

# *The Impact of Social Processes in Schools on Student Achievement*

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# *Background*

- Since The Coleman Report (1966), educators have been searching for school-level organizational factors that influence student achievement beyond the influences of socio-economic status (SES) and family background.
- Increasing achievement standards under *NCLB* (2001) require educators to seek practical and pedagogical steps to improve student performance.
- Several school-level organizational properties consistently have been shown to correlate with student achievement:
  - Organizational citizenship behaviors
  - Collective teacher efficacy
  - Faculty trust in students and parents;
  - Academic emphasis (Hoy, Tarter, & Hoy, 2006)

# What the Research Tells Us

Haertal and Walberg (1993, 1997)

- Meta-analysis of more than 10,000 statistical findings on the significant influences on learning.
- Results: In general, direct influences have a greater impact on student learning than indirect ones. The key to improving student learning rests with what happens in the classroom.
- One exception - school culture/climate makes an important difference by providing a school context that reinforces important teaching and learning practices.
- Instructional leadership - principal works with teacher colleagues to improve instruction by providing a school climate and culture where change is linked to the best knowledge about student learning.

# School Culture & Climate

two contemporary perspectives for examining  
the distinctive character of schools

***The behavior of a group cannot be predicted solely from an understanding of the personality of each of its members. Various social processes intervene... In the context of the school organization, we can detect a unique "culture" and "climate."***

# ***CULTURE: shared orientations that hold the school together***

(symbols, ceremonies, myths, traditions, beliefs, shared norms, values)

- Norms (unwritten and informal expectations which affect behavior)
- Shared Values (conceptions of the desirable)
- Basic Assumptions of Organizational Members

# *School Cultures*

can improve or hinder the effectiveness of  
a school organization

Reflect the shared beliefs of  
individuals in the school.

*For example,*

*distinctive cultures of efficacy  
and trust*

# *Culture of Efficacy*

- individual's beliefs in their capabilities to meet or exceed performance expectations in a particular situation
- a teacher's belief that he or she can reach even difficult students to help them learn, appears to be one of the few personal characteristics of teachers correlated with student achievement (Hoy & Woolfolk, 1990, 1993; Tschannen-Moran, Woolfolk Hoy, & Hoy, 1998; Woolfolk & Hoy, 1990; Woolfolk, Rosoff, & Hoy, 1990).

# *Self Efficacy*

- Teachers with a high sense of efficacy work harder and persist longer even when students are difficult to teach, in part because these teachers believe in themselves and in their students.
- Teachers' sense of personal efficacy is higher in schools where the other teachers and administrators have high expectations for students and where teachers receive help from their principals in solving instructional and management problems (Hoy & Woolfolk, 1993).



# *Collective Efficacy*

- shared perception of teachers in a school that the efforts of the faculty as a whole will have a positive effect on students
- it helps explain the differential effect that schools have on student achievement.

## *Significance of Self-Efficacy*

- student achievement (aggregated to the school level) is significantly and positively related to collective efficacy
- collective efficacy has a greater effect on student achievement than student socioeconomic status (aggregated to the school level)

## ***Significance of Self-Efficacy***

- strong school culture of efficacy seems to promote high student achievement because it leads to:
  - the acceptance of challenging goals
  - strong organizational effort
  - a persistence that leads to better performance.

# *Culture of Trust*

Trust is like air; no one thinks much about it until it is needed and it is not there. Yet trust in schools is important

- because:
- it facilitates cooperation (Tschannen-Moran, 2001)
  - it enhances openness (Hoffman, Sabo, Bliss, & Hoy, 1994)
  - it promotes group cohesiveness (Zand, 1997);
  - it improves student achievement (Goddard, Tschannen-Moran, and Hoy, 2001; Hoy, 2002; Bryk and Schneider, 2002; Tschannen-Moran, 2004; Cybulski, Hoy, and Sweetland, 2005).

# *Trust*

- one party's willingness to be vulnerable to another based on the confidence that the other is benevolent, reliable, competent, honest and open



***Trust is: Embedded in Relationships & Specified by Its Reference to Others.***

- extent to which the faculty trusts
  - Students & Parents
  - Principal
  - Each other
- provides a base for a general picture of trust in schools.

## *Strong Culture of Faculty Trust in Parents & Students*

- function of the academic orientation of the school
- a necessary condition for an academic emphasis in the school
- significant relationship between this trust dimension and student achievement, even after controlling for the socioeconomic status of the school
- (Bryk and Schneider, 2002; Goddard, Tschannen-Moran, & Hoy, 2001; Hoy, 2002)

# *Culture of Organizational Justice*

- Justice research in the private sector has evolved for four decades
- In business, justice perceptions have a strong correlation to trust in management
- Organizational justice research almost non-existent in school organizations



# *Impact of Justice*

- Enhances trust, commitment, citizenship, and acceptance of authority that trickle down through the organization to clients

# *Organizational Justice*

- Procedural Justice: Formal procedures and processes that direct allocation of resources
- Interactional Justice: Treatment one receives daily interactions within the organization
- Distributive Justice: Outcomes rewarded

# *A Fairness Heuristic:*

*Context used to understand & interpret  
justice-relevant experiences and  
cognitions*

Procedural Justice and  
Interactional Justice play  
a major role in forming  
this fairness heuristic

# *School Climate*

*set of internal characteristics that distinguish one school from another and influence the behavior of those involved in and with the school (the general feel or atmosphere of an organization)*

# *School Climate*

- ▶ Tagiuri defined organizational climate as:
  - a relatively enduring quality of the internal environment of an organization that
    - (a) is experienced by its members
    - (b) influences their behavior, and
    - (c) can be described in terms of the values of a particular set of characteristics (or attributes) of the organization (1968)

# *Significance of Climate*

*Directly related to a number of important school outcomes including perceptions of school effectiveness and student achievement, even when controlling for SES*

# *Climate of Organizational Openness*

marked by cooperation and respect within the faculty and between the faculty and principal

- principal
  - listens and is open to teacher suggestions
  - gives genuine, frequent feedback and praise,
  - respects the professional competence of the faculty (supportive)
  - gives teachers freedom to perform without close scrutiny
  - provide facilitating leadership behavior devoid of bureaucratic trivia

# *Climate of Organizational Openness*

behavior of both the principal and the faculty  
is open and authentic

- Teachers

- behavior supports open and professional interactions among the faculty

- know each other well and are friends

- cooperate and are committed to their work

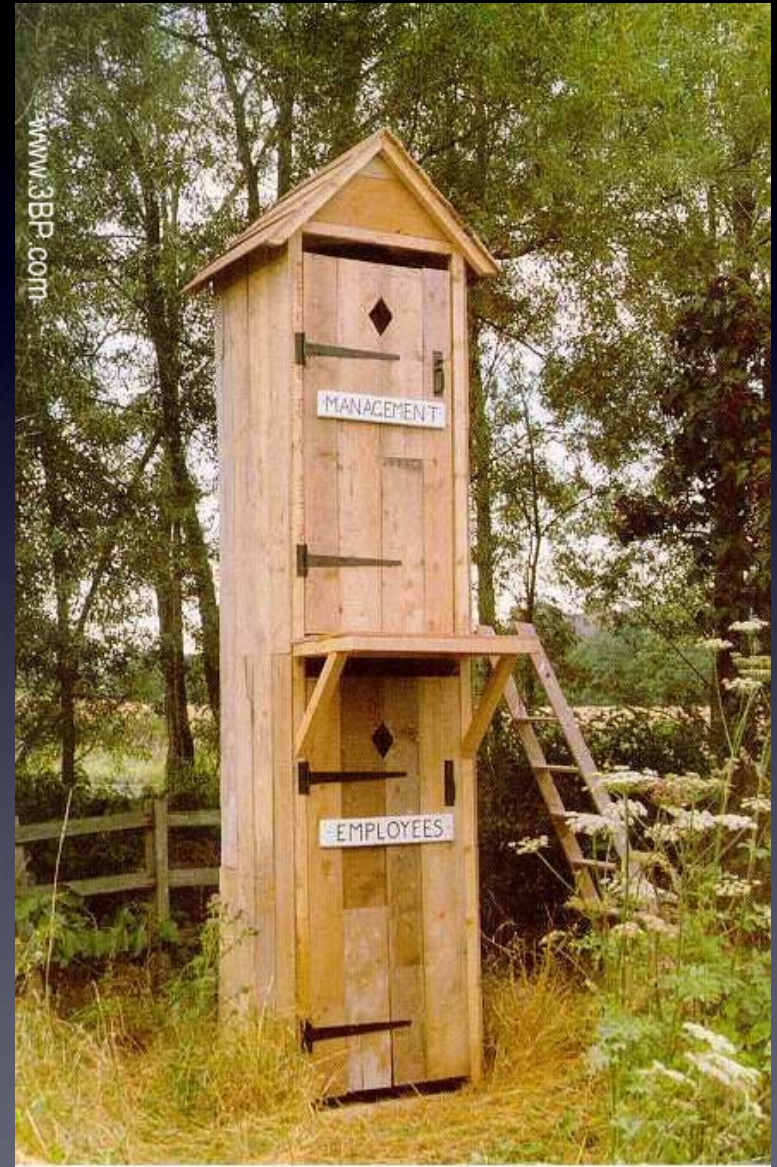


# *Climate Dimensions*

- Collegial Leadership
- Teacher Professionalism
- Academic Press
- Community Engagement

# *Collegial Leadership*

- behavior of the principal that is supportive and egalitarian  
principal is considerate, helpful, and genuinely concerned about the welfare of teachers
- principal lets faculty know what is expected of them and maintains definite standards of performance



# *Teacher Professionalism*

- teacher behavior is characterized by commitment to students, and engagement in the teaching task
- teachers respect the professional expertise of colleagues
- teachers display warmth and friendliness; they like and help each other

# *Academic Press*

- extent to which the school is driven by a quest for excellence
- teachers and administrators set a tone that is serious, orderly, and focused on academics
- high but achievable goals are set for students

# *Community Engagement*

- extent to which the school has fostered a constructive relationship with its community
- describes strong efforts to actively engage parents in the life of the school
- degree to which the school can count on involvement and support from parents and community members
- extent to which the school provides the community with information about its accomplishments.

# *Significance of Open Climates*

- Community engagement, academic press, and teacher professionalism are all significantly and positively related to student achievement (in that order).
- Collegial leadership does not correlate directly with student achievement, it is related to the other three dimensions of school climate providing evidence of the indirect role of the principal in promoting student learning.

# *Climate of Organizational Citizenship*

willingness of organizational members to exert effort beyond what the job formally prescribes has long been recognized as essential for effective organizational

# *Aspects of Organizational Citizenship*

*(Organ & Bateman)*

- Altruism- helping new colleagues and freely giving time to others
- Conscientiousness-using time efficiently and going beyond minimum expectations.
- Sportsmanship-spending time on constructive efforts and avoiding complaining.
- Courtesy-providing advance notices and reminders.
- Civic virtue-serving on committees and voluntarily attending functions



# Organizational Citizenship Behavior

- the willingness of participants to exert effort beyond the formal obligations of their positions has long been recognized as an essential component of effective organizational performance.
- organizationally beneficial behavior of workers that was not prescribed but occurred freely to help others achieve the task at hand (Bateman & Organ, 1983).
- employees go beyond their formal job responsibilities and freely give of their time and energy without expectation of reward or recognition.

# *Organizational Citizenship Behavior*

- Teaching is a complex activity that requires professional judgments; it cannot adequately be prescribed in teachers' job descriptions or contracts.
- OCB describes voluntary and discretionary teacher behavior that exceeds the formal requirements of the job.
- empirical research on the dimensions of organizational citizenship behaviors has generated somewhat conflicting results (context specific)
- data supported a two-factor structure, (organizational and interpersonal) which underlies organizational citizenship behavior (Williams, 1988; Skarlicki and Latham, 1995) .

# OCB

- Organ's concept of organizational citizenship (Organ, 1988; Organ & Ryan, 1995) was developed and applied to public schools (DiPaola & Tschannen-Moran, 2001)
- departs from most of the earlier OCB research in that all aspects of OCB fold into a single integrated conception of citizenship: both benefits to the organization (helping the organization) and benefits to the individual (helping individuals) combine into a single, bipolar construct

- Schools with high degrees of citizenship are more effective (DiPaola, Tarter, and Hoy, 2005) and have higher levels of student achievement even controlling for SES (DiPaola and Hoy, 2005b)
- consistently and positively related to other organizational properties
  - collegial principal behavior
  - teacher professionalism
  - academic press (DiPaola and Hoy, 2005a, 2005b).

# RESULTS

- We compared the relative importance of the impact of SES and organizational citizenship on student achievement by entered both SES and organizational citizenship simultaneously into a regression equation predicting school achievement in reading and mathematics.
  - reading, the standardized beta weights were similar in predicting achievement—(beta = .27,  $p < .01$  for organizational citizenship and beta = .23 for SES,  $p < .01$ )
  - mathematics, the standardized beta weights, again, were similar in predicting achievement—(beta = .28,  $p < .01$  for organizational citizenship and for SES beta = .33,  $p < .01$ ), with SES slightly more important

# **CONCLUSIONS**

- **The greater the amount of faculty organizational citizenship behavior, the higher the level of student achievement.**
- **Faculty organizational citizenship has a significant independent effect on school student achievement in addition to the effect of SES on achievement; in fact, faculty citizenship behavior has approximately the same impact as SES.**

# *Conclusions*

- Factor structures confirm the construct validity of OCB (virtually the same & stable across samples)
- Hypotheses results support the predictive validity of the OCB construct
- Reliability coefficients were strong
- Studies thus far demonstrate a relationship between OCB and student achievement

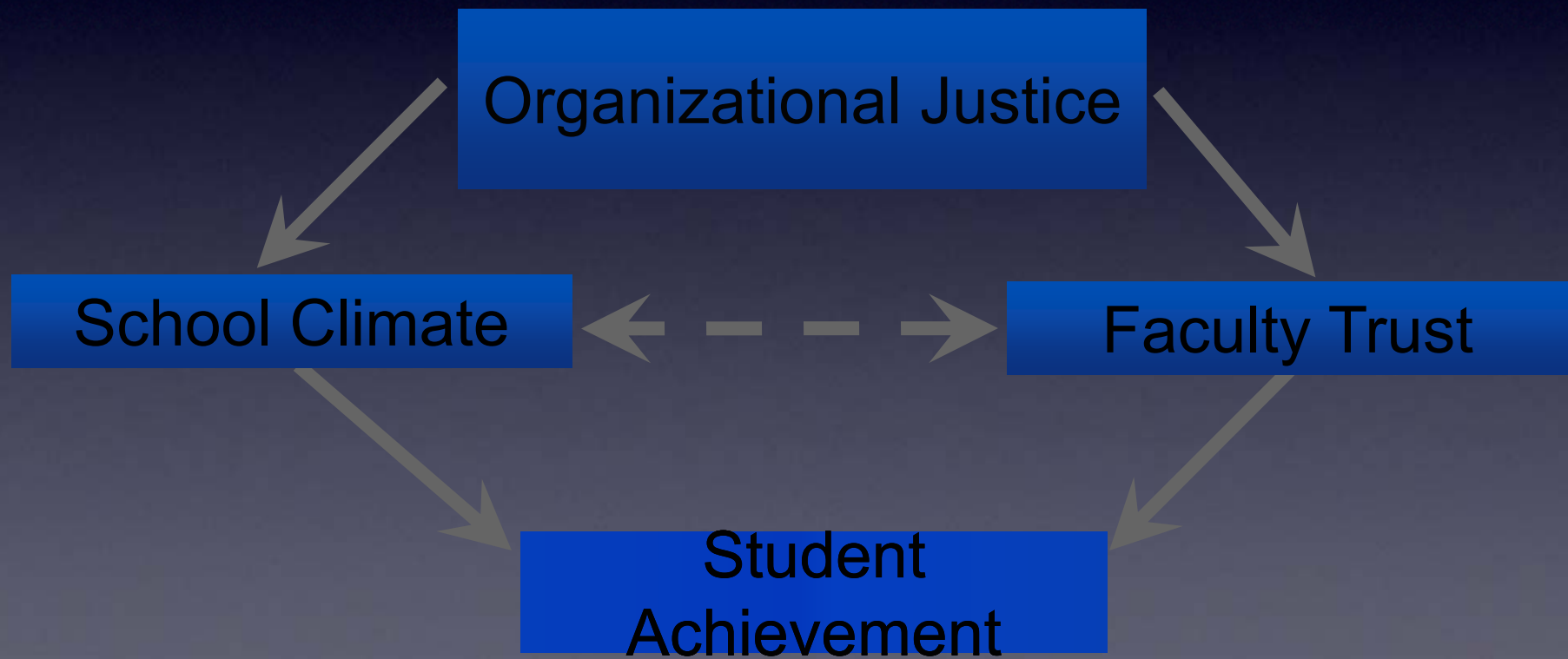
# *Relevance to Practice*

- Principals can use data on OCB, climate dimensions, and other social processes (e.g. efficacy, trust, justice) to engage teachers in conversations and develop strategies to increase levels of factors, especially those related to student achievement.



Organizational Justice  
in High Schools :  
A Study of Its  
Relationship to School  
Climate and Faculty  
Trust

# *Organizational Justice as a Mediator of School Climate & Faculty Trust*



## *Correlation Analysis of Organizational Justice and School Climate.*

	2.	3.	4.	5.	6.
1. Organizational Justice	.76**	.76**	.57**	.55**	.59**
2. School Climate Index (SCI)		.85**	.88**	.82**	.85**
3. Collegial Leadership			.58**	.51**	.53**
4. Teacher Professionalism				.84**	.79**
5. Academic Press					.82**
6. Community Engagement					

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\*\* p < .01

# Regression Analysis of Organizational Justice and School Climate

	Organizational Justice		
	Beta	t	Sig.
Collegial Leadership	.62	4.14	.000
Teacher Professionalism	-.09	-.335	.741
Academic Press	.14	.628	.536
Community Engagement	.24	1.18	.250
			$R^2 = .64$
			Adjusted $R^2 = .58$
			S.E. = .36

## *Correlation Analysis of Organizational Justice and Faculty Trust.*

	2.	3.	4.	5.
1. Organizational Justice	.75**	.79**	.60**	.38*
2. Faculty Trust		.85**	.86**	.76**
3. Trust in Principal			.56**	.35
4. Trust in Colleagues				.70**
5. Trust in Community				

\*\* p < .01

\* p < .05

## *Regression Analysis of Organizational Justice and Faculty Trust*

	Organizational Justice		
	Beta	t	Sig.
Trust in Principal	.66	4.75	.000
Trust in Colleagues	.25	1.36	.185
Trust in Clients	-.03	-.18	.862

$R^2 = .66$   
Adjusted  $R^2 = .62$   
S.E. = .35

# *Implications for Practice*

- Principals must attend to procedural and interactional justice if they want to build trust and influence the climate of their schools.

# *Procedural Justice*

- Consistency
- Accuracy
- Bias-suppression
- Correctability
- Representativeness
- Ethicality

# *Interactional Justice*

- Dignity
- Respect
- Thorough explanations
- Timely feedback
- Causal accounts



# *Principals should:*

- Treat everyone with dignity & respect
- Provide adequate explanations when outcomes are unfavorable
- Ensure that allocative procedures are consistent and accurate
- Include those affected by a decision in a decision-making process that is ethical, unbiased & allows corrections

***Academic Optimism of  
High School Teachers:  
Its Relationship to  
Organizational  
Citizenship Behaviors &  
Student Achievement***

# *Academic Optimism: A Unified*

- Hoy and his colleagues (McGuigan, 2005) view collective efficacy, trust, and academic emphasis as three distinct dimensions of a singular construct of schools called academic optimism—an overall collective belief among teachers that students can, should, and will achieve academically.
- Collective teacher efficacy is the cognitive group dimension; faculty trust in students and parents is the affective, emotional dimension; and academic emphasis is the behavioral dimension that represents purposeful academic actions (Hoy, et. al., 2006).

# *Academic Optimism: What is it?*

- Shared belief among faculty that
- faculty has the capacity to help students achieve (collective efficacy),
- students and parents can be trusted to cooperate with them in this endeavor (trust in student/parent), and
- academic achievement is important (academic press). (McGuigan & Hoy, 2006)

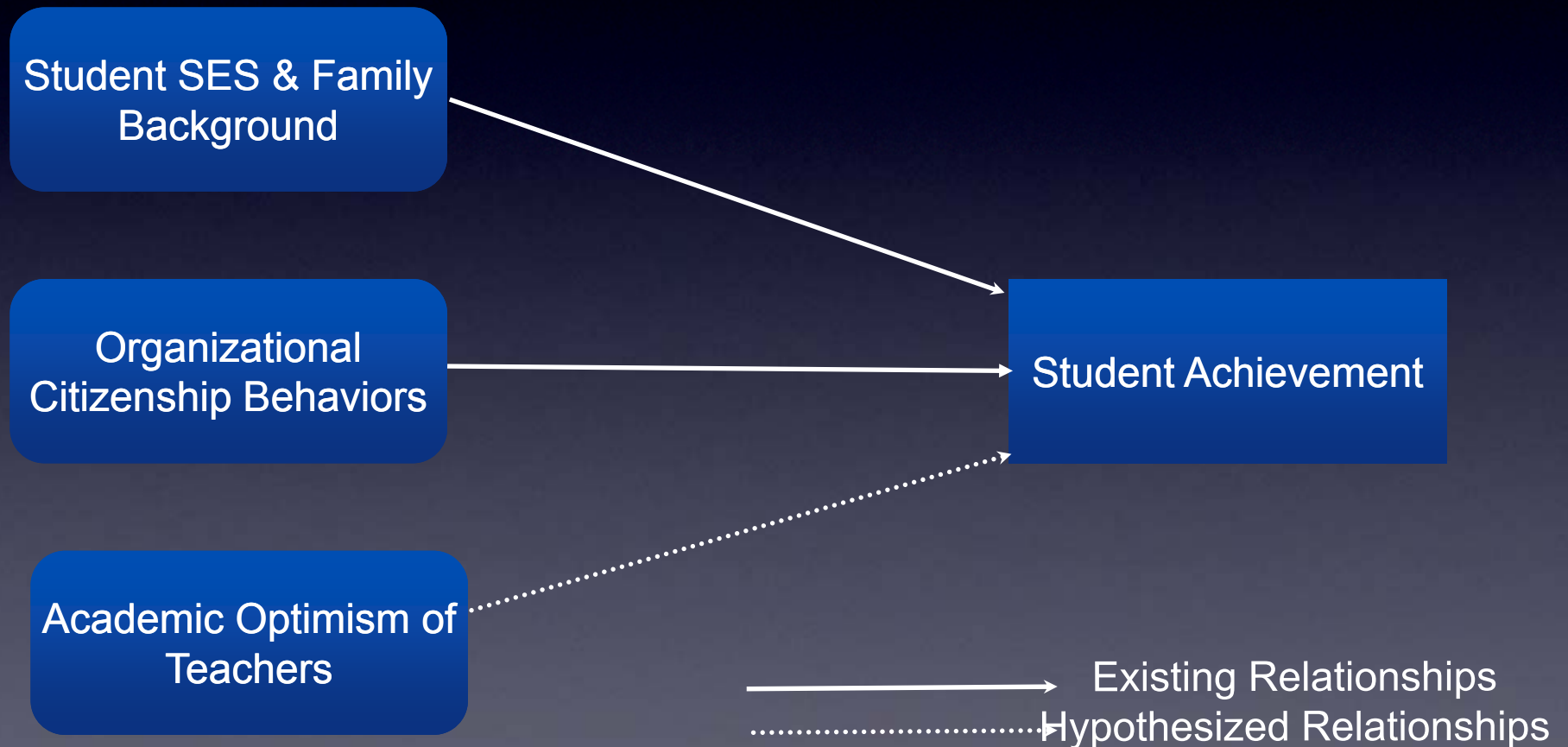
# *Academic Optimism* (AO)

## “Triadic Set of Interactions”

- Collective efficacy = cognitive
- Trust in students & parents = affective
- Academic press = behavioral

(Hoy, Tarter, & Woolfolk Hoy, 2007)

# Conceptual Framework



# *Academic Optimism*

- Recent studies of study of 146 elementary and 96 high schools found that academic optimism is a unitary construct attributable to differences in student achievement, even after controlling for students' SES (Hoy, et. al., 2006).

# *Methodology – Sample Selection & Instrumentation*

- Convenience sample of 1,218 full-time professional instructional staff from 36 public high schools serving grades 9-12.
- Surveys items measured each of the three dimensions of academic optimism and OCB in schools:
  - Collective teacher efficacy: 12-item CE short form (Goddard, 2002);
  - Academic emphasis: 8 items from OHI (Goddard, Hoy, et. al., 2000);
  - Faculty trust: 10-item measure from Omnibus Trust (Hoy & Tschannen-Moran, 2003);
  - OCB: 12-item OCBS (DiPaola & Hoy, 2005).
- Student achievement results: 2006-07 mean school scores for English 11: Reading, English 11: Writing, Biology, and United States History



- *First Research Question:* Is academic optimism a single, unified, characteristic of schools manifested through collective teacher efficacy, academic emphasis (press), and faculty trust in students and parents?
- ✓ Factor analysis confirms the unitary nature of the construct. Initial unrotated factor analysis found that all three dimensions of academic optimism loaded as a single principal factor (32% of variance).
- ✓ Rotational analysis further confirmed this unitary characteristic by identifying three distinct, primary components aligning with each of the three dimensions (35% of variance).

## Implications for Practice

- ✓ Researchers have long sought to identify organizational variables that contribute to achievement beyond the effects of SES (Tarter, Hoy, & Woolfolk-Hoy, 2006; McGuigan & Hoy, 2005). A number of such school-level variables have been identified, and one such variable—academic optimism—appears to be a robust force for student achievement.
- ✓ Although SES consistently demonstrated a negative relationship with nearly all achievement variables, school-level optimism for achievement was a stronger predictor of Biology and U.S. History achievement than even SES.

cognitive, affective, and behavioral perceptions about learning in their schools.

- ✓ Aggressive academic focus and the concurrent effects of teacher and school appear to be more critical factors in student achievement in singular courses with distinct and time-specific learning objectives.
- ✓ Higher achievement in reading and writing appears to be protracted as a cumulative development of skills, rather than achievement confined to a singular course.
- ✓ Academic optimism harnesses teacher perceptions about knowledge, skills, ability (efficacy), and trust into teacher and school organizational behaviors (academic emphasis)

*How can school leaders engender  
academic optimism and OCB in  
schools?*

Some strategies involve enhancing  
the component parts.

- ✓ Develop and implement quality professional development programs that foster growth and mastery or vicarious experience (Bandura, 1989). Examples include: targeted instructional strategies and curriculum development; mentoring; peer coaching; professional release time; recognition of quality performance; etc.
- ✓ Model efficacious behaviors by structuring schools in ways that promote collegiality, shared responsibility, mastery, or vicarious experience.
- ✓ Lead by example—"loose grip with sensitive fingertips."
- These actions can encourage and reinforce

## *Academic Emphasis*

- ✓ Establish opportunity to learn as the central focus of the school.
- ✓ Establish high achievement and behavioral goals for students and teachers.
- ✓ Review achievement data and channel assistance and resources wherever and whenever necessary.
- ✓ Recognize and celebrate hard work and exemplary performance.
- ✓ Balance high expectations with a reasonable, incremental approach to achievement.

- *Faculty Trust in Students and Parents*

- ✓ Communicate regularly and openly with students and parents.
- ✓ Establish channels of open professional dialogue with teachers.
- ✓ Build capacity for shared school leadership among teachers.
- ✓ Promote exemplary academic achievement of students—and professional achievement of teachers.
- ✓ Operate the school in ways that teachers see as enabling the work they do to help students

- *Organizational Citizenship Behaviors*

- ✓ Promote and recognize examples of outstanding professional behavior.
- ✓ Model timeliness and respect for time by adhering to schedules and following through on requests.
- ✓ Model helpful behaviors. Be accessible and available for assistance.
- ✓ Promote organizational informality by establishing less-restrictive rules and hierarchies.



# Academic Optimism and Achievement:

## A Path Model

# AO: Prior Research Findings

- Several studies done to confirm its measurement as a single, latent school level trait (Hoy, Tarter, & Hoy, 2006; McGuigan & Hoy, 2006; Wagner, 2008).
- Each dimension (academic press, collective efficacy, trust in students & parents) linked to student achievement
-

# Dimensions of School Climate

- Academic press
- Collegial leadership of the principal
- Teacher professionalism
- Community engagement

# School Climate and Achievement

- School climate has been shown to have a positive relationship with student achievement, despite SES (Goddard, Sweetland, & Hoy, 2000; Hoy, Tarter, & Kottkamp, 1991; Hoy & Sabo, 1998).

# Academic Press Bridges AO and School Climate

- If academic optimism had a positive relationship with student achievement, what about the other 3 dimensions of school climate?

# Hypotheses

- After controlling for SES, student achievement will be a function of academic optimism.
- Academic optimism will be a function of an open, healthy climate.

# ***Results: Correlations***

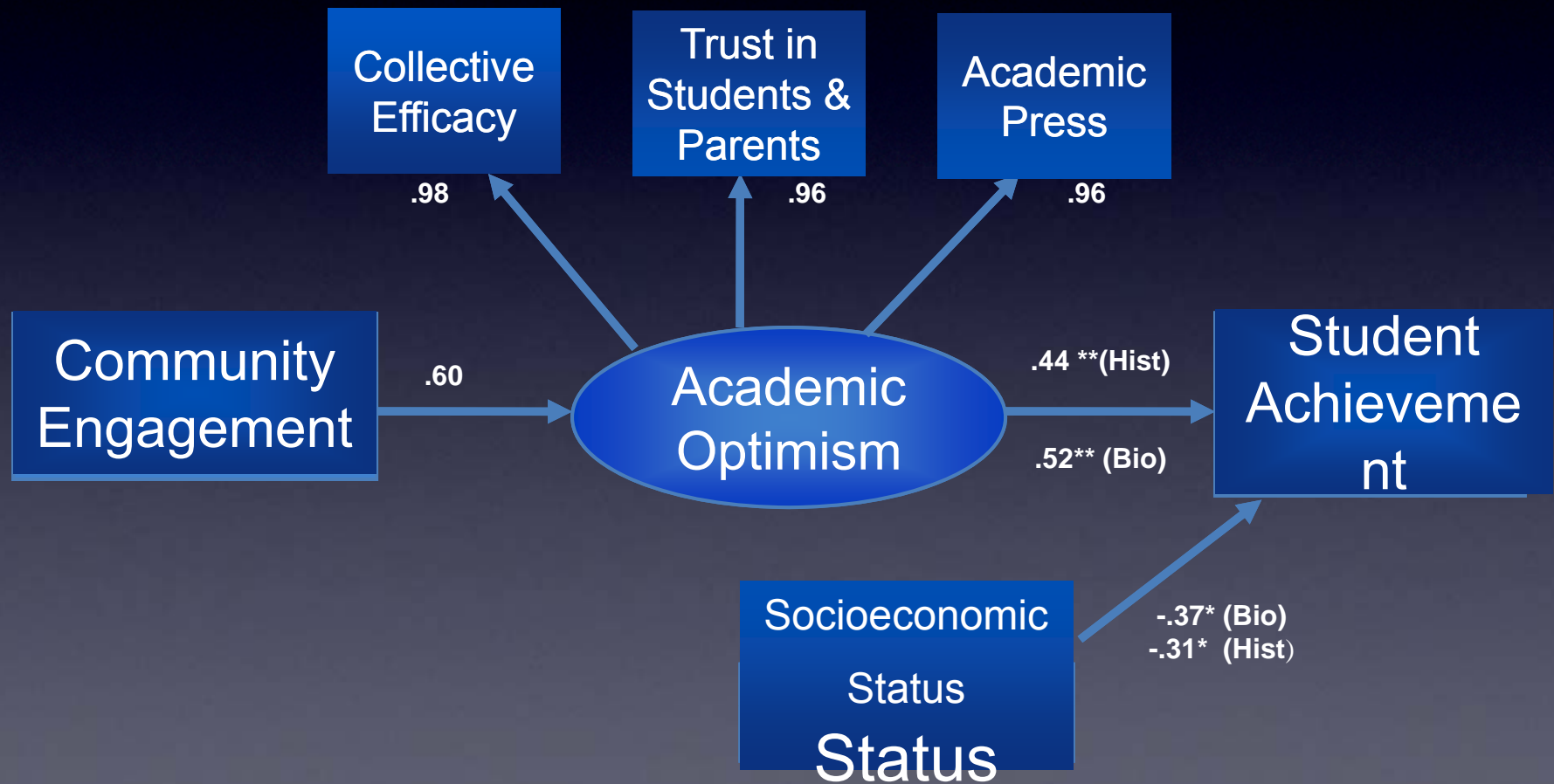
- Strong correlation between AO and Biology achievement and AO and History achievement
- Strong correlations among AO and community engagement and teacher professionalism, with CE having the strongest correlation

# *Results: Predictors*

- AO a more significant predictor than SES on student achievement in Bio (59% of variance) and History (40% of variance in mean school scores)
- Other 3 dimensions of climate explained 51% of the variance on AO
- Community engagement was the strongest climate dimension to predict AO ( $\beta = .60$ ,  $p < .01$ )



# Path Model for the Development of Student Achievement



# *Conclusions*

- In schools where there were high levels of community engagement, there tended to be high levels of AO, which in turn strongly predicted student achievement, controlling for SES
- Mobilizing the community and forming partnerships with schools can have a positive impact on student achievement

# *Implications for Leaders*

- How can leaders nurture AO in schools?
- Collective Efficacy – build self-efficacy through both mastery & vicarious experiences, social persuasion & modeling
  - Leaders can encourage teachers as they grow professionally; provide opportunities to build capacity & foster confidence; model successful behaviors & build up the staff

# *Implications for Leaders*

- ***Trust in Students & Parents*** – work with faculty toward viewing the community as a resource, not a threat; parents need to have opportunities to collaborate with teachers and school on meaningful education matters (e.g. homework policies or enrichment of instruction)
- ***Academic Press*** – celebrate academics by having a focused, serious learning environment; hosting a national honor society; entering local competitions (e.g. debate, mock trial)

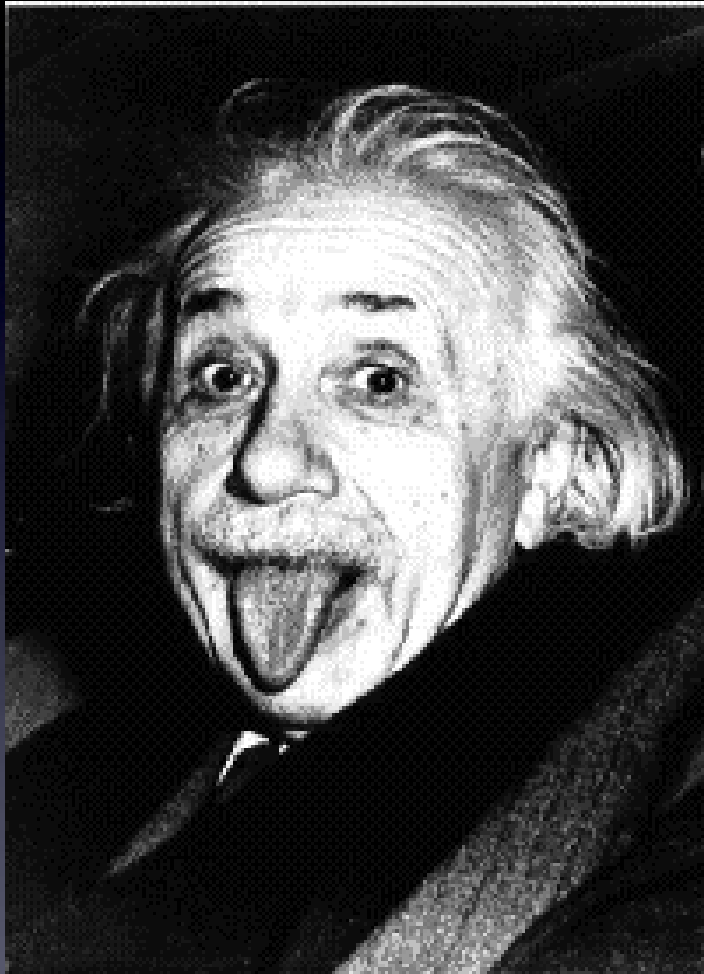
# *Implications for Leaders*

- ***Community Engagement*** – When the community & families are notified of school activities, parents are more likely to
- Recognize cultural & class differences to more effectively engage the community
- Attend college and employment related workshops; volunteer at school activities; work with their child on homework; and discuss school more often (Henderson & Mapp, 2002)
- Analyze data to call constituents to action to address an issue; gain access to community board task forces & committees to develop a community agenda together.

***We Can't Change the Socioeconomic Status of our Students, BUT Working Together, Teachers and Principals Can Improve the Contextual Elements that Have a Significant Relationship to Engagement and Student Achievement:***

- A Culture of Efficacy, Trust, Justice and Academic Optimism
- A Climate of Openness and Citizenship





- ***“Insanity is doing the same thing over and over, and expecting to get different results.”***

**Albert Einstein**



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