Examination of the Relationship between School Climate and Other School-Based Factors and Teacher Self-Efficacy

Elise C. McIver

Louisiana State University and Agricultural and Mechanical College, elise.baker85@gmail.com

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EXAMINATION OF THE RELATIONSHIP BETWEEN SCHOOL CLIMATE AND OTHER SCHOOL-BASED FACTORS AND TEACHER SELF-EFFICACY

A Thesis

Submitted to the Graduate Faculty of the Louisiana State University and Agricultural and Mechanical College in partial fulfillment of the requirements for the degree of Master of Arts

in

The Department of Psychology

by

Elise C. McIver
B.S., University of Georgia, 2007
December 2014
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ABSTRACT

Years of failed school reform speak to the need for a larger body of evidence that prioritizes the factors documented to be pivotal to student success. Research consistently demonstrates that teachers may be the most influential factor; therefore, it is necessary to critically understand the skills and personal competencies retained by highly effective teachers. One such competency is teacher self-efficacy, which is broadly defined as a belief in one’s abilities to influence student achievement. The construct has been shown to relate to a host of positive outcomes for both teachers and students. Given the significance of and implications for teacher self-efficacy, investigations of its relationship to school-based factors may prove valuable. As such, the present study utilized correlation and regression analyses to systematically examine the relationship between teacher self-efficacy and school-based factors, including teachers’ perception of school climate, years of teaching experience, number of years teaching at current school, and education level. Fifty educators working in public elementary schools in Southeastern Louisiana participated in the study. Other than a significant correlation between teachers’ number of years of teaching at current school and general teaching efficacy, the results were inconclusive as to any significant relationship between teacher self-efficacy and the measured school-based variables. Potential factors influencing these findings and implications for future research are discussed.
INTRODUCTION

While the degree of impact of the individual teacher on student learning is a debated issue, research has consistently demonstrated that teachers do play a critical role in the academic achievement of their students. Some even attest that teachers matter the most when compared to all other school-related factors (Wright, Horn, & Sanders, 1997). In a study examining the differences in student achievement for less effective versus effective teachers, Stronge, Ward, & Grant (2011) found a discrepancy of more than 30 percentile points based on one year of teaching. Similarly, Nye, Konstantopoulos, & Hedges (2004) revealed findings that indicate a difference in learning of over one third of a standard deviation in reading and almost half a standard deviation in mathematics between having a 25th and 75th percentile teacher. Such results support the findings of other studies that have analyzed the value-added impact of teachers (Bembry, Jordan, Gomez, Anderson, & Mendro, 1998; Jordan, Mendro, & Weerasinghe, 1997; Mendro, 1998).

Research additionally indicates that the significant influence of teachers on student learning has long-term consequences. In a compelling article on teacher quality, Chetty, Friedman, and Rockoff (2013) examine school-district records on teachers and students, as well as information on students’ adult outcomes. The findings demonstrate that having a high value-added teacher is linked to a greater probability of attending college, higher earnings over the lifetime, higher saving rates, and other critical ramifications (Chetty et al., 2013). The dramatic implications of teacher quality on student academic achievement and life outcomes signal the need for progressive research and reform in the fields of educator training, support, and evaluation. Such advancements should be addressed with a sense of urgency, as a persistent achievement gap exists for children born into poverty, and American students continue to lag.
behind their foreign counterparts on math and science test scores.

Indeed, the knowledge base of teacher education has expanded greatly in recent decades. The sheer number of international journals devoted to teacher education has proliferated, providing the education community with valuable knowledge in such areas as teacher recruitment, classroom behavior management, data-based decision making, and instructional delivery. Despite this progress, however, the broad landscape of teacher education is lacking empirical research examining the personal competencies held by teachers that directly link to teaching performance and subsequent influences on student learning. Furthermore, there appears to be a glaring gap between the research findings that do exist and policy, teacher education practice, and professional development practice.

One component of the personal competencies domain that requires additional investigation is teacher self-efficacy. Interestingly, the research-to-practice gap in the area of self-efficacy contradicts the myriad of explanations used to define the elusive construct. The initial concept of self-efficacy was pioneered by Albert Bandura as a theoretical framework lying at the center of his social cognitive theory. Bandura defined self-efficacy as “judgments of how well one can execute courses of action required to deal with prospective situations” (Bandura, 1982, p. 122), linking the self-efficacy mechanism to changes in emotional arousal, thought patterns, and actions. According to Bandura, self-efficacy develops from four primary sources: mastery experiences or accomplishments, social modeling, social persuasion or verbal encouragement, and emotional and physical states. As Bandura and others have consistently documented, self-efficacy influences confidence levels, goal-setting, and the amount of effort and perseverance displayed in difficult situations (Bandura, 1977).

Nearly forty years ago, researchers at the RAND Corporation first introduced the notion
of teacher self-efficacy (Armor et al., 1976). The two items utilized in their questionnaire to
teachers capture the delineation of the construct into general efficacy and personal efficacy
dimensions.

1. When it comes right down to it, a teacher really can’t do much because most of a
   student’s motivation and performance depends on his or her home environment.
2. If I really try hard, I can get through to even the most difficult or unmotivated
   students.

Ashton (1984) expanded this work on teacher self-efficacy, defining the construct as “the extent
to which teachers believe that they have the capacity to affect student performance” (p. 28). In
concordance with the demarcation of general efficacy and personal efficacy evidenced in the
RAND items, Ashton and Webb (1986) also make the distinction between the two labels.

General efficacy refers to teachers’ beliefs regarding the ability of students to learn
regardless of environmental factors such as gender, race, family structure, and socioeconomic
status. This aspect of efficacy is therefore associated with the influence of teachers in general,
rather than the aptitude of the individual teacher. The personal efficacy dimension reflects
teachers’ confidence in their own teaching skills. Those with high personal efficacy believe that
challenges to student learning are solvable and they have the knowledge and skills to achieve
their vision of student success. Bandura notes the importance of the discriminability of the
constructs, explaining that “individuals can believe that a particular course of action will produce
certain outcomes, but if they entertain serious doubts about whether they can perform the
necessary activities such information does not influence their behavior” (Bandura, 1977, p. 193).
While variations of the conceptual meaning of teaching self-efficacy continue to evolve, many
researchers utilize the general and personal efficacy distinction as a foundation of their work
The significance of teacher self-efficacy is clear when one considers the link between teacher efficacy, teacher behavior, and student achievement. In regard to the behavioral differences of high versus low efficacious teachers, Ashton and Webb (1986) demonstrated that those with higher self-efficacy “minimized negative affect, promoted an expectation of achievement, and provided a definition of the classroom situation characterized by warm interpersonal relationships and academic work” (p. 125). Allinder (1995) found that teachers with high efficacy not only set more ambitious goals for their students, but also increase goals more frequently. Additionally, teachers with a high sense of efficacy exhibit distinct instructional skills and behaviors that lead to student learning. Such behaviors include incorporating effective classroom management systems (Ashton & Webb, 1986), responding appropriately to incorrect answers (Gibson & Dembo, 1984), and involving students in the decision-making process regarding their education (Ashton, 1984).

In addition to its correlation to effective teaching strategies, it appears as if there is a relationship between teacher efficacy and teacher motivation. In investigating potential influences on teachers’ commitment to the profession, Coladarci (1992) found both general and personal efficacy to be especially strong predictors. These results replicate other findings that suggest those with a higher sense of efficacy are more likely to remain in teaching (Burley, Hall, Villeme, & Brockmeier, 1991) and display more enthusiasm for teaching (Hall, Burley, Villeme, & Brockmeier, 1992). Efficacy also affects the time and effort teachers invest in their classrooms, particularly when confronted with challenging obstacles. Tschannen-Moran and Hoy (2001) note that “efficacy beliefs influence teachers’ persistence when things do not go smoothly and their resilience in the face of setbacks” (p. 783). For example, teachers with high efficacy
maintain on-task behavior and persist for longer amounts of time with struggling students (Allinder, 1995). On the other hand, teachers with a lower sense of personal efficacy are more likely to consider special education as the optimal placement for struggling students, particularly those from low socioeconomic status families (Podell & Soodak, 1993). Such results reflect the particular implications efficacy has on teachers’ differential attitudes and biases toward minority students and/or students from poor backgrounds.

Research has provided an abundance of literature that details the powerful relationship between teacher efficacy and student outcomes. High teacher efficacy has been shown to be a significant predictor of increases in reading (Armor et al., 1976) and student gains on standardized math tests (Ashton & Webb, 1986). Teacher efficacy has also been connected to both student motivation and student self-efficacy (Tschannen-Moran & Hoy, 2001). More recently, the notion of collective efficacy has been a topic of interest for efficacy researchers, who have demonstrated that collective efficacy is related to differences in student growth among schools (Goddard, Hoy, & Woolfolk, 2000). The relationship between teacher efficacy and student achievement may be indirect, with teachers’ behavior in the classroom serving as the mediating factor. Nevertheless, the implications for teacher self-efficacy are unequivocal and significant.

Efforts to understand the variables associated with teacher efficacy have potential value, especially when one considers the evidenced magnitude of the construct. Particular attention need be paid to those variables that are malleable, such as the various conditions known to be conducive to learning. The general term utilized to describe such conditions is known as school climate. While school climate is a multidimensional construct, it is broadly defined as “the quality and character of school life” and “is based on patterns of people’s experiences of school
life and reflects norms, goals, values, interpersonal relationships, teaching and learning practices, and organizational structures” (Cohen, McCabe, Michelli, & Pickeral, 2009, p. 182).

Investigating the constructs of school climate and teacher efficacy could prove useful in determining which school factors, if any, are associated with teacher efficacy. Such an investigation may also reveal the degree to which self-efficacy remains robust despite school factors that would predict otherwise. As such, the present study aimed to examine the relationship between teacher perception of school climate and teacher efficacy. Additionally, the relationships between other school-based factors and teacher efficacy were explored. These characteristics included teachers’ age, number of years teaching at current school, years of teaching experience, and highest education level.
METHOD

Participants

Fifty educators working in public elementary schools in Southeastern Louisiana were solicited to participate in the study. In an attempt to capture the continuum of school climate experiences, teachers were recruited from three different schools. There were 14 participants from School A, 20 participants from School B, and 16 participants from School C. Written consent was obtained for all participants, and the measures were completed at their schools’ faculty meetings.

Measures

Teacher Efficacy Scale. Teacher efficacy was measured using the Teacher Efficacy Scale (TES; Gibson & Dembo, 1984), which contains 16 items that are rated on a 6-point Likert scale ranging from strongly disagree to strongly agree (see Appendix A). The determination to use these items was based on the authors’ recommendation, as they were retained after a factor analysis of the original 30-item scale. The 16 items yield two factors that delineate general teaching efficacy and personal teaching efficacy. Cronbach’s alpha coefficients for internal consistency of the general teaching efficacy and personal teaching efficacy factors are .75 and .78, respectively. Cronbach’s alpha for all 16 items is .79. Additionally, the two factors are considered relatively independent, as only a moderate correlation ($r = -.19$) was determined from an oblique rotation.

To assess the construct validity of the Teacher Efficacy Scale, the authors analyzed data on three traits (teacher efficacy, verbal ability, and flexibility) utilizing the multitrait-multimethod matrix approach. The values of the matrix lend support to convergent validity, as all three traits demonstrated significant validity values beyond the .05 level (.30 for verbal ability,
.39 for flexibility, and .42 for teacher efficacy). The analysis also indicated statistical independence of teacher efficacy from verbal ability and flexibility, as well as discriminability of the scale from other constructs (Gibson & Dembo, 1984). Evidence of internal consistency reliability, as well as convergent and discriminant validity, provided further support for the use of the Teacher Efficacy Scale in research on teacher efficacy.

**Brief-California School Climate Survey.** The Brief-California School Climate Survey (B-CSCS; You, O’Malley, & Furlong, 2014) is an abridged version of the California School Climate Scale (see Appendix B). To meet the objective of this study and address efficiency concerns, teachers completed the B-CSCS to measure their perceptions of school climate. The 15 items of the survey engender a model in which two latent traits, organizational supports and relational supports, are subsumed under the latent factor of general school climate. The relational supports items measure teachers’ impressions of the relationships between staff and students, as well as the degree to which staff believes in and encourages student success. The organizational supports construct measures school-wide expectations for academic and behavioral performance and perceptions of support for both school staff and parents.

Cronbach’s alpha coefficients of the organizational supports and relational supports factors suggest high internal consistency, with alpha values ranging from .79 to .93 (You, O’Malley, & Furlong, 2014). Such results regarding the psychometric qualities of the B-CSCS indicated the scale to be a sound measure for evaluating teachers’ perceptions of general school climate. In addition, as previously stated, the B-CSCS was a means to collect high-quality data about school climate with the additional benefits of practicality and time efficiency.

**Demographic Information Form.** To gather data regarding the demographic characteristics of participants, teachers were asked to complete a demographic information form.
This form included information regarding teachers’ age, number of years teaching at current school, years of teaching experience, and highest education level.

**Analyses**

A series of statistical analyses were completed to analyze the data. The means, standard deviations, and ranges were calculated for the teacher efficacy variable (general teaching efficacy and personal teaching efficacy) and the school climate variable (organizational supports and relational supports), as well as teachers’ age, years of teaching experience, and years of teaching at current school. Such values provide information regarding the range and variability of the sample. Correlational analyses were also conducted to examine the bivariate relationships among the primary variables of the study. Significance values of the zero-order correlations were utilized to determine which predictors were significantly related to one another. Pearson’s $r$ values also provided information regarding the magnitude of the relationships.

To further partition the effects of each variable independent of the others, a series of multiple regression analyses were completed. These analyses examined the individual effects of school climate (organizational supports and relational supports), age, years of teaching experience, years of teaching at current school, and highest education level on general teaching efficacy and personal teaching efficacy. The effects of the independent variables on overall teaching efficacy were also examined. An $F$ value for a relationship was considered significant if its associated significance level was less than .05.
RESULTS

Descriptive Statistics

The means, standard deviations, and ranges of the primary variables of interest are presented in Table 1. It is important to note that for the teacher efficacy variables, a score of one indicates a high sense of efficacy and a score of six indicates a low sense of efficacy. Similarly, for the school climate variables, a lower rating suggests a positive school climate, whereas a higher rating suggests a negative school climate.

The mean age of the participants was 39 years. On average, participants had 9.5 years of teaching experience and 5.7 years of teaching experience at their current school. Overall, participants reported a higher sense of personal teaching efficacy ($M = 2.09$, $SD = 0.66$) than general teaching efficacy ($M = 3.54$, $SD = 0.86$). Additionally, the mean scores for the school climate variables suggested that, on average, participants indicated a more positive perception of organizational supports ($M = 1.60$, $SD = 0.55$) than for relational supports ($M = 1.74$, $SD = 0.63$).

Table 1. Means, Standard Deviations, and Ranges of Teacher Efficacy, School Climate, and Teacher Demographic Variables.

<table>
<thead>
<tr>
<th>Variable</th>
<th>$M$</th>
<th>$SD$</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teacher Efficacy</td>
<td>2.72</td>
<td>.48</td>
<td>1.5-3.6</td>
</tr>
<tr>
<td>General Teaching Efficacy</td>
<td>3.54</td>
<td>.86</td>
<td>1.9-5.3</td>
</tr>
<tr>
<td>Personal Teaching Efficacy</td>
<td>2.09</td>
<td>.66</td>
<td>1.0-3.7</td>
</tr>
<tr>
<td>School Climate</td>
<td>1.67</td>
<td>.52</td>
<td>1.0-3.1</td>
</tr>
<tr>
<td>Organizational Supports</td>
<td>1.60</td>
<td>.55</td>
<td>1.0-3.3</td>
</tr>
<tr>
<td>Relational Supports</td>
<td>1.74</td>
<td>.63</td>
<td>1.0-3.1</td>
</tr>
<tr>
<td>Age</td>
<td>38.94</td>
<td>12.36</td>
<td>22-60</td>
</tr>
<tr>
<td>Years of Teaching Experience</td>
<td>9.50</td>
<td>8.54</td>
<td>1-32</td>
</tr>
<tr>
<td>Years of Teaching at Current School</td>
<td>5.78</td>
<td>6.26</td>
<td>1-28</td>
</tr>
</tbody>
</table>
Correlational Analyses

Presented in Table 2 is the correlation matrix of the teacher efficacy, school climate, and teacher demographic variables. The number of years of teaching at current school was significantly correlated with general teaching efficacy. Such results suggested that more years of teaching at current placement was related to lower levels of general teaching efficacy. Another noteworthy finding was the significant correlation between education and age. In this sample population, younger teachers had overall higher levels of education, as compared to older teachers.

Table 2. Correlation Matrix of Teacher Efficacy, School Climate, and Teacher Demographic Variables.
*Correlation is significant at the 0.05 level.
**Correlation is significant at the 0.01 level.

<table>
<thead>
<tr>
<th>Variable</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Teacher Efficacy</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2 General Teaching Efficacy</td>
<td>.67**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3 Personal Teaching Efficacy</td>
<td>.63**</td>
<td>-.17</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4 School Climate</td>
<td>.04</td>
<td>.01</td>
<td>.04</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5 Organizational Supports</td>
<td>.06</td>
<td>.05</td>
<td>.04</td>
<td>.83**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6 Relational Supports</td>
<td>.01</td>
<td>-.02</td>
<td>.04</td>
<td>.91**</td>
<td>.52**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7 Age</td>
<td>.08</td>
<td>.25</td>
<td>-.15</td>
<td>-.11</td>
<td>-.14</td>
<td>-.07</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8 Years of Teaching Experience</td>
<td>.08</td>
<td>.21</td>
<td>-.12</td>
<td>.00</td>
<td>-.07</td>
<td>.05</td>
<td>.81**</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9 Years of Teaching at Current School</td>
<td>.10</td>
<td>.32*</td>
<td>-.20</td>
<td>-.03</td>
<td>-.08</td>
<td>.03</td>
<td>.69**</td>
<td>.83**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10 Education</td>
<td>-.15</td>
<td>-.22</td>
<td>.03</td>
<td>-.09</td>
<td>-.08</td>
<td>-.08</td>
<td>-.36**</td>
<td>-.42**</td>
<td>-.42**</td>
<td></td>
</tr>
</tbody>
</table>

Regression Analyses

Multiple aggregation analyses were conducted to identify the best set of predictors of general teaching efficacy, personal teaching efficacy, and the overall teacher efficacy variable. The predictor variables included in the model were organizational supports and relational
supports, as well as teachers’ age, years of teaching experience, years of teaching at current school, and education level. The regression results are shown in Tables 3 through 5.

As Table 3 indicates, no variables were found to be significant predictors of general teaching efficacy. The predictor variables explained 14.3% of the variance in general teaching efficacy, and the overall model was not significant, $F(6, 43) = 1.19, p > .05$. However, of the variables included in the model, the number of years teaching at current school was the strongest predictor of general teaching efficacy. When the predictor variables regressed on personal teaching efficacy, no significant predictors were found either. The variables explained 5.5% of the variance in personal teaching efficacy, and the overall model was not significant, $F(6, 43) = .42, p > .05$. Similar to that of general teaching efficacy, of all the variables included in the model, the number of years teaching at current placement was the strongest predictor of personal teaching efficacy.

Lastly, there were no significant predictors of the overall teacher efficacy variable found in the model. The predictor variables accounted for 3.0% of the variance in teacher efficacy, and the overall model was not significant, $F(6, 43) = .22, p > .05$. When one considers all of the predictor variables in the model, however, education level was the strongest predictor of teachers’ overall sense of efficacy.
### Table 3. Regression of Predictor Variables and General Teacher Efficacy.

<table>
<thead>
<tr>
<th>Variable</th>
<th>B</th>
<th>β</th>
<th>t</th>
</tr>
</thead>
<tbody>
<tr>
<td>Organizational Supports</td>
<td>.18</td>
<td>.11</td>
<td>.50</td>
</tr>
<tr>
<td>Relational Supports</td>
<td>-.10</td>
<td>-.07</td>
<td>.66</td>
</tr>
<tr>
<td>Age</td>
<td>.01</td>
<td>.19</td>
<td>.49</td>
</tr>
<tr>
<td>Years of Teaching Experience</td>
<td>-.03</td>
<td>-.33</td>
<td>.30</td>
</tr>
<tr>
<td>Years of Teaching at Current School</td>
<td>.06</td>
<td>.43</td>
<td>.10</td>
</tr>
<tr>
<td>Education</td>
<td>-.18</td>
<td>-.11</td>
<td>.50</td>
</tr>
</tbody>
</table>

### Table 4. Regression of Predictor Variables and Personal Teacher Efficacy.

<table>
<thead>
<tr>
<th>Variable</th>
<th>B</th>
<th>β</th>
<th>t</th>
</tr>
</thead>
<tbody>
<tr>
<td>Organizational Supports</td>
<td>-.01</td>
<td>-.01</td>
<td>-.06</td>
</tr>
<tr>
<td>Relational Supports</td>
<td>.03</td>
<td>.03</td>
<td>.15</td>
</tr>
<tr>
<td>Age</td>
<td>-.01</td>
<td>-.13</td>
<td>-.48</td>
</tr>
<tr>
<td>Years of Teaching Experience</td>
<td>.02</td>
<td>.23</td>
<td>.68</td>
</tr>
<tr>
<td>Years of Teaching at Current School</td>
<td>-.03</td>
<td>-.33</td>
<td>-1.2</td>
</tr>
<tr>
<td>Education</td>
<td>-.07</td>
<td>-.06</td>
<td>-.39</td>
</tr>
</tbody>
</table>
Table 5. Regression of Predictor Variables and Teacher Efficacy.

<table>
<thead>
<tr>
<th>Variable</th>
<th>B</th>
<th>( \beta )</th>
<th>t</th>
</tr>
</thead>
<tbody>
<tr>
<td>Organizational Supports</td>
<td>.07</td>
<td>.08</td>
<td>.46</td>
</tr>
<tr>
<td>Relational Supports</td>
<td>-.03</td>
<td>-.04</td>
<td>-.20</td>
</tr>
<tr>
<td>Age</td>
<td>.00</td>
<td>.05</td>
<td>.20</td>
</tr>
<tr>
<td>Years of Teaching Experience</td>
<td>-.05</td>
<td>-.09</td>
<td>-.27</td>
</tr>
<tr>
<td>Years of Teaching at Current School</td>
<td>.01</td>
<td>.09</td>
<td>.34</td>
</tr>
<tr>
<td>Education</td>
<td>-.19</td>
<td>-.13</td>
<td>-.74</td>
</tr>
</tbody>
</table>
DISCUSSION

The purpose of the present study was to investigate the relationship between teacher self-efficacy and school-based factors, including teachers’ perception of school climate, years of teaching experience, number of years teaching at current school, and education level. It was the researcher’s hopes that in doing so, it could be determined which school factors, if any, were associated with teacher efficacy. Previous research that details the sources of self-efficacy suggests that some individualized attributes of teachers influence their self-efficacy. Given the importance of mastery experiences in the development of self-efficacy, it was predicted that age, years of teaching experience, years of teaching at current school, and education level would all be positively correlated with self-efficacy, particularly personal teaching efficacy.

In terms of the predicted correlation between school climate and teacher efficacy, one must consider the role of verbal encouragement and emotional and physical states in the development of self-efficacy. It would be logical to assume that those who report higher levels of support and fairness in their school, which correlate with the organizational supports dimension of school climate, receive more verbal encouragement and have more positive emotional states. The same can be said of those who report more positive relationships among students and staff, or higher levels of the relational supports dimension of school climate. As such, it was hypothesized that the results would reveal a positive relationship between both aspects of school climate and teachers’ sense of efficacy.

Overall, the results of the study were inconclusive as to any significant relationship between teacher self-efficacy and school-based factors, including teachers’ perception of school climate, years of teaching experience, number of years teaching at current school, and education level. The percentage of variance in teacher efficacy explained by the predictor variables
indicated that other circumstances not assessed in the study are likely to be key indicators of teachers’ sense of efficacy. A significant finding that did emerge from the data, however, was the positive correlation between teachers’ number of years of teaching at their current school and general teaching efficacy. The direction of the correlation suggested that more years of teaching at current placement was related to lower levels of general teaching efficacy. Perhaps it is the case that teachers who are new to a school campus bring with them a particularly optimistic view about the capabilities of their students.

The results of the study are particularly surprising when one considers Bandura’s proposal of the four sources of efficacy building information, as well as his conceptualization of the interplay between environment, behavior, and personal factors. Consistent with this view would be the belief that an assessment of the teaching environment, including both its resources and limitations, would play a critical role in teachers’ efficacy judgments. In addition, given the powerful influence of mastery experiences and associated feedback on efficacy, it is interesting that a measure of social interaction was not associated with self-efficacy beliefs. Social cognitive theory, with its emphasis on consequential experiences, would predict otherwise.

Nevertheless, certain limitations of the study were present and may provide reasoning for the inconclusive findings. First, this study focused on a relatively small number of factors, and given the complexity of the self-efficacy construct, it is likely that numerous other variables interact to influence self-efficacy beliefs. Also, the use of self-report surveys and correlational analyses may be considered a methodological weakness. Self-report bias may have affected the validity of the study, and while correlational methods of inquiry have played an important role in psychological investigation, there are certain disadvantages associated with using correlational research designs. Lastly, while participants were recruited from various different schools, all of
the schools were located in rural communities in Southeastern Louisiana. This sampling procedure likely limited the representativeness of the selected population, as well as the applicability of the results to other geographic locations.

The simple notion that a teacher’s sense of efficacy is a determinant of teaching behavior and subsequent student learning is incredibly powerful. Given the importance of creating environments that promote academic achievement for all students, continued investigation of the self-efficacy construct is necessary. The results of this study provide insight for potential future research. First and foremost, more studies evaluating the sources of efficacy development are needed. There is a dearth of literature related to the specific methods known to impact efficacy change in teachers, and this information could have implications for both teacher training and teacher support. In addition, stronger measurement methodologies would almost certainly facilitate advancement in the study of teacher efficacy. Given the fact that the majority of efficacy research is self-report and correlational in nature, analyses of teacher efficacy utilizing direct observation and experimental techniques would prove advantageous.
REFERENCES


APPENDIX A: TEACHER EFFICACY SCALE

Please indicate the degree to which you agree or disagree with each statement below by circling the appropriate numeral to the right of each statement.

KEY: 1 = Strongly Disagree   2 = Moderately Disagree   3 = Disagree Slightly More than Agree  
4 = Agree Slightly More than Disagree   5 = Moderately Agree   6 = Strongly Agree

1. When a student does better than usual, many times it is because I exerted a little extra effort.  
   1  2  3  4  5  6

2. The hours in my class have little influence on students compared to the influence of their home environment.  
   1  2  3  4  5  6

3. The amount that a student can learn is primarily related to family background.  
   1  2  3  4  5  6

4. If students are not disciplined at home, they aren’t likely to accept any discipline.  
   1  2  3  4  5  6

5. When a student is having difficulty with an assignment, I am usually able to adjust it to his/her level.  
   1  2  3  4  5  6

6. When a student gets a better grade than he usually gets, it is usually because I found better ways of teaching that student.  
   1  2  3  4  5  6

7. When I really try, I can get through to the most difficult students.  
   1  2  3  4  5  6

8. A teacher is very limited in what he/she can achieve because a student’s home environment is a large influence on his/her achievement.  
   1  2  3  4  5  6

9. When the grades of my students improve it is usually because I found more effective teaching approaches.  
   1  2  3  4  5  6

10. If a student masters a new math concept quickly, this might be because I knew the necessary steps in teaching that concept.  
    1  2  3  4  5  6

11. If parents would do more with their children, I could do more.  
    1  2  3  4  5  6

12. If a student did not remember information I gave in a previous lesson, I would know how to increase his/her retention in the next lesson.  
    1  2  3  4  5  6
13 If a student in my class becomes disruptive and noisy, I feel assured that I
know some techniques to redirect him quickly.

14 The influences of a student’s home experiences can be overcome by good
teaching.

15 If one of my students couldn’t do a class assignment, I would be able to
accurately assess whether the assignment was at the correct level of
difficulty.

16 Even a teacher with good teaching abilities may not reach many students.
APPENDIX B: BRIEF-CALIFORNIA SCHOOL CLIMATE SURVEY

Please indicate how much you agree or disagree with the following statements about this school. If the question is not applicable to your job, and you could not know enough to answer it, mark “Not Applicable.”

<table>
<thead>
<tr>
<th>This school…</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
<th>Not Applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 is a supportive and inviting place for student to learn.</td>
<td>A</td>
<td>B</td>
<td>C</td>
<td>D</td>
<td>E</td>
</tr>
<tr>
<td>2 sets high standards for academic performance for all students.</td>
<td>A</td>
<td>B</td>
<td>C</td>
<td>D</td>
<td>E</td>
</tr>
<tr>
<td>3 promotes academic success for all students.</td>
<td>A</td>
<td>B</td>
<td>C</td>
<td>D</td>
<td>E</td>
</tr>
<tr>
<td>4 fails to involve most parents in school events or activities.</td>
<td>A</td>
<td>B</td>
<td>C</td>
<td>D</td>
<td>E</td>
</tr>
<tr>
<td>5 clearly communicates to students the consequences of breaking school rules.</td>
<td>A</td>
<td>B</td>
<td>C</td>
<td>D</td>
<td>E</td>
</tr>
<tr>
<td>6 handles discipline problems fairly.</td>
<td>A</td>
<td>B</td>
<td>C</td>
<td>D</td>
<td>E</td>
</tr>
<tr>
<td>7 is a supportive and inviting place for staff to work.</td>
<td>A</td>
<td>B</td>
<td>C</td>
<td>D</td>
<td>E</td>
</tr>
</tbody>
</table>

How many adults at this school…

<table>
<thead>
<tr>
<th>How many adults at this school…</th>
<th>Nearly All Adults</th>
<th>Most Adults</th>
<th>Some Adults</th>
<th>Few Adults</th>
<th>Almost None</th>
</tr>
</thead>
<tbody>
<tr>
<td>8 really care about all students.</td>
<td>A</td>
<td>B</td>
<td>C</td>
<td>D</td>
<td>E</td>
</tr>
<tr>
<td>9 acknowledge and pay attention to students.</td>
<td>A</td>
<td>B</td>
<td>C</td>
<td>D</td>
<td>E</td>
</tr>
<tr>
<td>10 want all students to do their best.</td>
<td>A</td>
<td>B</td>
<td>C</td>
<td>D</td>
<td>E</td>
</tr>
<tr>
<td>11 listen to what students have to say.</td>
<td>A</td>
<td>B</td>
<td>C</td>
<td>D</td>
<td>E</td>
</tr>
<tr>
<td>12 believe that every student can be a success.</td>
<td>A</td>
<td>B</td>
<td>C</td>
<td>D</td>
<td>E</td>
</tr>
<tr>
<td>13 treat all students fairly.</td>
<td>A</td>
<td>B</td>
<td>C</td>
<td>D</td>
<td>E</td>
</tr>
<tr>
<td>14 support and treat each other with respect.</td>
<td>A</td>
<td>B</td>
<td>C</td>
<td>D</td>
<td>E</td>
</tr>
<tr>
<td>15 feel a responsibility to improve this school.</td>
<td>A</td>
<td>B</td>
<td>C</td>
<td>D</td>
<td>E</td>
</tr>
</tbody>
</table>
APPENDIX C: INFORMED CONSENT TO PARTICIPATE IN RESEARCH

1. Study Title: Examination of the Relationship between School Climate and Other School-Based Factors and Teacher Self-Efficacy

2. Performance Site: Louisiana State University

3. Investigator: The following investigator is available for questions about this study: Dr. George Noell at (225) 578-4119.

4. Purpose of the Study: The purpose of this study is to systematically examine the relationship between teacher self-efficacy and school-based factors.

5. Participant Inclusion: Pre-kindergarten through 12th grade teachers

6. Number of participants: 50

7. Study Procedures: The study will be conducted in a single meeting at the participants’ respective school(s). Participants will spend approximately 30 minutes completing two questionnaires.

8. Benefits: There is no anticipated benefit for participants. However, the study may yield valuable information that could contribute to ongoing research examining teacher self-efficacy.

9. Risks: There are no known risks associated with this study.

10. Right to Refuse: Participants may choose not to participate or to withdraw from the study at any time without penalty or loss of any benefit to which they might otherwise be entitled.

11. Privacy: Results of the study may be published, but no names or identifying information will be included in the publication. Participant identity will remain confidential unless law requires disclosure.

12. Consent: The study has been discussed with me and all my questions have been answered. I may direct additional questions regarding study specifics to the investigators. If I have questions about subjects’ rights or other concerns, I can contact Robert C. Matthews, Institutional Review Board, (225) 578-8692. I agree to participate in the study described above and acknowledge the investigator’s obligation to provide me with a signed copy of this consent form.

___________________________________  ____________________
Signature of Participant                Date
APPENDIX D: INSTITUTIONAL REVIEW BOARD APPROVAL

Application for Exemption from Institutional Oversight

Unless qualified as meeting the specific criteria for exemption from Institutional Review Board (IRB) oversight, ALL LSU research/projects using living humans as subjects or samples, or data obtained from humans, directly or indirectly, with or without their consent, must be approved or exempted in advance by the LSU IRB. This form helps the PI determine if a project may be exempted, and is used to request an exemption.

- Applicant, Please fill out the application in its entirety and include the completed application as well as parts A-F, listed below, when submitting to the IRB. Once the application is completed, please the completed application to the IRB Officer or to a member of the Human Subjects Screening Committee. Members of this committee can be found at http://irb.lsu.edu/aspred/human-subjects-screening-committee-members/

- A Complete Application Includes All of the Following:
  (A) A copy of the completed form and a copy of parts B thru F.
  (B) A brief project description (adequate to evaluate risks to subjects and to explain your responses to Parts 1 & 2)
  (C) Copies of all instruments to be used.
  (D) If this proposal is part of a grant proposal, include a copy of the proposal and all recruitment material.
  (E) The consent form that you will use in the study (see part 3 for more information.)
  (F) Certificate of Completion of Human Subjects Protection Training for all personnel involved in the project, including students who are involved with testing or handling data, unless already on file with the IRB.

1) Principal Investigator: Elise Baker
   Rank: Graduate Student
   Dept: School Psychology
   Pno: 984-9046
   E-mail: elise.baker6@gmail.com

2) Co-Investigator(s): Please include department, rank, phone and e-mail for each.
   George Noel, PhD.

3) Project Title: Examination of the Relationship between School Climate and Other School-Based Factors and Teacher Self-Efficacy

4) Proposal? (yes or no) No
   If Yes, LSU Proposal Number
   Also, if YES, either
   ○ This application completely matches the scope of work in the grant
   OR
   ○ More IRB Applications will be filed later

5) Subject pool (e.g., Psychology students)
   Teachers
   *Once any "vulnerable populations" to be used (children <18, the mentally impaired, pregnant women, the ages, others), Projects with incarcerated persons cannot be exempted.

6) PI Signature: Elise Baker
   Date: 3/1/14
   (No co-signatures)

**I certify my responses are accurate and complete. If the project scope or design is later changes, I will resubmit for review. I will obtain written approval from the Authorized Representative of all non-LSU institutions in which the study is conducted. I also understand that it is my responsibility to maintain copies of all consent forms at LSU for three years after completion of the study. If I leave LSU before that time the consent forms should be preserved in the Departmental Office.

Screening Committee Action: Exempted √ Not Exempted Category/Paragraph

Signed Consent Waived? Yes No
Reviewer: Mathews
Signature: Date: 3/1/14

Exemption Expires: 3/1/2017
VITA

Elise McIver is a native of Atlanta, Georgia. She graduated from the University of Georgia in 2007 with a Bachelor of Science degree in psychology. Upon graduation, she joined Teach For America as a South Louisiana Region corps member where she taught elementary school. Elise is currently conducting her graduate work in Louisiana State University’s school psychology doctoral program under the supervision of Dr. George Noell. Her research interests include the promotion of academic, social, and emotional success among low-income students, policy and practice related to teacher effectiveness, and early intervention and prevention services.