Emotional Scale	52.30	10.971	433
Mastery Scale	51.37	10.565	433
Relatedness Scale	48.75	11.210	433

Table 2

		Correlations							
		WJ_VOC_SS	TSoc_SS	TSocPB_SS	RSCA Emotional Scale_SS	RSCA Mastery Scale_SS	RSCA Relatedness ScaleSS	WJ_PC SS	Sp_PC SS
WJ_VOC_W	Pearson Correlation	1	.178**	-.109*	-.176**	.137**	.155**	.575**	.508**
	Sig. (2-tailed)		.000	.020	.000	.005	.001	.000	.000
	N	498	454	454	423	423	423	498	452
TSoc_SS	Pearson Correlation	.178**	1	-.737**	-.212**	.154**	.230**	.228**	.250**
	Sig. (2-tailed)	.000		.000	.000	.001	.000	.000	.000
	N	454	475	475	425	425	425	454	458
TSocPB_SS	Pearson Correlation	-.109*	-.737**	1	.197**	-.128**	-.221**	-.185**	-.150**
	Sig. (2-tailed)	.020	.000		.000	.008	.000	.000	.001
	N	454	475	475	425	425	425	454	458
RSCA_ EmotionalScaleS	Pearson Correlation	-.176**	-.212**	.197**	1	-.117*	-.176**	-.186**	-.218**
	Sig. (2-tailed)	.000	.000	.000		.015	.000	.000	.000
	N	423	425	425	433	433	433	423	425
RSCA_MasteryS caleSS	Pearson Correlation	.137**	.154**	-.128**	-.117*	1	.661**	.172**	.147**
	Sig. (2-tailed)	.005	.001	.008	.015		.000	.000	.002
	N	423	425	425	433	433	433	423	425
RSCA_ Relatedness ScaleSS	Pearson Correlation	.155**	.230**	-.221**	-.176**	.661**	1	.227**	.158**
	Sig. (2-tailed)	.001	.000	.000	.000	.000		.000	.001
	N	423	425	425	433	433	433	423	425
WJ_PC_SS	Pearson Correlation	.575**	.228**	-.185**	-.186**	.172**	.227**	1	.773**
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.000		.000
	N	498	454	454	423	423	423	498	452
Sp_PC_SS	Pearson Correlation	.508**	.250**	-.150**	-.218**	.147**	.158**	.773**	1
	Sig. (2-tailed)	.000	.000	.001	.000	.002	.001	.000	
	N	452	458	458	425	425	425	452	467

\*\* Correlation is significant at the 0.01 level (2-tailed).

\* Correlation is significant at the 0.05 level (2-tailed).

The third hypothesis was that children who attended higher poverty schools as indicated by the school-wide percentage of children qualifying for FARL would tend to have lower scores on the indicators of resilience (but higher on behavior problems) than students attending more affluent schools. To test this hypothesis I used multivariate analysis of covariance (MANCOVA). Results of MANCOVA indicated significant differences among schools on the indicators. Wilks' Lambda was .707,  $F(36, 1772) = 4.040, p < .001$ . A graph of the estimated marginal means for each of the indicators is provided in Figures 1 through 6. As can be seen, in general, indicators are higher at schools where fewer students qualify for FARL with one notable exception, the Emotion Scale Standard Score (Figure 4). However, patterns were unpredictable for schools with FARL percentages falling between 35 and 70%. Notably, the school where 44% qualified for FARL was an outlier in vocabulary, social skills, and problem behaviors.

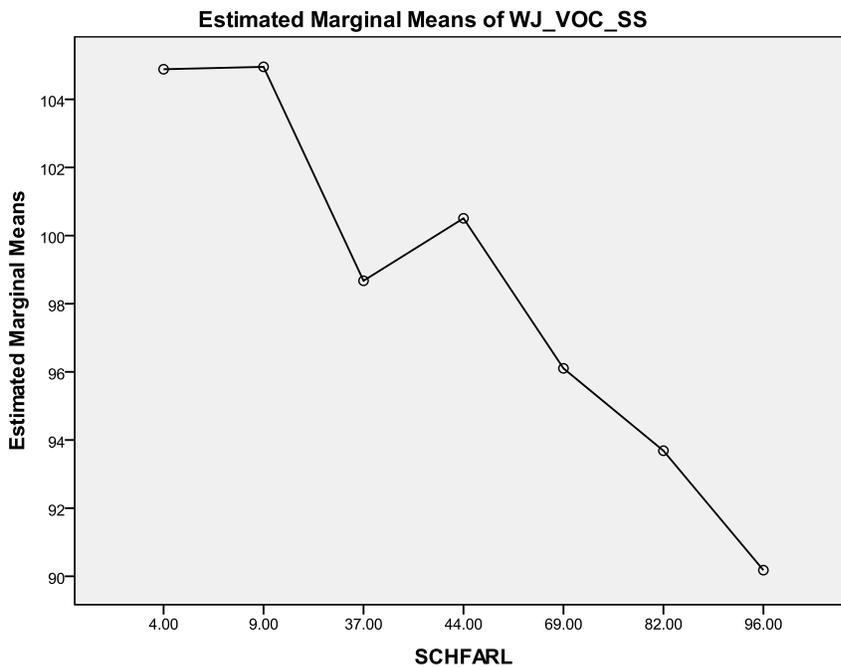


Figure 1. Vocabulary Standard Scores

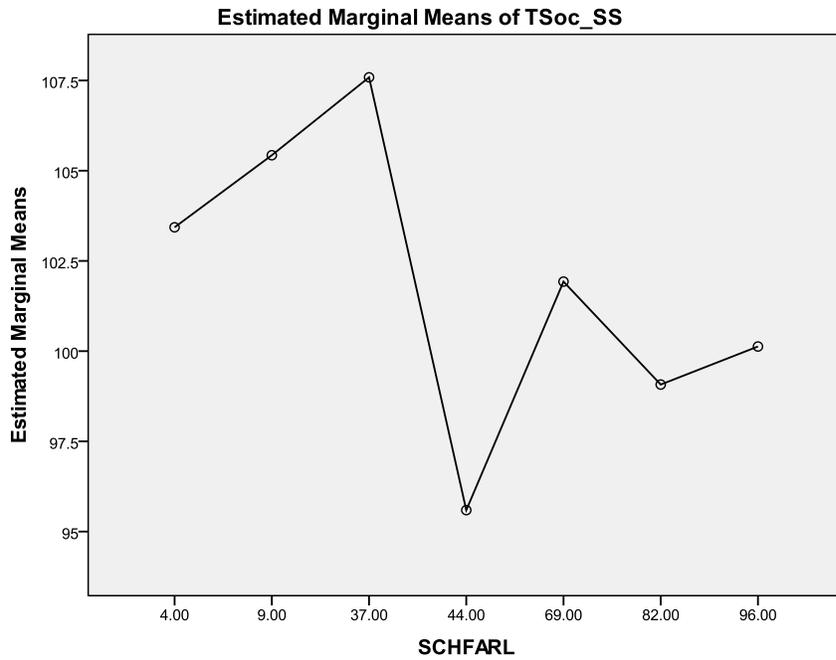


Figure 2. Social Skills Standard Scores

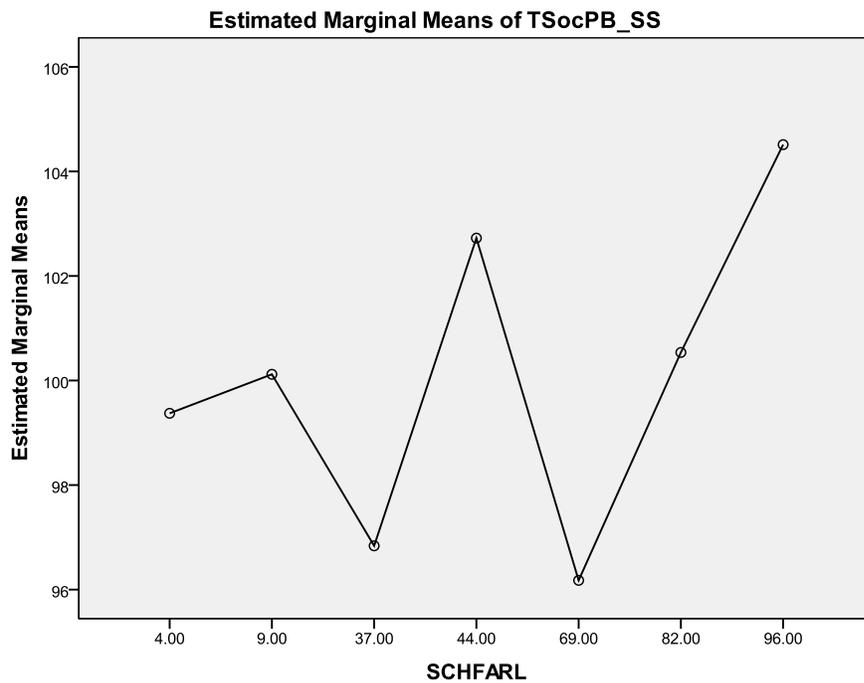


Figure 3. Behavior Problems Standard Scores where higher scores indicate a greater behavior problems.

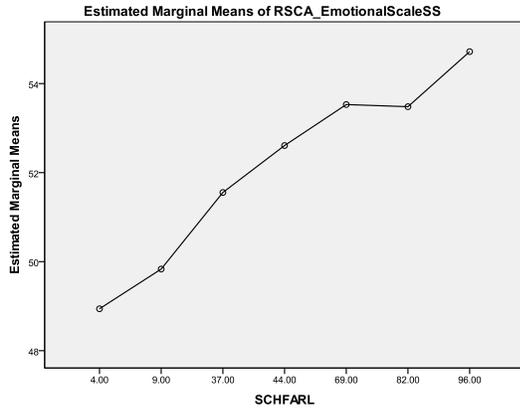


Figure 4. Student Report Emotion Scale Standard Score

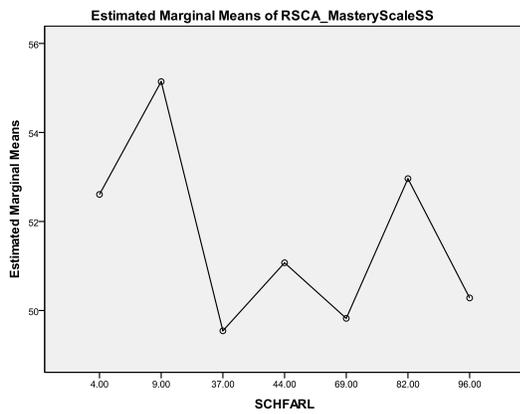


Figure 5. Student Report Mastery Scale Standard Score

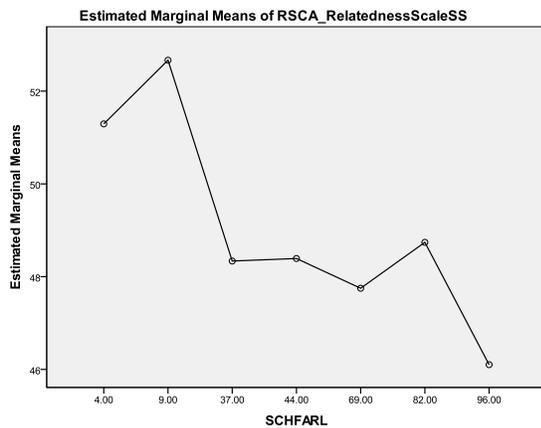


Figure 6. Student Report Relatedness Scale

*For children who attend higher poverty schools versus lower poverty schools, to what extent are child specific indicators of resilience associated with children's literacy skill gains?*

It was hypothesized that, in general, students at the highest poverty schools who displayed higher scores on the indicators of resilience would demonstrate greater gains in reading skills compare to students with lower scores for resilience. To obtain one variable that represented resilience, I ran a factor analysis, using maximum likelihood with Varimax rotation, of the scores, using the entire sample. Results revealed two variables with the RSCA Mastery, Self-efficacy, and Relatedness comprising Factor 1 (Teacher Perception) and Social Skills and Behavior Problems (reversed) comprising Factor 2 (Student Perception). The Emotion and Vocabulary scores did not load highly on either factor (see Table 4). These two factors, Student Perception and Teacher Perception, were used in the remaining analyses.

Table 4  
Rotated Factor Loadings

	Rotated Factor Matrix <sup>a</sup>	
	Factor	
	1	2
TSoc_SS	.934	.091
TSocPB_SS	-.778	-.101
RSCA_EmotionalScaleSS	-.218	-.157
WJ_VOC_SS	.178	.174
RSCA_RelatednessScaleSS	.162	.887
RSCA_MasteryScaleSS	.089	.729

Extraction Method: Maximum Likelihood.

Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 3 iterations.

Including only children who attended the three higher poverty schools (n = 158, FARL % greater than 50%), regression analysis, controlling for fall Passage Comprehension SS revealed that the hypothesis was supported but only for Teacher Perception of resilience (see Table 5). The relationship between spring Passage Comprehension standard scores and Teacher Perception of resilience is positive (1.601) and based on the t-value (.554) and p-value (0.004). There was also a significant positive relationship between spring scores and fall scores (.709) with a t-value of 13.356 and a p-value of 0.000.

Comparing this with the regression including only children attending the three most affluent schools, there was no correlation between resilience and literacy gains. This included Teacher Perception (.689) with a t-value of 1.037 and a p-value of 0.301.

Table 5

Results of the Regression Analysis for Low SES Schools (top) and High SES Schools (Bottom)

Model	Coefficients <sup>a</sup>				
	Unstandardized Coefficients		Standardized Coefficients		
	B	Std. Error	Beta	t	Sig.
(Constant)	28.043	4.916		5.704	.000
WJ_PC_SS	.709	.053	.718	13.356	.000
Factor 1 Teacher	1.601	.554	.153	2.889	.004
Factor 2 Student	.122	.618	.010	.197	.844

a. Dependent Variable: Sp\_PC\_SS

Model	Coefficients <sup>a</sup>				
	Unstandardized Coefficients		Standardized Coefficients		
	B	Std. Error	Beta	t	Sig.
(Constant)	44.106	6.214		7.098	.000
WJ_PC_SS	.599	.064	.576	9.324	.000
Factor 1 Teacher	.689	.665	.063	1.037	.301
Factor 2 Student	.618	.687	.055	.901	.369

a. Dependent Variable: Sp\_PV\_SS

This model explained 59% of the variability in students' spring Passage Comprehension standard scores.

***To what extent do the characteristics of classmates on indicators of resilience contribute to students' literacy learning overall?***

It was hypothesized that students in classrooms at higher poverty schools where the classroom mean on the two factors of resilience were higher would achieve greater spring Passage Comprehension scores, controlling for fall, than would students in classrooms with lower classroom means, controlling for individual students' scores. This hypothesis was not supported by the data. The relationship between the spring Passage Comprehension scores and the class factor of resilience is negative (-0.609) with a t-value of -0.447 and p-value of 0.656.

Table 6

Adding Class Means of Factors 1 and 2.

Model		Coefficients <sup>a</sup>				
		Unstandardized Coefficients		Standardized		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	28.043	4.916		5.704	.000
	WJ_PC_SS	.709	.053	.718	13.356	.000
	Factor 1 Teacher	1.601	.554	.153	2.889	.004
	Factor 2 Student	.122	.618	.010	.197	.844
2	(Constant)	27.890	4.921		5.667	.000
	WJ_PC_SS	.712	.053	.721	13.384	.000
	Factor 1 Teacher	1.673	.619	.160	2.701	.008
	Factor 2 Student	-.147	.645	-.012	-.228	.820
	Class Factor 1 Teacher	-.609	1.362	-.026	-.447	.656
	Class Factor 2 Teacher	2.849	1.934	.080	1.473	.143

a. Dependent Variable: Sp\_PC\_SS

The final model predicted 60% of the variance in students' spring Passage Comprehension Scores.

## Discussion

This study considered whether indicators of resilience could be associated with literacy learning overall, as well as the effects of attending a high or low poverty school. The impact of the resilience level of the classmates was also examined. The hypotheses were largely supported and the results of the study were expected in some cases and surprising in others.

While correlations among the indicators of resilience were small, it was shown that children who scored higher on one indicator tended to score higher on all of the other indicators

as well. Students with high scores on social skills were likely to also have high scores on vocabulary (as a proxy for intelligence) and the resilience subscales. They were also more likely to score low on problem behaviors, meaning they had fewer behavioral issues.

This could be due to a number of things. Those who are looked at as good students by teachers are generally those who perform well academically and do not get in trouble frequently. Therefore, a strong academic student may be able to get away with more than a student who scores lower. Conversely, teachers may be quicker to reprimand a student who does not perform as well academically.

Importantly, Teachers' Perception of students' resilience was significantly related to their Reading Comprehension gains, indicating that resilience might act to protect students who are living in stressful conditions, such as poverty. This was only found of the highest poverty schools and was not shown in the most affluent schools. Of note, Student Perception of resilience was not associated with reading comprehension, which was not what was hypothesized. This could be because resilience may not matter in third grade and other unmeasured child, home, and school characteristics might be more important. It may also be due to the students being in third grade and not clearly understanding the items on the assessment, as it is at a third grade reading level. Finally, they may just not have been internally aware enough to answer effectively.

The resilience level in the classroom did not have an effect on individual students' literacy outcomes. It appears that rather than a more resilient classroom and environment, it is instead more important for an individual to be resilient. This was somewhat surprising because it was expected that higher resilience among classmates would result in higher individual literacy scores. This was because it was thought that higher resilience in peers would lead to a better learning environment, hence allowing for better literacy.

The most important implication of this study involves the importance impact of resilience. It has been shown previously and through this research that resilience is important and provides great benefits for children. It has been associated with social skills, intelligence, and the ability to control behavior. These are arguably the type of characteristics that parents and teachers would like to see in children. The idea that resilience can be encouraged is promising. It points to the significance of possible interventions to teach children strategies for dealing with risk and problems.

### Works Cited

- Anthony, E., Alter, C., & Jenson, J. (2009). Development of a Risk and Resilience-Based Out-of-School Time Program for Children and Youths. *Social Work, 54*(1), 45.
- Connor, Ponitz, Phillips, Travis, Glasney, & Morrison, (2010). First Graders' Literacy and Self-Regulation Gains: The Effect of Individualizing Student Instruction. *Journal of School Psychology.*
- Curby, T., Rimm-Kaufman, S., & Ponitz, C. (2009). Teacher-Child Interactions and Children's Achievement Trajectories Across Kindergarten and First Grade. *Journal of Educational Psychology, 101*, 912-925.
- Hanushek, E. A., Kain, J. F., Markman, J. M., & Rivkin, S. G. (2003). Does Peer Ability Affect Student Achievement?. *Journal of Applied Econometrics, 18*, 527-544.
- Henricsson, L. & Rydell, A. (2006). Children with Behaviour Problems: The Influence of Social Competence and Social Relations on Problem Stability, School Achievement and Peer Acceptance Across the First Six Years of School. *Infant and Child Development, 34*-366.
- Jones, C., Happe, F., Golden, H., Marsden, A., Tregay, J., Simonoff, E., Pickles, A., Baird, G., Charman, T. (2009). Reading and Arithmetic in Adolescents with Autism Spectrum Disorders: Peaks and Dips in Attainment. *Neuropsychology, 23*, 718-728.
- Konold, T., Jamison, K., Stanton-Chapman, T., Rimm-Kaufman, S. (2010). Relationships Among Informant Based Measures of Social Skills and Student Achievement: A Longitudinal Examination of Differential Effects by Sex. *Applied Developmental Science, 14*, 18-34.

- Masten, A. (2009). Ordinary magic: Lessons from research on resilience in human development. *Education Canada, 49*(3), 28-32.
- Masten, A., Herbers, J., Cutuli, J., & Lafavor, T. (2008). Promoting Competence and Resilience in the School Context. *Professional School Counseling, 12*(2), 76-84.
- National Assessment of Educational Progress. (2009). *The nation's report card: Reading 2009*. Washington DC: National Center for Education Statistics.
- Pianta, R. C., Belsky, J., Vandergrift, N., Houts, R., & Morrison, F. J. (2008). Classroom Effects on Children's Academic Trajectories in Elementary School. *American Educational Research Journal, 45*, 365-397.
- Rubin, K. H., Coplan, R. J., & Bowker, J. (2009). Social Withdrawal in Children. *Annual Review of Psychology, 60*, 141-171.
- Solberg, V., Caristrom, A., Howard, K., & Jones, J. (2007). Classifying At-Risk High School Youth: The Influence of Exposure to Community Violence and Protective Factors on Academic and Health Outcomes. *Career Development Quarterly, 55*, 313.
- Welsh, M., Parke, R. D., Widaman, K., O'Neil, R. (2001). Linkages Between Children's Social and Academic Competence: A Longitudinal Analysis. *Journal of School Psychology, 39*, 463-482.

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