

WHAT'S IMPORTANT TO ME: IDENTIFYING AT-RISK AND RESILIENT
STUDENTS THROUGH NARRATIVE WRITING ABOUT PERSONAL VALUES

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ABSTRACT OF THE THESIS

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There is a growing body of research examining the relationship between expressive writing and psychological stress and well-being. The current study sought to explore whether aspects of elementary students' writing about their personal values could predict if students were considered more at-risk or more resilient. This study used data from 176 5th grade students (Mean age = 10.95, 63.63% Female, 79.54% African American, 20.46% Hispanic) from a low-income, urban district in New Jersey who participated in a Laws of Life essay writing program as part of a larger school-based social-emotional learning intervention; these essays were analyzed using the Linguistic Inquiry and Word Count (LIWC) software, as well as qualitative coding by trained independent coders. Students and their teachers rated students on a number of dimensions of resiliency and risk before and after essay writing (i.e., self-concept, social skills, internalizing, externalizing and hyperactivity behaviors), which were then used to predict at-risk and resilient cluster groups using a Two-Step Cluster Analysis procedure. Discriminant Factor Analysis (DFA) results revealed that the percentage of LIWC-computed death-related words in the essays predicted at-risk group membership for Male

students and Hispanic students. The percentage of social process related words in the essays was also a significant predictor for Hispanic students, with more social process words predicting membership in the more resilient group. These DFA results were replicated using post-intervention data, with two additions: the percentage of death-related words also predicted at-risk status for the African American subsample and family-related words predicted at-risk status for Male students. In addition, individuals who wrote about a stressful life event, about one third of students, were more likely to be in the at-risk group post-intervention. Overall, these results suggest that Laws of Life essay characteristics, particularly the percentage of death, social processes, and family-related words, can be predictive of at-risk or resiliency status in children from high-risk communities. Further, the implications of students spontaneously mentioning stressful life events when writing about their personal values and identity are discussed.

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Introduction

The idea of writing to process one's thoughts and feelings is not an unusual concept; many individuals use diaries, journals, or online blogs to document their everyday life experiences. Psychologists and other mental health professionals have also recognized the value of writing. There is a significant body of research documenting associations between individuals' writing about their personal experiences and positive health outcomes (Esterling, L'Abate, Murray, & Pennebaker, 1999; Frisina, Borod, & Lepore, 2004; Niederhoffer & Pennebaker, 2009; Pennebaker, 2000; Schwartz & Drotar, 2004). Therapeutic writing has become integrated into treatment for a variety of psychological problems, including eating disorders, depression, post-traumatic stress responses, and other anxiety disorders, and has been demonstrated to be related to both a reduction in symptoms and to physical health benefits (Esterling et al., 1999; Frayne & Wade, 2006). Interestingly, even in individuals who are not experiencing any significant psychological distress, having the opportunity to write about an stressful or traumatic emotional experiencing is associated with positive physical and psychological outcomes (Smyth, 1998). In fact, there is some evidence that this effect is actually stronger for "healthy" individuals in comparison to psychiatric or physically ill populations (Pennebaker, 2000; Smyth, 1998).

Although much of the literature has focused on the benefits of writing about negative or traumatic experience, there is also evidence that writing about positive topics is related to health outcomes. Burton and King (2004) found that writing about extremely positive experiences over a short period of time (for 20 minutes on three consecutive days) was not only related to participants reporting a better mood

immediately after completing the writing task, but it was also associated with significantly fewer illnesses over a three-month follow up period in comparison to participants who were instructed to write about a neutral experience. The authors concluded that writing about positive experience could potentially buffer against negative health outcomes (Burton & King, 2004). Additionally, writing about life goals and future selves has been found to be associated with greater self-reported psychological well-being and fewer visits to the doctor (Harrist, Carlozzi, McGovern, & Harrist, 2007; King, 2001).

While there seems to be a general consensus that writing can be a useful tool for processing personal experiences, it is not necessarily clear why it may be effective. It has been posited to be related to cognitive, emotional, and language processes that may facilitate gaining insight and possibly reframing events in a way that is more consistent with ones view of self (Margola, Facchin, Molgora, & Revenson, 2010; Pennebaker & Francis, 1996). Narrative theories of identity development suggest that making meaning of past experiences facilitates personal growth and development of a self concept (Reese, Yan, Jack, & Hayne, 2010). Creating a coherent narrative helps individuals to organize and provide structure to their experiences, and integrate it into their larger life story (Niederhoffer & Pennebaker, 2009). In addition, the way that individuals generally interpret their experiences may also play a role. For instance, those who have a more optimistic (versus pessimistic) style of interpreting events are more likely to use more problem-focused (versus emotion-focused) coping strategies which has been found to be related to better psychological adjustment (Peterson & Steen, 2009). Yet, the question still remains whether it is the simple act of writing about ones' experiences that is helpful

or is it something more specific about how or what people are writing that is related to positive outcomes.

James Pennebaker has been a pioneer in the field of interpreting the nuances in individual writing style to try to better understand the relationship between patients' writings about stressful and traumatic experiences and their future health outcomes. Pennebaker became interested in being able to examine text of individuals under distress in order to predict long-term health outcomes (1997), and to do this, he has focused much of his work on analyzing text using a word usage, or word counting, strategy. This method is thought to capture the essence that a person is trying to express by assuming that the words an individual uses in his writing can be placed into different categorical concepts (Pennebaker & King, 1999). For example, if someone is trying to express "sadness" they may be more likely use words such as sad, cry, or loss. In interpreting expressive writing using a word count method, researchers have been able to explore the qualitative content of text in a more quantitative way. They can explore systematically the relationship between health outcomes and the basic structure of the text (e.g., overall word count, punctuation), as well as the content of the narratives (e.g., frequency of emotion word use). For example, the use of greater causal and insight words (e.g., think, know, and consider) in processing the death of a loved ones was found to be related to greater mental and physical health (Pennebaker, Mayne, & Francis, 1997). The ways people express themselves seems to be fairly reliable over time and across situations (Pennebaker & King, 1999). For example, use of negative emotion words, even when writers were not prompted to write about a negative situation, has been found to be associated with substance use.

Unfortunately, much of the work in understanding the relationship between health, stress, and expressive writing has focused on adults, rather than on children. There is some work on adolescents, but very little about younger children. Findings on whether expressive writing is beneficial for this age group are also mixed, with some research finding that writing about a negative experience may be closer to rumination for children because they are not yet as effective at problem solving and reflecting about their experiences (Sales, Merrill, & Fivush, 2013). Conversely, other research has found positive outcomes when students write about their experiences. In one study of a school-based expressive writing intervention, Kliever and colleagues found improvements in teacher-reported aggressive behavior and emotional lability in a sample of seventh grade students (Kliever et al., 2011); interestingly, this positive finding was strongest for students who reported greater exposure to community violence. Additionally, writing about emotional topics has also been found to be related to improvements in future grades (Pennebaker, 1997).

Expressive writing may be a particularly relevant tool in at-risk populations of children who have experienced significant amounts of life stress. Children growing up in lower income and urban communities are often exposed to greater numbers of life stressors than their suburban and more affluent counterparts (Natsuaki et al., 2007; Roosa et al., 2010; Roosa, Jones, Tein, & Cree, 2003). This can include an overall lack of resources (e.g., food, access to a good education system), greater frequency of community violence, and witnessing death. With this heightened exposure to stress, children from these communities are at greater risk of developing future physical and mental health problems. However, despite this environmental disadvantage, many

children show tremendous resiliency and an ability to cope in these stressful life circumstances.

Having the opportunity to discuss their strengths while processing negative experiences through writing could have a significant impact on how children from disadvantaged backgrounds make sense of their world. Writing can give them an opportunity to explore different facets of their identity and possible selves, a process that can be empowering and thus, resilience-building. On another hand, the degree that children are able to express themselves in their writing may also serve as an indicator of greater resiliency. It might indicate that they have greater insight into their problems and a stronger understanding of their personal identity.

One example of strengths-based writing that has been used with children in urban settings is the Laws of Life essay-writing program. Laws of Life is an essay writing contest developed by Sir John Templeton with a goal of encouraging students to think, write, and share their core values (John Templeton Foundation, 2012). Students focus on topics such as Responsibility, Honesty, Respect, or whatever other value they believe is a fundamental part of their life. Although research on this program is limited (Elias, 2008a, 2008b; Parker, 2005; Van Dyke & Elias, 2008), it is a program that is utilized in many schools across the U.S. and abroad. Some initial research examining the content of a sample of Laws of Life essays found that the degree of sense of purpose that was expressed in the essays, as defined by recognizing something meaningful in ones lives and striving to uphold that value, was positively correlated with positive self-concept for elementary school aged children (Van Dyke & Elias, 2008).

The Current Study

The current study sought to use children's narrative writing about their personal values to predict which students display a greater degree of resiliency and those who may be at greater risk. Based on prior research in adult populations, it was hypothesized that students who display a greater amount of emotional expression (negative and positive), as well as more insight words would be more likely to be categorized as resilient based on both their own and their classroom teacher's rating. Similarly, a greater degree of writing about social supports, including family and friends, was predicted to be related to resiliency. Prior research has found that social supports can serve as a buffer between exposure to violence and future psychopathology in a sample of urban middle school students (Muller, Goebel-Fabbri, Diamond, & Dinklage, 2000). Sharing one's experiences through writing may provide an opportunity to connect with others, potentially providing additional individuals with whom one feels comfortable sharing their thoughts and feelings (Niederhoffer & Pennebaker, 2009).

In addition, students who wrote longer essays were also hypothesized to be categorized as resilient as this might indicate that they are able to more easily articulate their personal values. The present study also explored the relationship between personal pronoun use and at-risk categorization, although the directionality of this relationship is not predicted as results from prior research studies are not consistent in whether greater use of personal pronouns is a positive or negative (Niederhoffer & Pennebaker, 2009). The discussion of stressful life events and its relationship with at-risk status were also examined.

Method

Setting and Participants

Data for the current study were drawn from a larger study examining the impact of a comprehensive social and emotional learning (SEL) program in 10 public elementary schools in a low-income, urban district in central New Jersey. While the original implementation and evaluation was conducted over multiple school years (from 1998 to 2005), the present study only used data collected during the 2001 to 2002 school year. At the time of data collection, this school district was classified as an “Abbott” district by the state of New Jersey, requiring special financial assistance from the State to provide adequate services and supports for its students. The SEL programing was being implemented as part of this initiative.

As part of the SEL program, fifth grade students across the district participated in the Laws of Life Essay Writing Program. While the origin of Laws of Life took the form of a scholarship contest for high school students, the school district decided to implement the Laws of Life program to promote character development that would support the upcoming transition of students to middle school. The essay writing was integrated into the fifth grade language arts writing curriculum district-wide. After the students participated in a series of lessons on the concept of Laws of Life and having the opportunity to think and write about its relevance to themselves and their families over a period of two weeks, students were instructed to write a 300-word essay about a value by which they lived their lives (e.g., Responsibility, Honesty, Loyalty) and to describe personal experiences that demonstrated that Law of Life. The writing process occurred over a four-week period of time with students receiving feedback from their teachers and

peers, as they would during any other writing module. Additionally, students were encouraged to discuss their Laws of Life with members of their family and were asked to present their completed essay to their classmates.

Two hundred and forty five fifth grade students participated in the Laws of Life program over 4 to 6 weeks starting in March during the 2001-2002 school year. Students were also asked to complete a battery of measures assessing their perceived social, emotional, and behavioral functioning. Additionally, their classroom teachers were asked to evaluate the students on their social skills and behaviors. Self-report and teacher-report measures were collected pre and post essay writing, in November and June. These data were collected as part of the larger project noted earlier. Neither the students nor the teachers saw any connection between the data collection and the Laws of Life Essay writing. This study used both the baseline and post-data in separate analyses. Since one of the goals of the essay-writing program was to promote character development, it is possible that the process of writing the essays will have changed the student and teacher assessment of the students. With this in mind, it is important to explore whether the essays predict different information when looking at data pre versus post intervention.

Sixty-seven students were excluded from analyses, as they did not have both self- and teacher-reported measures at baseline. Two students who completed their essays in Spanish were also excluded, leaving the final sample to be included in the present study as 176 students. The average age of the students was 10.96 (SD= 0.48, Range = 10.19 – 12.58). About 64 percent of the students were female (n = 112). The sample was 79.55% African-American (n = 140) and 20.45% were Hispanic (n = 36). 63.64% of students were receiving free or reduced lunch (n = 112).

Measures

Demographic Information. Teachers were asked to report their students' date of birth, gender, and race/ethnicity based on students' records. Date of birth was used to compute the child's age as of March 1, 2002; about the time the students would have been completing their Laws of Life essays. Additional demographic information was provided by the school, including information on the students' status of free and reduced lunch, which is used as a marker of family socioeconomic status.

Student-Reported Self-Concept. A modified version of the *Piers Harris Self-Concept Scale* (Piers & Harris, 1984) (Appendix A) was used to assess students' views of themselves across 6 domains: Happiness and Satisfaction (e.g., "I am a happy person"), Popularity (e.g., "I have many friends"), Freedom from Anxiety ("I get nervous when the teacher calls on me" [reverse-coded]), Physical Appearance and Attributes (e.g., "I have a nice face"), Intellectual and School Status (e.g., "I have good ideas"), and Behavioral Adjustment (e.g., "I am well-behaved in school"). The original scale contained 80 items, but was condensed to 44 items to reduce the burden on participants. Items from the original scale that loaded across more than one subscale were removed and psychometric analyses of the modified scale found that it was highly reliable ($r = .86$) and stable over a 6-month period ($r = .73$) (Dilworth, Mokruue, & Elias, 2002; Elias, Beier, & Gara, 1988).

Item responses are dichotomous, with students asked to respond "Yes" or "No" that the item describes them. Items worded in the negative (e.g., I get into a lot of fights) are reverse coded so that higher scores on all items indicate a more positive self-concept. Items are summed to produce 6 subscale scores: 1) Happiness and Satisfaction, 2) Popularity, 3) Freedom from Anxiety, 4) Physical Appearance, 5) Intellectual and School

Status, and 6) Behavioral Adjustment. Three subscales that capture particular aspects of resilience, the Happiness and Satisfaction (range = 0 – 4; Cronbach’s $\alpha = 0.71$), Freedom from Anxiety (range = 0 – 6; Cronbach’s $\alpha = 0.65$), and Behavioral Adjustment (range, 0 – 12; Cronbach’s $\alpha = 0.69$) subscales were combined into an overall total measure of student-rated resilience (Range = 7 – 23; Cronbach’s $\alpha = 0.78$).

Teacher-Reported Social Skills and Problem Behaviors. A modified version of the *Social Skills Rating System-Teacher* (SSRS-T) (Gresham & Elliott, 1990) (Appendix B) was used to assess teacher perception of their students’ social skills, problem behaviors, and academic and learning behaviors. The original measure consisted of 57 items, but was modified to 30 items, only including the items that loaded most highly on each subscale. The full-scale score and subscales of the modified measure were found to be highly correlated with the original scale scores, with correlations ranging from .90 to .94 (Cedeno, 2010).

The present study used the first 25 items of the modified SSRS-T, which asked how often the teacher had observed the student performing certain behaviors, including controlling anger, cooperating with peers, and bullying other students, in the last one to two months. The items are rated on a 3-point Likert scale, 0 = *Never*, 1 = *Sometimes*, and 2 = *Very often*. The items are summed to create six unique subscales: 1) Cooperation (e.g., “Attends to your instructions”), 2) Assertiveness (e.g., “Invites others to join in activities”), 3) Self-Control (e.g., “Controls temper in conflict situations with peers”), 4) Externalizing (e.g., “Fights with others”), 5) Internalizing (e.g., “Appears lonely”), and 6) Hyperactivity (e.g., “Fidgets or moves excessively”). The Cooperation, Assertiveness, and Self-Control subscales are summed to form a Total Social Skills scale (Range = 0 –

26), with a higher score indicating greater social skills (Cronbach's $\alpha = 0.93$). The Externalizing, Internalizing, and Hyperactivity subscales can be summed to form a Total Problem Behaviors scale (Range = 0 – 24), with a higher score indicating more problem behaviors (Cronbach's $\alpha = 0.94$). The Total Social Skills Scale as well as the individual problem behavior scales, externalizing (Cronbach's $\alpha = 0.90$), internalizing (Cronbach's $\alpha = 0.84$), and hyperactivity (Cronbach's $\alpha = 0.89$) were used in the present study.

Content and Structure of Laws of Life Essays. Students' essays were analyzed using the Linguistic Inquiry and Word Count (LIWC) 2007 software (Pennebaker, Booth, & Francis, 2007). This software contains a dictionary of about 4500 word stems and produces an output for each writing file across the following dimensions: 4 general descriptors (e.g., word count, words per sentence), 22 standard linguistic dimensions (e.g., number of words that are pronouns, articles), 32 word categories defined to capture psychological constructs (e.g., positive emotion, negative emotion, insight), 7 personal concern categories (e.g., work, home, money), 3 paralinguistic categories (assents, fillers, nonfluencies), and 12 punctuation categories (e.g., number of periods, commas) (Pennebaker, Chung, Ireland, Gonzales, & Booth, 2007). For the proposed study, the categories of interest include word count, use of words related to positive and negative emotion, use of social words (including family and friends), use of cognitive or insight words, and use of death related words. Except for the total word count variable, the other categories all report the percentage of words in the text that are from that category. For example, a LIWC score of .25 on the first person pronoun category would indicate that 25% of the words in the text were first person pronouns. Definitions and examples of the categories used in the present study are displayed in Table 1. Predictors included word

count, use of personal pronouns, overall social process-related words, family-related words, death-related words, and words related to negative and positive emotions.

Although all students were instructed to write a 300-word essay, essays ranged from 138 to 921 words (Mean = 406.07, SD = 129.59). Because of this variation and the belief that some students may have a more expressive vocabulary and are better able to articulate themselves, all analyses will examine the role of word count.

Qualitative Coding

Additional qualitative coding was performed to determine further details about stressful or traumatic life experiences that may have been written about in the essays, including death, separation from loved ones, and community violence. Two independent coders were trained to read each of the essays and indicate whether a stressful event was being discussed and then describe the nature of that event. A list of possible event types adapted from Costello, Angold, March, and Fairbank (1998) was provided to the coders, and included events such as death of a close friend or relative, personally experiencing or witnessing a serious accident of another, or loss of best friend through a move. If the stressful life event involved another person, the coders indicated the relationship between the essay writer and the person (e.g., 1) relative—mother, father, brother, aunt, etc., 2) other—friend, schoolmate, neighbor; 3) stranger). Discussion of a stressful life event was predicted to be related to students' at-risk status. In addition, coders rated whether the essay had a discussion of future goals or future plans (e.g., going to college). Finally, the coders categorized the value that was being written about in the essay (e.g., Responsibility, Respect, etc.).

Results

Preliminary Analyses

Table 2 reports the means, standard deviations, and ranges for all study variables. First, Pearson Product Moment Correlations were computed in order to understand the relationship between the student and teacher-reported measures as continuous variables. Correlations between teacher and student-reported variables are displayed in Table 3. At baseline, the student-reported resilience summary score was positively correlated with teacher-reported social skills ($r(174) = .17, p = .027$), but was not significantly correlated with any of the teacher-reported problem behaviors (e.g., internalizing, externalizing, and hyperactivity; $p > .05$). As would be expected, teacher-reported total social skills was negatively correlated with teacher-reported internalizing problems ($r(174) = -.47, p < .001$), teacher-reported externalizing problems ($r(174) = -.69, p < .001$), and teacher-reported hyperactivity ($r(174) = -.60, p < .001$). All three teacher-reported problem behaviors were also significantly correlated with each other ($p < .001$). These relationships appeared to hold at post.

An additional correlational analysis was conducted to explore the relationship amongst the LIWC-computed essay characteristic variables (Table 4). Word count was negatively associated with the percentage of positive emotion words ($r(174) = -.23, p = .002$). Positive emotion was also significantly and positively correlated with the percentage of social process-related words ($r(174) = .34, p < .001$) and friend-related words ($r(174) = .46, p < .001$), and negatively correlated with sadness ($r(174) = -.21, p = .006$). As would be expected the percentage of overall social-process related words was significantly related to family ($r(174) = .34, p < .001$) and friends ($r(174) = .22, p$

= .003), as well as negatively correlated with anxiety ($r(174) = -.16, p = .034$).

Interestingly, the percentage of family related words was positively associated with the percentage of sadness-related words ($r(174) = .34, p < .001$) and negatively associated with friend-related words ($r(174) = -.22, p = .003$), positive emotion words ($r(174) = -.18, p = .015$), and insight-related words ($r(174) = -.29, p < .001$). Insight and anxiety were positively related to each other ($r(174) = .16, p = .045$), as were sadness and death related words ($r(174) = .19, p = .012$). Further, the percentage of personal pronouns used in the essays was positively correlated with both social processes ($r(174) = .30, p < .001$) and family-related words ($r(174) = .35, p < .001$).

Subsequently, a series of one-way ANOVAS were conducted in order to determine if there were any demographic differences (i.e., gender, race/ethnicity, free/reduced lunch status) across the child characteristic and essay characteristic variables. There were significant differences by gender. Female students ($M = 16.80, SD = 4.53$) had a greater percentage of social processes discussed within their essays than male students ($M = 15.04, SD = 4.79; F(1, 174) = 5.77, p = .017$). Essays written by female students ($M = 2.46, SD = 1.19$) also had a greater percentage of insight words than males ($M = 1.91, SD = .99; F(1, 174) = 9.97, p = .002$). There were also tendencies towards significant differences on essay word count (Female Mean = 419.01, $SD = 131.68$; Male Mean = 383.42, $SD = 123.61; F(1, 174) = 3.11, p = .080$), teacher-reported total social skills (Female Mean = 20.38, $SD = 5.27$; Male Mean = 18.84, $SD = 6.47; F(1, 174) = 2.90, p = .090$), and teacher-reported hyperactivity (Female Mean = 1.77, $SD = 2.14$; Male Mean = 2.48, $SD = 2.63; F(1, 174) = 3.86, p = .051$).

In addition, there were significant differences by ethnicity. Teachers reported that African American students ($M = 1.84, SD = 2.38$) displayed a greater amount of externalizing behaviors in the classroom than Hispanic students ($M = 0.86, SD = 1.88$) on average ($F(1, 174) = 5.19, p = .024$). There was also a significant difference in the percentage of family-related words used in the essays, with Hispanic students ($M = 3.24, SD = 2.13$) using a greater percentage of family words than African American students ($M = 2.40, SD = 1.92$), on average ($F(1, 174) = 5.16, p = .024$). Additionally, there were tendencies towards significant differences on essay word count (African American Mean = 397.44, $SD = 122.62$; Hispanic Mean = 439.64, $SD = 151.01$; $F(1, 174) = 3.07, p = .081$) and teacher-reported total social skills (African American Mean = 19.41, $SD = 5.92$; Hispanic Mean = 21.42, $SD = 4.91$; $F(1, 174) = 3.53, p = .062$).

There were no significant differences across Free/Reduced Lunch Status on either the child characteristics or the essay characteristics. However, there was a tendency toward a significant difference on the percentage of sadness-related words (Receiving Free/Reduced Lunch Mean = 0.55, $SD = .63$; Not Receiving Free/Reduced Lunch Mean = 0.38, $SD = .52$; $F(1, 174) = 3.15, p = .078$). As gender and ethnicity showed significant differences among both the child characteristics and essay characteristics, all subsequent analyses explored this possibility.

Cluster Analysis

A Two-Step Cluster Analysis procedure was performed combining the teacher and student-reported resilience variables in order to identify groups of students who were most at-risk and most resilient. The two-step cluster procedure allows for a test of overall cluster quality and cohesion, as well as tests of importance of each contributing variable.

The test of importance indicates, on a scale from 0.0 to 1.0, how well each variable differentiates between the clusters, with a higher score (closer to 1.0) indicating that the difference between the cluster groups is more likely due to some underlying difference rather than to chance (Mooi & Sarstedt, 2011). Based on recommended standards, this analysis used the Euclidian distance measure and the Bayesian Information Criterion to determine cluster size (BIC) as all imputed variables were continuous (Garson, 2012).

The teacher-reported total social skills, externalizing, internalizing, and hyperactivity subscales, and a total sum variable of the three student-reported self-concept resilience variables, were entered. This produced two distinct clusters, with an average silhouette score equal to .6, indicating good cluster quality and strong evidence of a cluster structure according to Kaufman and Rousseeuw's (1990) standards. Teacher-reported externalizing behavior was the most important predictor of cluster membership (importance = 1.00), followed by the teacher-reported hyperactivity (importance = .71), teacher-reported social skills (importance = .48), teacher-reported internalizing behavior (importance = .29); the student-reported combined resilience measure did not appear to contribute to cluster membership (importance = .00). In examining the means of the computed clusters, Cluster 1 appeared to be the more resilient group (n = 128, 72.7%), with an average externalizing score of 0.45, an average hyperactivity score of 0.95, an average total social skills of 22.12, an average internalizing score of 0.80, and an average student-rated self-concept summary score of 18.98. Cluster 2, the more at-risk group (n = 48, 27.3%), had an average externalizing score of 4.79, an average hyperactivity score of 4.92, an average social skills score of 13.67, an average internalizing score of 3.10, and an average student-rated self-concept summary score of 18.90.

The two clusters that were derived had a similar gender distribution (Cluster 1: 65.6% female, Cluster 2: 58.3% female), with the more resilient group having slightly more females. A chi-square test revealed that this was not a statistically significant difference ($\chi^2(1, N = 176) = 0.80, p = .370$). However, there were significant differences between the two clusters' ethnicity distributions, with the more resilient group having 75.8% African American students and 24.2% Hispanic students versus the more at-risk group having 89.6% African American students and 10.4% Hispanic students ($\chi^2(1, N = 176) = 4.09, p = .043$).

Discriminant Analysis

A series of Step-Wise Discriminant Function Analyses (DFA) were performed to determine which of the essay characteristics could best discriminate between the more at-risk and more resilient student groups. In a Step-Wise DFA, the most correlated independent predictor is first entered into the discriminant function equation and then subsequent predictors are added as long as they add a significant amount to the canonical R-squared (the Wilks' Lambda significance must be at least $p < .05$ for that predictor) (Burns & Burns, 2008). The LIWC-computed essay characteristics—personal pronouns, social processes, family, friends, positive emotion, anxiety, anger, sadness, insight, death, and word count—were entered as predictors. As the risk group sizes were uneven in these analyses ($n=128$ versus $n=48$), the prior probability of group size was used in the prediction process. Results indicated that none of the essay characteristics significantly discriminated between the at-risk groups in the overall sample.

As gender and ethnicity predicted significant differences amongst a number of the child and essay characteristics, additional Step-Wise DFA analyses were run to determine

if the essay characteristics predictive capabilities when looking at: a) only female students, b) only male students, c) only African American students, and d) only Hispanic students. Results of these analyses found that the essay characteristics did not significantly discriminate between the risk groups when looking at only female students or only African American students; however, there were significant predictors when looking at only male students and only Hispanic students. For male students ($n = 64$), there were 20 students classified in the more at-risk group and 44 students classified in the more resilient group. Results indicated that the Discriminant Function which included the percentage of death related words significantly discriminated between the two risk groups, Wilks' Lambda = .89, $\chi^2(1, N = 176) = 7.75, p = .007$. This single discriminant function had a Canonical r of .33 ($R^2 = .11$), which indicates that this model accounts for 11.89% of the variance in group membership. As death was the only remaining variable in the discriminant function equation, it had sole predictive value in the discriminant equation (Standardized canonical discriminant function coefficient = 1.00, Unstandardized canonical discriminant function coefficient = 3.18, Constant = -.44). Examining the group centroids, the more at-risk group had a mean of .52 and the more resilient risk group had a mean of -.24; the group centroid result indicates that individuals with scores closer to that centroid would be more likely to be in that group, suggesting that male students with a higher percentage of death related words in their essays were more likely to be in the more at-risk group. Using the percentage of death-related words as a predictor of Male students risk group status, 76.6% of the cases were correctly classified into their original group.

Similarly, when examining only the Hispanic students, the percentage of death-related words was also able to significantly predict differences in at-risk membership, but the percentage of social process related words also was a significant predictor. For Hispanic students ($n = 36$), there were 5 students classified in the more at-risk group and 31 students classified in the more resilient group. In combination, death-related words and social process-related words created a single discriminant function which significantly discriminated between the two risk groups, Wilks' Lambda = .64, $\chi^2(1, N = 176) = 14.96, p = .001$. This single discriminant function had a Canonical correlation of .60 ($R^2 = .36$), which indicates that this model accounts for 36.48% of the variance in at-risk group membership. The canonical discriminant function coefficients revealed that social processes had a strong, positive relationship with group membership (Standardized canonical discriminant function coefficient = .99, Unstandardized canonical discriminant function coefficient = .35, Constant = -5.31) and death had a negative relationship with group membership (Standardized canonical discriminant function coefficient = -.60, Unstandardized canonical discriminant function coefficient = -1.82, Constant = -5.31). Examining the group centroids, the more at-risk group had a mean of -1.83 and the more resilient group had a mean of 0.30; this suggests that Hispanic students with a lower percentage of social-related words and a higher percentage of death related words in their essays were more likely to be in the more at-risk group. Using social processes and death as predictors of the at-risk status of Hispanic students, 94.4% of the cases were correctly classified into their original group.

Post-Data

The above analyses were initially run using baseline student and teacher-reported data. Subsequently, the post-intervention data were used to see if the results still held after the Laws of Life essays were written and the greater school-wide SEL intervention was concluded. Of the 176 students in the baseline analyses, 48 did not have post data, leaving a final sample size of 128 for the post analyses. Forty-one of these missing students were in the more resilient group at baseline, while 7 were in the more at-risk group. The demographic characteristics of the post-sample were comparable to the baseline sample (see Table 2).

Overall, the results using the post-data were similar to the baseline data analyses. An initial examination of the post student and teacher variables using a series of one way ANOVAs revealed that there continued to be a trend towards a significant gender difference for teacher-reported hyperactivity (Female Mean = 1.75, $SD = 2.13$; Male Mean = 2.64, $SD = 2.94$; $F(1, 126) = 3.85, p = .052$); however, there was no longer a tendency of gender differences on teacher-reported total social skills ($F(1, 126) = 1.64, p = .203$). In addition, teachers continued to report that African American students ($M = 2.27, SD = 2.70$) displayed a greater amount of externalizing behaviors in the classroom than Hispanic students ($M = 0.72, SD = 1.34$) on average ($F(1, 126) = 7.75, p = .006$). The tendency towards significant differences in teacher-reported social skills became significant (African American Mean = 20.21, $SD = 6.44$; Hispanic Mean = 23.80, $SD = 3.79$; $F(1, 126) = 7.13, p = .009$), and there was now a significant difference in teacher-reported hyperactivity (African American Mean = 2.38, $SD = 2.61$; Hispanic Mean = 0.84,

$SD = 1.34$; $F(1, 126) = 8.14$, $p = .005$). There continued to be no significant differences between free or reduced lunch status groups.

Similar to the baseline data, the Two-Way Cluster Analysis procedure identified two distinct clusters of students, with an average silhouette score equal to .6, indicating good cluster quality. Cluster 1, the more resilient group ($n = 99$, 77.3%), had an average teacher-rated social skills score of 23.72 (importance = 1.00), an average externalizing score of 0.95 (importance = .82), an average hyperactivity score of 1.06 (importance = .70), an average internalizing score of 1.06 (importance = .46), and an average student-rated self-concept summary score of 19.29 (importance = .02). Cluster 2 appeared to be the more at-risk group ($n = 29$, 22.7%), with an average social skills score of 11.34, an average externalizing score of 5.90, an average hyperactivity score of 5.55, an average internalizing score of 4.07, and an average student-rated self-concept summary score of 18.31. Like the baseline data, the two clusters had a similar gender distribution ($\chi^2(1, N = 128) = 0.35$, $p = .554$), but there was a tendency towards a difference in ethnicity distributions, with the more resilient group having 76.8% African American students and 23.2% Hispanic students versus the more at-risk group having 93.1% African American students and 6.9% Hispanic students ($\chi^2(1, N = 128) = 3.81$, $p = .051$).

The majority of students did not change their cluster grouping from baseline to post ($n = 110$), while 15 students made a positive change from the more at-risk group to the more resilient group and only 3 students made a negative change from the more resilient group to the more at-risk group. Of the 15 students that made a positive change to the more resilient group, 10 were female and 5 were male, and 13 were African

American and 2 were Hispanic. Of the three students who made a negative change to the more at-risk group at post, all three were female and African American.

The Step-Wise Discriminant Function Analyses results were similar to the baseline analyses with a few exceptions. First, in the overall post-sample the percentage of death related words now significantly discriminated between at-risk groups, Wilks' Lambda = .95, $\chi^2(1, N = 128) = 6.66, p = .010$. This single discriminant function had a Canonical r of .23 ($R^2 = .05$), which indicates that this model accounts for 5.29% of the variance in group membership. As death was the only remaining variable in the discriminant function equation, it had sole predictive value in the discriminant equation (Standardized canonical discriminant function coefficient = 1.00, Unstandardized canonical discriminant function coefficient = 3.17, Constant = -.44). Examining the group centroids, the more at-risk group had a mean of .43 and the more resilient group had a mean of -.13, which suggests that students with a higher percentage of death related words in their essays were more likely to be in the more at-risk group. Using the percentage of death-related words as a predictor of risk group status, 78.1% of the cases were correctly classified into their original group.

The percentage of death-related words becoming a significant predictor in the overall sample is most likely accounted for by the fact that in addition to death continuing to be a significant predictor for the Hispanic subsample (along with social-related words; see Appendix C for full post CFA result for Hispanic students), death-related words also became a significant predictor for the African American student subsample, Wilks' Lambda = .95, $\chi^2(1, N = 128) = 7.75, p = .030$. The Canonical r was .21 ($R^2 = .05$), indicating that this model accounts for 5% of the variance in group membership for

African American students. As death was the only remaining variable in the discriminant function equation, it had sole predictive value in the discriminant equation (Standardized canonical discriminant function coefficient = 1.00, Unstandardized canonical discriminant function coefficient = 3.25, Constant = -.43). Examining the group centroids, the more at-risk group had a mean of .36 and the more resilient group had a mean of -.13, signifying that African American students with a higher percentage of death related words in their essays were more likely to be in the more at-risk group. Using the percentage of death-related words as a predictor of African American students risk group status, 73.8% of the cases were correctly classified into their original group.

Another difference in the DFA analyses from baseline was that while death continued to be a significant predictor when looking at male students alone, in addition, the percentage of family-related words also became a significant predictor for the male subsample, Wilks' Lambda = .64, $\chi^2(2, N = 128) = 19.47, p < .001$. This single discriminant function had a Canonical r of .60 ($R^2 = .36$), which indicates that this model accounts for 36% of the variance in group membership. The canonical discriminant function coefficients revealed that death-related words (Standardized canonical discriminant function coefficient = .99, Unstandardized canonical discriminant function coefficient = 3.30, Constant = -1.13) and social processes related words (Standardized canonical discriminant function coefficient = .52, Unstandardized canonical discriminant function coefficient = .34, Constant = -1.13) had a positive relationship with group membership. Examining the group centroids, the more at-risk group had a mean of 1.25 and the more resilient group had a mean of -.43; this suggests that male students with a higher percentage of death and family-related words were more likely to be in the more

at-risk group. Using death and family-process words as predictors of the at-risk group membership for male students, 85.1% of the cases were correctly classified into their original group. Analogous to the baseline data analyses, there were no significant predictors for female students' at-risk group membership.

Qualitative Data

Two independent coders were trained to rate the essays on a number of additional characteristics that the LIWC software could not capture, including the value that was discussed in the essay, whether the student wrote about a stressful or traumatic life experience (e.g., separation from loved ones, witnessing community violence, death of a close relative), if the traumatic experience involved another person, and whether overall the essay discussed the future. Table 5 provides a summary of this information. The most popular value to write about was Love ($n = 40, 22.73\%$), followed by Responsibility ($n = 28, 15.91\%$), and Respect ($n = 15, 8.52\%$). About 31% of students ($n = 55$) wrote about a stressful life event (independent coder $r = .94, p < .001$). Of those who wrote about a stressful life event, the majority wrote about death ($n = 22, 40.00\%$). Eighty-nine percent ($n = 47$) wrote about family member in relation to this event (3 students wrote about another acquaintance such as a friend or neighbor and 3 students wrote about a stranger). In addition, about 39% of the essays discussed the future in some capacity ($n = 69$) (independent coder $r = .59, p < .001$), such as expressing a desire to go to college, refraining from doing drugs, always trying to remember a loved who had past away, or learning from past mistakes and not repeating them in the future.

A series of chi-square tests were conducted to explore differences in these coded essay characteristics by gender, ethnicity, and baseline and post at-risk group status. A

significant chi-square was found on whether students reported stress or not between African American and Hispanic students ($\chi^2 (1) = 5.37, p = .020$), with a greater percentage of Hispanic students ($n = 17$ out of 36, 47.22%) reporting a stressful life event than African American students ($n = 38$ out of 140, 27.14%). While there was no significant difference in writing about stress when looking at the baseline at-risk group membership, there was a significant chi-square using the at-risk clusters created from the post data ($\chi^2 (1) = 6.41, p = .011$). Using the post at-risk groups, a greater percentage of students wrote about a stressful life event in the more at-risk group ($n = 13$ out of 29, 38.24%) than did those in the more resilient group ($n = 16$ out of 99, 17.02%). There were no other significant chi-square tests.

In addition, four Logistic Regressions were conducted to examine if the individual teacher-reported and student-reported total resilience factors could predict whether students wrote about a stressful life event or the future in their essay. These analyses, controlled for gender, ethnicity, and word count. Results demonstrated that controlling for all other factors, ethnicity ($B = 1.03$, Odds Ratio = 2.81, $p = .016$), word count ($B = .004$, Odds Ratio = 1.00, $p = .005$), and teacher-reported social skills ($B = -.90$, Odds Ratio = .91, $p = .039$) significantly predicted whether students wrote about a stressful life event in their essays. In other words, Hispanic students, students who wrote longer essays, or students with lower teacher-reported social skills had higher odds of reporting a stressful event in their essays after controlling for the other factors. The results for the post data were similar, with ethnicity ($B = 1.56$, Odds Ratio = 4.75, $p = .004$) and word count ($B = .005$, Odds Ratio = 1.005, $p = .009$) significantly predicting whether students reported a stressful life event in their essays controlling for gender and the other post

resilience factors. Although teacher-report social skills was significant predictor in an earlier step of the model which only included ethnicity, gender, and word count ($B = -.09$, Odds Ratio = .92, $p = .021$), post social skills became non-significant once the other teacher-rated problem behaviors were added to the model. The logistic regressions of the discussion of the future in the essays did not find any significant predictors.

Discussion

This study demonstrated that characteristics of elementary students' written essays about their personal values were predictive of students being identified as at-risk or as resilient. At-risk was defined as being rated by their teachers on internalizing, externalizing, and hyperactivity measures as showing high problems in these areas, in conjunction with exhibiting poorer social skills as rated by their teachers and a reduced self-rated self-concept resilience score (e.g., combined ratings of happiness, freedom from anxiety, and behavioral adjustment); conversely, resilient was defined as being low in these problem areas, while exhibiting higher teacher-rated social skills and personal self-concept. Of these ratings, teacher-rated externalizing problems, hyperactivity, and social skills were able to best distinguish between the more at-risk and more resilient students, while the students' self-ratings did not contribute much to this distinction.

Once these at-risk and resilient groups were established, the following characteristics from their Laws of Life essays were explored as being potential predictors of at-risk group membership: personal pronouns, social processes, family, friends, positive emotion, anxiety, anger, sadness, insight, death, and word count. Results revealed that the percentage of death-related words in the students' essays was related to Male students and Hispanic students being more likely to be identified as at-risk. In addition, the percentage of social process-related words was also a significant predictor for Hispanic students, with a lower percentage of social process words in an essay being an indicator that a Hispanic student was more likely in the at-risk group of students. This is compatible with previous research which has found that social supports can buffer against exposure to community stressors (Muller et al., 2000).

The initial findings in the current study were replicated using data from a second time point after the essays had been written. Additionally, in this post-data analysis, the percentage of death-related words from African-American students' essays also predicted at-risk student status and the percentage of family-related words became a second predictor for Male students, with more family words in a students' essay being associated with Male students being identified as at-risk. The difference in directionality between the social process words for Hispanic predicting resilience versus family-related words (which is a subtype of social words) predicting risk group membership for Male students is worth noting although it is unclear why this difference occurred. It is possible that Male students in the at-risk group were more likely to discuss family in their essays in the context of stressful or negative experiences, while Hispanic students discussed social processes in general in more supportive terms. Further examination of this difference in future research is necessary to better understand this phenomenon.

Overall, these results are further evidence in the growing body of literature that has found that characteristics of expressive writing are associated with well-being and psychological stress (e.g., Niederhoffer & Pennebaker, 2009; Pennebaker & Seagal, 1999; Rude, Gortner, & Pennebaker, 2004; Sylvestre, Elias, Stepney, & White, 2012; Van Dyke & Elias, 2008). Specifically, in a pilot study examining a sample of Laws of Life essays, the percentage of death-related words significantly distinguished between students based on teacher-reported internalizing symptoms alone, with more death associated with higher odds of being in the higher internalizing group (Sylvestre et al., 2012). Moreover, it has also been found that a sense of purpose found in these essays is positively associated with self-concept (Van Dyke & Elias, 2008). Similarly, in

numerous works of Pennebaker and his colleagues written expression has been predictive of psychological distress or adjustment. For example, in one study, depressed individuals were found to use more personal pronouns, such as “I” or “me,” as well as had a greater percentage of words with a negative valence than formerly depressed individuals or individuals who have never been depressed (Rude et al., 2004).

In addition, this study provided insight into the lives of children growing up in high stress communities. Notably, about a third of the students discussed some type of stressful life event in their essays. While the majority of these students wrote about death, there was a diversity of other stressful experiences that were written about, including sickness or injury of a family member, divorce or separation of parents, incarceration of a family member, immigrating to the United States, or experiencing a family member’s substance abuse. Interestingly, the writing prompt instructions did not ask the children to write about these topic areas but a significant number wrote about it spontaneously, which is potentially very telling in that these stressors may be particularly salient to their identity and how they construct what is important to them. Moreover, results indicated that students who wrote about a stressful event were more likely to be in the at-risk cluster derived from the post-resiliency student and teacher variables. This suggests that there may be something unique about students who choose to write about these stressful life experiences in relation to personal values.

Limitations and Suggestions for Future Research

This study is not without limitations. First, this study used a self-report measure of student resilience, which appeared to have a ceiling effect. As the majority of students rated themselves very highly on their overall happiness and satisfaction and did not report

having much anxiety or behavioral problems (e.g., the average on this measure was about 19 out of 23 possible points), this variable was not able to distinguish between types of students as well as the teacher-rated aspects of risk and resilience. One potential challenge of the student measure may be that it used dichotomous items, which forced students to choose to identify as either positive or negative without an in-between choice. It is difficult to know if the students who indicated that they had a strong self-concept actually felt that way or were biased in their report to seem more positive. Future research could benefit from having additional measures completed by students to corroborate their self-report, as well as using other observers of the students' behavior, such as their parents in addition their teachers, who might provide an additional perspective. Researchers may also considered conducting interviews with students to get an impartial observers input on the students level of risk.

Another limitation of this study was that there was high dropout from the baseline survey administration to the post-intervention surveys which significantly reduced the overall sample size, as well as the individual gender and ethnicity groups that were examined. This high mobility rate is not uncommon in schools from lower income communities (United States Government Accountability Office, 2010); however, it is something that researchers in these settings must take into account. Relatedly, this study was limited to a very specific population of students, all in the fifth grade and all from a low-SES school district. Therefore, these results may not be generalizable to other age groups or students from different socioeconomic levels. Future research should explore if death and social processes are important risk and resilience identifiers in more diverse

populations, or if other essay characteristics are better able to distinguish for these different groups of children.

Lastly, while exploring the relationship of stress and resiliency in the Laws of Life essays is possible as students spontaneously wrote about these topics, this was not an explicit goal of the essays. Additional research comparing children asked to write about a stressful experience and what they learned from it versus children who spontaneously incorporate negative experiences in the discussion of their identity may provide some needed insight into how these stressors play a role in the identity development of children.

Despite these limitations, this study along with previous work (e.g., Reynolds, Brewin, & Saxton, 2000) supports the feasibility of using writing interventions for children in high stress communities. It is critical for teachers, school administrators, and counselors working with these students to understand that a great percentage of children in these communities are exposed to a significant number of stressors, and developing interventions to assist students in being able to better coping with and processing these stressors is necessary. While only a third of students wrote about these experiences in their essays spontaneously, it is likely that a great deal more of them have encountered significant stress in their lives. Like much of Pennebaker's work on using written expression to process stressful experiences, the Laws of Life essays may provide a unique method for students to explore negative experiences and apply meaning to them. However, as the beneficial evidence of having children write about emotional experiences is still mixed, it is, therefore, an important area of continued inquiry.

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Table 1. Linguistic Inquiry and Word Count 2007 Software Category Definitions.

Category	Examples	# of Words in Category
Personal Pronouns	I, we, them her	70
Positive Emotion	Love, nice, sweet	406
Anxiety	Worried, fearful, nervous	91
Anger	Hate, kill, annoyed,	184
Sadness	Crying, grief, sad	101
Social Processes (includes family, friends, and human subcategories)	Mate, talk, they, child, adult, baby, boy	455
Family	Daughter, husband, aunt	64
Friends	Buddy, friend, neighbor	37
Insight	Think, know, consider	195
Death	Bury, coffin, kill	62

Examples taken from Pennebaker, J. W., Chung, C. K., Ireland, M., Gonzales, A., & Booth, R. J. (2007). The Development and Psychometric Properties of LIWC2007: LIWC.net.

Table 2. Descriptives of All Study Variables (N=176 at Baseline, N = 126 at Post)

	Mean (SD) / <i>n</i> (%)	Range
Child Characteristics at Baseline		
Age	10.95 (0.48)	10.19 – 12.58
Female, <i>n</i> (%)	112 (63.63%)	
Male, <i>n</i> (%)	64 (36.36%)	
African-American, <i>n</i> (%)	140 (79.54%)	
Hispanic, <i>n</i> (%)	36 (20.46%)	
Free and Reduced Lunch Status, <i>n</i> (%)	112 (63.63%)	
Student-Reported Total Resilience ^a	18.96 (3.38)	7 – 22
Teacher-Reported Total Social Skills ^b	19.82 (5.77)	5 – 26
Teacher-Reported Internalizing	1.43 (1.92)	0 – 7
Teacher-Reported Externalizing	1.63 (2.32)	0 – 8
Teacher-Reported Hyperactivity	2.07 (2.35)	0 – 8
Child Characteristics at Post		
Age	10.95 (0.47)	10.19 – 12.24
Female, <i>n</i> (%)	81 (63.28%)	
Male, <i>n</i> (%)	47 (36.72%)	
African-American, <i>n</i> (%)	103 (80.47%)	
Hispanic, <i>n</i> (%)	25 (19.53%)	
Free and Reduced Lunch Status, <i>n</i> (%)	86 (67.19%)	
Student-Reported Total Resilience ^a	19.07 (3.42)	7 – 22
Teacher-Reported Total Social Skills ^b	20.91 (6.17)	6 – 26
Teacher-Reported Internalizing	1.66 (2.01)	0 – 8
Teacher-Reported Externalizing	1.97 (2.56)	0 – 8
Teacher-Reported Hyperactivity	2.07 (2.49)	0 – 8
Essay Characteristics		
Word Count	406.07 (129.59)	138 – 921
Personal Pronouns (% of total essay)	17.20 (3.16)	7.78 – 23.21
Social Processes (% of total essay)	16.16 (4.54)	3.90 – 32.45
Family (% of total essay)	2.57 (1.99)	0.00 – 9.68
Friends (% of total essay)	0.38 (0.84)	0.00 – 7.16
Positive Emotion (% of total essay)	5.40 (3.29)	0.57 – 17.88
Anxiety (% of total essay)	0.23 (0.39)	0.00 – 2.75
Anger (% of total essay)	0.39 (0.51)	0.00 – 2.71
Sadness (% of total essay)	0.49 (0.59)	0.00 – 3.23
Insight (% of total essay)	2.26 (1.15)	0.00 – 6.80
Death (% of total essay)	0.13 (0.31)	0.00 – 1.88

Note. ^a Student-Reported Total Resilience is a sum total of the Happiness, Freedom from Anxiety, and Behavioral Adjustment subscales of the Piers Harris Self Concept Scale.

^b Teacher-Reported Total Social Skills is a sum total of the Cooperation, Assertiveness, and Self-Control subscales of the Social Skills Rating System-Teacher Version measure.

Table 3. Correlations amongst student and teacher-reported child characteristics (N=176 at Baseline, N = 126 at Post).

	1	2	3	4	5	6	7	8	9
Child Characteristics at Baseline									
1. Student-Reported Total Resilience ^a	--								
2. Teacher-Reported Social Skills ^b	.17*	--							
3. Teacher-Reported Internalizing	-.07	-.47***	--						
4. Teacher-Reported Externalizing	-.08	-.69***	.49***	--					
5. Teacher-Reported Hyperactivity	-.08	-.60***	.45***	.76***	--				
Child Characteristics at Post									
6. Student-Reported Total Resilience ^a	.53***	.21*	-.03	-.10	-.15	--			
7. Teacher-Reported Social Skills ^b	.16 ⁺	.57***	-.44***	-.66***	-.64***	.12	--		
8. Teacher-Reported Internalizing	-.07	-.43***	.57***	.54***	.54***	-.01	-.69***	--	
9. Teacher-Reported Externalizing	-.13	-.59***	.51***	.75***	.72***	-.10	-.88***	.70***	--
10. Teacher-Reported Hyperactivity	-.18*	-.51***	.39***	.60***	.73***	-.15 ⁺	-.84***	.66***	.85***

Note. ⁺ $p < .01$, * $p < .05$, ** $p < .01$, *** $p < .001$

^a Student-Reported Total Resilience is a sum total of the Happiness, Freedom from Anxiety, and Behavioral Adjustment subscales of the Piers-Harris Self-Concept Scale.

^b Teacher-Reported Total Social Skills is a sum total of the Cooperation, Assertiveness, and Self-Control subscales of the Social Skills Rating System-Teacher Version measure.

Table 4. Correlations amongst essay characteristics (N = 176).

	1	2	3	4	5	6	7	8	9	10
1. Word Count	--									
2. Personal Pronouns	-.01	--								
3. Social Processes	-.003	.30***	--							
4. Family	.04	.35***	.34***	--						
5. Friends	.01	-.07	.22**	-.22**	--					
6. Positive Emotion	-.23**	-.07	.34***	-.18*	.46***	--				
7. Anxiety	.10	.06	-.16*	-.08	-.03	-.12	--			
8. Anger	.05	-.06	.01	-.11	.02	-.04	.10	--		
9. Sadness	.07	.09	-.03	.34***	-.08	-.21*	.01	.08	--	
10. Insight	.06	.01	-.06	-.29***	.04	.06	.16*	.01	-.06	--
11. Death	-.03	.02	-.07	.03	.00	-.06	-.05	-.13 ⁺	.19*	.01

Note. ⁺ $p < .10$, * $p < .05$, ** $p < .01$, *** $p < .001$

Table 5. Qualitative coding of essay characteristics (N = 176).

	n (%)
Value Discussed	
Love	40 (22.73)
Responsibility	28 (15.91)
Respect	15 (8.52)
Caring/Kindness	14 (7.95)
Admiration	12 (6.82)
Perseverance	10 (5.68)
Self-Control	10 (5.68)
Gratitude	8 (4.55)
Courage	8 (4.55)
Honesty	7 (3.98)
Other (i.e., Patience, Friendship, Education, Faith, Fairness, Obedience)	23 (13.63)
Stressful-Life Event Discussed	
No stressful event	121 (68.75)
Death	22 (12.50)
Family member sick or injured	9 (5.11)
Personal sickness or injury	6 (3.41)
Divorce or separation of parents	3 (1.70)
Incarceration or jail of close relation	3 (1.70)
Immigrating to the U.S.	3 (1.70)
Other (i.e., Family member's addiction, abuse/severe punishment, new guardian in family, fire, never meeting biological parent)	9 (5.11)
Future Discussed: Yes	69 (39.20)

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Appendix A. Modified Piers-Harris Self-Concept Scale (Piers & Harris, 1984).

How I feel about myself

Here are some sentences. Some of them are true about you and so you will circle YES. Some are not true about you, so you will circle NO. Please answer EVERY question, even if some are hard to decide. Remember, circle YES if the statement is like you most of the time or NO if the statement is not like you. There are no right or wrong answers. Your answers will help us learn more about how you feel inside.

1. My classmates make fun of me*	Yes	No
2. I am a happy person	Yes	No
3. It is hard for me to make friends*	Yes	No
4. I am smart	Yes	No
5. I get nervous when the teacher calls on me*	Yes	No
6. I get worried when we have tests in school*	Yes	No
7. I am well-behaved in school	Yes	No
8. I cause trouble to my family*	Yes	No
9. I am strong	Yes	No
10. I have good ideas	Yes	No
11. I am good in my schoolwork	Yes	No
12. I do many bad things*	Yes	No
13. I behave badly at home*	Yes	No
14. I am slow in finishing my school work *	Yes	No
15. I am nervous*	Yes	No
16. I have nice eyes	Yes	No
17. I can give a good report in front of the class	Yes	No
18. In school, I am a dreamer*	Yes	No
19. I often get into trouble*	Yes	No
20. I do what I am told at home	Yes	No
21. I worry a lot*	Yes	No
22. I like being the way I am	Yes	No
23. I have nice hair	Yes	No
24. I often raise my hand in school	Yes	No

25. I wish I were different*	Yes	No
26. I am among the last to be chosen for games*	Yes	No
27. I am often mean to other people*	Yes	No
28. I am sad*	Yes	No
29. I have many friends	Yes	No
30. I am cheerful	Yes	No
31. I am dumb about most things*	Yes	No
32. I am good looking	Yes	No
33. I get into a lot of fights*	Yes	No
34. People pick on me*	Yes	No
35. I have a nice face	Yes	No
36. I am a leader in games and sports	Yes	No
37. I forget what I learn*	Yes	No
38. I am a good reader	Yes	No
39. I have a good body	Yes	No
40. I am often afraid*	Yes	No
41. I can be trusted	Yes	No
42. I think bad thoughts*	Yes	No
43. I cry easily*	Yes	No
44. I am a good person	Yes	No

Note. * Denotes reverse coded item

Subscales are computed using the following equations:

Behavioral Adjustment = 7 + 8* + 12* + 13* + 18* + 19* + 20 + 27* + 33* + 41 + 42* + 44

Intellectual and School Status = 4 + 10 + 11 + 14* + 17 + 22 + 24 + 31* + 37* + 38

Physical Appearance = 9 + 16 + 23 + 32 + 35 + 36 + 39

Freedom from Anxiety = 5* + 6* + 15* + 21* + 40* + 43*

Popularity = 1* + 3* + 26* + 29 + 34*

Happiness = 2 + 25* + 28* + 30

A total score can be computed by summing all the items.

A total resiliency score for the current study was computed by summing the Behavioral Adjustment, Freedom from Anxiety, and Happiness subscales.

Appendix B. Modified Social Skills Rating System – Teacher Version (Gresham & Eliot, 1990).

Read each item and think about this student's behavior during the past month or two. Decide how often the student does the behavior described.

If the student never does the behavior, circle the 0.

If the student sometimes does the behavior, circle the 1.

If the student very often does the behavior, circle the 2.

In some cases you may not have observed the student perform a particular behavior. Make an estimate of the degree to which you think the student would probably perform that behavior.

	How Often?		
	Never	Sometimes	Very often
1. Controls temper in conflict situations with peers.	0	1	2
2. Compromises in conflict situations by changing own ideas to reach agreement.	0	1	2
3. Says nice things about himself or herself when appropriate.	0	1	2
4. Invites others to join in activities.	0	1	2
5. Finishes class assignments within time limits.	0	1	2
6. Controls temper in conflict situations with adults.	0	1	2
7. Initiates conversations with peers.	0	1	2
8. Puts work materials or school property away.	0	1	2
9. Cooperates with peer without prompting.	0	1	2
10. Volunteers to help peers with classroom tasks.	0	1	2
11. Responds appropriately when pushed or hit by other children.	0	1	2
12. Ignores peer distractions when doing class work.	0	1	2
13. Attends to your instructions.	0	1	2
14. Fights with others.	0	1	2

15. Has low self-esteem.	0	1	2
16. Threatens or bullies others.	0	1	2
17. Appears lonely.	0	1	2
18. Is easily distracted.	0	1	2
19. Interrupts conversations of others.	0	1	2
20. Disturbs ongoing activities.	0	1	2
21. Shows anxiety about being with a group of children.	0	1	2
22. Talks back to adults when corrected.	0	1	2
23. Gets angry easily.	0	1	2
24. Acts sad or depressed.	0	1	2
25. Fidgets or moves excessively.	0	1	2

Note. Scales are computed using the following equations:

Cooperation= 5+ 8+ 12+ 13

Assertiveness= 3+ 4+ 7+ 10

Self-Control= 1+ 2+ 6+ 9+ 11

Externalizing= 14+ 16+ 22+ 23

Internalizing= 15+ 17+ 21+ 24

Hyperactivity= 18+ 19+ 20+ 25

Total Social Skills= Cooperation+ Assertiveness+ Self-control

Total Problem Behavior= Externalizing+ Internalizing+ Hyperactivity

Academic Competence = 26+ 27+ 28+ 29+ 30

Appendix C. Post-Intervention Discriminant Analysis Results for Hispanic Students.

For Hispanic students at post, death-related words and social process-related words continued to be significant, creating a single discriminant function, Wilks' Lambda = .65, $\chi^2(2, N = 128) = 9.40, p = .009$. This function had a Canonical correlation of .59 ($R^2 = .34$), which indicates that this model accounts for 34.81% of the variance in group membership for Hispanic students. The canonical discriminant function coefficients were as follows, social process-related words (Standardized canonical discriminant function coefficient = -.79, Unstandardized canonical discriminant function coefficient = -.25) and death-related words (Standardized canonical discriminant function coefficient = .84, Unstandardized canonical discriminant function coefficient = 2.53), and constant = 3.63. By inspecting the group centroids, the more at-risk group had a mean of 2.38 and the more resilient group had a mean of -.21, suggesting that Hispanic students with a higher percentage of death related words and a lower percentage of social-related words in their essays were more likely to be in the more at-risk group. Using social processes and death as predictors of the at-risk status of Hispanic students, 92.0% of the cases were correctly classified into their original group.