

Running head: TRUST EFFICACY AND STRUCTURES ON SCHOOL EFFECTIVENESS

Investigating the Role of Collective Trust, Collective Efficacy,  
and Enabling School Structures on Overall School Effectiveness

Julie Gray – University of West Florida

A paper presented at the Annual Meeting of the American Educational Research Association,  
April 17, 2015 – Chicago, Illinois

**Abstract**

This study investigates the role of collective trust, collective efficacy, and enabling school structures on overall school effectiveness. While the concept of organizational effectiveness can be complex and difficult to measure, the results of this research demonstrate a connection of these variables to school effectiveness. Collective trust had a strong influence on organizational effectiveness, controlling for all the other variables including SES. This finding was consistent with earlier work of Tarter and Hoy (2004), which also indicated the significance of trust in teachers' perceptions of school effectiveness.

## **Investigating the Role of Collective Trust, Collective Efficacy, and Enabling School Structures on Overall School Effectiveness**

Over the last four decades many studies have been conducted about organizational effectiveness, even more recently in context to overall school effectiveness. It is widely accepted as a complex, multifaceted concept, one that warrants further investigation. This study explores the role of collective trust (CT), which is comprised of teacher trust in principal, colleagues, and clients (students and parents), collective efficacy (CE), and enabling school structures (ESS) in relation to overall school effectiveness (SE). In order to determine the degree of school effectiveness, teachers assess the “general level of productivity, flexibility, adaptability, and efficiency in their schools” (Tarter & Hoy, 2004, p. 541). Therefore, this study examines the role of teachers’ perceptions of trust, efficacy, and enabling structures in relationship to school effectiveness. It is my assertion that collective trust, collective efficacy, enabling school structures, and overall school effectiveness are interrelated, based upon the theoretical framework shared.

### **Theoretical Framework**

This study hypothesizes that collective trust, collective efficacy, and enabling school structures will individually and jointly contribute to overall school effectiveness. The framework is based upon organizational theory and research related to school culture and climate. Much of the business literature lends itself to what has become organizational theory. This study asserts that collective trust, efficacy, and enabling school structures provide a foundation upon which a school can become more effective, meet goals, work efficiently, and improve teaching and learning, which this paper purports to be the goal of all schools.

### ***Collective Trust***

Forsyth, Adams, and Hoy (2011) developed the notion of collective trust, which builds upon previous literature about trust in the workplace. They define trust as “a faculty’s willingness to be vulnerable to another party based on the confidence that the latter party is benevolent, reliable, competent, honest, and open” (Forsyth et al., 2011, p. 35). For the sake of this study, collective trust is comprised of teacher trust in principal, colleagues, and clients, including students and parents (Forsyth & Adams, 2010). Trust is considered an essential ingredient in the work of schools (Bryk & Schneider, 2002; Hoy & Tschannen-Moran, 1999). A healthy school culture must be built upon trusting, collegial relationships among teachers, principal, colleagues, students, and parents (Tarter & Hoy, 2004). A recent meta-analytic review of research about school effectiveness “demonstrated that teacher trust was the most powerful predictor of school effectiveness” (Mitchell, Sun, Zhang, Mendiola, & Tarter, 2015, p. 168).

### ***Collective Efficacy***

Collective efficacy is defined as “the groups’ shared belief in its conjoint capabilities to organize and execute courses of action required to produce given levels of attainments” (Bandura, 1997, p. 477). In schools collective efficacy is represented by teachers’ perceptions of the ability of their colleagues to educate students successfully (Goddard, Hoy & Hoy, 2000). There is an assumption that the “more efficacious the teachers are as a group, the more likely they will sustain the efforts needed to develop and enhance student achievement” (Gray & Tarter, 2012, p. 96). Collective efficacy is also considered to be a strong determinant of teacher trust in colleagues and clients, including students and parents (Forsyth, Adams & Hoy, 2010) and a strong predictor of student achievement despite socioeconomic status of the student population

(Bandura, 1986; Goddard et al., 2000). Collective efficacy has also been linked to student achievement and overall school effectiveness (Tarter & Hoy, 2004).

When collective efficacy is perceived by teachers as high, they are more likely to have faith in the ability of their students and colleagues (Forsyth et al, 2011). These teachers are often able to overcome external factors, such as low socioeconomic status of students and the community members (Bandura, 1986; Hoy, 2002). Two school properties that have been linked to each other are collective efficacy and collective trust, as both promote learning and facilitate student achievement (Goddard et al, 2000; Hoy, 2002). As teachers' perceptions of collective efficacy increase so do their levels of trust in clients, represented by students and parents (Forsyth et al., 2011; Hoy, 2002).

### ***Enabling School Structures***

An enabling school structures (ESS) represent the teachers' belief that the administration and rules of the school help them in their work (Hoy & Sweetland, 2000, 2007). An "enabling school structure is a hierarchy that helps rather than hinders and a system of rules and regulations that guides problem solving rather than punishes failure" (Hoy & Miskel, 2008, p. 110).

Principals who support teachers in doing their jobs well, rather than hindering their work, are characterized by enabling school structures (Hoy & Sweetland, 2007). Schools with enabling structures "develop an atmosphere of trust and teacher commitment to the school and its mission" (Hoy, 2007, p. 372). In contrast, hindering school structures tend to be more tightly managed or controlled by the school leader (Hoy, 2002). "Better schools are possible, and one key ingredient to more effective schools is a school structure that enables participants to do their jobs more creatively, cooperatively, and professionally" (Hoy & Sweetland, 2007, pp. 362-363).

### *Organizational Effectiveness*

Organizational effectiveness is a general condition that determines the extent to which teachers perceive their school to be effective in achieving established goals, maintaining efficiency in operations, and an ability to adapt to changes within the organizational. Based upon the original measure of Mott (1972), organizational effectiveness was measured in hospitals. Mott (1972) originally conceptualized this multifaceted construct in a study conducted for NASA and in hospitals. “If organizations are to survive and be effective, they must accommodate their environments, achieve their goals, maintain solidarity among their parts, and create and maintain a successful motivational system” (Forsyth et al., 2011, p. 84).

Mott’s instrument was reformulated by Miskel, Fevurly, and Stewart (1985) as a measure of school effectiveness in five dimensions: quantity and quality of the product, efficiency, adaptability, and flexibility. The quantity and quality of the product in school environments generally refers to student achievement and other standards measures of school effectiveness (Hoy & Ferguson, 1985). Adaptability is defined as the ability to anticipate problems, develop solutions promptly, and to utilize new processes and resources as appropriate (Miskel et al., 1985). In contrast flexibility is described as the ability to make quick adjustments especially in emergency circumstances (Miskel et al., 1985). Hoy and Ferguson (1985) later refined, improved, and validated the scale in order to be used in context to the school environment. “Despite its continued reliability, the definition of organizational effectiveness remained controversial, especially when researchers used the measure to examine schools” (Bailes, 2015, p. 149).

School effectiveness has been further investigated by Hoy and other colleagues (Hoy & Miskel, 2008; Hoy, Tarter, & Kottkamp, 1991) and linked to school structures as well (Miskel et

al., 1985; Miskel, McDonald, & Bloom 1983). Teachers who viewed their school as effective were “characterized by (a) more participative organizational processes, (b) less centralized decision making structures, (c) more formalized general rules, and (d) more complexity or high professional activity” (Miskel et al., 1985, p. 114). While there has been much discussion about the complexities of school effectiveness, most researchers can agree that effective schools prioritize student achievement and learning (Sweetland & Hoy, 2000). Hoy and Ferguson (1985) surmised “organizations were considered effective to the extent that they accomplished their goals” (Mitchell et al., 2015, p. 163). In this age of high stakes accountability, many view school effectiveness in terms of student achievement and test results, however for this study the focus is on teachers’ perceptions of the school’s effectiveness based upon the School Effectiveness measure.

The dependent variable for this study is overall school effectiveness, while the independent variables are collective trust, collective efficacy, and enabling school structures. The control variable is socioeconomic status, as measured by the proxy of the percentage of students eligible for free and reduced lunch services at each school. Figure 1 represents a conceptual diagram of the hypothesized relationships of the variables of this study.

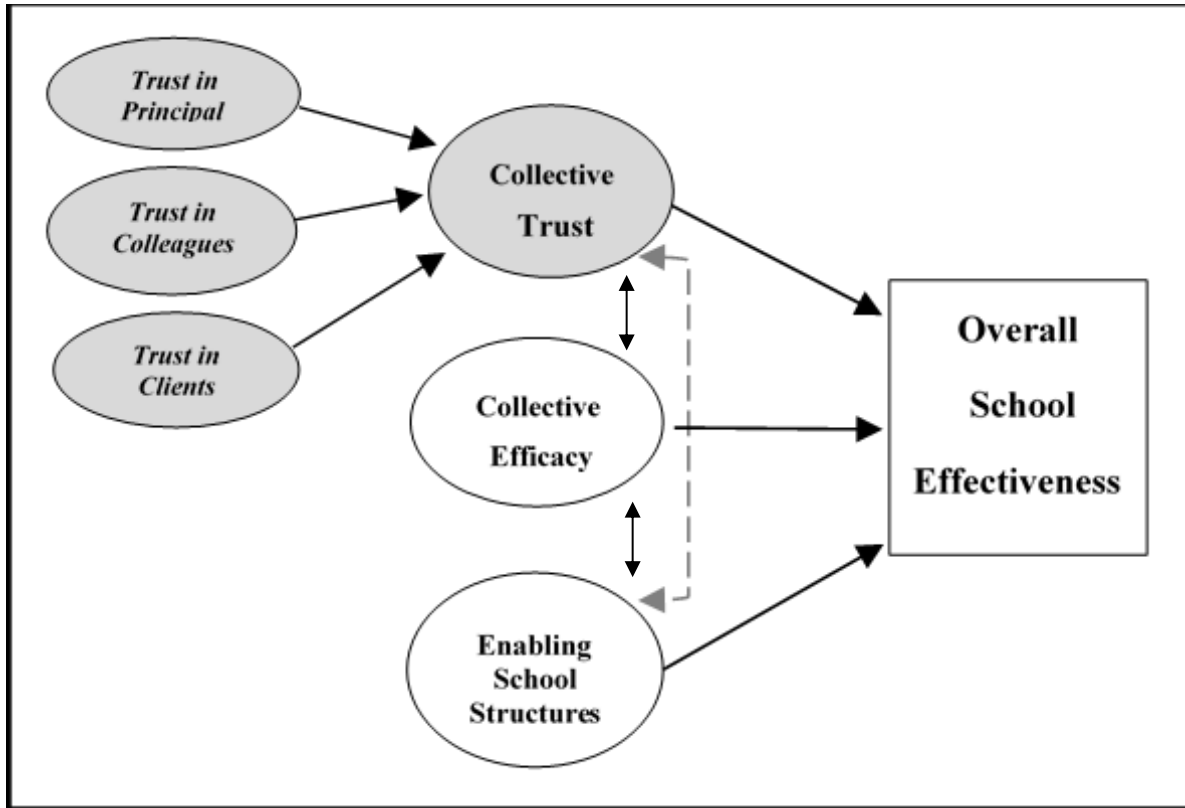
### **Research Questions and Hypotheses**

These research questions guide this study:

Q1: To what extent do collective trust, collective efficacy and enabling school structures explain school effectiveness?

Q2: To what extent are collective trust, collective efficacy, enabling school structures and school effectiveness related?

**Figure 1: Conceptual Diagram Hypothesized Relationships**



### **Hypotheses**

The preceding theoretical framework builds a case for a zero-order correlation for all of the variables of this study. Trust, efficacy, and enabling school structures should correlate with each other and school effectiveness. The independent variables are collective trust, collective efficacy, and enabling school structures, while the dependent variable is school effectiveness.

Therefore, I hypothesized:

**H1: Collective trust, collective efficacy, enabling school structures, and overall school effectiveness will be correlated with each other.**



Each of the independent variables should logically contribute to the effectiveness of the school, although there was guiding literature to support such thinking. Furthermore, the variables were investigated through statistical regression and it was hypothesized that:

**H2: Collective trust, collective efficacy, and enabling school structures will individually and jointly contribute to an explanation of overall school effectiveness.**

## **Methodology**

### **Data Collection**

An existing database from an elementary school study in the state of Alabama provided the data for this study of 84 public schools. This quantitative study investigated teachers' perceptions about school effectiveness, various types of trust, collective efficacy, and enabling school structures. Surveys were completed during regularly schedule faculty meetings, participation was voluntary, and all schools were randomly selected throughout the state. Data were entered into Excel and imported into SPSS for statistical analysis.

Each school selected either the principal or a secretary who acted as the liaison for the school and encouraged teacher participation in the study. Hard copies of the instruments were provided and completed during regularly scheduled faculty meetings and gathered by a researcher. School visits occurred throughout the state of Alabama over two months. The results of the surveys were gathered, scored, and aggregated to the school level using Excel and SPSS software.

### **Sample**

For this study a sample of Alabama elementary schools was identified, data were collected from the faculty in each school, and then the data were analyzed. The schools were

randomly selected from all elementary schools in the state of Alabama and the school was the unit of analysis. In the following section the specifics of the sample of the study, reliability and variability of the measures, data collection process, and the statistical analyses will be described.

Teachers from 84 elementary schools from ten urban southeastern school district in Alabama make up the sample for this study. The public school districts had student enrollment that ranged from 1,600 to 17,000 students. The mean percentages of students who were eligible for free or reduced lunch services was 51% of the students enrolled. The ethnic make-up of the students enrolled in the schools in the sample is: 59% Caucasian, 34% African American, Hispanic (non-white) 4.3% and Asian/Pacific Islander 1%. Of the teachers from the district who participated in the study 39% had earned a bachelor's degree, 52% had a master's degree, and 7.5% had a doctoral degree.

### **Instrumentation**

Collective trust will be measured as a combined variable to include: trust in principal, trust in colleagues, and trust in clients (students and parents) using the Omnibus Trust Scale, a 26-item Likert scale (Hoy & Tschannen-Moran, 2003). Sample items are “the principal doesn't tell teachers what is really going on (reverse scored)” and “teachers in this school trust each other.” Each of the trust subscales has a history of reliabilities in the .8-.9 range (Hoy & Tschannen-Moran, 2003) and .96 for this study. Trust in principal (8 items), trust in colleagues (8 items), and trust in clients (10 items) are subscales of the Omnibus Trust Scale.

Collective efficacy will be measured using the short version of the Collective Efficacy (CE) Scale, a 12-item Likert-type scale which was developed by Goddard, Hoy, and Hoy in 2000. The Cronbach's alpha for the short form was .96 (Goddard et al., 2000) and .90 for this

study. Sample items are “teachers here are confident they will be able to motivate their students” and “teachers in this school believe that every child can learn” (Goddard et al., 2000).

Enabling structures will be measured using the Enabling School Structures (ESS) Scale, a 12-item, five point Likert-type scale that ranges from “never” to “always” which was developed by Hoy and Sweetland (2001). The Cronbach’s alpha for the instrument was in the high .8 and .9 (Hoy & Sweetland, 2001) and .92 for this study. Sample items are “administrative rules help rather than hinder” and “the administrative hierarchy of this school enables teachers to do their job” (Hoy, 2003).

School effectiveness will be measured by the SE-Index, School Effectiveness Scale, an eight-item, six point Likert-type scale that was developed by Hoy (2009). Sample items are “most everyone in the school accepts and adjusts to changes” and “teachers in this school anticipate problems and prevent them” (Miskel, Fevurly, & Stewart, 1979). The alpha coefficient of reliability for this measure was .94 for this study (Gray & Tarter, 2012).

Socioeconomic status (SES) was measured by the percentage of students qualifying for free and reduced lunch, a commonly accepted proxy for SES. The more students who qualify for lunch services, the lower the SES of the school tended to be, as expected.

### **Data Analysis**

The descriptive data of the study are summarized by the means, standard deviations, and range for each of the variables are reported (see Table 1). Next, the intercorrelations among the variables of the study are reported after statistical analysis was conducted. Finally, the results of the multiple regression analyses predicting overall school effectiveness are shared.

**Table 1. Descriptive Statistics of Sample**

	Descriptive Statistics				
	N	Minimum	Maximum	Mean	Std. Deviation
Collective Trust	83	3.41	5.68	4.8008	.48149
Trust in Principal	83	3.04	5.98	5.2182	.57712
Trust in Colleagues	83	3.71	5.88	5.0088	.49230
Trust in Clients	83	3.09	5.79	4.1755	.62961
Collective Efficacy	83	3.62	5.55	4.6346	.49667
Enabling Structures	83	3.53	4.88	4.2577	.33849
Overall Effectiveness	83	6.19	8.82	7.6417	.60904
SES	83	9.30	99.00	55.0420	22.7266

The independent variables for this study were collective trust, collective efficacy, and enabling school structures, while the dependent variable was overall school effectiveness. The components of collective trust are comprised of teacher trust in principal, trust in colleagues, and trust in clients (students and parents). While teacher perceptions were being measured, the school was the unit of analysis; therefore the individual responses were aggregated to the school level for all variables.

The Pearson Correlation Coefficient was used to consider the relationship between each of the independent variables (collective trust, collective efficacy, and enabling school structures) with the dependent variable, overall school effectiveness. Multiple regression analysis was used to determine the individual and collective relationships between the independent variables to the dependent variable. The control variable was SES which was measured by a proxy indicator, the percentage of students eligible for free or reduced lunch services.

Figure 2 demonstrates the configuration of the hypothesized relationships between collective trust, collective efficacy, and enabling school structures as regressed on overall school effectiveness with the results of the statistical analysis. Multiple regression analysis was used to

test the relationships of collective trust, collective efficacy, enabling school structures, and overall school effectiveness, controlling for SES (see Table 3).

## Findings

Hypothesis 1 was supported; all the variables were significantly correlated with one another (Table 2). Collective trust, collective efficacy, and enabling school structures had significant correlations with school effectiveness. Organizational effectiveness and collective trust shared the strongest and significant relationship with a .78 ( $p < .01$ ) correlation. Collective efficacy and organizational effectiveness had a strong correlation of .65 correlation ( $p < .01$ ), while enabling school structure and organizational effectiveness also had a moderate and significant correlation of .51 ( $p < .01$ ).

**Table 2: Pearson Correlations of All Variables (N=84)**

	Collective Trust	Collective Efficacy	Enabling Structures	Free/Reduced Lunch (SES)
School Effectiveness (SE)	.78**	.65**	.51**	-.34**
Collective Trust (CT)	1	.81**	.58**	-.55**
Collective Efficacy (CE)		1	.43**	-.76*
Enabling Structures (ESS)			1	-.27*

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

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

As demonstrated in Figure 2, collective trust, collective efficacy, and enabling school structures explained 60% of the variance of school effectiveness while controlling for socioeconomic status. Collective trust had a significant effect on school effectiveness ( $\beta = .55, \rho < .01$ ), while collective efficacy had a less significant effect on school effectiveness ( $\beta = .37, \rho < .05$ ) (see Figure 2, Table 3).

**Table 3: Regression of Effectiveness on ESS, Collective Trust, Collective Efficacy and SES**

Model	Coefficients <sup>a</sup>		Standardized Coefficients Beta	<i>t</i>	Sig.
	Unstandardized Coefficients <i>B</i>	Std. Error			
(Constant)	1.223	.831		1.472	.145
<b>Collective Trust (CT)</b>	.685	.183	.551	3.749	.000
1 <b>Collective Efficacy (CE)</b>	.445	.205	.372	2.172	.033
<b>Enabling Structures (ESS)</b>	.165	.155	.095	1.066	.290
<b>FRL (SES)</b>	.007	.003	.270	2.355	.021

a. Dependent Variable: Effectiveness

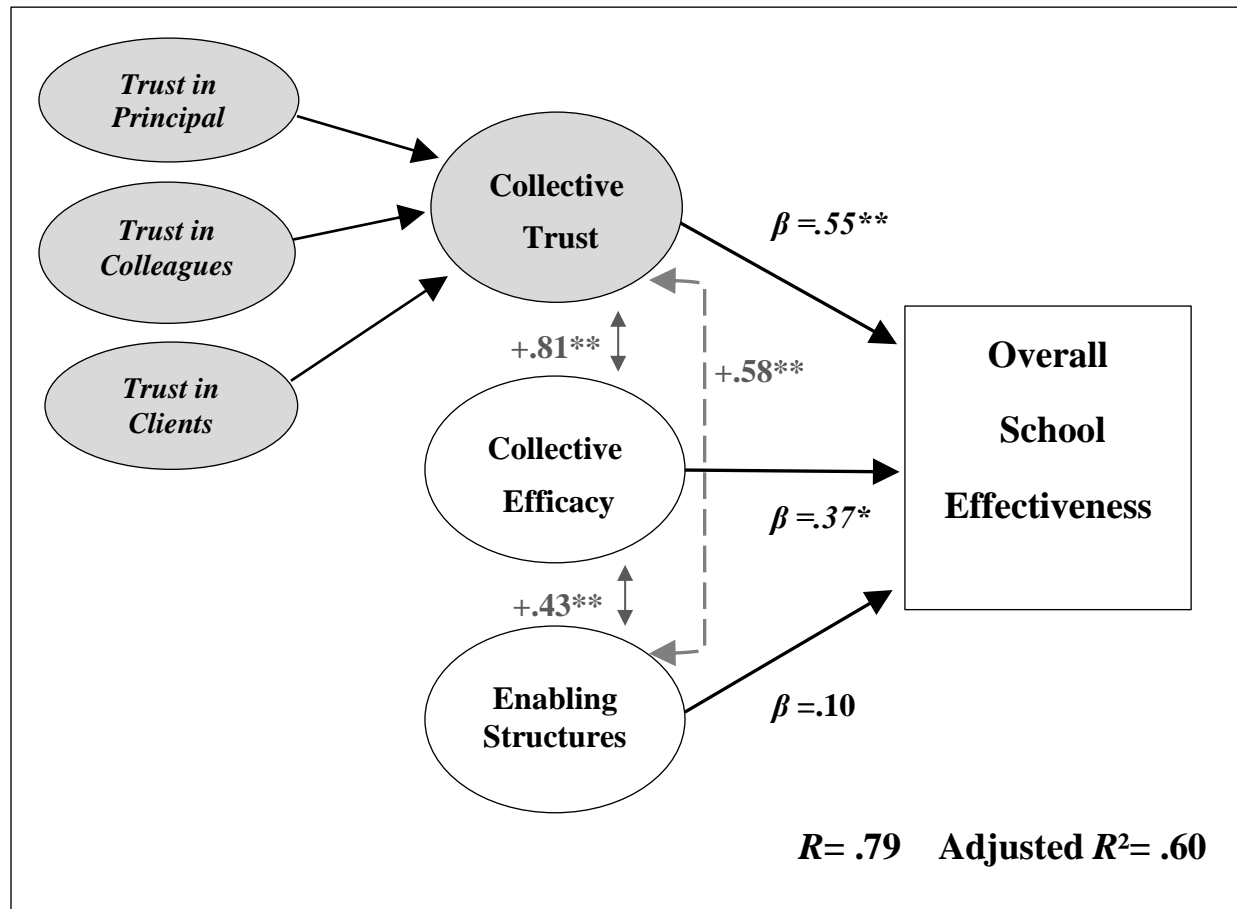
### Discussion

Collective trust (faculty trust in students, parents, colleagues, and the principal) had a strong influence on organizational effectiveness, controlling for all the other variables including SES. This finding was consistent with research of Tarter and Hoy (2004) and Mitchell et al. (2015), which reported the significance of trust in creating effectiveness. It is not surprising that collective efficacy has a substantial and significant relationship with organizational effectiveness controlling for all the other variables in the regression.

For this study most significant predictor of overall school effectiveness was collective trust, as evidenced in other studies (Tarter & Hoy, 2004; Mitchell et al., 2015). Each of the dependent variables, collective trust, collective efficacy, and enabling school structures, had a moderate correlations with overall school effectiveness, with trust being the strongest. There is also evidence that enabling school structures facilitate rather than hinder the teaching-learning process (McGuigan & Hoy, 2006). Collective teacher efficacy had a positive effect on students, and thus student achievement (Goddard et al., 2000). Finally, enabling school structures

“encourage trusting relationships among teachers and between teachers and the principal” (Hoy, 2002, p. 91).

**Figure 2: Conceptual Diagram Hypothesized Relationships with Results**



\*\* Significant at 0.01 level

\* Significant at 0.05 level

### Scholarly and Practical Significance of the Study

In summary, this study demonstrates the necessity and importance of collective trust and collective efficacy in the establishment of overall school effectiveness. While correlated to school effectiveness, the regression showed that enabling school structures did not have as much of an effect as the other two independent variables did in explaining the variance. The reciprocal relationship of school effectiveness and collective trust confirms the hypotheses. These research

## TRUST EFFICACY AND STRUCTURES ON SCHOOL EFFECTIVENESS

findings can guide the practitioners in the field while extending the field of literature about school effectiveness, trust, efficacy, and school structures.



### References

- Bailes, L. (2015). Predictors of school effectiveness. In M. DiPaola, & W. Hoy (Eds.), *Leadership and School Quality* (12th Volume in Research and Theory in Educational Administration series, pp. 147-160). Charlotte, NC: Information Age Publishing.
- Bandura, A. (1986). *Social Foundations of Thought and Action*. Englewood Cliffs, NJ: Prentice-Hall.
- Bandura, A. (1997). *Self-efficacy: The exercise of control*. New York: W.H. Freeman.
- Bryk, A., & Schneider, B. (2002). *Trust in schools: A core resource for improvement*. New York, New York: Sage Foundation.
- Forsyth, P. B., Adams, C. M., & Hoy, W. K. (2011). *Collective trust: Why schools can't improve without it*. New York, NY: Teachers College, Columbia University.
- Goddard, R. D., Hoy, W. K., & Hoy, A. W. (2000). Collective teacher efficacy: Its meaning, measure, and impact on student achievement. *American Educational Research Journal*, 37(2), 479-507.
- Gray, J., & Tarter, C. J. (2012). Collective efficacy, collegial leadership, and a culture of trust: Predicting academic optimism and overall effectiveness. In M. DiPaola, & P. Forsyth (Eds.), *Contemporary Challenges Confronting School Leaders* (pp. 93-110). Charlotte, NC: Information Age Publishing.
- Hoy, W. K. (2007). An analysis of enabling and mindful school structures: Some theoretical, research, and practical considerations. In W. Hoy, & M. DiPaola (Eds.), *Essential Ideas for the Reform of American Schools* (pp. 372-392). Charlotte, NC: Information Age Publishing.
- Hoy, W. K. (2002). An analysis of enabling and mindful school structures: Some theoretical, research, and practical considerations. *Journal of Educational Administration*, 41(1), 87-108.
- Hoy, W. K., & Ferguson, J. (1985). A theoretical framework and exploration of organizational effectiveness in schools. *Educational Administration Quarterly*, 21, 117-134.

- Hoy, W. K., & Sweetland, S. R. (2007). Designing better schools: The meaning and nature of enabling school structures. In W. Hoy, & M. DiPaola (Eds.), *Essential Ideas for the Reform of American Schools* (pp. 339-366). Charlotte, NC: Information Age Publishing.
- McGuigan, L., and Hoy, W.K. (2006), Principal leadership: creating a culture of academic optimism to improve achievement for all students, *Leadership and Policy in Schools*, 5(3), 203-29.
- Miskel, C., Fevurly, R., & Stewart, J. (1979). Organizational structures and processes, perceived school effectiveness, loyalty, and job satisfaction. *Educational Administration Quarterly*, 15, 97-118.
- Hoy, W. K., & Miskel, C. G. (2008). *Educational administration: Theory, research, and practice* (8<sup>th</sup> ed.). New York: McGraw-Hill.
- Hoy, W. K., & Sweetland, S. R. (2000). School bureaucracies that work: Enabling, not coercive. *Journal of School Leadership*, 10(6), 525-541.
- Hoy, W. K., & Sweetland, S. R. (2001). Designing better schools: The meaning and measure of enabling school structures. *Educational Administrative Quarterly*, 37, 296-321.
- Hoy, W. K., Tarter, C. J., & Kottkamp, R. B. (1991). *Open schools/healthy schools: Measuring organizational climate*. Beverly Hills, CA: Sage.
- Hoy, W. K., & Tschannen-Moran, M. (2003). The conceptualization and measurement of faculty trust in schools: The omnibus T-scale. In W. K. Hoy & C. G. Miskel, *Studies in Leading and Organizing Schools* (pp. 181-208). Greenwich, CT: Information Age Publishing.
- Miskel, C., Fevurly, R., & Stewart, J. (1985). Organizational structures and processes, perceived school effectiveness, loyalty, and job satisfaction. *Educational Administration Quarterly*, 15(3), 97-118.
- Miskel, C., McDonald, D., & Bloom, S. (1983). Structural and expectancy linkages within schools and organizational effectiveness. *Educational Administration Quarterly*, 19(1), 49-82.

- Mitchell, R. M., Sun, J., Zhang, S., Mendiola, B., & Tarter, C. J. (2015). School effectiveness: A meta-analytic review of published research. In M. DiPaola, & W. Hoy (Eds.), *Leadership and School Quality* (12th Volume in Research and Theory in Educational Administration series, pp. 161-169). Charlotte, NC: Information Age Publishing.
- Mott, P. (1972). *The characteristics of effective organizations*. New York: Harper and Row.
- Sweetland, S. R., & Hoy, W. K. (2000). School characteristics and educational outcomes: Toward an organizational model of student achievement in middle schools. *Educational Administration Quarterly*, 36(5), 703-729.
- Tarter, C. J., & Hoy, W. K. (2004). A systems approach to quality in elementary schools: A theoretical and empirical analysis. *Journal of Educational Administration*, 42, 539-554.