
Leadership in the Effective Change Zone: A Case Study of the High-Touch Needs of Educators Implementing the Georgia Performance Standards

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INTRODUCTION

Successfully implementing and sustaining large-scale education innovations such as the Georgia Performance Standards require that local educational leaders attend to both external and internal forces that impact their respective schools (Kaufman, Herman, & Watters, 2002). However, the ability to effectively manage people, things, and ideas in the change process also requires that educational leaders develop a focus on providing for the micro-contextual organizational, personal, and professional high-touch needs of school personnel (Hall & Hord, 2006). Educational leaders who actualize an acute emphasis on the human side of change operate in the *effective change zone*. This is the zone, "...where high-touch interpersonal management practices, based on meeting personal and professional needs, intersect or commingle with the application of appropriate organizational management practices" (Polka, 2007, p. 12). Educational leaders who operate in this zone have a greater potential for successfully implementing and sustaining innovations (Fullan, 2005). In this paper, the significance to educational leaders of recognizing the impact of both their respective macro and micro contexts on implementing innovations will be explored. Specifically, a case study of the high-touch needs of school personnel implementing the Georgia Performance Standards will be examined to identify the value to educational leaders of operating in the *effective change zone* when dealing within their micro-context.

EDUCATIONAL CHANGE SYSTEMS APPROACH

The institution of schooling has been classified as an open social system that is impacted by its environment, including both the macro and micro contexts, in such a manner that as the environment or context changes so does the institution of schooling (Hoy & Miskel, 2005). The institution of schooling is constantly evolving in structure and substance as society evolves. This conceptual perspective is consistent with the seminal works of von Bertalanffy (1950) and Senge (1990) in that the internal as well as the external influences on the system impact its growth and development (Norton, 2005). Such an approach views education as the sum of various components working inter-dependently within its context in order to continue to achieve its constantly evolving education goals, and any change in one component of the system evokes a change in the others (Kaufman, Herman, & Watters, 2002; Norton). However, as Hoy and Miskel adroitly pointed out, "To survive the organization must adapt and to adapt, it must change" (p. 20). Therefore, change is a pre-requisite for continuous open system growth, and education in the United States pragmatically demonstrates this concept.

A synthesis of over 75 years of education system literature concluded that schools are externally impacted by the values and resources of their community contexts including local

and regional politics and that those employed in those systems act on the basis of their respective human needs and roles (Hoy & Miskell, 2005; Norton, 2005). Consequently, educational leaders must be knowledgeable about their contexts and the various internal and external dynamics that impact schooling in America. Educational leaders need to be prepared to envision more comprehensively and more perceptively the next emerging developments that may affect their respective schools. They must continuously update their macro-perspectives as well as their micro-perspectives relating to education changes to appropriately and effectively manage in both present and future tenses (James, 1997).

EFFECTIVE CHANGE ZONE MICRO-CONTEXT MANAGEMENT

Educational leaders who operate in the *effective change zone* utilize key organizational planning processes and provide for the high-touch micro-contextual needs of the personnel who are implementing changes. The *effective change zone* is to organizational change as the *zone of proximal development* is to individual change (Kauchak & Eggen, 2008). It is the key time or condition where learning and behavioral change is optimum or as Slavin stated, "...the point of readiness for a given concept" (p. 44). Organizationally, the *effective change zone* occurs where high-touch interpersonal management practices intersect with the application of appropriate planning concepts. The following Venn diagram, Figure #1, illustrates this concept:

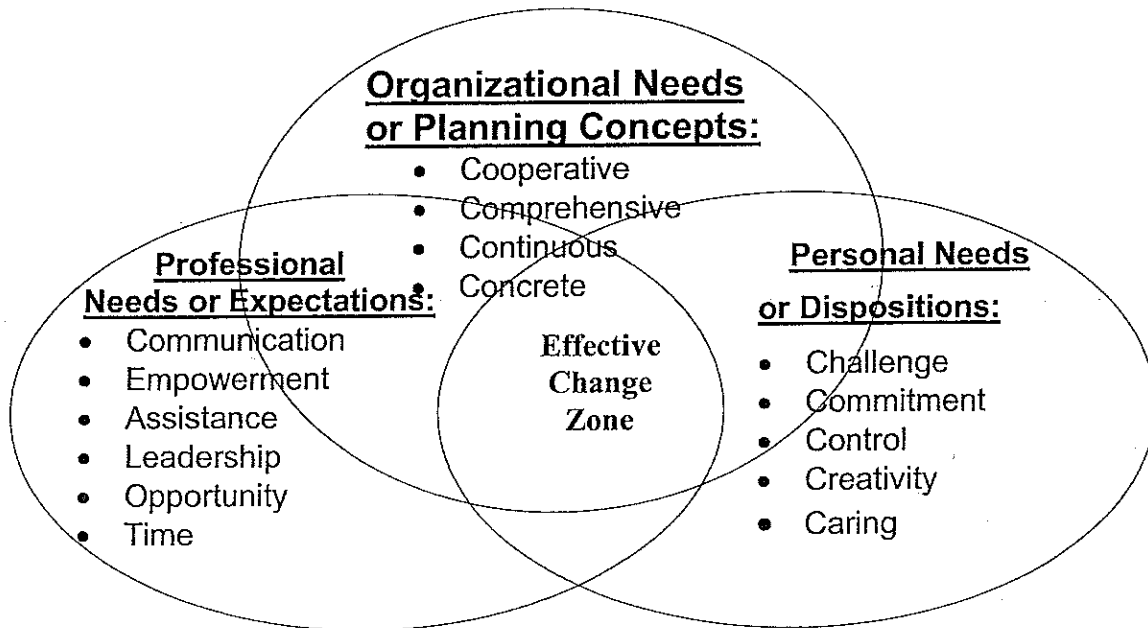


Figure 1. The effective change zone (Polka, 2007).

Transformational leaders are most efficacious in managing in the *effective change zone* since they are proactive, raise the awareness levels of followers about collective interests, and help followers achieve unusually high performance outcomes (Hoy & Miskel, 2005). They manage the issues in a systematic manner by scaffolding complex changes using simple, but sound, organizational planning principles that can be appreciated, articulated and internalized by all involved (Hall & Hord, 2006). They are cognizant of the importance that individuals

place on their respective organizational needs, personal needs, and professional needs. They are aware of the research findings regarding these needs so that they may address them most appropriately (Polka, Mattai & Perry, 2000).

ORGANIZATIONAL NEEDS RESEARCH

Education planning as a strategic process for the improvement of teaching and learning first appeared in the educational literature of the post-World War I era (Ornstein & Hunkins, 2004). But, education leaders have utilized several different approaches in designing programs to improve teaching and learning in light of changing societal factors (Hyman, 1973; Brandt, 2000). However, a cogent planning framework that has effectively been utilized since the later half of the 20th century to improve schooling is based on the premise that sound organization planning activities for improvement incorporate the following four key concepts: (a) *cooperative*, (b) *comprehensive*, (c) *continuous*, and (d) *concrete* (Beane, Toepfer & Alessi, 1986; Harnack, 1968; Hyman; Krug, 1957; Marzano, 2003; Parkay, Anctil, & Hass, 2006; Unruh, 1975).

Accordingly, planning for change must not be completed by individuals or small groups, exclusively, but should be undertaken by large groups of stakeholders working in *co-operative* settings to develop implementation projects. The more people involved in the decision-making and problem analysis of innovations the better and more sustainable the solution (Beane, Toepfer & Alessi, 1986; Harnack, 1968; Marzano, 2003; Unruh, 1975). The planning process itself must be *comprehensive* and consider a vast array of real and potential intervening variables (ie. people, things, and ideas) that may impact on the implementation of change (Kaufman, Herman, & Watters, 2002). The planning process must be viewed as a *continuous* experience that may not have a specific end-date. There must be continuous monitoring and adjusting of the innovation itself as the context changes (Brant; Kaufman, Herman & Watters; Krug). The planning process must produce specific artifacts or events related to the innovation in order for participants in the process to have *concrete* evidence that they can identify and celebrate as the outcomes of their collective efforts (Marzano; Polka, 2007).

PERSONAL NEEDS RESEARCH

During the dusk of the 20th century, social science research and literature on coping with change reinforced the significance of the following five high-touch personal needs or dispositions: challenge, commitment, control, creativity and caring. Those personal needs were also identified as meaningful for organizational, personal, and professional satisfaction and productivity in a climate of pervasive flux (Polka, Mattai & Perry, 2000).

Various researchers recommended that each individual facing significant changes in their life must have their respective personal needs met to successfully cope (Csikszentmihaly, 1990; Kobasa, Maddi & Kahn, 1982; Glasser, 1990; DePree, 1989). Specifically, an individual confronting change must look at life as a constant challenge and develop the ability to see change as an opportunity, not a crisis (Csikszentmihaly). Also, people who are able to cope successfully with significant life changes exhibit a strong commitment to themselves, their families, and their organizations (Kobasa, Maddi & Kahn). In addition, individuals who believe, and act as if they are in control can influence the course of events in their particular lives and are better prepared for change (Glasser). People who, also, possess the creativity to envision optimal experiences are able to cope most effectively with change (Csikszentmi-

haly). Finally, a factor that helps individuals cope with change is a caring family attitude in the work place since it reinforces high-touch feelings in another environment of significance to the individual (DePree).

The five high-touch personal dispositions have also been cited as the key hardiness factors that contributed to the success of organizations that, "... have made the leap from good to great" (Collins, 2000, p. 82). Therefore, *challenge, commitment, control, creativity* and *caring* are key personal needs that must be addressed when introducing any changes in organizations since the individuals who make up the organization possess them (Stossel, 1992).

PROFESSIONAL NEEDS RESEARCH

The following six professional high-touch needs or expectations: communication, empowerment, assistance, leadership, opportunity, and time have been comprehensively articulated in the education research and literature about improving student achievement in schools (Danielson, 2002; Darling-Hammond, 1997; Marzano, 2003; Harnack, 1968). The significance of these six professional needs as related to effective curriculum implementation activities was confirmed by various research studies (Miller, 1981; Polka, 1977; Yuhasz, 1974). Those six needs are integral components of the late 20th century literature and research about the professional considerations of most significance in terms of dealing with change (Beane, Toepfer & Alessi, 1986; Brandt, 2000; Hall & Hord, 2006). Subsequently, leaders promulgating changes in their respective organizations must be certain that the people being impacted by those changes have:

(a) the ability to know (communicate) diverse thinking and feeling concerns about the changes; (b) the ability to have significant input (empowerment) relating to the applications of the changes in their work settings; (c) resource personnel available (assistance) to help scaffold their experiences (d) knowledge that their supervisors (leadership) are sincerely committed to the changes; (e) comprehension of both the personal and organizational benefits (opportunities) associated with the changes; and (f) time to reflect about the changes (time) to internalize the benefits and pragmatically apply the changes in their daily operations. (Polka, 2007, p. 13)

Consequently, the above six high-touch professional needs or expectations of people experiencing change are critical to its successful short-term implementation, as well as significant to its long-term sustainability (Kotter & Cohen, 2002; Hall & Hord, 2006).

EFFECTIVE CHANGE ZONE IMPLICATIONS

Therefore, the above five personal needs or dispositions and the six professional needs or expectations as well as the four key concepts of sound organizational planning have been identified as significant micro-contextual components for personal satisfaction and organizational productivity in diverse research studies and serve as major high-touch references for the effective planning, implementation, and sustainment of education changes. This perspective is consistent with the "real change" research of Kotter and Cohen (2002) who stated, "Both thinking and feeling are essential, and both are found in successful organizations, but the heart of change is in the emotions. The flow of see-feel-change is more powerful than that of the analysis-think-change" (p. 2).

The significance of possessing a high-touch focus for school leaders and the imperative to manage in the effective change zone was emphasized by management authorities,

Everyone must take responsibility for understanding the concerns that they and other people have about change, and they must also be willing to ask for what they need and be there for others in their time of need Effective change is not something you do to people. It is something you do with them. (Blanchard & Waghorn, 1997, pp. 200–201)

Fullen (2005) corroborated this perception by insisting that sustainable changes in education are promoted by leaders who help people find meaningful connections to each other in their respective school contexts, "... they find well-being by making progress on problems important to their peers and of benefit beyond themselves" (p. 104). Leaders encourage the implementers to learn from each other in the finest Vygotskian tradition, by helping each other in the effective change zone, using both personal artistry and sound management science principles (Slavin, 2003). Thus, educational leaders operating in the effective change zone utilize key organizational planning processes and provide for the above high-touch micro-contextual needs of their respective personnel as they promote and sustain innovations (see Figure 1).

MANAGING IN THE EFFECTIVE CHANGE ZONE CASE STUDY RESEARCH

Research conducted in New York commencing in early 1992, with a sample of 279 educators, specifically identified the significance of the five personal needs and the six professional needs for the implementation of technological changes in education (Polka, 1994). Another study, involving 312 educators replicated that research and reconfirmed the significance of those high-touch micro-contextual needs as key factors to be addressed when dealing with educational changes (Polka, Mattai, & Perry, 2000). The results of these studies illustrated that education leaders must not only be cognizant of these high-touch needs but must directly provide for them in a customized manner to promote meaningful changes in their respective schools and districts.

Those research findings were corroborated by a study of more than 1200 teachers that found that the interpersonal relationships exhibited by educational leaders were the most critical factors that made a difference in facilitating effective school reforms (Blasé & Kirby, 2000). Subsequently, educational leaders need to recognize that there may be diverse hierarchies of these high-touch personal and professional needs within their respective organizations and they must be prepared to provide for them in appropriate ways.

Doctoral students at Georgia Southern University enrolled in the Augusta, Savannah, and Statesboro cohorts in 2007 reviewed the above research and literature regarding the effective change zone needs of educators implementing innovations. Those 35 doctoral students and their professor, decided to develop a questionnaire, based on those previously cited studies, and conduct research about the contemporary organizational, personal, and professional needs of Georgia educators implementing the new state student achievement standards.

THE GEORGIA PERFORMANCE STANDARDS CASE STUDY

The Georgia Performance Standards (GPS), a comprehensive set of specific student achievement standards were first introduced in the state of Georgia in 2004 during phase I of

the project. The State Superintendent of Schools, Kathy Cox, specifically identified the purpose of this statewide innovation in the following official statement:

The GPS will change how teachers teach and will positively impact how students learn. All elements of teaching and learning will be affected. Teachers will be planning their lessons based on our new performance standards and designing learning activities to engage their students. And assessments aligned to the GPS will prove that students understand the materials they are being taught. This is a “show what you know” curriculum. If our tests are designed well and align to the standards being taught, our students will perform better than ever. (Cox, 2004, p. 2)

Subsequently, during that first phase in 2004–2005 school year, there were several professional development workshops and presentations for educators designed to help them appreciate the purpose and the impact of the GPS on their instructional programs. Cox reiterated the significance of the GPS standards during that initial phase by emphasizing,

The new performance standards are not optional. GPS is our state’s curriculum. Systems and schools across our state will be measured against these new standards for making Adequate Yearly Progress—but more importantly for improving the performance of ALL students. (Cox, 2004, p. 2)

Therefore, the Georgia Performance Standards were presented to educators and the public as the mandated approach to teaching and learning throughout the state. Although teams of educators assisted the state officials in developing the standards and presenting workshops about them, the GPS program was being implemented statewide as a top-down fiat. The State Education Department reinforced the significance of the implementation phase of the GPS project and guaranteed the improvement in education in Georgia, if the implementation was completed appropriately, at several presentation sessions to administrators via the following admonishment,

It is guaranteed that those schools who embrace the new standards and whose implementation is strong will have students who make extraordinary gains in achievement. Implementation is the key, and your role as a supportive principal is the most critical factor affecting student achievement. (Cox, 2004, p. 2)

Thus, this program was introduced as a high-stakes mandated program that must be implemented in all schools of the state and education leaders had the key responsibility to implementing it.

According to the Georgia State Education Department, the statewide implementation plan consisted of the following two phases: Introduction: Awareness Training, Year 1, 2004–5 school year; and Implementation: Methodology Training, Year 2, 2005–6 school year (Georgia Education Department, 2004). During the 2004–5 school year the GPS would be implemented in classrooms as follows: English and Language Arts in K–12; Math in Grade 6; Science in Grades 6 & 7 and Science in Grades 9–12. In addition, in the 2005–6 school year Math GPS would be introduced in K–2, and in Grade 7, and Science GPS would be introduced in grades 3–5. During the next phase of implementation in the 2006–7 school year GPS would be introduced in the following subjects and grades: Math in Grades 3–5 and Grade 8; Science

in Grades K-2 and Grade 8; Social Studies in grade 6 and Grades 8-12. The final implementation was planned to occur in the 2007-8 school year when the following subjects and grades would complete the process: Math in Grades 9-12; Science in Grade 8; Social Studies in K-5 and Grade 7. Therefore, a fairly comprehensive and aggressive implementation plan was presented and expected throughout the state. This was, indeed, a large-scale educational innovation and one definitely worthy of study from a change perspective.

GEORGIA PERFORMANCE STANDARDS CASE STUDY RESEARCH DESIGN AND METHODOLOGY

During the Fall of 2007, the Georgia Southern doctoral students and their professor, developed and pilot tested their implementation needs survey instrument that consisted of three components. Part I, (Demographic Data), was designed to gather information about participants educational experiences. Part II (Personal and Organizational Needs), was designed to gather information about the personal, professional and organizational perceived needs of participants in effectively implementing the Georgia Performance Standards (GPS). This part consisted of 55 implementation need statements based on previous needs research (Harnack, 1968; Miller, 1981; Polka, 1977; Polka, 1994; Polka, Mattai, & Perry, 2000; Yuhasz, 1974). Each participant was asked to rate their needs on the following Likert-type scale: 1—not considered a need, 2—a need of relatively little importance, 3—a need of moderate importance, 4—a need of considerable importance, or 5—a need of great importance. Part III, (Open-ended Questions), was designed to enable participants to provide free responses to questions related to their implementation of the GPS as they desired.

Once the Georgia Southern University Institutional Research Board (IRB) approved of the research project, a convenience-purposive survey sampling technique was used to distribute and anonymously collect the surveys. Each of the 35 doctoral candidates is given 12 surveys to distribute to educators they knew within their school buildings or in their respective districts who had professionally experienced the implementation phase of the GPS project. Subsequently, a total of 420 survey instruments were distributed to known GPS implementers throughout the state of Georgia. A total of 229 useable surveys were returned for analysis. This number represented a return rate of 54.5%.

GPS Research Survey Sample Demographic Data

The following tables (1-4) provide demographic information about this sample.

Table 1. Teaching Service Level of GPS Survey Participants.

Teaching Service Level	# Participants	% Sample
Elementary Grades K-5	97	42.4
Middle Grades 6-8	87	38.0
High School Grades 9-12	30	13.1
Did not respond	15	6.5
Totals	229	100.0

Therefore, participants in this implementation survey represented more K-8 teachers (80.4%) than high school teachers. But, it should be noted that more K-8 teachers were in-

volved in the first two years of the implementation of the GPS than, proportionately, were high school teachers according to the state implementation plan.

Table 2. Educational Experience of GPS Survey Participants.

Years Teaching Experience	# Participants	% Sample
1-5	47	20.5
6-10	46	20.1
11-15	50	21.8
16-21	45	19.7
Over 21	26	11.4
Did not respond	15	6.5
Totals	229	100.0

Thus, most of the educators who responded to this question identified that they had over five years of teaching experience. Since most teachers who leave the profession do so in their first five years, this sample represented those educators who most likely will continue their careers in education (Rebore, 2007). Also, since most of the sample had over 10 year of teaching experience (53%), this sample may be considered an experienced sample. In addition, since almost a third of the sample (31.1%) identified that they had over 16 years of

Table 3. Subjects Taught by GPS Survey Participants.

Subjects Taught	# Participants	% Sample
All Subjects	83	36.2
English Language Arts	39	17.0
Mathematics	25	11.0
Science	24	10.5
Social Studies	17	7.4
Did not respond	41	17.9
Totals	229	100

teaching experience, this sample may be considered to represent a fairly senior group of educators who have been involved with educational changes during their respective careers.

According to the data collected from this sample, the participants in this research study represented, fairly proportionately, the teachers who have been teaching the subjects that have been part of the first three implementation phases of GPS (Georgia State Education Department).

Table 4. GPS Implementation Experience of Survey Participants.

GPS Experience	# Participants	% Sample
Less than 6 months	26	11.4
6 months to 1 year	36	15.7
1 to 2 years	94	41.0
2 to 3 years	54	23.6
Did not respond	19	8.3
Totals	229	100

This sample, as confirmed by the data in Table 4, has had considerable experience implementing the GPS given that the program did not commence until the 2004–5 school year. Almost 85% of the sample has had at least 6 months or more of implementation experience with the Georgia Performance Standards. Thus, the sample may be considered a knowledgeable group of professionals to question about their needs and experiences implementing the GPS.

Georgia GPS Case Study Findings

Once the surveys were returned, the data were tabulated and various statistical treatments were applied, using the Statistical Package for the Social Sciences (SPSS), to determine relationships between and among the demographics and the responses to the 55 statements of the survey. Those 55 statements were derived from the 15 categories associated with the personal, professional, and organizational needs of educators implementing innovations as previously articulated in this paper and illustrated in Figure 1 as:

1. Personal Needs: Challenge, Commitment, Control, Creativity, Caring.
2. Professional Needs: Communication, Empowerment, Assistance, Leadership, Opportunity, Time.
3. Organizational Needs: Cooperative, Comprehensive, Concrete, Continuous.

It should be noted that in addition to a descriptive statistics, key statistical analysis applications including the stepwise linear regression were applied to the data to ascertain if there were any significant differences between and among the independent (demographic data) and dependent variables (survey statements) of the study. The results identified that there were no significant differences at the .05 level. Thus, neither the teaching service level (elementary, middle, or high school), length of teaching experience, subject matter taught, nor time spent implementing GPS made any significant difference vis-a-vis the importance of the high-touch needs expressed by this sample.

The following tables 5, 6, and 7 illustrate some of the key findings as a result of surveying the 229 educators in this sample.

Table 5. Effective Change Zone Needs by Category with Mean Ranking by GPS Sample From Highest Mean to Lowest Mean.

Need Category	Specific Need	Mean Score
Personal	Caring	4.36
Personal	Creativity	4.14
Personal	Commitment	4.11
Personal	Control	4.10
Personal	Challenge	3.98
Sub-total	Personal Needs	4.13
Professional	Time	4.33
Professional	Leadership	4.32
Professional	Communication	4.18
Professional	Assistance	3.97
Professional	Opportunity	3.88
Professional	Empowerment	3.88
Sub-total	Professional	4.08
Organizational	Cooperativeness	4.28
Organizational	Comprehensive	4.17
Organizational	Concreteness	4.08
Organizational	Continuous	3.90
Sub-total	Organizational	4.09
Totals	High-touch Needs	4.10

Thus, this sample identified the importance of *Caring, Time, Leadership, Cooperation* and *Communication* as their top five needs for the implementation of the GPS program. These needs had a mean score of at least 4.18 or slightly more than of *Considerable Importance* to them. The next five ranked needs were those of *Comprehensiveness, Creativity, Commitment, Control* and *Concreteness*. These needs had a mean score of at least 4.08 making them also of *Considerable Importance* to this sample. While the last five needs ranked were *Challenge, Assistance, Continuousness, Empowerment* and *Opportunity*. Although these needs had a mean score in the needs of *Moderate Importance*, they were all at the upper end of that score with a mean score of at least 3.89.

Thus, this sample identified that the top 15 specific need statements from the survey all have a mean score of at least 4.29 which is better than a *Need of Considerable Importance*. The top five need statements were those related to getting assistance to implement the innovation, having communication about the impact of the innovation and time to make changes as associated with the innovation as well as working in a caring environment that enabled individuals to implement the innovation without fear of failure or criticism from supervisors or colleagues. This sample is fairly consistent with previous samples related to similar need studies in that the high-touch needs of *assistance, communication, time* and *caring* were identified as key to successful implementation of innovations (Polka, 2007; Polka, Mattai, & Perry, 2000).

Consequently, this sample identified that the high-touch needs as specified in this research study were of definite importance to them as they implemented a major education innovation. Leaders need to be cognizant of the high-touch personal, professional, and organizational needs and the importance of them to their subordinates when implementing innovations.

Table 7. Rank Order of Specific Survey Need Statements by GPS Sample.

Rank	Item #	Specific Survey Need Statement	Category	Mean
1	8	Receiving assistance in the identification of the needs, interests, learner characteristics	Assistance	4.56
3	2	Communication between individual teachers and building administrators about GPS related to teaching learning process	Communication	4.50
3	19	Time to determine specific group and individual classroom activities to teach GPS	Time	4.50
4	22	Time to determine specific assessment tools used in appraising student progress according GPS	Time	4.49
5	39	Being able to take risks implementing the GPS without fear of criticism	Caring	4.47
6	47	Communicating curriculum innovations to school community, students and parents	Comprehensive	4.39
7	15	Having adequate human and material resources for effective GPS teaching	Leadership	4.38
8	38	Having others in school assist in the implementation of GPS	Caring	4.33
9	13	Helping people within the school community comprehend GPS goals	Leadership	4.32
9	44	Knowing the faculty and administration recognize that internal and external factors impact curriculum change	Comprehensive	4.32
11	35	Having the ability to change recommended implementation strategies associated with curriculum innovations such as GPS	Creativity	4.31
11	42	Knowing that I may actively interact with my colleagues to plan GPS implementation	Cooperative	4.31
13	4	Having choices in terms of content, subject matter, centers of interest, or other strategies related to GPS	Empowerment	4.30
13	7	Having choices about instructional resources related to teaching the GPS such as: texts, supplemental materials, and instruction references including software	Empowerment	4.30
15	3	Communication between individual teachers and central office personnel about the relationship of the GPS to the teaching learning process	Communication	4.29

LEADERSHIP FOR INNOVATION IMPLEMENTATION SUCCESS

Contemporary educational leaders must possess an acute focus that change in education is a process, not an event, and is accomplished first by individuals (Hall & Hord, 2006). Subsequently, the most effective educational changes, or those that yield the most personal and organizational satisfaction and productivity are those that occur in the *effective change zone* and reflect attention given to the five personal needs or dispositions of (a) *Challenge*, (b) *Commitment*, (c) *Control*, (d) *Creativity*, and (e) *Caring*, as well as the six professional needs

or expectations of: (a) *Communication*, (b) *Empowerment*, (c) *Assistance in Decision-making*, (d) *Leadership*, (e) *Opportunity for Professional Growth*, and (f) *Time* as well as the four key organizational planning needs of: (a) *Cooperativeness*, (b) *Comprehensiveness*, (c) *Continuosity* and (d) *Concreteness*.

Therefore, education innovations that address contemporary cultural forces such as accountability, technology, and diversity as well as others that may emerge should be introduced to educators and implemented using a macro-perspective, but with primary focus given to their micro-contextual high-touch needs. The innovations related to people, things, and ideas will, then, be more successfully implemented and they will be more sustainable because leaders managed their respective school context in the *effective change zone*.

SUMMARY

Effective education leaders, or those aspiring to become one, need to focus on attending to those aforementioned personal, professional and organization factors to appropriately manage the ever-changing education landscape of the twenty-first century. They must continuously hone their open social system acumen and utilize both their personal change artistry and their management science skills to adapt their respective employees and organizations to their future. The sustainability of school reform efforts, according to Fullan (2005), is related to "...continuous improvement, adaptation, and collective problem solving in the face of complex challenges that keep rising" (p. 22). The imperativeness of this leadership approach is consistent with the comprehensiveness advocated by contemporary strategic planners, "If we are not to dehumanize, oversimplify and artificially make our educational world linear and restricted, it is imperative that we develop strategic plans based upon the actual realities of our organization and society, which are complex" (Kaufman, Herman, & Watters, p.109). Thus, education leaders who function in the *effective change zone* at their local context and maintain their acute perspective regarding schooling as an open social system will be most likely to implement and sustain the institutional changes necessary for the future.

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