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- When you complete a section, insert a page break before starting the next section.

- As you develop your responses, organize them in a logical and coherent way. You should apply and cite relevant and current research and literature in each response.

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Part I
Organization

Part II
Leadership

Part III
Curriculum

Part IV
Research

Part V
Statistics
I. Organization

Directions: Answer this question thoroughly.

Organizational theory and behavior rests on a diverse foundation of research and practical application. Theorists at times have been grouped based on their conceptual frameworks and techniques. The following reading/article is representative of one of those schools of thought. Please read the article and then comment on the theoretical framework it represents. Base your response on a discussion of the relevant literature, your own thoughts and experiences and comparing it and contrasting it to other points of view.
PART I-ORGANIZATION

“ORGANIZATIONAL JUSTICE IN SCHOOLS; NO JUSTICE WITHOUT TRUST”
Organizational justice in schools: no justice without trust

Wayne K. Hoy and C. John Tarter

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Justice, Trust, Leadership, Teachers

Abstract
The concept of organizational justice is defined, and, based on a review of the literature, ten principles of organizational justice are elaborated. Similarly, the elements of faculty trust are conceptualized and discussed. Then, a model of organizational justice and trust is proposed and tested using path analysis. The results underscore the symbiotic relations between trust and justice. The paper concludes with a few suggestions for future research and recommendations for practice.

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There is little question that justice has become a touchstone in contemporary American society. Students of educational administration have seized on the notion of social justice as a topic for discussion, analysis, and reform. One only has to examine the program of the last two meetings of the American Educational Research Association (AERA) and the University Council for Educational Administration (UCEA) to see its pervasiveness. Moral philosophers beginning with Aristotle and continuing with the work of Rawls (1971) have defined and examined justice from a number of vantage points (for a review, see Cohen and Greenberg, 1982). The focus of this analysis is not on the grand scheme of social justice in American society, but rather on the system of justice in schools that educational leaders are responsible for creating. We are concerned with whether teachers perceive that they are being treated fairly. Questions of justice and fairness are fundamental whenever resources are distributed, that is, "Is who gets what fair?" (Greenberg and Lind, 2000).

The topic of organizational justice is not new in the administrative literature (Beugre, 1998; Cobb et al., 1995; Cohen and Greenberg, 1982; Greenberg, 1990, 1996; Greenberg and Lind, 2000), but it is a neglected concept in educational administration. Our essential argument is that matters of justice and fairness in the school workplace should not be taken lightly. Anyone who doubts the validity of this statement simply needs to visit a school and to question teachers about how fairly they are treated on the job; then stand back and listen to the lively discussion that ensues. Explaining the special significance that the concept of justice has taken in organizations, Greenberg (1996) coined the term organizational justice, which refers to individuals' perceptions of fairness in organizations -- the topic of the present inquiry. We turn to an analysis of the concept in schools by first sketching ten "principles", then developing a measure and a model, and finally, testing the empirical nature of organizational justice in schools.

Principles of organizational justice

Rather than reviewing the literature on organizational justice in detail, we seek to summarize it with a series of principles that capture the essence of that literature. These principles highlight the well-established tenets of distributive justice -- the fairness of the who gets what -- and procedural justice -- the fairness of the mechanisms of distribution (Greenberg, 1996). The principles discussed below come from two
Organizational justice in schools: no justice without trust

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The equity principle: what individuals receive from the organization should be proportional to their contributions

The rewards that teachers get for their contributions to the school should reflect balance; teachers should not feel that their contributions are undervalued or unrewarded. Although the equity principle is easy to state, it is not as easily applicable as one might suspect. In general, teachers expect that compensation, recognition, and the trappings of status will be commensurate with their work, skill, and responsibility. Justice is a broad principle of which equity is an element. Too much emphasis on few individual successes can breed jealousy and invidious comparisons. Equity requires an even-handed fairness that balances equity and equality.

The perception principle: individual perception of fairness contributes to the general sense of justice

Justice is both a public event and an individual judgment. Teacher perception of fairness is a key to satisfaction. Objective judgment is not the issue. What is critical is that teachers perceive that their principal is “following the rules” fairly, that is, following the procedures that everyone has tacitly accepted. For example, many districts require teachers to have lunch duty, a task most would rather pass on; however, as long as the teachers see assignments as fair, they will accept them with little criticism. It is important that the principal let everyone know by word and deed that fair procedures were followed. In the final analysis, public perception of justice becomes justice; “justice is in the eye of the beholder” (Greenberg, 1990).

The voice principle: participation in decision making enhances fairness

Participation is especially important when teachers have a personal stake in the outcome because such decisions affect them. Principals should involve teachers in decision making when they have a personal stake in the outcome and when they have the expertise to contribute to the decisions (Hoy and Tarter, 2003). The issue of voice in decision making, however, becomes more problematic when there is a personal stake but no knowledge or when the principal does not trust teachers.

Principals cannot be invisible. They need to cultivate both informal and formal mechanisms to elicit teacher voice. A cup of coffee with teachers in the faculty lounge or simply “walking around” provides opportunities for informal voice. Formal voice occurs at faculty meetings, department meetings, in written communication, and in an authentic “open door” policy. For example, a principal at school every Saturday morning from 9.00 to 12.00 offers formal or informal opportunity for any faculty member to call or just drop by (Hoy, 2003).

The interpersonal justice principle: providing sensitive, dignified, and respectful treatment promotes the judgment of fairness

No one likes bad news, but if given respectfully and with sufficient information, it conveys a sense of the treatment. One of the most difficult things a principal must do is to communicate negative information to teachers, whether it is about the non-renewal or an unpopular assignment. Teachers’ background, and delivery of information, the principal must strive to be open, accurate, and authentic in their treatment of teachers. Protecting teachers from embarrassment, treating them as professionals who are sensitive to the facts are paramount. Sound communication and interpersonal interactions are likely to enhance a sense of trust in the principal by teachers; consequently, trust in turn should promote a strong sense of organizational justice. These last two propositions will be examined more closely in the empirical phase of this study.

The consistency principle: consistent leadership behavior is a necessary condition for subordinate perception of fairness

Consistency in behavior is not sufficient for the generation of a sense of fairness. Being consistently wrong, arbitrary, or political will not instill confidence, trust, or the acceptance of administrative impartiality. Consistent behavior is not necessarily identical behavior in all situations, but rather it is action that consistently fits the situation. Thus, in one situation the behavior may call for direct action whereas another situation may require a softer touch or a more democratic approach. Effective leadership is matching appropriate leader behavior with the characteristics of the situation (Yukl, 1998).

Authenticity and procedural justice should guide consistency. Application of rules, regulations, and policies must be fair, visible, and consistent, yet flexible enough to take into account individual needs and extraordinary circumstances. Teachers should have a good idea of how the principal will react in a variety of situations and believe that his or her judgments and behavior will be both predictable and just. Leaders who “lose their cool” in difficult situations or hide behind their formal position, pass the buck, or manipulate teachers will not command trust, loyalty, or respect (Hoy and Miskel, 2001; Hoffman et al., 1994). To paraphrase Thomas Jefferson, nothing gives a
The egalitarian principle: decision making should be free of self-interest and shaped by the collective mission of the organization.

No one’s interests take precedence over the needs of the collective. Treating everyone equally is not equal. Individuals have different needs and talents; thus, rigidly treating everyone the same is not equal. A balanced treatment, dependent on needs, should be a hallmark of egalitarian decision making. Self-interest is subordinated to the good of the whole.

The mission of the organization takes precedence over individual benefits, which are thought to flow out of the general success of the organization. For example, the practice of assigning beginning teachers to the more difficult classes seems to violate the egalitarian principle. Such practices are not in the best interest of the school or teachers. Rather, they are in the best interests of a few with power. The guiding mission of public schools is to provide a thorough and efficient education for all students, not to benefit the few and compromise the quality of instruction. Self-interest and internal politics are corrosive elements that erode egalitarianism.

The correction principle: faulty or poor decisions should be corrected

Correction depends on feedback and willingness to reverse a bad decision. Some administrators believe that to admit a mistake is to somehow undermine their authority. To the contrary, a willingness to review a poor decision and correct it in all likelihood develops in teachers a trust in the fairness of the principal. The correction principle underscores the need for feedback and accurate information. For example, when teachers disagree with an evaluation, there should be provisions for challenge. New evidence should guide the principal’s reappraisal in a fair and balanced way. Two-way communication is critical in any attempt to correct the record.

Flexibility in the structure of the school should explicitly promote feedback and reevaluation of important decisions. Moreover, the principal must have the personal security and confidence to retreat from a poor decision and embrace the possibility of error. A “humane decision making” strategy (Erzioni, 1989) uniting rationality with flexibility emphasizes a series of techniques to deal with error, complexity, and uncertainty; tentative and reversible decisions avoid overcommitment to a course of action based on partial or inaccurate information (Hoy and Miskel, 2001). It behoves all administrators to recognize that virtually all complex decisions are made with incomplete data.

The accuracy principle: decisions should be based on accurate information

Correction is inextricably tied to accuracy. The accuracy principle promotes a sense of justice by demonstrating that decisions are based on sound evidence. Research has shown that fairness of performance evaluations is enhanced by procedures such as diaries that insure the accuracy of performance judgment. Rumor and innuendo are poor substitutes for accurate information. Principals who base their judgments on systematic evidence rather than stories or fragmentary hearsay are likely to reinforce the belief that the principal is searching for the truth and is open to new information. Accuracy promotes fairness in the same way that correction insures that the organization can respond justly in the light of new information.

The representative principle: decisions must represent the interests of concerned parties

Organizational decisions affect many constituencies. Decision making that elicits the opinions of those affected fulfills the representative principle. For example, changing curricula in the school affects what teachers teach. This is a case where teachers should be represented in the decision-making process because they not only have a personal stake in the outcome but they have also the knowledge to contribute to a good decision. Indeed, it is imperative that teachers have a strong role in such decisions especially if they are guided by the egalitarian principle that makes them willing to subordinate their self-interest to the good of the school. Representation is achieved, as teachers believe their ideas are being represented and have influence on outcomes.

The ethical principle: follow prevailing moral and ethical standards

Justice is preeminently an ethical standard. Honesty, integrity, authenticity, sincerity, equality, impartiality, trustworthiness, and honor are contemporary ethical and moral standards that should guide behavior in decision making in school organizations. Some might argue about the need to include other standards, but few would disagree with the proposed ethical standards. School administrators will not go far afield in creating a just school climate if they have the courage to adhere to these ethical standards. A commitment to the other principles of organizational justice is a commitment to an ethical principle of fairness. Indeed, one standard for training prospective educational leaders underscores administrative action characterized by integrity, fairness, and
ethical behavior (available at: www.ccsso.org/standards.html).

In summary, a sense of justice in the school workplace is dependent on leader behavior that is consistent with these ten principles. Leader behavior that is equitable, sensitive, respectful, consistent, free of self-interest, honest, and ethical is likely to create a perception of fair and balanced treatment. Moreover, the principles of voice, egalitarianism, and representation are crucial in any attempt to empower teachers. Teachers want to participate in decisions that affect them (voice), but they must be willing to put the interests of the school ahead of their own (egalitarianism) and yet feel that their views are being authentically represented in the process of decision (representation). These three principles work together to promote a sense of fairness among teachers. Finally, leaders must have the good sense and confidence to reverse and correct poor decisions as they get feedback and more accurate information.

**Faculty trust: the keystone to organizational justice**

Trust is a little like air—we all pay little attention to it until it is not there. Yet, if schools are to prosper and succeed, trust is essential. Trust, like credibility, is a perishable commodity within any organization; it must be continually nurtured and renewed if it is to survive and grow (Schulman, 1993). Too often, however, trust is reduced to a slogan. Principals admonish teachers, "just trust me," and teachers exhort parents to trust them because they "know what is best for their children." Trust can be an empty slogan or a fundamental aspect of a school's culture. We plan to demonstrate in this inquiry that trust is fundamental to organizational justice in schools. We focus on two important aspects of organizational trust—faculty trust in the principal and faculty trust in colleagues, but first we must develop the conceptual underpinnings of trust in schools.

Most people have an intuitive sense of what is meant when we say that we trust someone, yet trust is complex with many layers. Despite its complexity, there are recurring themes that emerge from a review of the philosophic, economic, organizational, individual, and empirical literature on trust.

**Vulnerability**

A necessary condition for trust is interdependence. Trust is important when the interests of one party cannot be achieved without reliance on another. Without interdependence there is no need for trust (Rousseau et al., 1998). Parents depend on teachers to act in the best interests of their children and teachers depend on the good will and cooperation of students and parents in the teaching and learning process. Interdependence produces vulnerability in the relationship, and vulnerability leads to reliance and risk. Risk moderates the trust relationship—trust is supported and buttressed when expected behaviors occur but is diminished and undermined when they do not. Trust ultimately rests with the degree of confidence one holds in the face of vulnerability and risk (Rousseau et al., 1998).

Schools ask for the trust of parents in assuming the responsibility in protecting their children and in shaping their thinking, learning, and behavior. Schools also ask their communities to risk vulnerability by requesting millions of dollars of resources in the form of tax dollars for buildings, supplies, curriculum materials, and the employment of professional staff. Administrators and teachers in turn invest their talents and professional lives in the hope of earning the confidence, good will, and trust of the community (Tschannen-Moran and Hoy, 2002).
Benevolence
Perhaps the most commonly recognized facet of trust is a sense of benevolence, that is, confidence that one's well-being or something one cares about will not be harmed by the trusted party (Cummings and Bronfman, 1996; Hosmer, 1995; Mishra, 1996). Trust is the assurance that another party will not exploit one's vulnerability and that one can rely on the good will of the other to act in one's best interest. In an ongoing relationship, there will be a mutual attitude of good will even though future actions may not be specified (Putnam, 1993). Benevolence is the accepted vulnerability to another's possible but not expected ill will (Baier, 1986, p. 236). Parents who trust educators to care for their children are confident that teachers will be consistently fair, compassionate, and benevolent. Likewise, teachers who trust students and parents believe that neither will undermine the teaching-learning process nor do them harm.

Reliability
Trust also has to do with predictability, that is, consistency in knowing what to expect from others (Butler and Cantrell, 1984; Hosmer, 1995). However, predictability alone is unsatisfying as an aspect of trust. One can expect a person to be invariably late, consistently malicious, self-serving, or dishonest. Clearly, when our well-being is diminished in a predictable way, trust is undermined. Reliability is more than dependability; in fact, it combines a sense of dependability and predictability with benevolence. In brief, reliability is confidence that others will consistently act in ways that are beneficial to the trustee.

Competence
Good intentions often are not enough to produce trust. When a person is dependent on another and expertise and skill are required, individuals who mean well are not always trusted (Baier, 1986; Butler and Cantrell, 1984; Mishra, 1996). Many school tasks require competence. When a teacher's or team's project depends on the contribution of others, trust will depend on an "assured confidence" that deadlines will be met, the task will be accomplished, and the work will be of adequate quality to meet goals.

Principals and teachers depend on one another to accomplish teaching and learning goals. Students rely on the competence and skill of their teachers. A student may feel that her teacher wants to help her learn, but if the teacher lacks knowledge or skill, then student trust will likely wane. Competence is the ability to perform as expected and consistent with standards appropriate to task, and is a critical ingredient of trust. If the public loses confidence in the competence of an administrator or a teacher, then trust in the school is eroded, regardless of good intentions and benevolence of those involved. Just as people are unwilling to trust a surgeon with a poor performance record, too, are they reluctant to trust administrators and teachers whose competence is questionable.

Honesty
Not surprisingly honesty is another critical facet of trust (Baier, 1986; Cummings and Bronfman, 1996); in fact, Rotter (1967, p. 651) defined trust as "the expectancy that the word, promise, verbal or written statement of another individual or group can be relied upon". Honesty is the truthfulness, integrity, and authenticity of a person or group. A consistency between words and actions is the heart of truthfulness and integrity. Moreover, accepting responsibility for one's actions and not distorting the truth in order to shift blame is the essence of authenticity (Tychazan-Moran and Hoy, 1998). Honesty is a necessary, but not sufficient condition for trust.

Openness
Openness is the extent to which relevant information is shared. In the process of being open, people make themselves vulnerable by sharing personal or organizational information. Openness is a giving of oneself (Butler and Cantrell, 1984; Mishra, 1996); it signals reciprocal trust and a confidence that the shared information will not be exploited by either party. Furthermore, individuals who are guarded in their interactions often provoke suspicion because people wonder what they are hiding and why. Openness breeds trust, trust as trust creates openness. People who are unwilling to extend trust through openness end up living in isolated prisons of their own making (Kramer et al., 1996). Principals in closed school climates engender distrust by unsuccessful attempts to spin the truth to make their view of reality the accepted standard (Sweedland and Hoy, 2001). In contrast, productive organizations have cultures of openness in which mistakes are freely admitted and addressed rather than hidden and ignored (Weick and Sutcliffe, 2001).

Trust: a complex and integrated whole
In sum, trust is a multifaceted phenomenon with at least six faces. Although all of these faces of trust are significant, their relative importance is dependent on the situation, the nature of the interdependence, and the vulnerability of the relationship. For example, one is differentially vulnerable to a stranger, a friend, an investment broker, or a surgeon. Notwithstanding, in schools all these facets of trust are important; in fact, they combine into an integrated whole. Vulnerability, benevolence, reliability, competence, honesty, and
openness form a single, unitary and coherent concept of trust in schools. Whether the referent is trust in teachers, principal, students, or parents (Hoy and Tschannen-Moran, 1999). Hence, administrators who neglect any of these facets of trust are jeopardizing the entire trust relationship.

Organizational justice and faculty trust: an explanatory model

Thus far, our analysis has been on justice and trust—two constructs that we argue are pivotal properties of schools. We now turn to the development of a model that links them and suggests their antecedents. The relationship between organizational justice and faculty trust is a reciprocal one: we postulate that faculty trust promotes organizational justice, but that justice in return reinforces trust. The notion of organizational justice that we are attempting to explain in this analysis is circumstantial; that is, it pertains to the just and fair treatment of the faculty. Two sets of questions are addressed:

1. What school characteristics are necessary for organizational justice?
2. What are the antecedents that promote these school characteristics?

Two referents of faculty trust are of special significance to our theoretical rationale. First, faculty trust in colleagues is central to and, perhaps, a necessary condition for organizational justice. Trust is an important component of interpersonal relationships; in fact, the very survival of a social group may depend on the members’ willingness to exercise trust with one another (Rotter, 1967). When colleagues trust one another, it enhances the openness and authenticity of interpersonal relations (Hoffman et al., 1994), and provides a climate where members will likely treat one another with respect, honesty, and altruism — all aspects of a just and caring workplace. The ability to establish a sense of self-worth, to enjoy healthy social relations, and to have the respect of colleagues is anchored in trust (Hodson, 2001). Thus, it should come as no surprise that we predict that faculty trust in colleagues promotes a fair and just workplace; and in turn, that justice in the school workplace reinforces an atmosphere of trust among teachers.

Second, faculty trust in the principal also seems central to the emergence of a sense of justice in the school workplace. Just as teachers trusting one another is important in generating fairness in the workplace, so too is faculty trust in the principal; in fact, the rationale for predicting a close connection between faculty trust in the principal and organizational justice is similar. When teachers trust the principal, it promotes open interactions between teachers and the principal (Hoffman et al., 1994) and signals that the principal is dependable, honest, competent, and concerned about teachers (Geist and Hoy, 2003). When principals earn the trust of the faculty, they bolster a sense of human dignity in the workplace (Hodson, 2001). We hasten to add that the relationship is reciprocal, that is, faculty trust enhances school justice, but justice promotes trust. Our argument thus far is that faculty trust in colleagues and faculty trust in the principal are independent sources of organizational justice in schools, and that such justice reinforces both aspects of faculty trust.

But what are the antecedents of each aspect of faculty trust? Earlier research has shown that faculty trust in colleagues is best predicted by characteristics of the faculty, whereas faculty trust in the principal is better predicted by the leadership behavior of the principal (Geist and Hoy, 2003; Smith et al., 2001). Thus, we predict that professional faculty behavior marked by competence, commitment to students, autonomy, judgment, and respect for colleagues (Smith et al., 2001) is positively related to trust in colleagues. Similarly, principals generate trust by behaving in ways that foster both the achievement of school goals and social needs teachers. Such principal behavior has been termed collegial leadership (Geist and Hoy, 2003; Smith et al., 2001) and is characterized by warm, supportive expressive behavior as well as the instrumental behavior of setting clear teacher expectations and standards of performance. These hypothesized relationships are summarized in the model depicted in Figure 1.

The model predicts that professional teacher behavior is directly related to faculty trust in colleagues, which in turn promotes organizational justice in the workplace and reinforces trust. The collegial leadership of the principal generates faculty trust in the principal, which independently enhancement organizational justice in the school and reinforces trust. Thus, both teacher and principal behavior develop a system of organizational justice, and trust is pivotal in the process.

Figure 1 Proposed trust justice model

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Professional Teacher Behavior ➔ Faculty Trust in Colleagues

Organizational Justice

Principal Collegial Leadership ➔ Faculty Trust in Principal
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Method

Having developed a model of organizational justice, the next step was to develop a research plan to test the model. We turn to the sample, instruments, and data collection.

Sample

Data from 75 middle schools in the state of Ohio were collected to test the model. The schools were distributed in 11 counties. Although the sample selected was not a random one, care was taken to insure participation of urban, suburban, and rural schools. Currently, the distribution of middle schools in Ohio is 39 percent rural, 34 percent urban, and 27 percent suburban. Correspondingly, the study's schools are distributed across 19 percent rural, 41 percent urban, and 40 percent suburban settings. Of the 612 school districts in the state, 43 participated in the study. Staff completed a total of approximately 2,600 usable surveys. The sample was also similar to the population of middle schools in Ohio in terms of student enrollment, average teacher salary, average teacher experience, and the size of the faculty. In brief, the sample of schools was fairly typical of middle schools in Ohio.

Data collection

Data were collected from the middle schools at regularly scheduled faculty meetings. A member of the research team explained the general purpose of the study, assured the confidentiality of all responses, and asked teachers to complete the questionnaires. Because this project was part of a larger study of organizational properties and because the unit of analysis was the school, two random groups of teachers responded to different surveys. One set of teachers responded to a climate index that included measures of collegial leadership of the principal and professional teacher behavior, and the second random group of teachers described other school properties, including trust and justice. The unit analysis was the school; hence, all data were aggregated to the school level. No attempt was made to gather data from faculty who were not present at the meeting, but virtually all teachers returned usable questionnaires.

Measures

Five organizational behaviors were measured in this research — organizational justice, faculty trust in the principal, faculty trust in colleagues, collegial leadership of the principal, and professional teacher behavior.

Organizational justice index (OJI)

An organizational justice index was created by summing responses to items based on organizational justice principles. Teachers were asked to describe the behavior of teachers and administrators along a seven-point Likert scale from strongly disagree to strongly agree; the higher the score, the greater the extent of behavior in the school. Examples of items included the following: "Teachers are involved in decisions that affect them (voice principle)", "The principal adheres to high ethical standards (ethical principle)", "The principal treats everyone with respect and dignity (interpersonal justice principle)", and "educators in this school follow courses of action that are generally free of self-interest (egalitarian principle)".

Factor analysis of the ten items of the index indicated a strong single factor of organizational justice with all the items loading strongly on that factor. All the items had factor loadings greater than 0.77 and explained 78 percent of the variance. The results of the analyses supported the construct validity of organizational justice. Moreover, the alpha coefficient of reliability was 0.97.

Faculty trust in the principal and trust in colleagues

The two referents of organizational trust were measured with the Omnibus t-Scale, a trust scale developed by Hoy and Tschannen-Moran (1999).

A ten Likert-item subtest of the t-Scale that tapped the facets of trust discussed earlier measured faculty trust in the principal. Sample items for trust in the principal include: "Teachers in this school trust the principal", "The principal doesn't really tell teachers what is going on (score reversed)", "The principal in this school is competent in doing his or her job"). The alpha reliability coefficient for the subtest with the current sample was 0.98.

Faculty trust in colleagues was similarly measured with a separate eight Likert-item subtest of the Omnibus T-Scale. Examples of the items included: "Teachers in this school trust each other", "Teachers in this school are open with each other", "Teachers in this school do their jobs well", and "Teachers in this school are suspicious of each other (score reversed)"). The alpha reliability coefficient for the subtest with the current sample was 0.94. Further reliability evidence as well as predictive and construct validity for both measures of faculty trust are provided by Hoy and Tschannen-Moran (1999, 2003).

Collegial leadership and professional teacher behavior

Teacher and principal behaviors were measured with subtests from the organizational climate index (Hoy et al., 2002).

Collegial leader behavior is measured by a seven-item subtest, which gauges the extent to
which the principal helps teachers meet their needs and treats them as professional colleagues while simultaneously setting clear goals and standards of performance. Examples of the Likert items include: "The principal treats all faculty members as his or her equal", "The principal is willing to make changes", "The principal lets faculty know what is expected of them", and "The principal is friendly and approachable". The alpha coefficient of reliability for the current sample is 0.96.

Teacher professional behavior was also measured by a subtest of the OCI, a seven-item subtest that determines which faculty engages in professional behavior such as respect for colleague competence, commitment to students, autonomous decision making, and mutual cooperation and support of colleagues. Examples of items include, "Teachers respect the professional competence of their colleagues", "Teachers help and support each other", and "Teachers in this school exercise professional judgment". Predictive and construct validity is provided in a factor analytic study by Hoy et al. (2002) for both OCI subtests. Reliability is typically strong; in the current study the alpha coefficient of reliability was 0.98.

An empirical test of the trust-justice model

The trust-justice model was tested using multiple regression techniques and path analysis. As predicted, both aspects of trust – faculty trust in the principal (beta = 0.72, p < 0.01) and faculty trust in colleagues (beta = 0.31, p < 0.01) – had significant independent effects on organizational justice; that is, faculty trust in the principal was significantly related to organizational justice controlling for trust in colleagues, and faculty trust in colleagues was significantly related to organizational trust controlling for trust in the principal. Moreover, as expected, professional teacher behavior was significantly related to trust in colleagues (beta = 0.77, p < 0.01) controlling for collegial leadership, and collegial leader behavior was significantly related to trust in the principal (beta = 0.66, p < 0.01) controlling for professional teacher behavior. The results of the path analysis are summarized in Figure 2. The adjusted $R^2$ for organizational justice is 0.90, $p < 0.01$, that is, faculty trust in colleagues and trust in the principal explains 90 percent of the organizational justice variance. The path model was supported by the empirical data.

Discussion and conclusions

Even though we predicted the strong relationship between trust and justice, we were surprised to discover its strength. The data demonstrate that trust and justice are inextricably linked; you cannot have one without the other. Although we used faculty trust in colleagues and faculty trust in the principal to predict organizational justice, the relationship clearly can be seen as going the other way, that is, as justice producing trust. On the one hand, if teachers trust the principal, then they are likely to perceive the principal as acting in a fair and just way (believing is seeing); on the other hand, if the teachers perceive their principal as acting ethically and fairly, then they are more likely to trust him or her. The conceptual facets of trust – benevolence, reliability, competence, honesty, and openness – are certainly consistent with the underlying conceptual foundations of organizational justice – equity, equality, voice, fairness, dignity, and consistency. In fact, the two sets of conceptual underpinnings are so consistent that they vary together in harmony; they are different but they are intertwined and likely not separable.

The strong influence of principal trust on organizational justice was not surprising. Clearly, the principal is the single most important person in developing a sense of organizational justice in school. The principal of the school is much more important than the faculty in creating a just and fair school at least with respect to professional interactions; however, trust of teachers in their colleagues is not an inconsequential factor. Faculty trust in colleagues makes a substantial independent effect on the school's justice system. Even so, it is within the principal's power to forge a climate of justice by demonstrating in word and deed a commitment to the ten principles of justice articulated earlier. The leader leads by example, and there may be no more important role than fair and just interactions with teachers, students, and parents, that is, to be a moral leader.

Our results also suggest that the principal can lead in a way that directly influences faculty trust in the principal and indirectly affects a sense of organizational justice through such trust. Collegial
principal leadership captures three critical concerns of leadership — concern for people, concern for the task, and concern for change. The principal whose behavior is expressive, instrumental, and change-oriented, that is, who leads with friendly, supportive behavior, sets clear teacher expectations and standards of performance, and is open to change, is likely to be successful (Yukl, 1998). Moreover, such collegial principal behavior cultivates a culture of trust and justice.

The faculty clearly has an independent role to play in generating a culture of trust and justice in the school workplace. The principal gets the starring role, but the faculty gets a strong supporting role. The faculty through its professional behavior — treating one another as competent professionals, making autonomous judgments, showing commitment to students, and engaging in cooperation and support — learn to rely and trust one another, which also indirectly influences a sense of organizational justice in the school.

In sum, the collegial leadership of the principal is critical in fostering a trusting relationship with the faculty and such trust is pivotal in nurturing a sense of organizational justice. Professional teacher relationships are significant in facilitating trust among teachers, which in turn enhances a sense of fairness in the school. Although the trust-justice relationship for faculty was not as strong as for the principal, faculty trust in colleagues does make a significant independent contribution in the explanation of organizational justice. Perhaps the most surprising finding of the study was the strength of the trust-justice relationship; both aspects of trust combine to explain 90 percent of the variance in organizational justice. Faculty trust and organizational justice are inextricably related and perhaps inseparable, which leads to our final caveat: the relationship between trust and justice is clearly reciprocal with each influencing and reinforcing the other.

Implications

Although this is one of the few studies to examine organizational justice in the school workplace, there are a number of practical and research implications that can be sketched. First, the concept of organizational justice as it was defined and measured in this research seems useful, especially the ten principles of organizational justice that we articulated at the beginning of this inquiry. Those ten principles serve as a framework for guiding the administrative behavior of principals. Principals who are guided by them will not go far afield in generating a sense of fairness and justice among their teachers as well as cultivating a culture of trust.

The research on faculty trust continues to grow. This study focused on only two aspects of faculty trust — in colleagues and the principal. If principals are to command faculty trust, they must demonstrate behavior that is collegial, enabling (Geist and Hoy, 2003), and supportive (Hoy et al., 2002). The generation of faculty trust in colleagues, however, is more closely related to the interactions among teachers themselves and only indirectly related to the principal’s behavior (Geist and Hoy, 2003; Smith et al., 2001). Principals who can create a climate with high morale and strong teacher professionalism can set the stage for the growth trust among teachers. There is little evidence that principals can directly facilitate faculty trust in colleagues.

This study did not deal with the generation of faculty trust in parents and students because attention was on faculty and just relations between the principal and teachers and among teachers themselves. The concept of organizational justice should be expanded to relationships between teachers and students. Here we predict that the teachers will have the starring role and the principal the supporting one and that faculty trust in students will be inextricably related to organizational justice for students. The moral leadership of teachers is no less important than the moral leadership of the principal.

We conclude with a few suggestions for principals based on our analysis of organizational justice, trust, and leader behavior:

• be equitable, sensitive, respectful, unbiased, honest, and ethical in your relationships with teachers and parents;
• involve teachers in decisions that affect them, especially when they are willing to put the interests of the school ahead of their own and they have the knowledge to improve the quality of the decision;
• have the good sense and confidence to reverse and correct poor decisions as feedback informs the decision;
• show concern for the needs of teachers;
• show concern for the task at hand;
• show concern for the need to change;
• help teachers cultivate a sense of trust among themselves by trusting them to make autonomous decisions in the best interests of their students; and
• remember that justice and trust are inseparable; you cannot have one without the other.
References


Beugre, C.C. (1998), Managing Fairness in Organizations, Quorum, Westport, CT.


Geist, J. and Hoy, W.K. (2003), "Cultivating a culture of trust: enabling school structure, teacher professionalism, and academic press", unpublished working paper, Ohio State University, Columbus, OH.


II. Leadership

DIRECTIONS: Answer this question thoroughly.

You are asked to prepare a critique of the following professional journal article. In doing so, be certain to include in your discussion the relationship of this article to current literature and related research on this topic. It is also important to employ higher order thinking skills of analysis, synthesis and evaluation in writing your critique.
PART II-LEADERSHIP

"FIVE TRENDS FOR SCHOOLS"
Five Trends for Schools

Shelley Laskoff and Rose Marie Li

Schools in the United States grapple with change as demographics alter the education landscape.

On October 17, 2006, the U.S. population officially reached 300 million, double the nation’s population in 1950. The United States houses less than 5 percent of the world’s population, but it is the third most populous country in the world, after China (1.3 billion) and India (1.1 billion). The United States is expected to be the only developed country on the top-10 list of most populous countries by 2050 (U.S. Census Bureau, 2002a), at which point its population is expected to exceed 410 million.¹

In addition to the rapid growth of the U.S. population, there have been dramatic changes in the population’s composition in the last 50 years: Americans are growing older, more educated, and more diverse. These trends have implications for school districts in terms of enrollment levels, student characteristics, and the resources available for education. Five demographic trends in the United States are influencing school districts around the country.

TREND 1: The Enrollment Roller Coaster

As many long-time school administrators know firsthand, enrollment fluctuations can seem like a roller-coaster ride. U.S. enrollments increased throughout the 1950s and 1960s, peaked in 1970, and fell from the early 1970s through the mid-1980s. This caused many districts to close schools and reduce their teaching staffs. But then enrollment increases accelerated in the late 1980s and grew for the next decade, causing school districts to open new schools, reopen old ones, or otherwise cope with overcrowding.

By the late 1990s, elementary enrollments had leveled off (U.S. Census Bureau, 2007). Today, many districts are experiencing the results of the low birthrate of a decade ago. Most of the children born in 1997—a year that saw the lowest U.S. births in recent years—are now in 4th grade. In many districts, this will be the smallest cohort of students. A recent upward trend in U.S. births may reverse the elementary enrollment decline in a few years.

Meanwhile, many districts are experiencing a high school “bubble” as cohorts born around 1990 reach the high school grades. But high school enrollments will head downward during the next decade and then level off or inch up again, following the elementary trends.

U.S. birth patterns always have some effect on the nation’s school districts, but local conditions can sometimes overpower the national trend. Despite national increases in the number of children of high school age, enrollments did not increase in some urban areas. For example, in Oakland, California, the expected high school bubble never materialized because large numbers of families moved out of the area after the dot-com bust. And California’s Palo Alto Unified School District is experiencing higher—not lower—elementary enrollments due in part to the attractions of Stanford University and some of the state’s highest test-scoring public schools. Moreover, the district has seen an increase in immigrant Asian and Indian households, many of which have larger families than U.S.-born households.

Enrollment declines are often painful for districts, especially when the decline warrants school closures. In general, urban areas have been hardest hit, as families leave the cities and birthrates fall. Even if school buildings remain open, declining enrollments usually mean reduced funding for schools, which can result in teacher losses and program reductions.

TREND 2: Immigration and Diversity

Fertility and mortality rates are relatively low in the United States. When a nation reaches these low levels, which is the case in most developed countries, its population grows slowly and may even decline. At this point, immigration plays a crucial role in population growth.

In 2002, net migration to the United States (the difference between the numbers entering and leaving) was over one million, more than three times higher than the next highest-receiving countries: Afghanistan (300,000), which saw many refugees returning in 2002; Canada (190,000); Germany (180,000); Russia (140,000); United Kingdom (130,000); Italy (120,000); and Singapore (120,000; U.S. Census Bureau, 2002b).
The 1965 amendments to the U.S. Immigration and Nationality Act created a major shift in both the number of arrivals to the United States and their countries of origin, fueling increases in the numbers of entrants from Latin America and Asia. Moreover, once these populations arrive, family reunification laws make it likely that more people from these countries will follow.

In 1970, more than 60 percent of the nation’s 9.6 million foreign-born people originated in Europe, 19 percent in Latin America, 9 percent in Asia, and 10 percent in other areas. By 2000, only 15 percent of the 28.4 million foreign-born population came from Europe. More than half originated in Latin America—with Mexico accounting for more than half of this group—and more than one-quarter came from Asia (primarily from China, the Philippines, India, Vietnam, and Korea; U.S. Census Bureau, 2002a).

Immigrants continue to be attracted to a handful of states—California, New York, Florida, Texas, New Jersey, and Illinois—and half of the nation’s foreign-born population resided in five metropolitan areas in 2000—Los Angeles, New York, San Francisco, Miami, and Chicago (U.S. Census Bureau, 2002a). However, since 2000, the long-standing concentration of Hispanics and Asians in port-of-entry metropolitan areas has been eroding as these two groups disperse inland toward more suburban metropolitan areas (Frey, 2006) and new immigrant hot spots, such as North Carolina, Georgia, and Nevada (Martin & Midgley, 2005).

The advantages and challenges of an ethnically diverse population are being felt throughout the United States. A diverse U.S. population may engender an entrepreneurial spirit and fresh perspectives conducive to new discoveries and approaches. At the same time, the recent influx of Hispanics and Asians to the United States has resulted in greater demands for social and education services, including English as a second language (ESL) instruction. The 2000 Census reported 380 categories of single languages or language families other than English spoken at home. Spanish is the most common, with more than 28 million speakers among this U.S. population 5 years and older, followed by Chinese (2 million); French (1.6 million); German (1.4 million); and Tagalog (1.2 million; Shin & Bruno, 2003).

In 2004, 9.9 million school-age children (ages 5–17) spoke a language other than English at home, representing 19 percent of all children in this age group, a 9 percent increase from 3.7 million in 1979 (U.S. Department of Education, 2006). More than 67 percent of Hispanic children and almost 63 percent of Asian/Pacific Islander children spoke a language other than English at home, compared with only about 5 percent of their white and black counterparts. Of the children who spoke a language other than English at home in 2004, a disproportionate share were U.S.-born or naturalized U.S. citizens (81 percent); poor or near-poor (57 percent); and living in the West (40 percent) and South (29 percent) of the United States. About 2.8 million, or 28 percent of children who spoke a language other than English at home, reportedly spoke English less than “very well.”

Virtually all children and grandchildren of immigrants accept the necessity of learning English (Alba, Logan, Lutz, & Stults, 2002). On the other hand, children in immigrant families are well poised to become proficient bilingual speakers, for which there is a growing need in an increasingly multilingual world. From one-quarter to more than one-half of children in immigrant families speak English well and, at the same time, speak a language other than English at home (Hernandez & Denton, 2005). In 2000, 92 percent of the U.S. population ages 5 and older had no difficulty speaking English (Shin & Bruno, 2003).

An often-overlooked characteristic of migration is that immigrant populations generally assimilate rapidly. Research has shown that second- and third-generation children assimilate on several economic and social measures, such as learning English at young ages, closing the college attendance gap with native-born whites, and achieving more than 50 percent home ownership in middle age.

In terms of residential segregation, generational status also makes a difference. Although immigrants tend to cluster in neighborhoods, second-generation Hispanic adults are about half as clustered as their parents, whereas many Asian groups are even more integrated into the general population. This suggests that ethnicity has less of an effect on indicators of economic and social well-being than does generation, age of arrival, or country of birth (Myers, 2007). Also, the continual flow of new immigrants might mask the fact that Hispanics and Asians are assimilating. Some third-and-greater-generation Hispanics may not even identify themselves as Hispanics, further complicating efforts to measure assimilation.

**TREND 3: THE VARIED HOME FRONT**

Three family characteristics in the United States materially influence a child’s situation: the presence of married parents in the household, poverty, and secure parental employment. Children who live with two married parents generally have access to better economic and social resources and experience more favorable health and education outcomes (Carlson, 2006; Fieds & Smith, 1998). Today, more than two-thirds of children ages 0–17 live in households with two married parents. The percentage has been stable since the mid-1990s but with striking and persistent differences by race and ethnicity (Federal Interagency Forum on Child and Family Statistics, 2006). In 2005, 76 percent of white-alone, non-Hispanic children lived with two married parents, compared with 35 percent of black-alone children and 65 percent of Hispanic children (who may be of any race). For at least the past decade, children with one or more foreign-born parents were more likely to live in two-parent households (81 percent in 2005) than native-born children (68 percent in 2005; Federal Interagency Forum on Child and Family Statistics, 2006).

Children in married-couple families are much less likely to live in poverty than children living with only one parent. In 2004, 9 percent of children in married-couple families lived below the poverty
threshold, compared with 42 percent of children in single-mother families (Federal Interagency Forum on Child and Family Statistics, 2006). Nationally, 17 percent of children under age 18 lived in families with incomes below the poverty threshold.

The proportion living below poverty generally has declined for all household types nationally since the 1990s. This is good news because economic deprivation is associated with a variety of poor outcomes for children at all stages of development, from low birth weight to problems with cognitive development, school achievement, and emotional well-being (Duncan & Brooks-Gunn, 1997).

The period between 1980 and 2004 saw a steady increase in the percentage of children who lived with at least one parent who worked full-time year-round (Federal Interagency Forum on Child and Family Statistics, 2006). Of children living in families with two parents, the percentage with both parents working full-time year-round increased from 17 percent in 1980 to 33 percent in 2000. Since 2000, however, the percentage has slightly dropped.

An increase in parental employment may be a mixed blessing. When both parents work full-time, the family has greater economic resources, and parents may share child-care responsibilities. However, the family's schedule may be more stressful, and parents may be less nurturing, less emotionally available, and less likely to set limits for their children (Schor, 1995).

To improve student performance, schools may need to look increasingly beyond the academic curriculum and offer support to children of working parents outside of normal school hours. This might take the form of after-school enrichment opportunities, organized athletic activities, or meaningful volunteer or community-service projects. Support would also include high-quality child care before and after school, particularly for elementary school students.

TREND 4: An Aging Population

The baby-boom generation will soon reach retirement age. The 55- to 64-year-old population group is projected to be the fastest-growing segment of the U.S. adult population during the next decade. By 2030, the over-65 population will most likely be twice as large as its 2000 counterpart, growing to 71.5 million, or nearly 20 percent of the total U.S. population.

Americans are living longer than ever before. A baby born in 2004 can expect to live almost 78 years, up from 71 years in 1970 (National Center for Health Statistics, 2006). Despite such impressive gains in survival, racial/ethnic and gender disparities persist, although they have narrowed. By far, the largest variation in death rates is by education attainment: In 2002, the age-adjusted death rate for people with fewer than 12 years of schooling was four times higher than that for people ages 25-64 with at least 13 years of schooling (National Center for Health Statistics, 2005).

Each succeeding cohort of older individuals has higher education attainment. Today, 19 percent of people age 65 and over have a college education, compared with only 5 percent of that age group in 1965. And the trend continues: When the baby-boom generation retires, more than 30 percent will have been college educated (Federal Interagency Forum on Child and Family Statistics, 2006). Higher levels of education are usually associated with higher incomes, higher standards of living, above-average health, and longer life expectancy.

The aging of the population necessarily offers challenges for schools. First, districts may lose a large proportion of their most-experienced teachers and administrators during the next two decades. In anticipation of potential labor shortages in K-12 districts, various colleges and some states are developing new programs to encourage second careers in teaching (Posner, 2003). For example, Virginia's community colleges are providing a statewide "career swapper" initiative. Second, an aging population could diminish school funding for education because older and childless voters are generally less supportive of public school funding than are voters with school-age children (Poterba, 1998). In California, most districts exempt seniors from special local parcel or bond taxes. In close elections, this helps ameliorate the potentially negative senior vote on school funding initiatives. Districts in other states with significant proportions of older residents may want to consider adopting similar approaches to protect school budgets.

But the soon-to-retire baby boomers also offer great opportunities for schools. Well-educated, committed, and healthy, many could serve as volunteers in local communities or embark on second careers as teachers and school administrators. Retiree volunteers could help boost a declining education workforce (see The Longevity Dividend, p. 14). The flexibility of part-time work and creative job situations may appeal to prospective teachers in this age-group.

TREND 5: Obesity

Despite the generally positive circumstances of older Americans, unaddressed health issues foreshadow potential problems. Between 1999 and 2002, almost two-thirds of adults (ages 20-74) were considered overweight; almost one-third were considered obese (National Center for Health Statistics, 2005). 3

This problem begins in childhood for many people. According to data from the 1999-2002 National Health and Nutrition Examination Surveys, which collect data from physical examinations throughout the United States, nearly 16 percent of children were considered obese (National Center for Health Statistics, 2005). The historical trend is troublesome; only 4 percent of children were considered obese in the early 1970s. The high percentage of Americans who are physically inactive raises significant concerns because overweight and obesity are risk factors for many chronic diseases and disabilities, including heart disease, hypertension, diabetes, some types of cancers, and back pain. To counter these trends and help establish health-promoting habits early in life, schools should consider placing greater emphasis on health programs, nutrition, and
physical activity during the elementary school years.

The Two Ends of the Spectrum

Compared with 20 years ago, the average child entering school today is less likely to live in a family with two married parents but is more likely to have a living grandparent, reside in a nonpoor family with secure parental employment, encounter classmates of other races and ethnicities who speak a language other than English at home, and become obese. At the other end of the age spectrum, older adults in the United States are, on average, more educated and can expect to live longer and be healthier than previous generations. As involved community members, older adults can serve as intergenerational role models. They can also help schools face the challenges of the 21st century by sharing their skills and experiences and contributing to improving school and after-school learning environments in their neighborhoods.

The Longevity Dividend

With the growth of an elderly population destined to live longer and healthier, it makes sense to harness the experience and social capital of older adults—not just for the benefit of future generations but also for their own good health. One key to successful psychological aging is “generativity,” the opportunity to leave the world better for future generations through productive, meaningful engagement (Fried et al., 2004). Generative roles not only give meaning and purpose but also provide social engagement, which has been shown to maintain cognition, decrease disability, and delay mortality. Findings also indicate that loneliness has implications for health (Cacioppo et al., 2002).

The challenge for our aging society is to provide opportunities for the elderly to engage in meaningful roles after retirement. Experience Corps (www.experiencecorps.org) does just that (see “The Value of Experience,” Educational Leadership, March 2003). Launched in 1995, the program seeks to:

- Channel the talent and energy of growing numbers of older adults into public and community service.
- Provide significant benefits for the older people who participate.
- Achieve real outcomes in the community.

Now active in 19 U.S. cities, the program enlists volunteers ages 55 years and older to serve in public elementary schools (grades K–3).

Volunteers ideally commit to at least 15 hours each week for a full school year and are paid a monthly stipend to cover expenses. Experience Corps projects piece a critical mass of tutors and mentors at each school so that the presence of the older adults influences the climate of the entire school. Volunteers are involved in academic support (literacy, math, and computer support; working in school libraries); behavioral support (conflict resolution, positive attention); school attendance, parental outreach, and public health (asthma club).

Initial results suggest that high-intensity volunteerism can lead to improvements in the level of physical activity among previously physically inactive volunteers. The program also can lead to meaningful improvements in student reading scores and to a reduction in student behavior problems. Moreover, as Experience Corps members engage with students and teachers and take on key leadership roles, they create healthier and more positive perceptions about aging in the schools and communities in which they work.

References


References


Endnotes

1 In contrast, the population in more than half of the world’s developed countries is expected to decline over the next 50 years. By 2050, Germany’s current population of 82 million and Japan’s current population of 127 million are expected to fall below 74 million and 100 million, respectively (U.S. Census Bureau, 2006).

2 The “white-alone” and “black-alone” categories refer to those who indicate only one racial category.

3 For adults, obesity is defined as a body mass index greater than or equal to 30; overweight (including obese) is a body mass index greater than or equal to 25.

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III. Curriculum

DIRECTIONS: Answer this question thoroughly.

You are asked to prepare a critique of the following professional journal article. In doing so, be certain to include in your discussion the relationship of this article to current literature and related research on this topic. It is also important to employ higher order thinking skills of analysis, synthesis and evaluation in writing your critique.
PART III-CURRICULUM

“CURRICULUM MAPPING AS PROFESSIONAL DEVELOPMENT”
Curriculum Mapping as Professional Development
Using Maps to Jump-Start Collaboration
Michael S. Mills

To make sure students have a high-quality education, instructional leaders must now more than ever take up the charge to redesign professional development into a bold, substantive use of time for veteran and novice teachers alike. Curriculum mapping is one powerful way to sharpen teachers’ curriculum-design and teaching skills while promoting collaboration across subjects and grade levels.

Mapping, a system of curriculum analysis and alignment, has been cited as a valuable component of curriculum renewal and staff development (English, 1983; Jacobs, 1997). Foremost, curriculum mapping offers the much-needed flexibility to address the changing curricular needs of school districts. Its reliance on a broad range of teacher participation also strengthens any efforts to restructure the curriculum of a school or district.

Our ongoing project at Sheridan High School in Sheridan, Ark., outside Little Rock, involves mapping the school’s entire curriculum so that every person involved in the educational process—students, parents, teachers, administrators, and others—can have an overview of what we teach. Part of this project, which began in the 2001–02 school year, calls for teachers from different disciplines to review each subject area’s map. This enables science instructors to see where their own curriculum might coordinate with the math department’s objectives, or allows English teachers to see when they might help a history teacher who has assigned a research paper. A dynamic and data-driven model of learning, curriculum mapping can replace the often unused and dusty curriculum guides on teachers’ shelves.

Lesson Planning and Reflection
To ensure success for all students, schools should be committed to regular planning of and reflection upon what is taught. At the beginning of each six-week teaching period, faculty members at Sheridan complete a lesson plan template outlining what they will teach. The formatted lesson plan includes the following:

- Content and skills to be covered.
- State subject area and learning standards to be mastered.
- Assessment strategies.
- Essential questions, which serve as the scope and sequence of a unit.

Using the formatted lesson plan as an overview, the teachers then create their daily lesson plans. At the end of each month, teachers reflect upon what they outlined in the formatted lesson plan and then create a curriculum map of what they actually taught.

For example, a formatted lesson plan for teaching Hamlet might contain the following:

- Content—the play itself.
- Related skills and state standards—write a coherent, unified essay that focuses on one of the curriculum's essential questions, such as "How is the concept of existentialism expressed in Shakespeare's Hamlet?"

- Assessment—an open-response prompt with an excerpt from the play, which will also give students practice with similar questions in an 11th grade end-of-course literacy test.

**Creating the Curriculum Map**

The curriculum map has the same components as the formatted lesson plan. If a teacher has kept to the plan, creating the map becomes a matter of cutting and pasting from one computer file to another. More often than not, however, gaps in or additions to the actual instruction will appear on the map.

Just as formatted lesson plans represent an intention of what is to be taught, maps are the reality of what has been taught (Jacobs, 1997). Once the formatted lesson plans exist, the instruction has taken place, and each teacher has completed a map of what he actually taught, the faculty can then compare the curriculum in various ways: within a subject area or department, across all disciplines, or across grade levels. This process of comparing, referred to as articulation, usually reveals repetition or gaps in the curriculum. For example, if a 9th grade algebra teacher and a 10th grade geometry teacher are both teaching polynomials, articulation reveals the repetition and raises the question about why the topic is being taught twice. Articulation also helps to determine whether what a teacher says she's teaching is what her students are actually learning by revealing topics or skills, across grade levels, where remediation most often occurs.

It is essential that all teachers be involved in this formal process of curriculum realignment and articulation. Teachers' collaboration with their peers promotes a commitment to adhering to specific state and organizational curriculum frameworks and to a team approach to teaching all students in all disciplines.

Beginning the curriculum mapping process can be difficult across a school district. In Sheridan, for example, schools are grouped into four levels—elementary, intermediate, junior high, and high school—and each is working at mapping at a different rate. There is also the issue of sharing maps unless they are accessible in a central database. Adopting a systematic yet flexible process is vital to counteract nonprogressive sentiments and the false sense of autonomy of many teachers, particularly those in the secondary school settings (Jacobs, 2001). Curricular isolation does not fit with a 21st century school model; subjects are much too interrelated for teachers to be entrenched in autonomous and unilateral curriculum decisions.

Therefore, planning the stages of the mapping project before teachers actually map is crucial. Whether the mapping is to take place on a district or school level, its organizers will need to establish structures for collecting, reviewing, reflecting on, and collaboratively using the curriculum information that will be forthcoming.

To bring about real and sustained improvement in student learning and achievement, educators must primarily rely on cold, hard data that can be seen side by side with curriculum maps. Instructional leaders may claim that a particular program is successful, but they should also ask, Successful to what end? If the goal is to improve student achievement on state benchmarks, do educators make sure that subtest scores are analyzed? Does the school know how to interpret the results and share them with parents and other stakeholders? For these and other questions, instructional leaders must continually assess how professional development can integrate data collection with the mapping process.

**Refining the Process**

Instructional leaders should also evaluate and note the efficiency and relative success of each professional development session during the mapping process and make improvements from those observations. At one all-day cross-curricular mapping session, leaders hosted a working lunch to help teachers stay on task, ease personal tensions, and avoid extending the working day.

Data-driven analysis is the main benefit of mapping. Ideally, a computer database would help teachers and administrators establish and assess meaningful activities and programs in a timely and efficient way. A central database, which Sheridan High School does not yet have, would also permit easy collaboration with other schools in the district.

Mapping also gives credence to what teachers do and validates the curriculum. Inherent in the success of the mapping process is knowing where students are supposed to be going in coverage
of content and to what extent they have reached their objectives. Curriculum maps can help guide students and show teachers that what they are teaching is actually being learned and used. Collaboration through critical feedback based on data is vital to the success of the student as learner and the teacher as teacher (Costa & Kalllick, 1993).

Making Mapping Part of the School Culture

A long-term commitment to mapping can come only by infusing the process into the culture of the school. Commitment is developed when teachers understand the workings and the value of the process. At Sheridan, we insisted that the mapping process could not be rushed. This idea of acclimating everybody to the idea is vital; after all, it can be jarring for a veteran teacher to do something different after two decades of established routines. In our first year, teachers just drew up individual maps, which eased them into the process. Encouragement also came in the form of professional leave time, inservice training, and guided departmental meetings. Teachers thus had the opportunity to view mapping not as a passing educational fad but as a working model of curriculum alignment and articulation that ultimately makes better use of teacher time and school resources.

Mapping Tips

The following suggestions can give schools a solid start on the road of curriculum mapping:

- **Have teachers lead the process.** At Sheridan, teachers as curriculum coaches are instructional leaders. Several teachers even volunteered to get the information on mapping on their own time during spring break. Their leadership lent credibility to the mapping process so it was not perceived as a "top-down" activity.

- **Don’t rush, and be flexible.** Don’t fall in love with the process. Be willing to modify anything, whether it is a data entry form, a submission policy for maps, or a decision about how subject area teachers can best collaborate. Flexibility makes the mapping program more realistic and inviting. For example, Sheridan allowed the math department teachers to move ahead at a faster rate because of earlier work they had done in curriculum alignment.

- **Use technology.** Using computerized document templates or a comprehensive database will ultimately pay off in reduced data entry time and dissemination of mapping findings.

- **Focus on long-term progress.** Mapping is a continuous, long-term commitment. There should never be a final document from this practice that cements the curriculum. Curriculum planning is continuous and dynamic—don’t ever forget that.

References


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IV. Research

K-12 Research - Comprehensive Exam Question:

The material in the exam could relate either to research in general, or to a more specific ‘Type’ of research, such as evaluation research, action research, etc. You should draw upon your own experience and knowledge in establishing the problem and related questions.

A. Develop a problem statement based on the need to understand how the teaching of character development may influence student learning, peer relationships and school engagement among high school students.

- The problem statement should define the scope (magnitude) and the precise nature of the problem, as well as, the usefulness of framing the problem in this form.

B. Develop research questions that derive logically from the problem statement.

C. Develop a research design that would allow you to answer the research questions that you have posed. The design should be comprehensive, addressing all aspects of the research process.
V. Statistics

You must answer all the statistics questions. Be sure to support all answers by citing the relevant statistics from the outputs. Please read the description of the variables before answering the question.

Overview of the data.

All the outputs are based on a study of arts integration. The variables are as follows:

<table>
<thead>
<tr>
<th>Variable</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Treatment Status</td>
<td>Dummy Coded</td>
</tr>
<tr>
<td></td>
<td>0 Control Group</td>
</tr>
<tr>
<td></td>
<td>1 Treatment group- students are in the arts integration project</td>
</tr>
<tr>
<td>Grade</td>
<td>Grade levels in which the project was implemented: Grades 4 and 5</td>
</tr>
<tr>
<td>Belief that they can demonstrate what they know through the theatre arts posttests</td>
<td>End of year data collected on all students on their beliefs that the arts are useful ways for them to show what they know. This variable is scaled in a direction that implies that the higher the values the more positive were students' beliefs.</td>
</tr>
<tr>
<td>o I would like to have more workshops with the artists</td>
<td>All three variables represent students' evaluation of the theatre arts workshops that were conducted by teaching artists. The workshops were given to only students in the treatment group. These variables were scaled in a direction that implies that the higher the values the more positive were students' evaluations of the workshops.</td>
</tr>
<tr>
<td>o I feel that the workshops help me to remember my schoolwork</td>
<td></td>
</tr>
<tr>
<td>o The workshops made learning fun</td>
<td></td>
</tr>
<tr>
<td>Staying on task</td>
<td>Teachers' evaluations of students' time on task. The higher the score, the more likely were teachers to rate a student as staying on task.</td>
</tr>
<tr>
<td>I can show what 1 drawing, dancing, and acting</td>
<td>This variable should read: I can show what I know through drawing, dancing, and acting. The higher the score, the more positive were students' beliefs.</td>
</tr>
<tr>
<td>Volunteering in class</td>
<td>Teachers' evaluations of the extent to which students' volunteer in class. The higher the score, the more likely were teachers to rate a student as exhibiting volunteering behaviors.</td>
</tr>
</tbody>
</table>

Question 1: Describe how treatment status and student grade level influence students' beliefs about how the arts provide them with ways of demonstrating their knowledge. (Output 1).
Question 2: How would you describe the ability of students' exposure to artist led workshops to predict students' beliefs about their abilities to demonstrate their knowledge through various art forms? (Output 2).

Question 3: In your opinion, which of the three models provides the best explanation of language arts?

Question 4: Write a three paragraph statement on the implications of the analyses that you have conducted in questions 1, 2, and 3.
Univariate Analysis of Variance

Between-Subjects Factors

<table>
<thead>
<tr>
<th>Value Label</th>
<th>N</th>
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</thead>
<tbody>
<tr>
<td>Control</td>
<td>444</td>
</tr>
<tr>
<td>Treatment</td>
<td>519</td>
</tr>
<tr>
<td>4</td>
<td>473</td>
</tr>
<tr>
<td>5</td>
<td>490</td>
</tr>
</tbody>
</table>

Descriptive Statistics

Dependent Variable: Belief that they can demonstrate what they know through the theatre arts postests

<table>
<thead>
<tr>
<th>Treatment status</th>
<th>Student's grade level</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>N</th>
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</thead>
<tbody>
<tr>
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<td>7.5760</td>
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<td></td>
<td>5</td>
<td>6.8943</td>
<td>2.09240</td>
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<td>Treatment</td>
<td>4</td>
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<td>2.03908</td>
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<td></td>
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<td>Total</td>
<td>4</td>
<td>7.6004</td>
<td>2.07154</td>
<td>473</td>
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<td>5</td>
<td>7.3735</td>
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<td>7.4849</td>
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</table>

Tests of Between-Subjects Effects

Dependent Variable: Belief that they can demonstrate what they know through the theatre arts postests

<table>
<thead>
<tr>
<th>Source</th>
<th>Type III Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig</th>
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</thead>
<tbody>
<tr>
<td>Corrected Model</td>
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<tr>
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<td>53385.798</td>
<td>13057.856</td>
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<tr>
<td>Status</td>
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<td>52.599</td>
<td>12.866</td>
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<tr>
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<td>15.909</td>
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</tr>
<tr>
<td>Status * Grade</td>
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<td>42.977</td>
<td>10.512</td>
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</tr>
<tr>
<td>Error</td>
<td>3920.780</td>
<td>959</td>
<td>4.088</td>
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<td></td>
</tr>
<tr>
<td>Total</td>
<td>57982.000</td>
<td>963</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corrected Total</td>
<td>4030.532</td>
<td>962</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. R Squared = .027 (Adjusted R Squared = .024)

Estimated Marginal Means

1. Treatment status

Dependent Variable: Belief that they can demonstrate what they know through the theatre arts postests

<table>
<thead>
<tr>
<th>Treatment status</th>
<th>Mean</th>
<th>Std. Error</th>
<th>95% Confidence Interval</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>Std. Error</td>
<td>Lower Bound</td>
</tr>
<tr>
<td>Control</td>
<td>7.235</td>
<td>.096</td>
<td>7.047</td>
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<tr>
<td>Treatment</td>
<td>7.704</td>
<td>.089</td>
<td>7.530</td>
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</tbody>
</table>
2. Student's grade level

Dependent Variable: Belief that they can demonstrate what they know through the theatre arts posttests

<table>
<thead>
<tr>
<th>Student's grade level</th>
<th>Mean</th>
<th>Std. Error</th>
<th>95% Confidence Interval</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Lower Bound</td>
</tr>
<tr>
<td>4</td>
<td>7.599</td>
<td>0.093</td>
<td>7.415</td>
</tr>
<tr>
<td>5</td>
<td>7.341</td>
<td>0.082</td>
<td>7.161</td>
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</table>

3. Treatment status * Student's grade level

Dependent Variable: Belief that they can demonstrate what they know through the theatre arts posttests

<table>
<thead>
<tr>
<th>Treatment status</th>
<th>Student's grade level</th>
<th>Mean</th>
<th>Std. Error</th>
<th>95% Confidence Interval</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Lower Bound</td>
</tr>
<tr>
<td>Control</td>
<td>4</td>
<td>7.576</td>
<td>0.137</td>
<td>7.307</td>
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<td>6.894</td>
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<td>0.126</td>
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<tr>
<td></td>
<td>5</td>
<td>7.787</td>
<td>0.125</td>
<td>7.542</td>
</tr>
</tbody>
</table>

Profile Plots

Estimated Marginal Means of Belief that they can demonstrate what they know through the theatre arts posttests

[Graph showing estimated marginal means with Treatment status levels marked as Control and Treatment]
Regression

Variables Entered/Removed\(^b\)

<table>
<thead>
<tr>
<th>Model</th>
<th>Variables Entered</th>
<th>Variables Removed</th>
<th>Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>I would like to have more workshops with the artists, I feel that the workshops help me to remember my schoolwork, The workshops made learning fun(^a)</td>
<td></td>
<td>Enter</td>
</tr>
</tbody>
</table>

\(^a\) All requested variables entered.

\(^b\) Dependent Variable: Belief that they can demonstrate what they know through the theatre arts postests

Model Summary

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.392(^a)</td>
<td>.154</td>
<td>.150</td>
<td>1.83176</td>
</tr>
</tbody>
</table>

\(^a\) Predictors: (Constant), I would like to have more workshops with the artists, I feel that the workshops help me to remember my schoolwork, The workshops made learning fun

ANOVA\(^b\)

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>419.825</td>
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<td>139.942</td>
<td>41.707</td>
<td>.000(^a)</td>
</tr>
<tr>
<td>Residual</td>
<td>2308.487</td>
<td>688</td>
<td>3.355</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>2728.312</td>
<td>691</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

\(^a\) Predictors: (Constant), I would like to have more workshops with the artists, I feel that the workshops help me to remember my schoolwork, The workshops made learning fun

\(^b\) Dependent Variable: Belief that they can demonstrate what they know through the theatre arts postests
<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>(Constant)</td>
<td>3.421</td>
<td>.391</td>
<td>8.757</td>
</tr>
<tr>
<td></td>
<td>The workshops made learning fun</td>
<td>.434</td>
<td>.128</td>
<td>.151</td>
</tr>
<tr>
<td></td>
<td>I feel that the workshops help me to remember my schoolwork</td>
<td>.380</td>
<td>.088</td>
<td>.166</td>
</tr>
<tr>
<td></td>
<td>I would like to have more workshops with the artists</td>
<td>.432</td>
<td>.109</td>
<td>.176</td>
</tr>
</tbody>
</table>

a. Dependent Variable: Belief that they can demonstrate what they know through the theatre arts postests
### Variables Entered/Removed

<table>
<thead>
<tr>
<th>Model</th>
<th>Variables Entered</th>
<th>Variables Removed</th>
<th>Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Staying on task, Tardiness</td>
<td></td>
<td>Enter</td>
</tr>
<tr>
<td>2</td>
<td>I can show what I...drawing,dancing and acting, and acting</td>
<td></td>
<td>Enter</td>
</tr>
<tr>
<td>3</td>
<td>Volunteering in class</td>
<td></td>
<td>Enter</td>
</tr>
</tbody>
</table>

a. All requested variables entered.
b. Dependent Variable: Academic performance in language arts

### Model Summary

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.456&lt;sup&gt;a&lt;/sup&gt;</td>
<td>.208</td>
<td>.206</td>
<td>.446</td>
</tr>
<tr>
<td>2</td>
<td>.466&lt;sup&gt;b&lt;/sup&gt;</td>
<td>.217</td>
<td>.214</td>
<td>.443</td>
</tr>
<tr>
<td>3</td>
<td>.516&lt;sup&gt;c&lt;/sup&gt;</td>
<td>.266</td>
<td>.262</td>
<td>.429</td>
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</table>

### Change Statistics

<table>
<thead>
<tr>
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<th>R Square Change</th>
<th>F Change</th>
<th>df1</th>
<th>df2</th>
<th>Sig. F Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.208</td>
<td>98.905</td>
<td>2</td>
<td>755</td>
<td>.000</td>
</tr>
<tr>
<td>2</td>
<td>.009</td>
<td>8.956</td>
<td>1</td>
<td>754</td>
<td>.003</td>
</tr>
<tr>
<td>3</td>
<td>.049</td>
<td>50.495</td>
<td>1</td>
<td>753</td>
<td>.000</td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), Staying on task, Tardiness
b. Predictors: (Constant), Staying on task, Tardiness, I can show what I...drawing,dancing and acting and acting
c. Predictors: (Constant), Staying on task, Tardiness, I can show what I...drawing,dancing and acting and acting, Volunteering in class
### ANOVA

<table>
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<tr>
<th>Model</th>
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<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
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</thead>
<tbody>
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<td>755</td>
<td>.199</td>
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<tr>
<td></td>
<td>Total</td>
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<td>757</td>
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<td></td>
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<tr>
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<td>Regression</td>
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<td>754</td>
<td>.197</td>
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<td></td>
<td>Total</td>
<td>189,203</td>
<td>757</td>
<td></td>
<td></td>
</tr>
<tr>
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<td>Regression</td>
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<td>Total</td>
<td>189,203</td>
<td>757</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), Staying on task, Tardiness  
b. Predictors: (Constant), Staying on task, Tardiness, I can show what I...drawing,dancing and acting and acting  
c. Predictors: (Constant), Staying on task, Tardiness, I can show what I...drawing,dancing and acting and acting, Volunteering in class  
d. Dependent Variable: Academic performance in language arts

### Coefficients

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
</tr>
<tr>
<td>1</td>
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<td>.108</td>
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<td>.055</td>
<td>.111</td>
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<td>Tardiness</td>
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<td>.058</td>
<td>.111</td>
</tr>
<tr>
<td></td>
<td>Staying on task</td>
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<td>.035</td>
<td>.420</td>
</tr>
<tr>
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<td>.041</td>
<td>.014</td>
<td>.097</td>
</tr>
<tr>
<td>3</td>
<td>(Constant)</td>
<td>.199</td>
<td>.054</td>
<td>.065</td>
</tr>
<tr>
<td></td>
<td>Tardiness</td>
<td>.111</td>
<td>.057</td>
<td>.065</td>
</tr>
<tr>
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<td>Staying on task</td>
<td>.360</td>
<td>.036</td>
<td>.351</td>
</tr>
<tr>
<td></td>
<td>I can show what I...drawing,dancing and acting and acting</td>
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<td>.013</td>
<td>.096</td>
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<tr>
<td></td>
<td>Volunteering in class</td>
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</tbody>
</table>

a. Dependent Variable: Academic performance in language arts
### Excluded Variables

<table>
<thead>
<tr>
<th>Model</th>
<th>I can show what I... drawing, dancing and acting and acting</th>
<th>Beta In</th>
<th>t</th>
<th>Sig.</th>
<th>Partial Correlation</th>
<th>Collinearity Statistics</th>
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<tbody>
<tr>
<td>1</td>
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<td>.003</td>
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<td>.993</td>
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<td>.000</td>
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<td>.852</td>
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</tbody>
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a. Predictors in the Model: (Constant), Staying on task, Tardiness

b. Predictors in the Model: (Constant), Staying on task, Tardiness, I can show what I...drawing, dancing and acting and acting

c. Dependent Variable: Academic performance in language arts