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Five Faces of Trust: An Empirical Confirmation in Urban Elementary Schools

ABSTRACT: After an extensive review of the literature on trust, a multi-faceted definition of faculty trust was developed at three organizational levels: trust in principal, trust in colleagues, and trust in clients. Along with a general willingness to risk vulnerability, five faces of trust emerged: benevolence, reliability, competence, honesty, and openness. This conceptual formulation of faculty trust was then subjected to empirical test, which supported the theoretical underpinnings of the construct. Finally, three trust scales with substantial validity and reliability are offered to researchers and practitioners to analyze antecedents and consequences of faculty trust in other schools.

Trust is a critical element in all human learning (Rotter, 1967), in co-operation (Deutsch, 1958, Osgood, 1959), in leadership (Sergiovanni, 1992), in school effectiveness (Hoy and Sabo, 1998), and in emerging organizational cultures (Hoffman, Sabo, Bliss, & Hoy, 1994). Moreover, trust functions as a way to keep participants in a community integrated and cohesive (Zand, 1971).

Although themes of trust and betrayal have long been the subject of philosophers and politicians, the systematic investigation of trust by social scientists is of relative recent vintage. In the late 1950s the empirical study of trust grew out of the escalating suspicion of the Cold War and an optimism that a scientific solution could be found to the dangerous

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and costly arms race that had resulted (Deutsch, 1958). In the late 1960s, in response to a generation of young people who had become disillusioned and suspicious of the institutions and authorities of society, the study of trust changed focus to trust as a generalized personality trait (Rotter, 1967). With soaring divorce rates and radical changes in the American family, research on trust turned to interpersonal relationships in the early 1980s (Johnson-George & Swap, 1982; Larzelere and Huston, 1980; Rempel, Holmes, & Zanna, 1985). In the 1990s, with shifts in technology and society, trust has again emerged as a subject of study in sociology (Coleman, 1990), in economics (Fukuyama, 1995) and in organizational science (Gambetta, 1988; Kramer & Tyler, 1996; Shaw, 1997). Thus, it is not surprising that the nature and meaning of trust in schools has recently taken on added importance.

The perspective taken in this study is a collective and multidisciplinary one; that is, our view of organizational trust draws from work in sociology, economics, and organizational science.

THE NATURE OF ORGANIZATIONAL TRUST

Trust means many things. Everyone knows what it is, yet articulating a precise definition of trust is no simple matter, whether the context is interpersonal, organizational, or societal. A few examples of the broad range of meanings and functions of trust should give one a sense of the complexity of the concept.

Trust is a way of reducing uncertainty (Holmes & Rempel, 1989) and having confidence that our expectations of others will be met. Such confidence is fundamental to human survival and functioning in a complex and interdependent society. Trust not only reduces uncertainty, but it also maintains order. It is necessary for effective cooperation and communication because trust is a foundation for cohesive and productive relationships in organizations (Baier, 1986; Parsons, 1960), and trust reduces the complexities of transactions and exchanges far more quickly and economically than other means of managing organizational life (Powell, 1990, 1996).

Relationships within organizations are continuous. Individuals relate to the same network of people, and there is incentive to behave in trustworthy ways, to develop a reputation for trustworthiness, and to garner the benefits of trusting relationships. Distrust is costly. As trust declines people feel compelled to engage in self protection by guarding against opportunistic behavior on the part of others (Limerick & Cunnington, 1993). In the absence of trust, people are cautious; they are unwilling to

take risks; and they demand greater protections against betrayal in order to defend their interests (Tyler & Kramer, 1996). Hence, the social network of relationships within an organization exerts both formal and informal controls that encourage trustworthy behavior.

Trust fosters cooperation while distrust undermines it (Deutsch, 1958, 1960a; Dawes, Van de Kragt and Orbell, 1990). But how much confidence must one have in another's good will before deciding to risk cooperation? In other words, when does subjective trust become manifest as behavioral trust? The threshold undoubtedly varies from situation to situation depending in part on the nature of the vulnerability or interdependence and with one's own trustworthiness (Kee and Knox, 1970). One of the most consistent findings about people with a trusting disposition is that they are much more likely to be trustworthy than others, even when they could increase their gain by being untrustworthy (Deutsch, 1958, 1960b; Rotter, 1980; Wrightsman, 1974).

The focus in this study is faculty trust in schools. What are the referents of faculty trust in schools? How is faculty trust gauged? These are the questions that drive this inquiry. In short, this analysis has three purposes: to conceptualize the faces and referents of trust, to develop valid and reliable measures of faculty trust in schools, and to test the utility of the measures in predicting school collaboration with parents.

FACES OF TRUST

Trust has a natural attraction. It is good to trust and to be trusted. But what is trust? What are the aspects of trust? Even a cursory reading of the trust literature suggests that trust is a multi-faceted and complex concept. We have chosen the term faces to capture this multi-faceted complexity. Our review of the literature over that past four decades revealed more than 150 articles on trust, a literature that is diverse and yet has a number of common threads. Regardless of whether the focus on trust was individual, organizational, generalized, or behavioral, we made meaning of that literature by identifying common conditions of trust. Along with a general willingness to risk vulnerability, five faces or facets of trust emerged: benevolence, reliability, competence, honesty, and openness.

WILLINGNESS TO RISK

What is common across most definitions of trust, either explicitly or implicitly, is vulnerability. Where there is no vulnerability there is no need for trust. There is less consensus about whether trust lies in the choice or action that increases one's vulnerability or in the degree of optimism or positive expectation one must hold in order to describe an action or attitude as trusting. Trust is both a noun and a verb. In defining trust some focus on people's behavior in a situation of vulnerability, others on their attitudes or the degree of confidence. For example, when parents leave their child with a care provider but harbor significant misgivings, have the parents trusted the provider? By taking action the parents have increased their vulnerability to possible negative outcomes; however, they have done so with a certain level of anxiety. Deutsch (1960a) suggests that when a person makes a move that increases his or her vulnerability to another person it is often difficult to infer the motivation for such a choice. The decision to place oneself at risk to another could be based on "despair, conformity, impulsivity, innocence, virtue, faith, masochism, or confidence" (p. 124). Although the behavior of the parents who anxiously left their child with a child care provider was no different than that of parents with no misgivings, the level of trust is very different. Willingness to risk is the degree of confidence one has in a situation of vulnerability.

BENEVOLENCE

The most common face of trust is a sense of benevolence, the confidence that one's well-being or something one cares about will be protected by the trusted person or group. One can count on the good will of the other to act in one's best interest. In an ongoing relationship, future actions or deeds may not be specified but only that there will be a mutual attitude of good will. Trust is the assurance that the other will not exploit one's vulnerability or take excessive advantage of one even when the opportunity is available (Cummings & Bromily, 1996). Trust involves the "accepted vulnerability to another's possible but not expected ill will" (Baier, 1986, p. 236).

RELIABILITY

Reliability is the extent to which one can count on another to come through with what is needed. Reliability combines a sense of predictability with benevolence. Predictability alone is insufficient because a person can be consistently malevolent. What is required from another person or group might be something tangible (e.g., raw materials from a supplier) or intangible (e.g., a willingness to listen). Most interactions do not take place simultaneously but unfold over time. There is a lag be-

tween when a commitment is made and when the recipient knows that it has been fulfilled. If it were not for some uncertainty in some future time, what assurance would a promise bring? The degree to which a person believes that outcomes will be forthcoming and positive reflects the extent of trust.

COMPETENCE

There are times when good intentions are not enough. When a person is dependent on another and some level of skill is involved in fulfilling an expectation, then a person who means well may nonetheless not be trusted. For example, the patient of a young surgeon may feel that this doctor wishes very much to heal the patient, but if he or she has a poor performance record, the patient will likely not trust in the physician. Many of the situations in which we speak about trust in organizations have to do with competence.

HONESTY

Honesty speaks to character, integrity, and authenticity. Rotter (1967) defined trust as the expectancy that the word, promise, verbal or written statement of another individual or group can be relied upon (p. 651). Statements are truthful when they conform to "what really happened" from that person's perspective and when commitments made about future actions are kept. A correspondence between a person's statements and deeds characterizes integrity. An acceptance of responsibility for one's actions and avoiding distorting the truth in order to shift blame to another characterizes authenticity.

OPENNESS

Openness is the extent to which relevant information is not withheld; it is a process by which individuals make themselves vulnerable by sharing information with others. Such openness signals a kind of reciprocal trust, a confidence that the information will not be exploited and that recipients can feel the same confidence in return. People who are guarded in the information they share provoke suspicion; others wonder what is being hidden and why. Distrust breeds distrust, and people who are unwilling to extend trust through openness end up living in isolated prisons of their own making (Kramer, Brewer, & Hanna, 1996).

DEFINITIONS OF TRUST

Our review of the extant literature on trust led to the identification of 16 different definitions. None included all the faces of trust enumerated above. Yet with one exception, (Frost, Stimpson, & Maughan, 1978), all were multi-faceted definitions of trust; in fact, most of the definitions were based upon expectations or common beliefs that individuals or groups would act in certain ways, ways that were in the best interest of the concerned party. Trust, however, is embedded in relationships, and the referent of trust influences its meaning. We propose the following working definition of trust.

Trust is an individual's or group's willingness to be vulnerable to another party based on the confidence that the latter party is benevolent, reliable, competent, honest, and open. Our definition is similar to Mishra's (1996), but the formation raises several questions. Are the elements specified in the definition independent dimensions or do they vary together? Do the facets form a coherent pattern of trust? Such questions are important considerations in any attempt to map the meaning of trust.

This study was concerned with faculty trust in schools. Moreover, we were interested in trust at the collective, not at the individual level. That is, the concern was with the extent to which the faculty as a group was trusting. Not only are there multiple faces of trust, there are also multiple referents of trust. A faculty can trust the principal, students, or any number of other groups. We were concerned with testing the usefulness of our conceptualization in gauging faculty trust in schools. No existing measure of trust was found that dealt with the diverse facets of trust or had the specific referents of interest in this study—students, teachers, principal, and parents. Thus, the empirical phase of this investigation had four aims:

- to measure the faces of trust in school faculties
- to examine the factor structure of faculty trust
- to explore the interrelationships between faculty trust in students, teachers, principal, and parents
- to test the relationship between faculty trust and parental collaboration

TOWARD A MEASURE OF FACULTY TRUST

The unit of analysis for this study was the school; interest was on teachers' collective perceptions of trust in the context of school. Using

the conceptual formulation of trust developed in this work, items were written to ensure that:

- A general item for willingness to risk was included for each referent of trust.
- All five faces of trust were tapped for each referent of trust.

Although there was no extant measures for trust that fitted the proposed conceptual framework, Hoy & Kupersmith (1985) had developed scales to measure faculty trust in colleagues and in principals. Their work was a starting point for this endeavor. An analysis of their items, however, revealed that none of them tapped competency or openness; hence, new items were added to the existing ones to measure the missing facets of trust. In addition, sets of items were written for faculty trust in students and in parents, making sure that each facet of trust was represented for each referent group.

The format of the Trust Scales was maintained, a six-point Likert response set from strongly agree to strongly disagree. Sample items from each of the four levels of trust being measured include:

- The principal is unresponsive to teachers' concerns.
- Teachers in this school are reliable.
- Teachers in this school are suspicious of students.
- Teachers can count on parents in this school.

Items were developed that assessed each proposed element of trust as well as global statements of trust or distrust to determine whether these various dimensions could be said to belong to a judgment about trust. The development of the instrument went through four phases: (1) a panel of experts reacted to the items, (2) a preliminary version was field tested with teachers, (3) a pilot study was done with a small group of schools to test the factor structure of the instrument, its reliability, and its validity, and (4) a large scale study was conducted in which the psychometric properties of the final instrument were assessed.

PANEL OF EXPERTS

To check the content validity of the items, the Trust Survey was submitted to a panel of experts, all professors at The Ohio State University either from the College of Education or the Fisher Business School. The panel was asked to judge which facet of trust each item measured. There was strong agreement among the judges, and in those few cases where the panelists disagreed, the items were retained and the question of the appropriate category was left to an empirical test using factor analysis.

There was consensus that the items measured all the faces of trust for each referent group.

FIELD TEST

A field test was conducted to test the clarity of instructions, appropriateness of the response set, length, and face validity of the items. Six experienced teachers were asked to respond to the instruments and to give feedback on these issues and any other perceptions they wished to share. There was general agreement that the instrument was clear, reasonable, and had face validity. In a few instances, however, specific comments led to the modification of an item. For example, in response to the item, "Teachers in this school trust parents," a field test participant queried "to do what?" That item was reworded to read, "Teachers in this school trust parents to support them." Thus the item was changed from a general statement of trust to one more specifically tapping the benevolence dimension.

PILOT STUDY

After the panel review and field test, 48 items remained and were used in the pilot test of the Trust Scales. A pilot study was done to explore the factor structure, reliability, and validity of the trust measures.

Sample

A sample of 50 teachers from 50 different schools in five states was selected to test the psychometric properties of the Trust Survey. Half of the schools selected were schools with reputations of relatively high conflict and the other half had relatively low conflict among the faculty.

Instruments

In addition to the 48-item Trust Survey, teachers were asked to respond a self-estrangement scale (Forsyth & Hoy, 1978), a sense of powerless scale (Zielinski & Hoy, 1983), a teacher efficacy scale (Bandura, unpublished), and one Likert item measuring the perception of conflict in the school. These additional measures were included to provide a validity check on the trust measure. We predicted that each aspect of trust would be positively related to teacher efficacy and negatively related to self-estrangement, sense of powerlessness, and degree of conflict.

Data Collection

Data were collected from 50 different schools through two procedures. About a third of the people were identified by university professors as coming from either low trust or high trust schools, and the other two-thirds were sent the questionnaire by mail. Seventy percent of those contacted agreed to participate and returned usable questionnaires.

Results

The trust instrument was submitted to a principal axis factor analysis with a varimax rotation to test whether the items loaded strongly and as expected. Although we anticipated four factors, only three strong factors emerged. The three-factor solution was supported by a scree test and made conceptual sense. We were surprised that trust in students and trust in parents items loaded together on a single factor. Teachers did not distinguish between trusting students and trusting parents. Thus, the two sets of items combined into a single factor, which we called "Trust in Clients." The clients in this case are students and parents; both are recipients of the services offered by schools. The other two factors, as predicted, were Trust in the Principal and Trust in Colleagues. On the whole, factor loadings were strong and loaded together with other items from the same sub-test. Results are reported in Table 1.

Decisions of whether to retain, eliminate, or modify each of the items were based on theoretical (conceptual fit) and empirical (factor loadings) grounds. When an item loaded at .40 or above on more than one factor, it was typically removed. In a few cases, however, such items were retained because either the conceptual fit was strong or the item could be modified to enhance the conceptual fit. For example, the item, "Teachers in this school trust their students," loaded strongly on Trust in Clients at .75 but also load on Trust in Colleagues at .43. This item was retained because of its strong conceptual fit with trust in clients. Any item that failed the empirical test of loading .40 or higher on at least one factor was eliminated. Likewise, regardless of the factor loading, any item that loaded on the wrong factor conceptually was eliminated. Finally, a few redundant items were also eliminated when another item measured the same property of trust and had an even stronger loading.

As a result of the factor analysis, four items from Trust in the Principal and three from Trust in Colleagues were discarded. In the Trust in

Table 1. Pilot analysis of trust items (N = 50).

Facet		Three Factor Solution		
		F1	F2	F3
	Faculty Trust in the Principal, Alpha = .95			
B/R	50. The principal is unresponsive to teachers' concerns.	-.93	-.12	-.06
R	52. Teachers in this school can rely on the principal.	.92	.10	.14
W/V	12. Teachers in this school trust the principal.	.88	.10	.28
B	35. The principal in this school typically acts with the best interests of the teachers in mind.	.84	.21	.15
B	29. The principal of this school does not show concern for the teachers.	-.79	-.10	-.12
O/H	43. The principal doesn't tell teachers what is really going on.	-.78	-.27	-.12
R/H	20. The principal in this school keeps his or her word.	.77	.20	.23
B	22. The principal takes unfair advantage of the teachers in this school.	-.74	-.21	-.06
H	26. The teachers in this school have faith in the integrity of the principal.	.73	.11	.46
W/V	36. The teachers in this school are suspicious of most of the principal's actions.	-.71	-.03	-.23
W/V	45. Teachers in this school often question the motives of the principal.	-.70	.09	-.42
O	1. The principal openly shares personal information with teachers.	.63	-.01	.26
R	7. When the principal commits to something teachers can be sure it will get done.	.61	.26	.19
C	46. The principal in this school is competent in doing his or her job.	.60	.33	-.02
O/B	37. Teachers feel comfortable admitting to the principal they have made a mistake.	.51	.02	.35

(continued)

Table 1. (continued).

Faculty Trust in the Principal, Alpha = .94

Facet			Three Factor Solution		
			F1	F2	F3
WV	27.	Teachers in this school believe in each other.	.27	.20	.86
R	53.	Even in difficult situations, teachers in this school can depend on each other.	.19	.15	.86
O	41.	Teachers in this school are open with each other.	.28	.10	.82
H	13.	When teachers in this school tell you something you can believe it.	.19	.06	.82
B	25.	Teachers in this school typically look out for each other.	.29	.19	.80
WV	2.	Teachers in this school trust each other.	.29	.25	.79
H	15.	Teachers in this school have faith in the integrity of their colleagues.	.16	.37	.76
O	8.	Teachers here only trust the people in their clique.	-.31	-.30	-.64
WV	19.	If I had a school-aged child, I would feel comfortable putting my own child in most anyone's classroom in this school.	.11	.54	.61
B	49.	Teachers take unfair advantage of each other in this school.	-.11	-.41	-.59
WV	21.	Teachers in this school are suspicious of each other.	-.31	.39	-.58
R	33.	Teachers in this school are reliable.	.30	.55	.50
C	11.	Teachers in this school do their jobs well.	.31	.59	.40
O	16.	Teachers in this shcool don't share much about their lives outside of school.	-.36	-.23	-.20

(continued)

Table 1. (continued).

Faculty Trust in Clients, Alpha = .92

Facet			Three Factor Solution		
			F1	F2	F3
R	5.	Students in this school are reliable.	.10	.81	.18
R	3.	Students in this school can be counted on.	.05	.80	.12
C	40.	Teachers think most of the parents do a good job.	.07	.79	.24
WV/R/H	55.	The students in this school have to be closely supervised.	-.16	.78	.02
R	61.	Parents in this school are reliable in their commitments.	.06	.75	.44
WV	44.	Teachers in this school trust their students.	.06	.75	.43
B	59.	Students are caring toward one another.	-.08	.72	.29
R	31.	Teachers can count on the parents in this school.	.06	.71	.29
O	60.	Students here are secretive.	-.17	-.70	-.10
H	54.	Students in this school cheat if they have the chance.	-.09	-.65	-.06
R	17.	Students in this school can be counted on to do their work.	.16	.66	.21
WV	51.	Teachers in this school are suspicious of students.	-.32	-.61	-.20
O/WV	4.	Teachers avoid making contact with parents.	-.24	-.60	-.22
B	10.	Teachers in this school show concern for their students.	.29	.49	.35
WV	56.	Teachers are suspicious of parents' motives.	-.21	-.49	-.31
H	14.	Teachers in this school believe what students say.	.11	.47	.65
WV	9.	Teachers in this school trust the parents. [Field Test–"To Do What?"]	.04	.45	.56
B	Reworded: 9.	The students in this school trust the parents to support them.			
O	6.	The students in this school talk freely about their lives outside of school.	.07	.04	.40
C	New:	Teachers here believe students are competent learners.			
O	42.	Teachers are guarded in what they say to parents.	-.36	-.27	-.22
H	New:	Teachers can believe what parents tell them.			
		Eigenvalue	19.00	6.20	3.79
		Cumulative Variance Explained	39.6	52.5	60.4

WV: willingness to be vulnerable, B: benevolence, R: reliability, C: competence, H: honesty, O: openness.

Clients factor, four items were eliminated; one was reworded; and two new items were added. Some of the eliminated items revealed interesting patterns. Whether teachers shared information about their lives outside of school with their colleagues was not strongly related to trust factors. And when teachers were asked whether they would feel comfortable putting their own child in their school, judgments of their colleagues' competence was confounded with trust for clients. Teachers were apparently as concerned about their level of trust in students as in their trust in colleagues in determining how comfortable they would be in enrolling their own child in the school. In brief, the pilot study produced a 37-item survey that reliably measured three kinds of trust: Trust in the Principal (alpha = .95), Trust in Colleagues (alpha = .94) and Trust in Clients (alpha = .92).

Next, we did a content analysis. That is, we examined each level of trust to make sure that all the faces of trust (benevolence, reliability, competence, honesty, and openness) were represented in each scale, and indeed that was the case. The factor structure also supported the construct validity of the trust measures; items generally loaded correctly for each referent of trust. Moreover, all the facets of trust covaried together to form a coherent pattern of trust at each of the three levels—principal, colleagues, and clients. These results are also summarized in Table 1.

Finally, we examined the validity of the measures and their ability to distinguish trust from other related constructs. Discriminant validity of the measures of trust was strong. As predicted, self-estrangement, powerlessness, and conflict were all negatively related to dimensions of trust, and teacher efficacy was positively related to the subscales of trust. The results of the correlational analyses are summarized in Table 2.

Table 2. Correlations between trust, powerlessness, self-estrangement, conflict, and teacher efficacy N = 50.

Subscale	1	2	3	4	5	6	7
1. Trust in principal	(.95)[a]	.54**	.40**	−.47**	−.22	−.28*	.46**
2. Trust in colleagues		(.94)[a]	.62**	.32**	−.31*	−.76**	.30*
3. Trust in clients			(.92)[a]	−.51**	−.31*	−.56**	.47**
4. Powerlessness				(.83)[a]	.42**	.38**	−.55**
5. Self-estrangement					(.88)[a]	.36*	−.61**
6. School conflict						—	−.28*
7. Teacher efficacy							(.87)[a]

[a]Alpha coefficients of reliability are reported on the diagonal.
*p < .05.
**p < .01.

A TEST OF THE REVISED TRUST SCALES

Having developed a measure of trust in our field and pilot studies, we were ready to test the Trust Scales in a more comprehensive sample. In particular, we were interested in refining the scales, checking their reliability and validity, and using them to test some trust hypotheses in urban elementary schools.

HYPOTHESES

In the process of conceptualizing and measuring faculty trust, we also decided to put forth several hypotheses that we could test once a valid and reliable instrument for faculty trust was in hand. Although we posited that faculty trust in the principal, in colleagues, and in clients were separate, we also expected that the subscales of faculty trust would reinforce each other in an overall climate of school trust. Trust is contagious. Being able to trust the principal seems likely to spill over into trusting relationships with colleagues and students and vice versa. Conversely, school experiences that breed distrust are likely to become pervasive and inhibit trusting relationships with others. For example, when trust is low among colleagues, problems become distorted and effectiveness is impeded (Zand, 1971). Thus, we hypothesized that:

> H.1. Faculty trust in clients, colleagues, and principals are moderately related to each other.

We also assumed that faculty trust is a necessary condition for successful collaboration. Collaborating partners need to set aside suspicions and learn to present their agendas honestly and openly. Trust becomes a critical ingredient in effective collaboration; in fact, some students of collaboration argue that it is functional, if not essential, to engage first in trust-building activities before attempting collaboration (Mattessich & Monsey, 1992; Hoy & Tarter, 1995). Increasingly, schools are being called upon to work with parents in their community to improve schools. We postulate that trust is an essential element of such cooperation. To that end we predicted that:

> H.2. Faculty trust is positively related to a school's collaboration with parents in school decision making.[1]

SAMPLE

The population for this study was the elementary schools within one large urban Midwestern school district. Permission to conduct research

was requested following school district procedures. Schools were selected at random. Ninety percent of the schools contacted agreed to participate, resulting in a sample of 50 elementary schools.

Halpin (1959) has provided strong evidence that average scores on descriptive questionnaire items such as the LBDQ computed on the basis of 5–7 respondents per school yield reasonably stable scores (p. 28); thus, schools with fewer than five teachers responding to the instruments were not used. Of the 50 schools surveyed, 45 returned a sufficient number of each of the two surveys to be included in the sample. A total of 898 teachers completed surveys and over 99% of forms returned were useable.

DATA COLLECTION

Data were collected from the urban elementary schools at a regularly scheduled faculty meeting. A member of the research team explained the purpose of the study, assured the confidentiality of all participants, and requested that the teachers complete the surveys. The instruments, which had been printed on scannable forms, were distributed along with No. 2 pencils. Half the teachers present responded to the trust questionnaire and half completed the questionnaire on collaboration. The separation was to assure methodological independence of the responses. No attempt was made to gather data from faculty who were not present at the meetings.

FACTOR ANALYSIS AND RELIABILITY OF THE TRUST SURVEY

A principal axis factor analysis was conducted to check the stability of the factor structure of trust, to refine the measure, to insure that all items loaded in the appropriate scale, and to assess the construct validity. Varimax orthogonal rotation was guided by simple structure; items were expected to load high on one factor and low or near zero on the other factors. Moreover, we anticipated that all five faces of trust—benevolence, reliability, competence, honesty, and openness—would be represented in each scale and form a coherent pattern of trust at each of the three levels—principal, colleagues, and clients.

Factor Analysis of the Trust Survey

A factor analysis of the trust measure resulted in the elimination of three items due to poor factor loadings. On the Trust in Colleagues subscale one item, "Teachers in this school do their jobs well," was eliminated because it loaded on more than one factor—it loaded on Trust in Colleagues (.71) but also on Trust in Clients (.45). "Teachers avoid mak-

Table 3. Analysis of trust items (N = 45 schools).

Facet		Three Factor Solution		
		F1	F2	F3
	Faculty Trust in the Principal, Alpha = .98			
B	6. The principal in this school typically acts with the best interests of the teachers in mind.	.14	.94	.19
R	47. Teachers in this school can rely on the principal.	.19	.94	.17
B	14. The principal in this school is unresponsive to teachers' concerns.	-.22	-.93	.01
C	48. The principal in this school is competent in doing his or her job.	.20	.92	.12
H	5. The teachers in this school have faith in the integrity of the principal.	.17	.92	.28
B	23. The principal of this school does not show concern for the teachers.	-.21	-.91	-.07
O	15. The principal doesn't tell teachers what is really going on.	-.16	-.89	-.19
W	22. Teachers in this school trust the principal.	.21	.88	.16
W	34. The teachers in this school are suspicious of most of the principal's actions.	-.20	-.86	-.29
R	35. The principal in this school keeps his or her word.	.19	.85	.10
O	46. The principal openly shares personal information with teachers.	.09	.44	.15

(continued)

Table 3. (continued).

Faculty Trust in Colleagues, Alpha = .98

Facet		Three Factor Solution		
		F1	F2	F3
B	8. Even in difficult situations, teachers in this school can depend on each other.	.10	.20	.93
WV	7. Teachers in this school believe in each other.	.16	.18	.92
WV	20. Teachers in this school have faith in the integrity of their colleagues.	.28	.09	.92
H	2. Teachers in this school trust each other.	.05	.19	.91
WV	36. Teachers in this school are open with each other.	.14	.11	.91
O	1. Teachers in this school typically look out for each other.	.09	.19	.91
B	21. Teachers in this school are suspicious of each other.	-.02	-.14	-.89
WV	31. When teachers in this school tell you something you can believe it.	.27	.19	.84
H	30. Teachers in this school do their jobs well.	.45	.21	.71
C	New: Teachers in this school are not competent in their teaching responsibilities.			

(continued)

Table 3. (continued).

Faculty Trust in Clients, Alpha = .97

Facet		Three Factor Solution		
		F1	F2	F3
R	16. Teachers can count on the parents in this school.	.91	.12	.14
R	51. Students in this school are reliable.	.91	.20	.12
R	42. Parents in this school are reliable in their commitments.	.91	.11	.07
C	27. Teachers think most of the parents do a good job.	.90	.11	.18
R	24. Students in this school can be counted on to do their work.	.90	.18	.22
B	25. Students are caring toward one another.	.89	.23	.23
B	43. Teachers in this school trust the parents to support them.	.89	.16	.15
WV	9. The students in this school have to be closely supervised.	.89	.03	-.15
H	17. Teachers can believe what parents tell them.	.84	.23	.09
H	3. Teachers in this school believe what students say.	.80	.32	.14
WV	4. Teachers in this school trust their students.	.79	.24	.32
C	53. Teachers here believe students are competent learners.	.75	.19	.38
O	52. Students here are secretive.	-.75	-.26	-.04
H	10. Students in this school cheat if they have the chance.	-.72	-.25	-.31
O	41. The students in this school talk freely about their lives outside of school.	.62	.05	.11
B	40. Teachers in this school show concern for their students.	.57	.18	.65
O	26. Teachers avoid making contact with parents.	-.49	-.26	-.50
	Eigenvalue	18.32	6.08	5.44
	Cumulative Variance Explained	49.5	65.9	80.6

WV: willingness to be vulnerable, B: benevolence, R: reliability, C: competence, H: honesty, O: openness.

ing contact with parents" loaded almost equally with Trust in Clients and Trust in Colleagues (.49 and .50, respectively), and "Teachers in this school show concern for their students" loaded as expected on Trust in Colleagues (.57) but was confounded by the level of trust in the principal (.65); hence, both items were eliminated, reducing the number of items on the final Trust Scales to 35 [including one new item (see Table 3)].

Factor loadings of the items for Trust in the Principal subscale ranged from .44 to .94 with a subscale reliability of .98 using Cronbach's alpha. Loadings for the nine items in Trust in Colleagues ranged from .71 to .93 and the reliability for the subscale was also .98. Loadings for Trust in Clients ranged from .52 to .91 and the alpha for the 15-item subscale was .97. The results of the factor analysis are found in Table 3.

Factor Structure Stability

The factor structure for the Trust Survey was very similar to that found in the pilot study and demonstrated a stable factor structure. In addition, reliabilities for the three subscales were even higher than those found in the pilot study. Kerlinger (1973) argues that factor analysis is perhaps the most powerful method of construct validation, and the findings of this study support the construct validity of faculty trust. The five proposed faces of trust—benevolence, reliability, competence, honesty, and openness—vary together and belong to an overall conception of trust that is coherent. Moreover, the faces of trust are present for each referent of trust. In brief, the Trust Scales provide reasonably valid and reliable measures of trust at three levels.

COLLABORATION

The extent to which parents are included and have influence in school decision making varies from school to school. Teachers sometimes resist the intrusion of parents into school affairs; life is simpler for teachers without interference from outsiders, including parents (Hoy, Tarter, & Kottkamp, 1991; Hoy & Sabo, 1998). Yet there has been increasing demand to get parents involved in school decision making. In this study, we measured parent collaboration with an index (Tschannen-Moran, 1998), which was constructed by asking teachers how much influence parents had over the outcomes of the following important school activities: "planning school activities," "determining school rules," "resolving problems with community groups," "fostering community relations," "determining curriculum priorities," "determining areas in need of improvement," "determining how to comply with mandates and legisla-

tion," "approving extracurricular activities," and "determining how to allocate school resources (the school budget)." These items formed a parent collaboration index that had a reliability in this sample of .94.

RESULTS

As predicted, the three dimensions of trust were moderately correlated with each other. Trust in the principal was related to trust in colleagues ($r = .37, p < .01$) and trust in clients ($r = .42, p < .01$). Further, trust in colleagues was correlated with trust in clients ($r = .35, p < .01$).

We also hypothesized that faculty trust was related positively to the degree of parental collaboration in school decision making. Again the hypothesis was supported; the greater the degree of faculty trust, the stronger the degree of parental influence in decision making as perceived by teachers. The correlations for all three dimensions of trust were statistically significant with parental collaboration, for faculty trust in the principal ($r = .45, p < .01$), for faculty trust in colleagues ($r = .37, p < .01$), and for faculty trust in parents ($r = .79, p < .01$).

Finally, the multiple relationship between the dimensions of faculty trust and parental collaboration was examined. Parental collaboration was regressed on the three dimensions of faculty trust. Although the simple correlations indicated that all three aspects of trust were related to parental collaboration, the multiple regression analysis demonstrates that trust in clients overwhelmingly explains the degree of parental collaboration in school decision making. Only the beta ($\beta = .716, p < .01$) between faculty trust in clients was significantly related with parental collaboration in decision making; when the faculty trusts the parents and students, collaboration is greatest. The multiple R^2 of .64 ($p < .01$) indicates that almost two thirds of the variance in parental collaboration in decision making is explained by faculty trust. See Table 4 for a summary of the regression and correlational data.

Table 4. Regression of collaboration on referents of trust (n = 45).

Trust Variables	Collaboration with Parents	
	r	beta
Trust in principal	.45*	.117
Trust in colleagues	.37*	.058
Trust in clients	.79*	.716*
	R = 81*	R^2 = .64*

*$p < .01$.

SUMMARY AND DISCUSSION

The major aims of this study were achieved. Trust was conceptualized as a concept with multiple faces; the willingness to risk or be vulnerable is inherent in all trust relations as are the facets of benevolence, reliability, competence, honesty, and openness. Thus our constitutive definition of trust was—an individual's or group's willingness to be vulnerable to another party based on the confidence that the latter party is benevolent, reliable, competent, honest, and open.

This conceptual perspective of trust proved useful and was supported. All the conditions of trust were found empirically; in fact, factor analytic techniques demonstrated the faces of trust for each of three referents or levels. Moreover, we developed a set of trust scales that yielded reliable and valid measures for faculty trust in principals, in colleagues, and in clients. The factor structure of the trust scales was stable in two separate samples. Although three separate dimension of faculty trust were identified, as predicted, they were moderately related to each other. Faculty trust in schools tends to be pervasive. When teachers trust their principal, for example, they are also more likely to trust each other and their clients. Conversely, distrust also tends to breed distrust. Broken trust is likely to ripple through the system.

Our preliminary analyses of the dimensions of faculty trust indicated that they were related to other school variables in predictable ways. On the one hand, teachers' sense of powerlessness and estrangement were negatively related to trust. On the other hand, trust was positively related to teacher efficacy; the greater the degree of perceived trust in a school, the stronger the belief in teachers' ability to organize and execute courses of action that lead to success. Also, not unexpectedly, the greater the degree of faculty trust in a school, the less the degree of conflict. All of the dimensions of trust measured by the trust scales were related to other school variables as predicted.

The research also tested the hypothesis that faculty trust was related to the degree of schools' collaboration with parents on important aspects of school decision making. The assumption that trust was a key element in collaboration with parents on school decision making was supported by the results. Although all aspects of faculty trust were correlated with parental collaboration and explained about two-thirds of the variance in collaboration, it was faculty trust in clients that proved the strongest predictor of collaboration; in fact, it was the only dimension of trust that was independently related to parental collaboration in decision making. The greater the faculty trust in clients, the more influence teachers say parents have in making important decisions.

Another intriguing finding of the study was that, at least for the elementary schools in this study, faculty trust in students and parents converged. The relationship was so strong that the trust for the two groups was indistinguishable. Faculty trust for the two referents merged to form a single factor, which we called trust in clients. When teachers of an elementary school trust the parents, that is tantamount to trusting the kids; and when teachers trust the students, they also trust their parents. The merging of these two aspects of trust was unexpected. The finding makes good sense for elementary schools, but whether the same relationship exists in middle or high schools is another question, one that should be pursued.

The development of a reliable and valid measure of three referents of trust opens up a host of research opportunities. A few examples should demonstrate the potential. To what extent are faculty trust in colleagues, in the principal, and in clients necessary conditions for student achievement? For general school effectiveness? To what extent does a lack of trust distort communications in schools among faculty and between principals and teachers? To what extent is teacher trust in students related to student's self-regulated learning? To student and teacher motivation? Our analysis has focused on faculty trust; two other important foci are the extent to which students and parents trust the administrators and teachers. Student trust in teachers seems critical for the social-emotional development of students. One caveat—our study was a quantitative analysis of trust, but the review of the literature suggests that trust is complex and needs to be examined using multiple methods. Hence, qualitative analyses are in order, ones that examine the dynamics of the process of trusting. Such qualitative studies might include case analyses to explore what principal behaviors may illicit trust, why teachers trust their principals, and how teacher trust can be developed.

In sum, a multi-faceted definition of trust was developed based on an extensive review of the literature. That definition was operationalized and confirmed with an instrument that had three referents of faculty trust. Each of the measures of trust was reliable and received substantial validity support. All three aspects of faculty trust were moderately related with each other as anticipated. The results support the argument that trust, especially faculty trust in parents, is likely a necessary condition to influential parental collaboration in schools. Finally, the instrument and findings open a host of research opportunities.

ENDNOTES

1. For a more extensive analysis of this hypothesis, see Tschannen-Moran (1998).

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JAY PAREDES SCRIBNER[1]

Teacher Efficacy and Teacher Professional Learning: Implications for School Leaders

ABSTRACT: This study examines teachers' professional development experiences through the lenses of personal teaching efficacy and professional learning. This qualitative study examined the professional development experiences of teachers with either high or low senses of personal teaching efficacy. The study found that the level of personal teaching efficacy influences how and in what ways individual teachers experience professional development. The findings provide support for approaches to professional development that address individual needs. Also discussed are implications for school leaders and others charged with establishing professional learning environments that enhance teachers' efficacy beliefs.

PURPOSE AND RESEARCH QUESTIONS

The 1990s have heard repeated calls from educational policymakers and practitioners for more effective approaches to teacher learning (Corcoran, 1995; Houghton & Goren, 1995). In spite of the acknowledgement that approaches to teacher learning must, and in some cases, are changing, myriad individual and organizational factors that influence teacher learning remain unexplored and little understood (Darling-Hammond & McLaughlin, 1995; Lieberman, 1995). As Eraut (1994) states:

> Very little is known about how in-service teachers learn, and to what extent continuing on-the-job or even off-the-job learning contributes to their professional maturation, updating, promotion, or reorientation. Yet without

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