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An Exploration of Common Domain Skills Necessary for Intraschool and Classroom Success

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AN EXPLORATION OF COMMON DOMAIN SKILLS NECESSARY FOR

INTRASCHOOL AND CLASSROOM SUCCESS

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A Dissertation

Presented to

The Faculty of the Department of Educational Leadership and Policy Analysis

East Tennessee State University

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In Partial Fulfillment

Of the Requirements for the Degree

Doctor of Education

————————————

by

Philip Alan Hatch

May 2000

APPROVAL

This is to certify that the Graduate committee of

Philip Alan Hatch

met on the

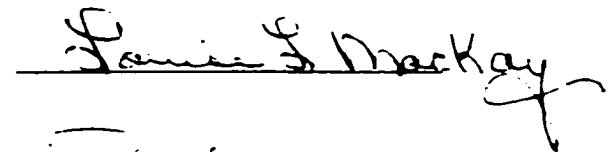15th day of December, 1999.

The committee read and examined his dissertation, supervised his defense of it in an oral examination, and decided to recommend that his study be submitted to the Graduate Council, in partial fulfillment of the requirements for the degree of Doctorate in Education.
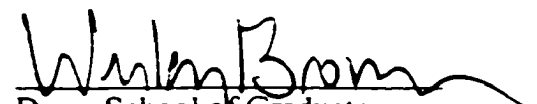
Chair, Graduate Committee

Signed on behalf of
the Graduate Council

_Dean, School of Graduate
Studies_

ABSTRACT

AN EXPLORATION OF COMMON DOMAIN SKILLS NECESSARY FOR

INTRASCHOOL AND CLASSROOM SUCCESS

by

Philip Alan Hatch

The focus of this study is on teachers' perceptions of those classroom skills and intraschool skills needed for success in schools currently engaged in the implementation of a model of school reform. An instrument was developed based on the skills identified by the Interstate New Teachers Assessment and Support Consortium (1992) and the National Board for Professional Teaching Standards (1989). Faculty in schools currently engaged with a model of reform responded to survey items based on two scenarios: one describing a classroom environment; the other describing an intraschool environment.

Data were collected from 495 faculty members in 22 schools in the Memphis City Schools system. The schools represented eight models of school reform including Expeditionary Learning Outward Bound, Paideia, Accelerated Schools, ATLAS Schools, Audrey Cohen College model, Co-NECT Schools, Success For All/Roots and Wings, and Modern Red Schoolhouse. The data were analyzed to determine if a perceived set of skills existed that served both the intraschool and classroom environments. Further, the impact of teacher engagement, teacher experience, level of educational attainment, and school models on teacher perceptions were explored. Results indicated that a common domain set of skills exists. This set of skills was found to be impacted by levels of teacher engagement, years of experience, and model of reform. Results of the study were sent to the Memphis City Schools.

The research into the perceptions of teachers demonstrates that teachers operate from a common set of skills. The skills in this set vary according to teacher experience, levels of engagement in the implementation of the model, and the model being implemented. The study identifies a set of skills from which teachers work. These include teachers' abilities to discriminate among a variety of skills and skill sets to customize an approach to a task or objective create a mandate for educators. Teachers must learn to use the skill set as a tool matching skills to pathways of success in schools.

Dedicated to

Margaret

my best friend, companion, and wife

and our children,

Logan and Philip

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I am grateful to all of the faculty in the department of Educational Leadership and Policy Analysis. Each of you has inspired me to seek to get a little better each day. Your patience and support throughout the program has provided me with experiences that, taken individually, have been meaningful. However, taken together, these same experiences have created, for me, a map, one that provides questions with no answers and answers for questions not yet cast. You are a truly wonderful group of educators and people.

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CHAPTER 1

INTRODUCTION

Since the publication of <u>A Nation at Risk</u> (National Commission on Excellence in Education, 1983), educators at all levels, as well as leaders in policy making positions across the country, have embarked on a series of reforms designed to improve student learning. At the individual system level, some school districts responded by delegating certain responsibilities to the local school under the rubric of site-based or school-based decision making. Other initiatives were packaged with accreditation criteria, e.g., those of the Southern Association of Colleges and Schools (SACS) and the National Council for the Accreditation of Teacher Education (NCATE). Self-study and continuous improvement protocols, as part of the accreditation process, have afforded educators the opportunity to critically view their schools and school communities by engaging constituencies close to their institutions. States have also required schools to develop strategic plans that are site-specific and aligned with plans developed at the district level (Cohen, 1988).

Still other efforts called for school districts to enter partnerships. Common partners included with entities such as the Coalition of Essential Schools (1999), Accelerated Schools (1999), and Co-NECT Schools (1999), which have all developed specific models each requiring varying levels of reform, restructuring, and renewal. The New American Schools Development Corporation (New American Schools [NAS], 1999) is another example of this approach to reform through partnering.

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The terms reform, restructuring, and renewal, have been used, with varying degrees of precision, to characterize such undertakings (Lewis, 1989). Change efforts flowing directly from the early literature responding to A Nation at Risk (1983) became the foundation upon which new reform efforts were developed (Lewis, 1989). Restructuring refers to changes in the operating structures and relationships that schools maintain to support learning (Lewis, 1989). The use of the term restructuring connotes efforts derived from within a school to change roles and relationships of and between teachers and administrators. The move to restructure was based on the lack of success following mandates derived by agencies external to the school (Smylie & Denny, 1990). Renewal reflects the most recent attempts at whole-school reform. It reflects the amalgam of activities occurring in schools, school districts, and state school systems that emphasize schools as evolving and responsive organizations capable of change in a changing world. The differences between reform, restructuring, and renewal are important because they help to define the period of time and the evolution of educational change philosophies since 1983. In this study, the word "reform" will reference the similar, yet distinct, activities associated with initiatives designed to improve learning that characterize reform, renewal, and restructuring.

Statement of the Problem

With the introduction of each new strategy to improve schools, teachers have come to be viewed as catalysts for the successful transformation of education in America (Darling-Hammond, 1996; Fullan & Hargreaves, 1991). Most school development

models ask that teachers take a more active and definitive role in the affairs of the school. The new roles range from collaboration in the development of curriculum (Griffin, 1999) to full empowerment of faculty to support their understanding of, and interaction with, school management structures, philosophical underpinnings, and operational policy rubrics necessary to support improved learning (Fullan & Stiegelbauer, 1991).

With the implementation of models of reform, schools and their faculty face the daunting task of understanding, adapting, and articulating new roles for teachers. In addition to pedagogical, methodological, and strategic implications within the classroom, faculty must invest time, energy, and emotion into expanded roles as partners in the development of policies, procedures, and evaluation models for whole-school success (Barth, 1990). These skills associated with the expanded roles of teachers can be categorized as intraschool skills or responsibilities.

By virtue of licensure, teachers are expected to have mastered a set of skills identified as necessary for the assumption of the responsibilities of a teacher. This set of skills --classroom skills-- includes subject area content knowledge, educational foundations, pedagogy, and teaching methods. As schools seek to create cultures and structures to facilitate teacher participation in the development of curriculum, financial management, and operational and organizational policy, teachers must enhance the set of skills learned in teacher preparation programs or develop additional skills related to intraschool responsibilities (Barth, 1990).

Because of the central importance of teachers in educational reform, it is important that teacher role expectations and the skill set associated with excellence in

both the classroom and intraschool roles be studied. Teacher responses to their new roles can impact the ultimate success of efforts to reform and restructure schools to support better student learning. The focus of this study is on teachers' perceptions of those skills necessary for success in the classroom and those skills perceived to be necessary for success in intraschool decision environments in schools currently engaged in the implementation of a model of school reform.

Context of the Study

Strategies incorporating elements of early reforms, such as site-based management, strategic planning at the school level, and state mandates concerning curricular and operational issues, have been only modestly successful (David, 1995; Fullan, 1993). The implementation of specific reform models such as those developed through the New American Schools Development Corporation (NAS, 1999) represents a further manifestation of continued reform.

Building conceptually on the lessons learned from earlier efforts, new models bring the concepts of renewal, whole school change, and the explicit expectation of teacher involvement, to the reform debate. The new school models provide targeted professional development, planning, and other support for teachers to internalize their new roles facilitating the development of the needed cultural foundation and infrastructure to sustain school and faculty change strategies. Schools actively engaged in reform and restructuring in association with a model of reform as identified in the New American Schools catalogue (Northwest Regional Educational Laboratory, 1999) provide

a bounded environment in which to investigate the perceptions of teachers with regard to skills important in their schools. There are skills deemed important for classroom success (Interstate New Teachers Assessment and Support Consortium, 1992; National Board for Professional Teaching Standards, 1989) and there are skills identified as important in school capacity building activities (Lambert, 1998; Murphy, 1994). Using teacher perceptions, this study seeks to determine if a set of skills called "common domain skills" exist. Common domain skills are those professional skills teachers perceive as necessary for successful outcomes in both classroom and intraschool environments.

Purpose of the Study

Using perceptions of teachers to identify the skills associated with successful classroom teaching and successful participation in intraschool activities, the purpose of this study is to identify a "common domain" set of skills associated with success in both the classroom and intraschool domains.

Significance of the Study

This study will provide valuable data regarding the skills that support the roles of teachers as they adapt to different expectations in the classroom and within the context of intraschool responsibilities. Further, this study will identify a set of skills that teachers perceive necessary to maximize effectiveness both in the classroom and in intraschool activities. The study will have implications for schools currently involved in, or

contemplating active engagement in, reform, restructuring, or renewal by identifying possible professional development themes that support ongoing change processes.

Research Questions

The questions to be addressed in this study are:

1. What are the professional skills teachers perceive as being important in the classroom setting?

2. What are the professional skills teachers perceive as being important in intraschool activities?

3. What professional skills identified by teachers serve both the classroom setting and the intraschool setting?

4. Do the skills identified in questions 1, 2, and 3 differ by level of teacher engagement (self-reported) with the reform model?

5. Do the skills identified in questions 1, 2, and 3 differ by years of experience?

6. Do the skills in questions 1, 2, and 3 differ by level of educational attainment of the teacher?

7. Do the skills identified in questions 1, 2, and 3 differ by the reform model used by the school?

Limitations

The following limitations are considered relevant to the study:

1. Data were limited to the Memphis City School System and to a list of those schools currently engaged with an agency or partner to implement a New American Schools (1999) catalogued school reform model.

2. Generalizations cannot be made beyond the population sampled and the period during which the data were collected.

Summary

Chapter 1 contains the introduction, statement of the problem, purpose of the study, significance of the study, relevant definitions, research questions, limitations, and a summary of the study. Chapter 2 contains a review of related literature and research. Chapter 3 contains a description of the methods and protocols used in collecting and analyzing the data. Chapter 4 contains the presentation and analysis of data. Chapter 5 presents findings, conclusions, and recommendations for further research.

CHAPTER 2

REVIEW OF LITERATURE

The governance structure of schools has not changed dramatically in the past 100 years. From the evolution of the school master to school administrative teams, hierarchical management has centered on the "teacher in classroom" model, emphasizing the principal as the leader-messenger-manager with the teacher in a subordinate role. Schools and student learning have been subjects of heightened interest and attempted change for almost two decades since the publication of A Nation at Risk (National Commission on Excellence in Education, 1983). "Reform," "restructuring," and/or "renewal," represent federal, state, district, and school based initiatives designed to improve student learning outcomes. The focus on whole-school transformation seeks changes in how schools operate and focuses on how students, teachers, and communities work together to support improved student learning.

Reform, Restructuring, and Renewal

Reform has recently been used to describe, from a position outside the school, efforts at changing schools and learning outcomes. Reformers sought to effect change through mandate, policy development, and legislation. Post-1983 reforms communicated through agencies, staff reports, and departmental directives and initiatives met with little success (Darling-Hammond, 1996). Issues centering on resistance at the district and school levels and slowness of state and federal machinery when implementing change initiatives have

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created a backlash within schools and school districts. This led to the notion of changing

schools from the inside; bottom-up strategies rather than top-down mandates.

Restructuring replaced reform as the operative word for change.

The essence of what "restructuring" schools means was captured by Michaels (1988).

As the movement to restructure continues, his definition has stood the test of time.

The clear message of second wave reform is that we need to examine our basic

philosophical beliefs about teaching, learning, the nature of human beings, and the

kinds of environments that maximize growth for teachers and students alike (p.3).

With similar attention to scope and direction regarding change in our schools, Soder

(1999) articulated a position supporting the concept of renewal as "an on-going process

of rigorous self-examination, reflection, and critical inquiry that focuses less on

preconceived goals and objectives (reform) and more on the complexities and

contradictions of human existence" (p. 570).

The terms "reform", "restructuring", and "renewal" have been used in the

literature without a clear conception of time. Such ambivalence suggests that

some explanatory distinctions are warranted and necessary. Schools, models,

legislation, and policy-development initiatives fall on a continuum from reform to

restructuring to renewal. For the purposes of this study, a generic description of

change activity in schools supporting improved student learning will be called

reform.

The following sections define the context of the study through a review of the

literature. The first section discusses the evolving role of teachers. The next

section describes the change strategies pursued since 1983. The emergence of models for whole-school change and the NAS (1999) program is reviewed with a section describing the standards movement of the past 10 years. Finally, a framework for classroom and intraschool skills is examined.

Teacher Roles

As reform strategies moved into the school, attention focused on the role of the teacher as decision maker. The inclusion of teachers in broader issues of school management is a natural result of more autonomy and latitude being given to the school site for the efficient and effective operation of the school (Henderson & Barron, 1995).

The challenge facing educators engaged in the work of reform is to enable teachers to carry the mantle of change, challenge the status quo, and effect and sustain unique school cultures and structures keyed to improved student performance. Teachers must possess a broad base of knowledge and content. They must understand the mission of their school. They must have the ability to be self-critical and adept at assessing the needs of students. Also, they must have an appropriate command of pedagogical strategies (Glickman, Lundsford, & Szuminski, 1995).

As change strategies were implemented, changes in norms, relationships, values, principles, and/or beliefs also changed the role of the teacher (Bredeson, 1995). Teachers in schools engaged in reform participated in the designing of educational experiences of students and also accepted additional responsibilities. These new responsibilities included mentoring, building collaborative relationships within the community and the

school, leading the efforts to redesign schooling, managing their own professional development, and engaging in problem solving at the school level (Fullan & Hargreaves, 1991; Odden & Wohlstettler, 1995; Wagner, 1995; Wasley, 1991).

If these new functions teachers must fulfill are viewed as important for the success of public education, understanding the knowledge and skill dimensions associated with the functions needs to be clarified. Teachers are leaders in their classrooms. They plan and implement curriculum, resolve conflict, establish culture, allocate resources, and deal with various classroom constituencies on a wide range of issues. When teachers are asked to step into a shared governance environment, they are faced with additional constraints and opportunities including collaborative and group dynamics, as well as personnel and finance policy. Lichtenstein, McLaughlin, and Knudson (1992) reported that "efforts to expand teacher's authority without also attending to their capacity resulted in the ironic outcome of diminished performance of school, classroom, or system" (p.39).

Kull and Bailey (1993) found, in a study of 1400 teacher graduates from 11 institutions, that teachers with 1 to 3 years of experience engaged in less formal leadership activities such as sharing expertise with colleagues than teachers with more than 3 years of experience. Teachers with 4 to 5 years of experience reported that they engaged in more formal leadership behaviors than teachers with either more or less experience, but such engagements were not frequent. They were more likely than their peers with 1 to 3 years of experience to engage in the less formal leadership activities such as sharing or influencing decision-making. Principals viewed such behavior as

being more traditional leadership behavior, suggesting that teachers may view leadership as emergent behavior associated with a professional commitment to teaching. Principals view the same behavior as distinct from classroom roles and tasks (Kull & Bailey, 1993). This notion is consistent with the work of Fasko and Grubb (1995) who reported that novice faculty felt more comfortable and confident with classroom skill domains or categories than with issues of community and/or professionalism.

There is evidence that experience provides opportunities for growth. Bredeson (1995) found that as teachers shared in decision making that affected their students and their own professional lives, they gained confidence in their own abilities and the choices they made.

It is not clear that teachers understand the nature of the varied tasks and environments they would experience as new teachers. Viewed through the constructivist learner's lens, teachers find leadership work congruent with their work with children (Lambert, 1998). That is, as teachers gained experience and confidence with classroom tasks, they assumed greater role development to include informal leadership behaviors in the larger school environment. This role evolution is not a formalized or structured process, perhaps shaped more by the culture and climate within the school.

The literature on "teachers as leaders" is rich in anecdotal and qualitative data. Wasley (1991) described the anxiety teachers feel when dealing with the ambiguity of assigned leadership functions and the isolation when professional leadership occurs outside the bureaucratic structure. Fullan and Hargreaves (1991) have written extensively on the process of change and the need to prepare teachers for that process. Specifically,

they recommend providing opportunities for teachers, early in their careers, to experience and experiment with quality opportunities to collaborate with other faculty and staff without the expectation of leadership behavior. Hart (1994) and Smylie and Denny (1990) have explored the relationship of teachers and administrators, given the emerging role of teachers, noting that the emerging roles of teachers requires a corresponding adjustment of the roles of administrative personnel. The 1995 yearbook published through the Association of Teacher Educators had as its topic "Educating Teachers for Leadership and Change" (O'Hair & Odell, 1995). In this yearbook, contributing authors offer insightful chapters on "leadership" and "change" within the framework of the preparation of teachers. The editors state the challenge well, noting that "change is on the agenda for schools, and teachers need to be key actors in helping define and shape that change" (p. xxiii). Other efforts have drawn the concepts of teachers, leadership, and reform together as an area of study and research. Parea (1998) documented the efforts of a California consortium of universities to address teacher education with leadership potential as a cornerstone of the reform effort. The literature of leadership in schools continues to be influenced by writers such as Sergiovanni (1992), Senge (1990), Covey (1989), and Burns (1978). These writers have focused on the way that organizations and employees respond to challenging, changing work environments. Their work contributes to an understanding of the moral, paradigmatic, organizational, and leadership dimensions of educators' work. Together, their contributions enabled a professional capacity among the community of educators to effect and affect change in schools.

Cases of teacher leadership, when documented, occur in one of two ways: the role of leader is assigned or the role is bestowed by the group (Wasley, 1991). The roles that culture, task, and administration play in the development of teacher leaders have not been clearly defined. Descriptions of the development of teacher leaders in schools are filled with accounts of misapplied and misunderstood implementation of strategies (Hart, 1994; Wasley, 1991). Wasley noted the discomfort teachers faced when assigned leadership functions and the isolation teachers experienced when leader behaviors were pursued independent of administrative endorsement. In an insightful description of faculty and peer responses to efforts to restructure her school, Coyle (1997) reported there were many occasions when teachers would remain in their classrooms, isolated and protecting their turf. Coyle noted there was a sense that the only teacher leadership they exhibited was in their classrooms, and that anything beyond those four walls was cumbersome and ultimately threatening. Teachers' levels of engagement in reform vary with the school and their response to the efforts of others confounds the initiative of teachers choosing to pursue reform initiatives.

Teachers who demonstrated interest or competence in non-classroom activities within the school migrated to formal administrative functions (Wasley, 1991). Those choosing to remain in the classroom assumed their non-classroom activities informally as an additional duty, responsibility, or interest (Smylie & Denny, 1990; Wasley, 1991).

The evolving view of teachers as both classroom facilitators for improved learning and productive school community citizens may provide teachers with greater opportunities to influence educational policy through the decision-making process at the

school building level (Hart, 1994; Lichtenstein et al., 1992). Successful implementation

of whole-school change models is dependent on the participation, dedication, and

commitment of teachers if the changes sought are to be sustained (Lichtenstein et al.,

1992).

Structures and Change

Teachers are being asked more often to decide issues impacting many more students

and classrooms than those students in their classes and at their grade levels (Griffin,

1999). Since the mid-1980s, reform has moved from a centralized, mandated change

effort to a decentralized, consensus-driven approach to improved learning relying on

renewal strategies identified variously as shared decision-making, site-based decision-

making, or site-based management.

Site-based management is defined as the linking together of many parts of the

system in sharing responsibility for learning and system improvement through a shared

governance council or committee. Shared decision making becomes the process through

which organizational leadership occurs in schools engaged in site-based management

strategies (Berry, 1993). At the school level, the major characteristic of school-based

decision making is the cooperative problem-solving approach to operational decisions

(Vickery, 1990). The evolution of site-based management as a means of moving

decision-making authority to the school site has as its roots a commitment to generating

change internally as opposed to external mandates and directives.

In the environment created as state departments of education and local districts have begun to move decision making to the school building, the success of schools evolving into communities of learning may depend on the development of teachers as educational leaders as well as excellent classroom performers. Implicit in this responsibility is the notion that governance design and control of schools will be handled by teachers (Hopkins, Gardner, & Meriwether, 1998). School-based decision-making systems have a school-wide council or committee to which teachers, staff, and community members are appointed or elected (King, Louis, Marks, & Peterson, 1996). This council is responsible for managing the operation of the school. The degree of latitude the councils have and the types of decisions for which they are responsible vary from school to school (Murphy, 1994). Once these structures are implemented, the infrastructure to accomplish site-based management objectives is in place. However, the extent to which authority is given and the necessary structures and personnel supporting the decision-making process are issues for which little research base is available for developing solutions.

The effort to reserve decision making to the school building, with teachers becoming the body of decision makers, has met with only minimal success (Taylor & Teddlie, 1992; Weiss, Cambone, & Wyeth, 1992). It is unclear if successful adoption impacts the ultimate ability of teachers to participate effectively as leaders of their schools (Fullan & Hargreaves, 1991). Nor is it clear that, with practice, teachers will become more adept at coupling school decision making and improved student learning. The key to productive and sustained change will be for teachers to seize the opportunity to grow into school

leaders capable of enabling quality reform supporting improved student learning (Weiss et al., 1992).

As each school has individual character and history, the nuances of site-based management system implemented at individual schools differ as well. There are as many variations of implementation as there are school districts (David, 1989). With the subtle and not-so-subtle differences of shared decision-making structures and various levels of commitment and implementation, Herman (1990) noted that the process of implementing and maintaining a site-based management environment is more complex and difficult than was once thought. Further, a commitment to a site-based philosophy does not, in and of itself, accomplish the goals necessary for substantive school change (Lichtenstein et al., 1992; Taylor & Levine, 1991).

If the overarching goal of site-based systems is improved student learning outcomes, the data are inconclusive (Jenkins, Ronk, Schrag, Rude, & Stowitschek, 1994; Malen, Ogawa, & Kranz, 1990). However, research does suggest that other outcomes such as improved faculty morale, faculty participation, parental and community involvement, better communication, and retention of quality faculty members are occurring in site-based schools (Etheridge & Hall, 1995; Murphy, 1994; White, 1989). Collaborative skills, group processes, planning, decision making, individual skills associated with conflict management and resolution, and training in leadership are critical for faculty if site-based management is to be successfully implemented. Even then, it is not clear that the implementation of site-based decision making will lead directly to better student learning (Weiss et al., 1992).

As Prasch (1990) noted, school-based management is embedded in many of the approaches to restructuring. Change models being implemented in schools, many as part of the NAS (1999) initiative, begin with a commitment by the teaching faculty, the administration, and central office to be actively engaged in the process of adopting and internalizing new paradigms of teaching and learning. Taylor and Levine (1991) suggested that although site-based structures were an important component, they do not provide a comprehensive model for bringing about fundamental reform in elementary and secondary schools.

Models for Whole School Change

Numerous models of school reform exist from which schools can choose as they restructure and seek change (Mecklenburger, 1992; Catalogue of School Reform Models, 1999). In addition, the efforts of school faculty, staff, students, and community can be supplemented through the use of professional planning and implementation teams associated with school reform models. The models for school change developed through the NAS programs are directed at whole school change. Sizer's Coalition of Essential Schools and Glickman's League of Professional Schools, among others, have provided opportunities for school communities to work together for whole-school change (McChesney, 1999).

The New American Schools Development Corporation was established to develop whole school models which would be field tested and then made available to the general public for use as blueprints for creating schools which reflect the priorities and

philosophies of the communities they serve (NAS, 1999). The NAS (1999) represents a set of model choices designed to fundamentally change how students are taught and how schools manage the teaching and learning process.

The 10 models currently in use in the state of Tennessee are identified in Table 1. The table and accompanying rubric demonstrate that although the models may differ in terms of approach to reform, they meet stringent criteria for the components associated with teacher skill development and engagement. Nine of the 10 models were original designs developed through the New American Schools Corporation work. The Coalition of Essential Schools has evolved independent of that program but is included in the Catalogue of School Reform Models (1999).

In the post-1983 reform climate, this effort represents the most comprehensive initiative designed to change the way schools conduct the business of education. Initially, nine school designs were selected to be piloted. A recent publication of the Northwest Regional Educational Laboratory identifies 44 reform models available to schools (Catalogue of School Reform Models, 1999). Although the thrust of the models is to improve student learning and much of the evaluation centers on measuring learning gains, components of each model include professional development, planning for school curriculum, instruction, school management, and generating community support

Describing the new programming at the University of Minnesota, Hopkins et al. (1998) suggested several skills needed by teacher leaders that are aligned with the state mandates for the site-based Minnesota model. The model called for school building management of the budget, curriculum, and personnel decisions.

TABLE 1

RUBRIC FOR COMPONENTS OF MODELS OF REFORM

Component	Indicator	Accelerated Schools	ATLAS Communities	Audrey Cohen College	Co-NECT Schools	Success for All	Roots and Wings	Modern Red Schoolhouse	Paideia Schools	Expeditionary Learning Outward Bound	Coalition of Essential Schools
1a. Effective, research-based methods	has evidence of effectiveness in improving student achievement	2	2	1	2	3	3	2	1	2	1
1b.	has been replicated in diverse schools (type and number)	3	2	2	3	3	3	2	3	2	3
2. Comprehensive design	contains school-wide plan for curriculum, instruction, assessment, and management	3	3	3	3	2	2	3	3	3	3
3. Professional development	provides high quality, on-going training and technical assistance	3	3	3	3	3	3	3	3	3	2
4. Support within the school	requires substantial support by faculty, administration, and staff	3	3	2	2	3	3	3	3	3	2
5. Evaluation strategies	evaluate (or helps schools evaluate) implementation and student performance	3	3	3	3	3	3	3	2	3	2

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Table 1 – (Continued)
Notes:

Component 1a: Evidence of effectiveness
3 = Impact on student achievement has been thoroughly evaluated using rigorous research designs over several years and across multiple sites
2 = There is consistent evidence of student achievement gains relative to baseline data and/or district means using appropriate assessment instruments
1 = There is evidence of student achievement at some sites along with evidence of improvement on indicators of student performance such as attendance or engagement

Component 1b: Replication in diverse schools
3 = model has been replicated in at least 50 schools including urban, rural and Title 1 schools
2 = model has been replicated in less than 50 schools or has not served all categories
1 = model has been replicated in a small number of schools

Component 2: Comprehensive design
3 = Model addresses curriculum, instruction, assessment, technology, classroom management, professional development, and parental involvement, and other areas of school operation, all aligned into a school-wide plan
2 = Model addresses most of the above areas
1 = model addresses only a few of the areas, involves a few teachers, or is limited to one or two subject areas

Component 3: professional development
3 = Model provides abundant, high-quality pre-implementation training and on-site follow-up coaching and technical assistance that addresses implementation and classroom issues
2 = Model provides high-quality pre-implementation training and on-site follow-up coaching to full or partial staff
1 = Model provides limited training and coaching

Component 4: Support within the school
3 = Buy-in process involves formal determination of support at the school level(e.g., a vote by school faculty or consensus-building process leading to an explicit decision supported by a majority of the faculty).
2 = Buy-in process involves informal mechanisms for ensuring school-wide support
1 = Model has no process for ensuring school-wide support

Component 5: Evaluation strategies
3 = Model consistently evaluates implementation and student achievement at school sites and/or provides schools with a formal process for conducting their own evaluations
2 = Model sometimes evaluates implementation and achievement and/or assists schools in conducting evaluations
1 = Model does not emphasize formal evaluation

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To support such activity, teacher leaders must have a skill base including collaborative skills, an understanding of group dynamics and shared decision making, innovation in teaching, an understanding of future educational systems, multi-cultural education and technology (Hart, 1994).

Training or staff development was mentioned in several commentaries concerning implementation as a necessity for successful implementation of site-based management (Harrison, Killion & Mitchell, 1989; Herman, 1990; Marlburger, 1985). Valesky and Etheridge (1991) noted that problems often arose with site councils when prior training was not conducted in how to solve problems.

Wood and Caldwell (1991) listed the types of training that were used for ad hoc committees in one school in the early implementation of site-based management as follows: (a) research on shared decision making, (b) team building, (c) group processes, (d) decision making, (e) problem solving, (f) conflict resolution, (g) effective communication, and (h) developing the commitment and involvement of others.

Other lists developed as a result of research into site-based structures and implementation included leadership, dealing with the change process, directing curriculum development, building trust and rapport, and mentoring (Bahrenfus, 1992; Lieberman, 1988; Rosen, 1993; White, 1989).

The importance attached to professional development by NAS design teams cannot be overstated. The allocation of time for professional development is more than scheduling an opportunity. Design teams recognized and acknowledged that reflection, planning, and decision-making were critical parts of

the responsibility of the school faculty and staff. Therefore, professional

development could not be treated as a special or scheduled event (Sykes, 1996).

It must become a part of the culture of the school and inform school practice each

day of the school year. Teachers and staff, adjusting their perspectives to a

holistic view of their profession, need to learn what questions to ask and how to

reach consensus-driven solutions to issues facing the school.

The NAS design teams approach professional development by securing a

commitment to the design from the school faculty, staff, and school district (NAS, 1999).

This support for a design creates opportunities for a cohesive and long term professional

development perspective, one which might not be available in a non-engaged school.

With a long-term vision for development, successful transition of faculty to school–wide

roles and the transformation of the school culture to support the model is more likely.

Standards

A parallel development in education that supports the emphasis on teacher

responsibility and accountability has been the development of standards. Darling-

Hammond (1999) suggested that "in organized professions, the major lever for

professional transfer of knowledge and continual improvement is the use of standards to

guide preparation and practice" (p. 236). In an era of reform characterized by a far more

holistic approach to school change (NAS, 1999), the identification and codification of

skills viewed as necessary for success in the classroom and those that will drive

successful implementation and maintenance of school based management paradigms are emerging from vastly different sources.

The "classroom skills" standards and supporting curricular materials have been identified by faculty committees at institutions of higher education, appointed commissions, and consortiums of professionals, both within and outside the educational profession. This reflects the complexity of the web of people, agencies, and institutions involved with the policy formulation, funding, and evaluation of teacher education and teaching and learning in schools. The current standards movement, beginning with the National Board for Professional Teaching Standards (NBPTS) in 1987, and the work of Interstate New Teachers Assessment and Support Consortium (INTASC) beginning in 1992 have been open to public and professional scrutiny (Lewis, 1995). This "new" standards movement implies a history.

"For the past half-century, the standards represented in texts and tests have reflected the commercial market for 'dumbed-down' resources to a greater degree than they have reflected any public consensus on what teachers should teach and students should learn" (Lewis, 1995,p. 726). The belief that the current standards initiative is different from those in the 1970s and early 1980s centers on the notion that all of the standards, including those for: teachers, programs for the preparation of teachers, licensing agencies for teachers, state and local efforts to define teaching/learning outcomes, and assessment, are being coordinated. The standards movement encompasses vast perspectives, agendas, and ideological biases.

The tasks associated with defining teaching vis-à-vis a list of skills or competencies is daunting at least. The identification and codification of skills supporting quality teaching is important to the continuing development of teaching as a profession and as the critical component for the establishment of the most positive environment for student learning (Lewis, 1995). With the emphasis on instruction and content in college preparation programs, it is not surprising that students entering the field of education feel most confident with such issues. Competence in areas most closely aligned with the teaching and learning paradigm is sustained and strengthened through personal and professional development programs (Holbein, 1998). The establishment of a well-articulated framework from which skills can be understood and managed is essential.

For this study, standards developed by the NBPTS (1989) and the Council of Chief State School Officers, identified as the INTASC (1992) standards, were used to develop a list of appropriate teacher classroom skills for veteran and novice teachers, respectively. These standards represent the formalized, research-based articulation of skills needed by teachers at both ends of the experience continuum. As students advance through the curriculum of courses and school-based experiences, the skills become operationalized for the pre-service teacher.

Elliot (1996) described the work of the NBPTS and INTASC as using the work of the national curriculum standards groups and state and local efforts to develop curricular standards for their own use and to fold these efforts together to develop standards for teacher licensure and advanced certification. Alignment of standards is the overriding

goal as the standards evolve. The process of articulating the standards or principles and implementing the standards has been arduous and contentious (Lewis, 1995).

Response to the efforts has been promising. The INTASC standards, unveiled in 1992, were well received by the public (Ambach, 1996). Ambach commented on the work of INTASC as a cornerstone for systemic education reform:

> [W]ithout a common set of standards for what teachers should know and be able to do to help students meet rigorous new standards, reform cannot move forward. Without a consensus among the states and among the architects of new models for teacher education and development, reform cannot take hold on a national scale (p. 3).

The development of the NBPTS standards for experienced teachers provides for a continuum of teacher development. In addition, the standardization of skills provides a basis for the further professionalization of teaching. The existence of a knowledge-base for professional teachers reinforces the continued evolution of teachers as leaders in school communities engaged in activities supporting improved student learning.

Summary

The reform efforts following the publication of A Nation at Risk (1983) have occurred at different levels. The New American Schools program was an effort to redesign how students are taught. Local responses included the implementation of site-based management models designed to move decision at the school building level. At the

core of all reform efforts during this period was the importance of the teacher in implementing and sustaining change in schools.

As models of reform were adopted and efforts to change the management structures of schools were implemented, the expectations and roles of teachers have changed as well. This change represents a fundamental shift in the authority given teachers in schools and the array of issues with which faculty are asked to deal. Models of reform focused on whole-school change represent another opportunity for schools and teachers to change. Most of these models focus heavily on faculty professional development. The expertise and skills available to teachers in the classroom and the school to improve student learning are critical to the success of such reform. The professional preparation of teachers is also undergoing some changes.

Standards for high quality teaching have been developed by INTASC and the NPBTS that create a continuum of skill development for the preparation of teachers and the development of teachers throughout their careers. The refinement of the skills appropriate for beginning and experienced teachers, in concert with the models of reform being implemented, create a unique opportunity to view the skills perceived to be important by teachers engaged in such reform.

CHAPTER 3

METHODOLOGY

This chapter describes the research design, sample, questionnaire design, procedures for data collection, and data analysis. This study is a quantitative, descriptive study designed to (1) determine and analyze the perceptions of teachers relative to those skills perceived to be important for success in the classroom and those skills perceived to be important for success in a participatory school management environment, and (2) determine, analyze, and assess those skills common to both domains.

Research Design

This study employed a quantitative research design. The survey method was used to collect data for analysis. Surveys provide an efficient collection tool and an effective quantitative measure of perceptions (Gay, 1992). Further, data from survey research provide a good measure of what present conditions are and what the relationship is between variables at a point in time (Gall, Borg, & Gall, 1996). Therefore, a survey was developed to gather the data needed to answer the research questions. The survey was administered to all full-time teachers in selected schools in Tennessee.

Sample

The population from which the sample was taken consists of the faculty in schools within the state of Tennessee that were engaged with a model of reform

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associated with the New American School Design initiative (NAS, 1999). Within the

state, 77 schools were identified as engaged in a model of reform. The large number

(N=67) of schools engaged in reform in the city of Memphis presented a challenge.

Selection for the sample was based on the reform model being implemented, grade level

configuration, school demographics including racial composition, Title I designation,

percentage of free or reduced lunch participation, and the total student population in the

school. Although the overriding concern in selecting the sample was to ensure that

teachers in schools engaged with each of the models were represented in the sample to be

surveyed, the use of the criteria listed above ensured a sample representative of the

diversity within those Memphis schools engaged in school reform initiatives.

The researcher decided to select 3 or 4 schools from each model. Using certain

demographic data, described above, which were available from the schools, 39 schools

were selected. Schools from outside of the Memphis area were included to create a

sample with diverse geographic representation. The resulting sample included 6 schools

from the eastern part of the state, 5 from middle Tennessee, and 28 schools from

Memphis in the western part of the state.

Table 2 lists the models identified as currently being implemented in the state of

Tennessee. The table totals the number of schools by model and by school system. The

total number of schools does not equal 77 because some of the schools engage in multiple

models.

TABLE 2

SCHOOL MODELS AND LOCATIONS

Model	Memphis City Schools	Hamilton County/ Chattanooga Schools	Nashville	Madison	Henry	Murfreesboro	Totals
Accelerated Schools	11	0	0	0	0	0	11
ATLAS Communities	4	0	0	0	0	0	4
Audrey Cohen College	6	0	0	0	0	0	6
Co-NECT Schools	8	0	0	0	0	0	8
Success For All	26	0	2	1	1	0	30
Modern Red Schoolhouse	3	0	0	0	0	0	3
Paideia Schools	8	2	0	0	0	1	11
Coalition of Essential Schools	0	4	0	0	0	0	4
Expeditionary Learning Outward Bound	5	0	0	0	0	0	5
Total	71	6	2	1	1	1	82[a]

[a] Totals do not match because of multiple models at some sites

Questionnaire Design

The survey instrument (see Appendix A) consisted of 64 items denoting

classroom skills identified in the literature as important for teacher mastery and skills

identified in the literature as important for successful implementation and productive use

of shared decision making models in schools. In the survey, 50% of the items were

associated with classroom skills and 50% associated with shared decision making

environments. Demographic data were also gathered about the school level, years of

experience, level of educational attainment, and reform model adopted. An additional

five questions focused on teachers' self-report of their level of engagement in school

processes as well as perceptions of the impact of the model on students, parents, teachers,

and communities.

The following protocol served as a guide for the development of the survey items:

1. Lists of skills necessary for success in the classroom were developed using the Interstate New Teachers Assessment and Support Consortium (INTASC) standards and the National Policy Board for Professional Teaching Standards (NBPTS).

2. The skills list for intraschool activities was taken from INTASC and NBPTS as well. Further, the literature developed around the concept of building capacity in schools and site-based management, in particular the work of Lambert (1998).

3. A panel of experts reviewed the survey and the lists to assess the content validity of the survey. The panel consisted of teachers within the Upper East Tennessee/Southwest Virginia region who have completed the assessment protocol for the NPBTS. Additional panelists were invited from colleges and departments of education. Professionals involved with teacher education, specifically NCATE and state licensing, who should have familiarity with the INTASC initiative were also invited to participate. This panel was able to provide insight as to the validity of the survey items. The panel responses focused on presentation issues such as clarity, intent, and audience. Where appropriate, changes were made to the survey. The skills identified and included in the survey were validated by the expert panel. Reviewers indicated that the lists adequately reflected the sources used to create them.

4. The survey was piloted to assess reliability with a faculty of a K –12 school located in Upper East Tennessee to reflect each level at which the instrument was administered during the study. The instrument was administered to a faculty with 27 surveys

returned. Cronbach's Alpha was calculated to assess the reliability of the instrument.

For the "intraschool survey", the analysis revealed an alpha level of .81 and for the

"classroom survey" the alpha level was calculated to be .91. In both cases, the reliability

level for the instrument was high enough to proceed with the study.

The survey used a dual scale design. One scale measured perceptions as to the

importance of an item in a classroom environment, and the other scale measured

perceptions as to item importance in a shared decision making environment. Teachers

were asked to respond to items using a Likert-type scale that called for graded responses

to each statement. Teachers indicated if the item was (1) not important, (2) sometimes

important, (3) important, and (4) very important.

Procedures for Collecting Data

School systems were contacted for permission to talk with target schools about

participating in the collection of data. The researcher sent survey packets to schools that

agreed to participate in the study

The surveys were sent to the schools during the last week of September so that the

surveys could be administered to faculty during the first week in October and returned to

the researcher in the stamped self-addressed envelope provided.

Hypotheses

The following Null Hypotheses were tested to answer the research questions identified in

Chapter 1:

H_o1 – There will be no significant difference in the scores on items under the intraschool and classroom scenarios;

H_o2 – There will be no significant relationship between scored items and level of engagement;

H_o3 – There will be no difference in the scoring of the items for level of reported engagement;

H_o4 – There will be no significant relationship between scoring of items and years of experience;

H_o5 – There will be no significant difference between scores on items for years of experience;

H_o6 – There will be no significant relationship between "level of education attainment" and the scoring of items for the intraschool and classroom survey scenarios;

H_o7 – There will be no significant relationship between "models of reform" and the scoring of items for the intraschool and classroom survey scenarios;

H_o8 – There will be no significant difference between scores on items and models of reform.

Analysis

Analysis of data included the use of frequencies and descriptives to develop a profile of the sample faculties. SPSS for Windows (1996) was used to calculate the statistics for this study. The Wilcoxon Signed-Rank Test was used to generate a list of common domain skills. A test of relationship Spearman's Rho or Cramer's V, was used

to determine if a relationship or association existed between the responses to items under each scenario and the variables of "level of educational engagement", "years of experience", "level of educational attainment", and "model" of reform being implemented. The Wilcoxon Signed-Rank Test was calculated to explore the results of the tests of relationship when significant relationships or associations were found.

Summary

This chapter has focused on the design of this study. The survey was designed by the researcher to analyze teachers' perceptions of skills necessary for success in the classroom and those skills perceived by teachers as necessary for success in a participatory school management environment. Chapter 4 contains the presentation of data, the analysis of the relationships between teacher perceptions, and the analysis of teacher perceptions and demographic data collected using the survey. Chapter 5 includes a discussion of the findings, conclusions, and recommendations based on the study.

CHAPTER 4

PRESENTATION OF DATA

The purpose of this study was to explore the perceptions of classroom teachers about skills important in the classroom setting and those skills important in the larger school environment using an instrument developed by the researcher and to identify a "common domain" set of skills associated with success in both the classroom and intraschool domains. Data derived from the survey developed by the researcher and administered to selected faculty who were participating in reform efforts were used to address the research questions posed earlier.

The first section presents information about the final sample used for this study. The second section presents information about demographic data collected. The third section presents the analysis of the data addressing the research questions posed in Chapter 1. The final section addresses the research question focusing on the overlap of those skills perceived to be equally highly important for both the classroom and in intraschool environments.

Sample

The target sample included 40 schools in Tennessee: 29 schools from the Memphis City School System, 6 schools in the Chattanooga/Hamilton County School System, and 5 schools located in the middle part of the state. These schools represented nine models of reform (see Table 3). The central office supporting each school was

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contacted for permission to contact the schools' principals and administer the survey.

TABLE 3

SCHOOLS AND SCHOOL FACULTY IN SAMPLE BY MODEL OF REFORM

School Model	Schools in Sample	No. of Schools Responding	% Responding	No. of Faculty	Survey Returned	% Returned
Atlas	4	3	75	140	50	36
ELOB	4	2	50	77	37	48
Audrey Cohen College	3	1	33	116	44	38
Modern Red Schoolhouse	3	1	33	99	23	23
Paideia	5	3	60	202	56	28
Co-NECT	4	3	75	103	66	64
Accelerated	4	1	25	95	32	34
Roots and Wings	8	8	100	248	187	75
Coalition of Essential Schools	4	0	0	160	0	0
Total	39	22	56	' 1240	495	40

Permission was received from the Memphis City Schools and the Hamilton

County/Chattanooga School System. The schools in the middle part of the state: Henry,

Murfreesboro, and Nashville, declined to participate. Principals in each of the

participating school systems were contacted by phone. Packets including the surveys, a

timeline, permission forms, and other information requested by the schools were sent to

those schools agreeing to participate. Because five schools in the middle of the state

declined to be a part of the study, an additional four schools from the Memphis City

Schools system were invited. They were engaged in work with the Success For

All/Roots and Wings models. This resulted in a final sample of 39 schools: 33 schools

from the Memphis City Schools and 6 schools from the Hamilton County/Chattanooga

School System.

The researcher gathered data during the early fall of 1999. A total of 495 (40%) surveys were returned from the faculty of the 22 participating schools. No schools engaged with the Coalition of Essential Schools model responded.

Follow-up phone calls were made every two weeks beginning in early October. Efforts to reach the principals were not successful. Typically, the call was taken by a secretary or office worker. I would leave a message and in some cases re-fax material for the principal. Those principals with whom I was able to speak were polite, busy, and seemed willing to respond and participate.

Demographic Data

Participants in the survey were asked three questions regarding their years of experience, level of educational attainment, and the model of reform with which their school was engaged. As can be seen in Table 4, 489 (99.4%) participants reported having at least a Bachelors degree with 242 (48%) having a Master's degree or higher. Over half (53%) of the faculty had between 12 and 40 years of experience. There was some variation in experience across reform models. Looking at the models of reform in Table 5, 53.2% of the faculty at the schools engaged with Expeditionary Learning Outward Bound had 1 to 11 years of experience. Schools engaged with Paideia and Audrey Cohen models were more experienced with 67.3% and 60.4% having 12 to 40 years of experience.

TABLE 4

FACULTY CHARACTERISTICS: EDUCATIONAL ATTAINMENT, LEVEL OF ENGAGEMENT,

YEARS OF EXPERIENCE, AND MODELS OF REFORM

Category	Frequency	% of Total
Educational Attainment		
Bachelors	247	50.5
Masters	146	29.5
Masters +30	83	16.8
Specialist	4	0.8
Doctorate	9	1.8
Total	489	100[a]
Engagement		
None	18	3.7
Low	27	5.6
Medium	188	38.7
High	253	52.1
Total	486	100[a]
Years of Experience		
1 - 4	118	24.6
5 - 11	107	22.3
12 - 25	149	31.1
26 - 40	105	21.9
Total	479	100[a]
Models		
Audrey Cohen College	44	8.9
Paideia	56	11.3
Expeditionary Learning Outward Bound	37	7.5
Success for All/Roots and Wings	187	37.8
Modern Red Schoolhouse	23	4.6
Accelerated Schools	32	6.5
ATLAS Communities	66	13.3
Co-NECT	50	10.1
Total	495	100

Note: Percentages may not add to 100% due to rounding.

TABLE 5

DISTRIBUTION OF YEARS OF EXPERIENCE AMONG THE MODELS

School Model	Percent with 1 – 4 Years Experience	Percent with 5 – 11 Years Experience	Percent with 12 – 25 years experience	Percent with 13 – 40 Years Experience
Audrey Cohen	20.9	18.6	30.2	30.2
Paideia	16.4	16.4	41.8	25.5
Expeditionary Learning Outward Bound	21.9	31.3	25.0	21.9
Success For All	27.4	22.3	27.4	22.9
Modern Red Schoolhouse	8.70	34.8	39.1	17.4
Accelerated Schools	40.6	12.5	21.9	25.0
ATLAS Communities	28.6	26.5	30.6	14.3
Co-NECT	22.7	22.7	37.9	16.7

Note: Percentages may not add to 100% due to rounding.

In addition, participants were asked to characterize their level of engagement with the implementation of the model of reform. These responses were compared by model of reform. As displayed in Table 6, over half of the respondents reported that they were highly engaged with the implementation process for the model of reform at their school.

It is interesting that three sets of faculties associated with the Accelerated, Audrey Cohen College, and ATLAS schools models had larger numbers of faculty reporting engagement to a medium degree in contrast to other faculties reporting a high degree of engagement with the implementation process. Further, over 25% of faculty with the Audrey Cohen model reported low to no engagement with the model implementation.

TABLE 6

SCHOOL MODELS COMPARED BY LEVEL OF ENGAGEMENT

School Model	None	% Low Engagement	% Medium Engagement	% High Engagement
Audrey Cohen	4.7	20.9	53.5	20.9
Paideia	0	0	26.8	73.2
Expeditionary Learning Outward Bound	2.7	0	40.5	56.8
Success For All	5.5	4.9	34.6	54.9
Modern Red Schoolhouse	0	4.3	30.4	65.2
Accelerated Schools	0	9.4	56.3	34.4
ATLAS Communities	4.1	2.0	53.1	40.8
Co-NECT	4.7	6.3	32.8	56.3

Note: Percentages may not add to 100% due to rounding.

Respondents were asked to self-report the impact of their school model on their roles in the school, as well as report on the level of impact of the model on each of the following areas: students, parents, teachers, and the community. Faculties were asked to respond on a scale of 1 – 4, with 1 indicating no effect and 4 indicating high impact relative to the community, parents, students, other teachers, and the role of the respondent.

The impact of the models on the roles of respondents was reported to be high by teachers involved with Expeditionary Learning Outward Bound (55.6%) and Modern Red Schoolhouse (52.2%) (see Table 7.). Faculties with the Audrey Cohen model were not impacted as the other faculties were. With Audrey Cohen, 43% reported little to no impact of the models on their roles in the schools. Faculty roles in other school models were also affected, with 28.1% of faculty associated with the Accelerated Schools model reporting that the model had a high impact on their roles in the school.

TABLE 7

SCHOOL MODEL IMPACT ON RESPONDENT FACULTY

School Model	% No Change	% Low Impact	% Medium Impact	% High Impact
Audrey Cohen	13.6	29.5	50.0	6.8
Paideia	5.4	3.6	42.9	48.2
Expeditionary Learning Outward Bound	2.8	8.3	33.3	55.6
Success For All	8.9	5.6	42.5	43.0
Modern Red Schoolhouse	4.3	0.0	43.5	52.2
Accelerated Schools	6.3	15.6	50.0	28.1
ATLAS Communities	12.2	8.2	42.9	36.7
Co-NECT	6.5	4.8	48.4	40.3

Note: Percentages may not add to 100% due to rounding.

The intent of reform is to improve student learning. Faculty had differing

perspectives about the impact of the models on students. With regard to students, 87% of

the faculty with the Modern Red Schoolhouse model faculty reported that the model had

a high impact on students. (See Table 8.) With the Success For All/ Roots and Wings,

16.6% of the faculties reported the model having "little" or "no" impact on students.

While 48.1% of the faculty with Paideia Schools reported that the model had a high

impact on parents, 54.2% of the faculty of Atlas Schools reported that the model had

"little" or "no" impact on parents. Across all models, faculty respondents indicated that

the implementation of the models had a high impact on teachers. With all faculties, 64%

reported that the impact on teachers was high with 87% of the Modern Red Schoolhouse

faculty reporting a high impact. The impact of the models on communities was perceived

by respondents to be "little" to "no impact" with 34.7% of all faculty reporting.

TABLE 8

SCHOOL MODEL AND IMPACT ON STUDENTS, PARENTS, TEACHERS, AND COMMUNITIES BY REFORM MODEL

Group/ Level of importance	Accelerated Schools % reporting	Paideia % reporting	Expeditionary Learning Outward Bound % reporting	Modern Red Schoolhouse % reporting	ATLAS Schools % reporting	Co-NECT Schools % reporting	Audrey Cohen College % reporting	Success For All %reporting
Students								
No	0.0	3.6	0.0	0.0	2.1	0.0	6.8	1.6
Little	3.2	5.5	5.6	0.0	10.4	3.2	45.5	12.5
Some	61.3	21.8	36.1	13.0	70.8	48.4	36.4	47.8
High	35.5	69.1	58.3	87.0	16.7	48.4	11.4	38.0
Parents								
No	0.0	3.6	8.3	0.0	12.5	0.0	36.4	6.6
Little	19.4	14.5	13.9	4.3	41.7	11.3	34.1	23.1
Some	67.7	32.7	72.2	56.5	37.5	69.4	29.5	54.9
High	12.9	49.1	5.6	39.1	8.3	19.4	0.0	15.4
Teachers								
No	0.0	1.8	0.0	0.0	0.0	0.0	6.8	0.0
Little	6.3	5.4	5.6	0.0	2.1	0.0	29.5	3.8
Some	37.5	32.1	16.7	13.0	53.2	38.7	47.7	28.6
High	56.3	60.7	77.8	87.0	44.7	61.3	15.9	67.6
Community								
No	0.0	3.6	8.3	0.0	25.0	4.8	29.5	11.6
Little	25.8	14.5	14.5	17.4	27.1	25.8	31.8	27.1
Some	58.1	56.4	56.4	52.2	41.7	51.6	34.1	51.9
High	16.1	25.5	25.5	30.4	6.3	17.7	4.5	9.4

Note: Percentages may not add to 100% due to rounding.

This figure represents the average of the sum for "little" and "no" impact on community in Table 8.

Analysis of Data

This section addresses the research questions set forth in Chapter 1. The initial analysis of the data used ranked means for each of the first two research questions. The analysis employs non-parametric tests of relationship and difference. The rationale for using these tests is that the sample generated was purposive not random. Based on item response, the data were not normally distributed. Each of the above facts violates the assumptions for using parametric tests. The tests for relationship that were used included the Spearman's Rho and Cramer's V. These tests were chosen because the data for the variables "level of engagement" and "years of experience" were both ordinal/ordinal, while the "level of educational attainment" and "model of reform" were ordinal/nominal. The first statistic applied to the data was the test of relationship. When significant relationships were identified, the items were then broken down and analyzed using the Wilcoxon Signed-Rank Test. This test of significant difference was selected because the data sets came from related samples.

Research Question 1

Research question one asks which professional skills teachers perceive as being important in the classroom setting. The analysis required the calculation of a mean score for each item in the survey answered within the classroom scenario portion of the

instrument. Because the scale used in the survey is a Likert scale with "1" indicating not important, "2" indicating somewhat important, "3" indicating important, and "4" indicating very important; any item with a mean score of 3.0 or above was deemed to be important. The list of skills perceived by the faculties as important for success in the classroom is presented in Table 9. Listed are 54 of the 64 skills presented in the survey. (The survey items with references are listed in Appendix B.) The scores range from a high mean score of 3.77 to a low of 3.13.

Ten items did not meet the threshold mean score of 3.0. Of the 10 items not making the list, the lowest mean score belonged to the item "Knowledge of second language acquisition skills" ($\bar{x}$ =2.51). This was the lowest mean score for both survey scenarios. Others not found to be important included "Collecting and organizing data" and "Taking responsibility for leading reform." This last item is particularly interesting because the sample consists of schools engaged in whole school reform. The other skills included "Reaching beyond the school to make a difference in the district or the region", "Designing interactive meetings", "Communicating with multiple constituencies", "Engaging in the human resource function" and taking on the "Role of evaluator."

Research Question 2

Research question 2 asked which professional skills teachers perceive as being important in intraschool activities. This research question was addressed the same way as Research Question 1, except that data for the survey responses given using the intraschool scenario were used.

TABLE 9

SKILLS PERCEIVED AS IMPORTANT IN THE CLASSROM DOMAIN: LISTED BY RANKED MEAN

Skills	Mean	Standard Deviation
Model appropriate behaviors	3.77	0.46
Motivating reluctant learners	3.76	1.48
Creating positive work environments	3.72	0.49
Planning and sequencing events	3.71	0.50
Using instructional strategies that promote student learning	3.70	0.50
Selecting and implementing strategies	3.66	0.52
Ability to problem solve	3.66	0.51
Exhibiting patience and flexibility	3.66	0.58
Building trust and rapport	3.66	0.54
Encouraging learners to assume responsibility for shaping their learning tasks	3.66	0.54
Setting goals	3.64	0.53
Establishing objectives	3.64	0.54
Assessing progress	3.62	0.55
Building skills and confidence in others	3.61	0.58
Working with other people	3.61	0.57
Conflict management	3.61	0.58
Using teaching approaches that are sensitive to the multiple experiences of students	3.60	0.55
Developing and using curricula that encourages students to see, question and interpret	3.59	0.57
Understanding that physical, social, emotional, moral, and cognitive development influence learning	3.59	0.55
Understanding how learning occurs	3.58	0.59
Linking new learning to prior understanding	3.57	0.57
Allocating space, time, resources	3.55	1.92
Communicating goals	3.55	0.58
Using knowledge about human motivation and behavior	3.54	0.61
Planning and sequencing events	3.48	0.63
Stimulating reflection on prior learning	3.46	0.62
Appreciating individual variation	3.45	0.65

Table 9 – (Continued)

Skills	Mean	Standard Deviation
Understanding and awareness of expected developmental progressions	3.45	0.64
Creating interdisciplinary experiences	3.44	0.66
Assessing individual and group performance in order to design instruction	3.44	0.65
Evaluating educational effectiveness	3.42	0.69
Knowledge of how to help people to work productively and cooperatively with others in complex social settings	3.41	0.66
Engaging in collaborative work	3.38	0.69
Knowing about areas of exceptionality in learning	3.36	0.69
Inquiry	3.36	0.68
Varying the role of the teacher in the instructional process	3.36	0.69
Working effectively with issues of cultural and community diversity	3.35	0.69
Ability to engage in group process	3.32	0.67
Assuming responsibility for professional development	3.32	0.70
Managing change	3.32	0.69
Making effective use of multiple representations of concepts	3.32	0.68
Representing and using differing points of view, theories and ways of knowing	3.31	0.67
Mentoring	3.30	0.74
Educating new members	3.30	0.69
Engaging students, peers, or other school community members	3.30	0.68
Evaluating teaching resources	3.27	0.68
Ability to relate work to other units in the system	3.24	0.73
Regulate activities	3.18	0.72
Ability to engage in curriculum review and design	3.18	0.71
Facilitating	3.18	0.76
Ability to assume the role of evaluator	3.14	0.81
Implementing decisions which impact the school community	3.14	0.71
Reflecting on the change process	3.13	0.74
Ability to examine issues within an organizational context	3.13	0.74

Again, the means of the scores on each item were ranked from the highest to the lowest. A score of 3.0 or higher was deemed as important. Table 10 displays the ranking of mean scores for items relating to the intraschool scenario. For this listing, 56 of the 64 items were perceived by teachers to be important for success in the classroom.

The same items are "not included", in this question, because they were covered by those items "not included" in the "classroom perceptions" skills list shown in Table 9. It is interesting that the same set of skills would be ranked lowest. Clearly, these are skills teachers do not view as important for them in any school environment.

A review of the items and associated means suggests that there are items with similar means and positions in the list. "Modeling appropriate behavior", "Ability to problem solve" and "Creating positive work environments" are items appearing in the top five of each list. At the other end of the mean ranking, two of the final five items appear in both lists in approximately the same position. The "Ability to examine issues within an organizational context" and "Reflecting on the change process" are items perceived as less important by teachers based on a lower mean score. Research Question 3 provides an opportunity to explore the commonality of these two lists.

Research Question 3

The third research question asked which professional skills identified by teachers serve both the classroom setting and the intraschool setting. This question was answered using a test of significance and a test of the following null hypothesis:

TABLE 10

SKILLS PERCEIVED AS IMPORTANT IN THE INTRASCHOOL DOMAIN: LISTED BY RANKED MEAN

Skills	Mean	Standard Deviation
Model appropriate behaviors	3.80	0.46
Planning and sequencing events	3.80	0.43
Setting goals	3.71	0.52
Creating positive work environments	3.70	0.52
Ability to problem solve	3.70	0.52
Using instructional strategies that promote student learning	3.70	0.50
Developing and using curricula that encourages students to see, question and interpret	3.67	0.60
Working with other people	3.67	0.58
Selecting and implementing strategies	3.65	0.56
Motivating reluctant learners	3.65	0.56
Encouraging learners to assume responsibility for shaping their learning tasks	3.63	0.60
Establishing objectives	3.63	0.58
Exhibiting patience and flexibility	3.63	0.57
Understanding how learning occurs	3.61	0.59
Understanding that physical, social, emotional, moral, and cognitive development influence learning	3.60	0.58
Building trust and rapport	3.57	0.60
Using teaching approaches that are sensitive to the multiple experiences of students	3.56	0.60
Conflict management	3.55	0.62
Assessing progress	3.55	0.59
Linking new learning to prior understanding	3.55	0.57
Building skills and confidence in others	3.55	0.62
Planning and sequencing events	3.52	0.63
Allocating space, time, resources	3.45	0.66
Knowledge of how to help people to work productively and cooperatively with others in complex social settings	3.43	0.69
Engaging in collaborative work	3.41	0.68
Communicating goals	3.39	0.68
Knowing about areas of exceptionality in learning	3.39	0.65

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Table 10 – (Continued)

Skills	Mean	Standard Deviation
Varying the role of the teacher in the instructional process	3.38	0.70
Assessing individual and group performance in order to design instruction	3.38	0.67
Evaluating educational effectiveness	3.38	0.66
Understanding and awareness of expected developmental progressions within each domain	3.36	0.65
Creating interdisciplinary experiences	3.35	0.68
Appreciating individual variation	3.34	0.69
Representing and using differing points of view, theories and ways of knowing	3.33	0.67
Educating new members	3.33	0.73
Managing change	3.32	0.66
Assuming responsibility for professional development	3.31	0.74
Stimulating reflection on prior learning	3.31	0.64
Engaging students, peers, or other school community members	3.30	0.70
Ability to engage in curriculum review and design	3.30	0.69
Ability to engage in group process	3.29	0.71
Mentoring	3.28	0.71
Regulate activities	3.27	0.71
Making effective use of multiple representations of concepts	3.26	0.68
Inquiry	3.24	0.73
Facilitating	3.22	0.77
Implementing decisions which impact the school community	3.21	0.74
Working effectively with issues of cultural and community diversity	3.21	0.69
Evaluating teaching resources	3.11	0.73
Acting as a catalyst for individual and school-wide reform	3.04	0.79
Reflecting on the change process	3.02	0.76
Engaging the public about professional practice	3.01	0.82
Ability to examine issues within an organizational context	3.01	0.76
Ability to relate work to other units in the system	3.00	0.82
Ability to engage in research	3.00	1.20

H_o1 – There will be no significant difference in the scores on items under the intraschool and classroom scenarios.

This question was answered using a non-parametric test of significance. The Wilcox Sign paired test of significance was used to test the data. The results of that test appear in Table 11. The set of Common Domain skills was constructed by examining the data. Item pairs for which no significant difference occurred were included in the common domain skills list. The table includes items that were not found to be significantly different in their rating as reported by teachers. The list contains 31 items from the list of 64 skills presented in the survey. There were six items that were not scored significantly different in both scenarios, but the items were not included in the significance test because their mean scores were below 3.0. The selected skills seem to encompass many types of activities and tasks. The fact that this set represents those items that were not scored significantly different creates a set of skills that meets the criteria of importance in both the intraschool and classroom environments. It meets the criteria to be discussed as the "common domain set of skills".

Research Question 4

Research Question 4 asked if the skills, identified in questions 1, 2, and 3, differ by level of teacher engagement (self-reported) with the reform model. This question was addressed using a test of relationship. The null hypothesis for this question was as follows: H_o2 – There will be no significant relationship between scored items and level of engagement.

TABLE 11

ITEMS INCLUDED IN THE COMMON DOMAIN

Skills	Critical Value	Probability
Regulate activities	-1.36	0.17
Selecting and implementing strategies	-1.82	0.07
Knowing about areas of exceptionality in learning	-0.09	0.93
Ability to problem solve	-1.21	0.23
Planning and sequencing events	-1.38	0.17
Model appropriate behaviors	-1.09	0.28
Facilitating	-1.94	0.05
Mentoring	-0.94	0.35
Varying the role of the teacher in the instructional process	-0.20	0.85
Understanding how learning occurs	-0.11	0.91
Establishing objectives	-0.55	0.58
Engaging in collaborative work	-1.01	0.31
Ability to engage in group process	-0.07	0.94
Appreciating individual variation	-1.89	0.06
Exhibiting patience and flexibility	-0.59	0.56
Using teaching approaches that are sensitive to the multiple experiences of students	-1.20	0.23
Representing and using differing points of view, theories and ways of knowing	-1.65	0.10
Using instructional strategies that promote student learning	-0.37	0.71
Conflict management	-1.61	0.11
Educating new members	-1.19	0.24
Motivating reluctant learners	-1.61	0.11
Understanding that physical, social, emotional, moral, and cognitive development influence learning	0.00	1.00
Linking new learning to prior understanding	-1.43	0.15
Assessing individual and group performance in order to design instruction	-1.06	0.29

Table 11 – (Continued)	Critical Value	Probability
Skills	-0.24	0.81
Assuming responsibility for professional development		
Managing change	-0.18	0.86
Evaluating educational effectiveness	-1.54	0.12
Knowledge of how to help people to work productively and cooperatively with others in complex social settings	-0.28	0.78
Creating positive work environments	-1.36	0.18
Engaging students, peers, or other school community members	-0.63	0.53
Encouraging learners to assume responsibility for shaping their learning tasks	-1.14	0.26

The Spearman's Rho statistic was used with this set of data to ascertain if there was a relationship between the way in which the items were scored and how teachers reported their level of engagement. The results of this analysis are shown in Table 12. The table displays 43 items. For the intraschool survey, the scoring of 35 items was identified as being significantly associated with the scoring of the variable "level of engagement". Similarly, the scoring of 34 items from the classroom survey was found to be significantly associated with the scoring of the variable "level of engagement". The set contained 23 items from the sample common domain. The common skill set derived from this subset includes 26 items; 11 items were common to the larger sample domain.

Because a significant relationship was determined between "levels of engagement" and the scoring of the items, the researcher used the Wilcoxon Signed-Rank Test to explore the relationship further. The null hypotheses for the series of significance test are as follows: H_o3 – There will be no difference in the scoring of the items for level of reported engagement.

The Wilcoxon Signed-Rank Test was used on the items identified in the subset above. Scoring on items was compared by level of engagement with the following scale: "1" indicated no involvement, "2" indicated low engagement, "3" indicated medium engagement, and "4" indicated high engagement. The results of the test are displayed in Table 13. The listing contains each of the 43 items from the "test of relationship". Reporting for all items is included in the table.

TABLE 12

ITEMS WITH SIGNIFICANT RELATIONSHIP BETWEEN REPORTED "LEVEL OF ENGAGEMENT" AND RESPONSES TO

THE INTRASCHOOL AND CLASSROOM SCENARIO ITEMS

Skills	Intraschool Rho	Intraschool Prob	Classroom Rho	Classroom Prob
Developing and using curricula that encourages students to see, question and interpret	0.16	0.000	-------[b]	-------[b]
Regulate activities	0.105	0.023	-------[b]	-------[b]
Selecting and implementing strategies	0.094	0.041	0.199	0.000
Setting goals	0.114	0.012	0.111	0.016
Ability to problem solve	0.138	0.002	0.168	0.000
Planning and sequencing events	0.097	0.033	-------[b]	-------[b]
Model appropriate behaviors	0.121	0.008	0.13	0.005
Ability to engage in curriculum review and design	0.14	0.002	0.193	0.000
Facilitating	0.195	0.000	0.114	0.013
Mentoring	0.098	0.033	-------[b]	-------[b]
Using knowledge about human motivation and behavior	0.108	0.018	0.099	0.032
Reflecting on the change process	0.093	0.043	-------[b]	-------[b]
Inquiry	0.187	0.000	0.157	0.001
Building skills and confidence in others	0.111	0.015	0.187	0.000
Varying the role of the teacher in the instructional process	0.145	0.001	0.203	0.000
Understanding how learning occurs	-------[b]	-------[b]	0.141	0.002
Establishing objectives	-------[b]	-------[b]	0.107	0.021
Engaging in collaborative work	-------[b]	-------[b]	0.146	0.002
Ability to examine issues within an organizational context	0.121	0.009	-------[b]	-------[b]
Ability to engage in research	0.112	0.014	-------[b]	-------[b]
Assessing progress	0.18	0.000	0.113	0.014
Acting as a catalyst for individual and school-wide reform	0.102	0.025	0.162	0.000
Ability to assume the role of evaluator	-------[b]	-------[b]	0.168	0.000
Working with other people	0.138	0.002	0.098	0.035

Table 12 – (Continued)

Skills	Intraschool Rho	Intraschool Prob	Classroom Rho	Classroom Prob
Appreciating individual variation	-------[b]	-------[b]	0.108	0.019
Exhibiting patience and flexibility	0.103	0.024	0.128	0.005
Collecting and organizing data about school	0.137	0.003	0.123	0.007
Using teaching approaches that are sensitive to the multiple experiences of students	-------[b]	-------[b]	0.109	0.019
Representing and using differing points of view, theories and ways of knowing	0.097	0.034	-------[b]	-------[b]
Using instructional strategies that promote student learning	0.143	0.002	0.182	0.000
Planning and sequencing events	0.154	0.001	0.169	0.000
Ability to communicate with multiple constituencies	0.14	0.002	0.117	0.011
Conflict management	0.155	0.001	0.148	0.001
Educating new members	0.122	0.008	-------[b]	-------[b]
Motivating reluctant learners	0.10	0.028	0.164	0.000
Understanding that physical, social, emotional, moral, and cognitive development influence learning	0.091	0.046	0.144	0.002
Allocating space, time, resources	0.110	0.016	0.168	0.000
Understanding and awareness of expected developmental progressions within each domain	0.116	0.011	0.131	0.004
Assuming responsibility for professional development	0.110	0.016	0.141	0.002
Stimulating reflection on prior learning	0.107	0.019	0.154	0.001
Linking new learning to prior understanding	-------[b]	-------[b]	0.125	0.007
Managing change	-------[b]	-------[b]	0.117	0.011
Creating interdisciplinary experiences	0.135	0.003	0.140	0.002

[b] indicates that no significance exists for this item

TABLE 13

ITEMS HAVING SIGNIFICANT RELATIONSHIP WITH "LEVELS OF ENGAGEMENT"

Skills	Engage: none Wilcoxon C Value	Engage: none Probability	Engage: Low Wilcoxon C Value	Engage: Low Probability	Engage: Medium Wilcoxon C Value	Engage: Medium Probability	Engage: High Wilcoxon C Value	Engage: High Probability
Developing and using curricula that encourages students to see, question and interpret	-0.816	0.414	-1.633	0.102	-1.378	0.168	-2.474	0.013
Regulate activities	-0.577	0.564	-0.587	0.557	-0.131	0.896	-1.280	0.200
Selecting and implementing strategies	-1.000	0.317	-0.816	0.414	0.000	1.000	-2.236	0.025
Setting goals	-1.414	0.157	-0.816	0.414	-2.414	0.016	-2.000	0.046
Ability to problem solve	-1.414	0.157	-1.134	0.257	0.000	1.000	-0.973	0.330
Planning and sequencing events	-1.134	0.257	-1.134	0.257	-0.302	0.763	-1.300	0.193
Model appropriate behaviors	0.000	1.000	-0.302	0.763	-0.200	0.841	-1.461	0.144
Ability to engage in curriculum review and design	-2.236	0.025	-0.302	0.763	-2.475	0.013	-1.809	0.070
Facilitating	-0.333	0.739	-0.632	0.527	-0.135	0.893	-3.113	0.002
Mentoring	-1.890	0.059	-1.134	0.257	-0.558	0.577	-1.508	0.132
Using knowledge about human motivation and behavior	-1.000	0.317	-2.121	0.034	-1.431	0.152	-2.310	0.021
Reflecting on the change process	0.000	1.000	-1.406	0.160	-2.490	0.013	-1.294	0.196
Inquiry	-0.816	0.414	-0.816	0.414	-1.635	0.102	-1.808	0.071
Building skills and confidence in others	0.000	1.000	-0.447	0.655	-1.151	0.250	-3.086	0.002
Varying the role of the teacher in the instructional process	-0.707	0.480	-1.100	0.271	-0.156	0.876	-0.779	0.436
Understanding how learning occurs	0.000	1.000	0.000	1.000	-0.256	0.798	-0.467	0.640
Establishing objectives	-1.000	0.317	-1.134	0.257	-0.174	0.862	-1.265	0.206
Engaging in collaborative work	-1.732	0.083	-1.414	0.157	-0.801	0.423	-0.590	0.555
Ability to examine issues within an organizational context	-1.000	0.317	-0.333	0.739	-2.079	0.038	-1.213	0.225
Ability to engage in research	-1.000	0.317	-0.577	0.564	-0.885	0.376	-1.686	0.092
Assessing progress	-0.447	0.655	-1.134	0.257	-2.329	0.020	-0.295	0.768
Acting as a catalyst for individual and school-wide reform	-1.732	0.083	-1.249	0.212	-2.804	0.005	-1.914	0.056

Table 13 – (Continued)

Skills	Engage: none Wilcoxon C Value	Engage: none Probability	Engage: Low Wilcoxon C Value	Engage: Low Probability	Engage: Medium Wilcoxon C Value	Engage: Medium Probability	Engage: High Wilcoxon C Value	Engage: High Probability
Ability to assume the role of evaluator	0.000	1.000	-1.508	0.132	-3.333	0.001	-2.789	0.005
Working with other people	-0.577	0.564	-1.667	0.096	-2.180	0.029	-2.535	0.011
Creating interdisciplinary experiences	-0.707	0.480	-1.265	0.206	-2.263	0.024	-2.380	0.017
Appreciating individual variation	0.000	1.000	-0.312	0.755	-1.783	0.075	-1.264	0.206
Exhibiting patience and flexibility	-1.000	0.317	-1.134	0.257	-0.090	0.929	-1.340	0.180
Collecting and organizing data about school	-0.447	0.655	0.000	1.000	-2.593	0.010	-1.737	0.082
Using teaching approaches that are sensitive to the multiple experiences of students	-1.732	0.083	0.000	1.000	-0.306	0.760	-2.191	0.028
Representing and using differing points of view, theories and ways of knowing	-0.378	0.705	0.000	1.000	-0.617	0.537	-1.514	0.130
Using instructional strategies that promote student learning	-0.577	0.564	-0.447	0.655	-1.000	0.317	0.000	1.000
Planning	0.000	1.000	-1.414	0.157	-1.773	0.076	-2.335	0.020
Ability to communicate with multiple constituencies	-1.000	0.317	-1.311	0.190	-0.973	0.330	-0.278	0.781
Conflict management	-1.000	0.317	-0.707	0.480	-0.200	0.841	-1.437	0.151
Educating new members	-1.265	0.206	-0.632	0.527	-0.152	0.879	-2.420	0.016
Motivating reluctant learners	-0.577	0.564	-0.816	0.414	-0.898	0.369	-1.400	0.162
Understanding that physical, social, emotional, moral, and cognitive development influence learning	-0.577	0.564	-0.816	0.414	-0.822	0.411	-0.446	0.655
Allocating space, time, resources	-1.000	0.317	-1.000	0.317	-0.480	0.631	-1.333	0.182
Understanding and awareness of expected developmental progressions within each domain	-0.577	0.564	-0.905	0.366	-1.300	0.194	-2.231	0.026
Assuming responsibility for professional development	0.000	1.000	-1.342	0.180	-0.354	0.724	-0.174	0.862
Stimulating reflection on prior learning	0.000	1.000	0.000	1.000	-3.317	0.001	-3.857	0.000
Linking new learning to prior understanding	0.000	1.000	-2.449	0.014	-1.504	0.133	-1.512	0.131
Managing change	-0.577	0.564	-0.816	0.414	-0.007	0.995	-0.138	0.891

There were 28 occurrences of statistically significant difference. There was one occurrence in the non-engaged category, two in the low engagement category, 11 in the medium engagement category, and 14 in the high engagement category. The number of items scored significantly different on the two surveys increased as the reported level of engagement increased. There were five instances of significance in which the items were the same for both the medium and high engagement. These items included: Setting goals", "Ability to assume the role of evaluator", " Working with other people", "Creating interdisciplinary experiences", and "Stimulating reflection on prior learning".

Items not identified as having significantly different scores fell into the common domain category. For this subset of 29 items, 23 were a part of the common domain constructed from the sample means. Six of the items in the subset were independent of the sample common domain. The grouping was interesting. Included were skills such as: "Collecting and organizing data about school", "Ability to communicate with multiple constituencies", "Allocating space, time, and resources", and "Assessing progress". For teachers highly engaged with the model of reform being implemented in their schools, this skill set seems to have tools that may be important to the reform minded teacher. Of the 16 skills, nine were in the sample common domain. The skills common to both sets include: "Exhibiting patience and flexibility", "Conflict management", "Assuming responsibility for professional development", "Ability to problem solve", and "Varying the role of the teacher in the instructional process".

There were also four items in the sample common domain for which the scoring was found to be significantly different in the subset by "level of engagement". This

occurrence is significant for two reasons. The first is that at the high level of engagement

faculty scored items that appear in the sample common domain and ascribe different

levels of importance to them relative to the two school scenarios. These skills were as

follows: "Using teaching approaches that are sensitive to the multiple experiences of

students", "Educating new members", "Selecting and implementing strategies", and

"Facilitating". The second, and most relevant to this study, is that the identification of a

significant difference on the scoring of an item removed the item from the sample

common domain. This suggests that the variable "level of engagement" does have an

impact on the skills lists.

Research Question 5

Research Question 5 asked if the skills identified in 1, 2, and 3 differ by years of

experience. This question will be addressed in the same manner as Research Question 4.

A test of association was used to determine if a relationship exists between years of

experience and how items were scored under each scenario. For the test of relationship

the null hypothesis is as follows: H_o4 – There is no significant relationship between

scoring of items and years of experience.

A Spearman's correlation was conducted with the data to find if there was a

significant relationship between the scoring on items and the variable "years of

experience". Table 14 displays data from this analysis. Compared to "levels of

engagement", "years of

TABLE 14

SKILLS SIGNIFICANTLY RELATED TO YEARS OF EXPERIENCE

Skills	Intraschool Rho	Intraschool Prob	Classroom Rho	Classroom Prob
Planning and sequencing events	0.129	0.005	____[b]	____[b]
Setting goals	____[b]	____[b]	0.114	0.014
Using instructional strategies that promote student learning	0.091	0.049	____[b]	____[b]
Engaging in collaborative work	-0.13	0.014	____[b]	____[b]
Regulate activities	____[b]	____[b]	-0.113	0.015
Working effectively with issues of cultural and community diversity	-0.132	0.004	____[b]	____[b]
Acting as a catalyst for individual and school-wide reform	____[b]	____[b]	-0.093	0.044
Ability to examine issues within an organizational context	____[b]	____[b]	-0.096	0.04
Ability to engage in research	____[b]	____[b]	-0.128	0.006

[b] Indicates that there is no significant relationship on this item.

experience" generated fewer instances of association. However, the analysis does yield

some important information. For eight items, there was a relationship between the

number of years of experience and how the items were scored. None of the items for

which a significant relationship exists occur in both the intraschool and classroom

environments. There are several correlation coefficients (Rho) that are negative,

indicating an inverse relationship. As years of teaching increase through the four

categories, scores tend to go down. The longer the teacher has been in education, the

more likely he/she will be to rate the items as less important.

The use of the Wilcoxon Signed-Rank Test was incorporated into the analysis for

this question by virtue of the significance found in the test of Spearman's Rho statistic.

The null hypotheses for the series of Wilcoxon Signed-Rank Test for significant difference are as follows: H_o5 – There will be no significant difference between scores on items and levels of years of experience.

Table 15 shows the data from the significance tests. On three of the items, "Planning and Sequencing", "Using instructional strategies that promote student learning", and "Engaging in collaborative work", no difference was found across all experience categories. Four of the items, "Setting goals", "Regulating activities", "Ability to examine issues within an organizational context", and "Ability to engage in research", reach significant difference after the 11th year of teaching. The data presented in the table also suggest that teachers with between 12 and 25 years of experience seem to discriminate between skills and environments most highly. That is, there are more instances of significant difference in the scoring of items in the subset in the 12 – 25 years of experience category. In 3 of 4 items the teachers viewed the skill as more important in the intraschool scenario. The item perceived as more important in the classroom scenario was "Working effectively with issues of cultural and community diversity". The skill was viewed similarly in the 5 – 11 years range. The 12 – 25 year range of experience accounts for 4 out of 11 instances of significant difference. Significant difference occurs for 6 out of 9 items. This significance indicates that faculty, in at least one of the experience ranges, scored the items differently in the classroom or intraschool scenario. There was only one item on which the faculties scored it differently in two experience ranges. The skill item "Ability to examine issues within an organizational context" was viewed as an important classroom skill for teachers with

TABLE 15

IMPACT OF FACULTY EXPERIENCE ON SKILL RATINGS

Skills	1-4 yrs Wilcoxon C Value	1 - 4 yrs Probability	5-11 yrs Wilcoxon C Value	5 - 11 yrs Probability	12-25 yrs Wilcoxon C Value	12 - 25 yrs Probability	26-40 yrs Wilcoxon C Value	26 - 40 yrs Probability
Regulate activities	-1.192	0.233	-0.282	0.778	-3.197	0.001	-1.093	0.274
Setting goals	-3.157	0.002	-2.414	0.016	-0.333	0.739	-1.706	0.088
Planning and sequencing events	-0.569	0.569	-1.441	0.149	-1.191	0.234	-1.151	0.250
Engaging in collaborative work	-1.317	0.188	-0.168	0.866	-0.283	0.778	-0.870	0.384
Ability to examine issues within an organizational context	-2.030	0.042	-3.112	0.002	-1.102	0.270	-0.378	0.709
Ability to engage in research	-0.923	0.356	-1.880	0.060	-2.036	0.042	-2.290	0.022
Acting as a catalyst for individual and school-wide reform	-1.768	0.077	-1.897	0.058	-2.123	0.034	-2.775	0.006
Using instructional strategies that promote student learning	-0.365	0.715	-0.600	0.549	-0.209	0.835	0.000	1.000
Working effectively with issues of cultural and community diversity	-0.632	0.527	-1.976	0.048	-3.884	0.000	-1.859	0.063

teachers with 5 – 11 years of experience. For the less experienced teacher the focus was on the classroom, not the larger school environment. In the 12 – 40 years of experience range, five out of six items for which there was significant difference in the scoring were viewed as more important in intraschool environments.

The remaining three items: "Planning and sequencing events", "Engaging in collaborative work", and "Using instructional strategies that promote student learning" are all items in the sample common domain. With "Regulate activities", an item in the sample common domain, a significant difference was found. This variable was rated higher for the intraschool environment and was significant in only the 12-25 years of experience range. This is significant for another reason as well. It indicates that the variable, "years of experience" does impact the skills lists.

Research Question 6

Research Question 6 asked if the skills in questions 1, 2, and 3 differ by level of education attainment. A Cramer's V test for relationship was used to explore the data about educational attainment and the scoring of items for each survey scenario. The null hypothesis for this statistic is as follows: H_o6 – There will be no significant relationship between "level of education attainment" and the scoring of items for the intraschool and classroom survey scenarios.

The Cramer's V output indicated that there was no relationship between the level of educational attainment and the scores of items within the survey. The null hypothesis was not rejected.

Research Question 7

Research Question 7 asked if the skills identified in questions 1, 2, and 3 differ by the reform model used by the school. A Cramer's V test for relationship was used to explore these data about the model of school reform and the scoring of items on the intraschool and classroom surveys. The null hypothesis for this statistic is as follows: H_o7 – There will be no significant relationship between "models of reform" and the scoring of items for the intraschool and classroom survey scenarios.

Table 16 displays the results from the application of the Cramer's V statistic. Significant relationships were discovered for 13 items. Of the 13 items, eight are part of the sample common domain skill set. Because the Cramer's V indicated that significant relationships between the scoring of certain items and models of reform, the Wilcoxon Signed-Rank Test were used to explore the data. The null hypothesis for the series of significance tests is as follows:

H_o8 – There will be no significant difference between scores on items and models of reform.

The data from the series of significance tests appear in Table 17. Of the 13 items identified as having significant relationship between "models" and the scoring of items on the surveys, six are skills that meet the criteria for inclusion in a list of common skills by model.

These skills included "Knowing about exceptionality in learning", "Encouraging learners to assume responsibility for shaping their own learning tasks", "Educating new members", "Patience and flexibility", and "Appreciating individual variation."

TABLE 16

SKILLS SIGNIFICANTLY RELATED TO REFORM MODELS

Skills	Intraschool Cramers V	Intraschool Prob	Classroom Cramers V	Classroom Prob
Selecting and implementing strategies	------[b]	------[b]	0.166	0.023
Exhibiting patience and flexibility	0.164	0.01	------[b]	------[b]
Encouraging learners to assume responsibility for shaping their learning tasks	------[b]	------[b]	0.161	0.016
Planning and sequencing events	0.173	0.003	------[b]	------[b]
Allocating space, time, resources	0.181	0.001	------[b]	------[b]
Knowing about areas of exceptionality in learning	0.162	0.013	------[b]	------[b]
Creating interdisciplinary experiences	------[b]	------[b]	0.155	0.031
Appreciating individual variation	0.152	0.038	------[b]	------[b]
Educating new members	0.153	0.035	------[b]	------[b]
Ability to engage in curriculum review and design	0.151	0.044	------[b]	------[b]
Facilitating	0.162	0.011	------[b]	------[b]
Engaging the public about professional practice	------[b]	------[b]	0.152	0.045
Ability to relate work to other units in the system	------[b]	------[b]	0.153	0.044

[b] Indicates that no significant relationship exists for this item

Two of the items, "Ability to engage in curriculum review and design" and "Ability to relate work to other units in the system", were found to have significantly different scores by at least three models: ATLAS Schools, Accelerated Schools, and Audrey Cohen College Model. Accelerated had the highest of the three on the curriculum item, rating it at 3.4 and important as a intraschool skill. The faculty associated with the Paideia model scored the "other units" item highest as a classroom skill at 3.3. Neither of these items was in the common domain of skills. The most discriminating model is the ATLAS Schools model. Faculty scored items differently in the two scenarios for the following items: "Ability to engage in curriculum review and design", "Creating interdisciplinary experiences", "Ability to relate work to other units in the system", and "Engaging the public about professional practice." Curriculum issues and engaging the public were skills that were viewed as more important for intraschool environments. Relating work to other units and creating interdisciplinary experiences were viewed as skills more important for classroom success. The modern Red Schoolhouse was the only model that had no items with significant difference on at least one item.

There are 15 occurrences of significant difference for the subset by model of reform. One important finding is that the item "Selecting and implementing strategies", which is in the sample common domain of skills, was also found to be significantly different for this subset with regards to the scoring of items and model of reform. This proves that the variable "model of reform " has an impact on the skills lists.

TABLE 17

IMPACT OF REFORM MODEL ON SKILL RATINGS

Skills	MRSH Wilcoxon C Value	MRSH Prob	ELOB Wilcoxon C Value	ELOB Prob	Co-NECT Wilcoxon C Value	Co-NECT Prob	ATLAS Wilcoxon C Value	ATLAS Prob	ACCEL Wilcoxon C Value	ACCEL Prob	AudCoh Wilcoxon C Value	AudCoh Prob	SFA Wilcoxon C Value	SFA Prob	PAIDEIA Wilcoxon C Value	PAIDEIA Prob
Selecting and implementing strategies	-0.447	0.655	0.000	1.000	-2.333	0.020	-0.447	0.655	0.000	1.000	-0.905	0.366	-1.441	0.150	0.000	1.000
Knowing about areas of exceptionality in learning	-1.000	0.317	-1.633	0.102	-0.355	0.723	-1.667	0.096	-0.447	0.655	-0.535	0.593	-1.431	0.152	-1.134	0.257
Planning and sequencing events	-0.333	0.739	0.000	1.000	-1.147	0.251	-0.707	0.480	0.000	1.000	-0.905	0.366	-0.140	0.889	-1.155	0.248
Ability to engage in curriculum review and design	-1.633	0.102	-0.816	0.414	-1.000	0.317	-2.121	0.034	-2.333	0.020	-2.309	0.021	-1.234	0.217	-0.905	0.366
Facilitating	-0.816	0.414	-1.811	0.070	-2.309	0.021	-1.000	0.317	-1.811	0.070	-0.577	0.564	-0.133	0.894	-0.302	0.763
Creating interdisciplinary experiences	0.000	1.000	-1.265	0.206	-1.508	0.132	-2.121	0.034	-0.447	0.655	-0.034	0.973	-1.539	0.124	-2.309	0.021
Appreciating individual variation	-1.414	0.157	-1.000	0.317	-0.832	0.405	-0.632	0.527	-1.508	0.132	-0.966	0.334	-1.860	0.063	-0.943	0.346
Exhibiting patience and flexibility	0.000	1.000	-1.000	0.317	-0.258	0.796	-0.587	0.557	-0.302	0.763	-0.500	0.617	-1.208	0.227	-0.816	0.414
Ability to relate work to other units in the system	-0.577	0.564	-2.309	0.021	-0.885	0.376	-2.121	0.034	-0.577	0.564	-2.236	0.025	-3.435	0.001	-3.300	0.001
Educating new members	-0.276	0.783	-0.277	0.782	-1.732	0.083	-1.000	0.317	0.000	1.000	0.000	1.000	-0.435	0.664	-0.378	0.705
Engaging the public about professional practice	-1.667	0.096	-2.714	0.007	-0.237	0.813	-2.000	0.046	-1.000	0.317	-0.775	0.439	-1.136	0.256	-1.410	0.159
Allocating space, time, resources	-1.000	0.317	-0.577	0.564	-0.302	0.763	-0.333	0.739	0.000	1.000	-2.121	0.034	-0.174	0.862	0.000	1.000
Encouraging learners to assume responsibility for shaping their learning tasks	-0.577	0.564	-0.577	0.564	-1.291	0.197	0.000	1.000	0.000	1.000	-1.414	0.157	-1.372	0.170	-1.134	0.257

Notes: MRSH – Modern Red School House
ELOB – Expeditionary Learning Outward Bound
ACCEL – Accelerated Schools
AudCoh – Audrey Cohen College
SFA – Success For All/Roots and Wings

CHAPTER 5

FINDINGS, CONCLUSIONS, AND RECOMMENDATIONS

Chapter Five contains the findings, conclusions, and recommendations based on the results of this study. The focus of this study was to determine if a common set of skills existed between those skills perceived by teachers to be important in the classroom and those perceived to be important to teachers in an intraschool environment. Further, the study sought to determine if the variables of level of engagement, years of experience, level of educational attainment, and reform model had an impact on the perceptions of the importance of the skills. An instrument was designed to collect data about teacher perceptions. Teachers were asked to address survey items using a classroom and intraschool scenario as a reference. Data from 495 surveys representing eight school reform models in 22 schools were used to answer seven research questions and test eight null hypotheses. Because the sampling techniques were purposive rather than random, the analysis of data was accomplished with non-parametric tests. Specifically, for tests of association, the Spearman's Rho and the Cramer's V were used. For tests of significant difference, the Wilcoxon Signed-Rank Test was employed.

<u>Findings</u>

Research Question 1

As to what are the professional skills teachers perceive as being important in the classroom setting, all but 10 of the items on the survey meet the threshold requirements,

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(Mean Score ≥ 3.0), for inclusion as a skill perceived to be important. The fact that teachers scored 54 out of 64 items as being important supports the notion that the skills represented in the survey are at least representative of a list of skills teachers view as important for success in the classroom. Those skills items with mean scores less than 3.0 are skills that fall outside of the traditional view of the role of the teacher. Skills such as "Collecting data about school" and "Reaching beyond school to influence the district and region" are skills that policy makers desire teachers to develop and use. It is clear though, that teachers do not view these skills as being as important for classroom success.

Research Question 2

As to what skills teachers perceive as being important in intraschool activities, the skills that teachers perceived as being important for success in intraschool environments were remarkably similar to the skill set that emerged for classroom success. Not only were the lists similar, the ranks of the mean scores of skills were as well. Those skills not scored high enough to be included on the list were also similar. Skills such as "Knowing about the process of second language acquisition", "Collecting and analyzing data about your school", "Designing meetings", and "Assuming the role of evaluator" were a few of the items that had mean scores not high enough to be included on the list. The inclusion of 56 items in the list of important skills suggests that teachers draw upon a wide range of skills to address challenges and tasks each day in their schools outside of their classroom environments

The recognition of skills as useful may account for the relatively high mean scores for items in both the classroom and intraschool lists. It may account as well for the large number of items appearing on each list. The closeness of the listings may be explained in part by the fact that classroom and non-classroom activities take place in schools and the skills associated with accomplishing tasks in schools are viewed as one set of skills. Teachers may create a subset of those skills depending on the environment they are in or the tasks they anticipate having to complete. The similarity of the lists may belie the different perceptions teachers have of those skills when presented with such tasks or environments.

Research Question 3

As to the professional skills identified by teachers serve both the classroom and intraschool setting, the Wilcoxon Signed-Rank Test was used to compare the lists generated for Research Questions 1 and 2. There were 54 items available for comparison, as those not scored as important were dropped from the list. Of the 54 items, 23 were found to have significant differences. The common domain set of skills represents those skills perceived to be of equal importance in the classroom and in intraschool environments. The list of skills reflects a wide range of task-attack skills. Technical skills associated with classroom and institutional learning such as "Understanding how learning occurs" is a common domain skill suggesting that teachers perceive some value in that particular skill being a shared skill. Skills associated with group facilitation were also perceived as important. "Motivating reluctant learners",

"Educating new members", "Selecting and implementing strategies", each have implications for teachers' views of total school environments. Recognition of diversity and schools as dynamic institutions suggest a set of skills as well. "Conflict management", "Management of change", "Ability to problem solve", and "Exhibiting flexibility and patience" were identified as skills in the common domain. Based on the responses to the survey items, given the two scenarios, it can be concluded that a common domain set of skills perceived by teachers as important in both classroom and intraschool domains exists.

Research Question 4

As for whether the skills, identified in questions 1, 2, and 3 differ by level of teacher engagement (self-reported) with the reform model, the Spearman's Rho tests of relationship suggest that a relationship exist between how items were scored and how level of engagement was scored. Engagement suggests activity and a self-report of engagement suggests activity as well. This view is evident with the results of the test of relationship. A high number of items had a significant relationship, in both the classroom and intraschool sets. The number of significant relationships compared to other tests of significant relationship in this study is very high because of the proximity of the respondent to his or her scoring. Though the number of significant relationship items was high, the strength of the relationships, indicated by the Rho value, was not high.

The test of significant difference was revealing. The statistic was calculated for each item and for each level of engagement. The most noticeable trend was the low level

of discrimination at the "none" and "low" level of engagement. Clearly, the more engaged a teacher reported himself or herself to be, the more difference in items occurred. The only item for which a significant difference was found in the "none" reporting level was "Ability to engage in curriculum review and design". In the highly engaged category, this item was not significantly different for the classroom and intraschool environments. In the two highest reporting categories, "medium" and "high", several items showing significant difference repeat categories. "Setting goals", "Working with people", "Creating interdisciplinary experiences", and "Stimulating reflection on prior learning" are items for which teacher discrimination from category to category show some consistency.

The patterns of significant difference, alternatively the patterns of non-commonality, from category to category show that in the low category there was one item significantly different. For the categories "low", "medium", and "high" the number of significant differences is 3, 10, and 18 respectively. At the high level of engagement, the discrimination and the resulting subset of common skills is very similar to the common domain set developed for the whole sample. The total number of skills in the common domain defined by "level of engagement" is 43. Of this subset of common domain skills by "level of engagement", 24 of the items on the level of engagement list appear on the common domain list of 31 items.

Five of the items in the subset common domain include: "Acting as a catalyst for individual and school-wide reform", "Reflecting on the change process", "Allocating space, time and resources", "Ability to examine issues within an organizational context",

and "Assessing progress". These items which are part of the non-significant common

domain set that does not match the sample common domain, tend to define a set of skills

appropriate for a group of teachers actively engaged in reform. Perhaps this set of skills

is more reflective of skills needed by faculty if reform is to be accomplished and

sustained. It may be that other variables soften the common domain set, or it could be

that those skills are called upon when change is desired and actively pursued. It is

apparent that the perceptions of skills were impacted by the reported level of engagement.

Research Question 5

As for the skills identified in 1, 2, and 3 differing by "years of experience", the

Spearman's Rho was used to identify those items for which the scoring was significantly

associated with the variable years of experience. It was found that a significant

relationship occurred for nine of the items. There were several items for which the

correlation was negative, indicating an inverse relationship. These skills included

"Working effectively with issues of cultural and community diversity", "Acting as a

catalyst for individual and school-wide reform", "Ability to examine issues within an

organizational context", and "Ability to engage in research". As the number of years of

faculty experience increases, the perceived importance of these skills decreases.

Additionally, for the two categories where the most discrimination between

variables occurs, there are eight instances in which the item for which significant

difference is found occurs in both the 5 to 11 and 12 to 25 years of experience categories.

In these instances, the skills can be grouped as interactive skills or enabling skills. Skills

such as "Communicating goals", "Ability to relate work to other units in the system", and "Using knowledge about human motivation and behavior" are skills that characterize the set. This may imply a relationship between the two experience sets relative to alignment of skill perceptions and may have significance for motivating groups to respond to change.

Research Question 6

As for whether the skills in questions 1, 2, and 3 differ by "level of education attainment", there were no significant relationships between the scoring of items in the two scenarios and the variable levels for "level of education attainment". No further analysis was done.

Research Question 7

As for whether the skills identified in questions 1, 2, and 3 differ by the reform model used by the school, the Cramer's V test of significant relationship indicated that there were items for which a significant relationship existed between the scoring of particular items and the model that was being implemented. Beyond knowing that the relationship exists between the models and how some items are scored, there is little else to be deduced. The Wilcoxon Signed-Rank Test data provide little additional insight.

The model that had the most incidence of significant difference was the ATLAS schools model. In 4 of 13 cases those faculty respondents associated with the ATLAS Schools model perceived differences in the importance of the skill item. These faculties

viewed the following items significantly different as to the importance of the skill in a particular school environment. Skills identified included "Ability to engage in curriculum review and design", and "Engaging the public about the professional practice", were scored as more important for success in the larger school environment. "Creating interdisciplinary experiences", and "Ability to relate work to other units in the system" were both viewed as skills more important in the classroom. The faculty responses, from those engaged with the Modern Red schoolhouse, indicated no instances of significant difference between the scoring of the 13 items in the classroom and intraschool scenarios. The 13 items would be in the subset common domain for Modern Red Schoolhouse Model.

Faculty in other models perceived the skills associated with success in the classroom and intraschool environments differently. Perhaps it is appropriate that the subset common domain skill set by model of reform would have a few but related items in it. These skills may be the cornerstone for effective and lasting reform and change in our schools. "Knowing about exceptionality in learning", "Encouraging learners to assume responsibility for shaping their own learning tasks", "Educating new members", "Patience and flexibility", and "Appreciating individual variation" are skills that may be all that are needed. The set need not be large to be effective.

Conclusions

The data and analysis support the conclusion that a common domain of skills exists and is derived from the list of 64 skill items originally incorporated into the survey.

The common domain of skills consists of 31 items. This list contains a broad range of skills. These skills address a number of school related areas. The domain can be divided into six categories. (see Figure 1.) These categories include Organizational, Student centered, Managing and others, Evaluation and development, Other peoples shoes, and No thank you. The first category contains skills such as: "Modeling appropriate behavior" and "Creating positive work environments". Although not always fine tuned skills, these are basic to the organizational mission of the school. The second category is student centered. This grouping includes skills like: "Selecting and implementing strategies which impact students", and "Understanding how learning occurs". The third category is Managing and others. This category contains the management paradigm. It is the nuts and bolts of how educators get where they are going. These skills aren't all one needs, but they are critical if one is going to get there. "Managing conflict", "Allocating space, time, and resources", "Linking new learning to prior understanding", and "Engaging in collaborative work" are skills teachers need for success in both the classroom and in the larger school environment. The evaluation and development category includes such skills as "Assuming responsibility for professional development", "Evaluating educational effectiveness", and "Managing change". Others Shoes is a category that reflects a conscious effort to bring new perspectives into the workplace. Skills for this category include "Mentoring", "Facilitating", and "Making effective use of multiple representations of concepts". The final category, No Thank You, includes those skills we all know we need but depend on others to have. Skills such as "Assuming responsibility of reform", and "Communication with school stakeholders".

This common domain set of skills was relatively stable when examined using

respondent demographic data including "Level of Engagement", "Years of Experience",

"Level of Education Attainment", and "Model of Reform".

TABLE 18

CATEGORIES FOR COMMON DOMAIN SKILLS

Organizational	Model appropriate behaviors
	Creating positive work environments

Student Centered	Selecting and implementing strategies
	Understanding how learning occurs

Managing and Others	Linking new learning to prior understanding
	Conflict management
	Allocating space, time, resources
	Engaging in collaborative work

Evaluation and development	Evaluating educational effectiveness
	Managing change
	Assuming responsibility for professional development

Other Peoples Shoes	Mentoring
	Making effective use of multiple representations of concepts
	Facilitating

No Thank You	Ability to communicate with multiple constituencies
	Ability to assume responsibility for leading reform

The variable "level of engagement" had the most impact on the common domain

list. As the level of engagement intensified, the discrimination between skills and skill

environments became more acute. The trend with that particular set was towards a

selective list of skills. The level of engagement data demonstrated that there can be

additions and deletions to the set that are task specific. For example, the five skills that

were identified as being in the common domain for the subset, but not for the sample

common domain were skills that defined a task orientation. As a group the skills were

focused on the implementation of the model of reform for highly engaged teachers'

schools.

The list was only marginally influenced by years of experience. It can be

concluded that the period from 5 years through 25 years of teaching is optimum for

discriminating between skills. Before and after that period, teachers seem to view the

presented set of skills as operational.

In conclusion, the data analysis identified a common domain set of skills. This

domain set is impacted by variables associated with teaching and teachers. The level of

engagement, years of experience, and models of school change do impact teachers'

perceptions of common domain skills. This is important because it suggests that there are

different skill sets appropriate for different school tasks. Given two scenarios and a

common domain set which stayed essentially unchanged when variable influences were

assessed, the likelihood of a common domain set remaining stable given another scenario

is high.

Recommendations

Based on the results of this study several recommendations can be made.

1. The data indicate that a common domain set of skills exists and can be defined.

    Scenarios need to be developed that help define the set further. It may be possible to

develop task-specific sets of skills that can be put with a common domain set for special situations such as urban education, at risk youth, or adult education.

2. The data suggest that teachers have different perceptions of what skills and skill set are important depending on their level of engagement and years of experience. Caution must be taken to design professional development opportunities for faculty that take into account the extent to which they are engaged with the tasks to be accomplished and the amount of experience they bring to the development opportunity.

3. As this research is on-going, several recommendations for the future are warranted. The survey length needs to be reduced. Several scenarios need to be developed to assess common domains for different environments. The scale needs to be adjusted so that more discrimination between teachers' perceptions can be captured by the survey.

4. Noting the high importance rating given by these teachers engaged in reform to skills imbedded in the INTASC and NPBTS standards, teacher preparation programs should be encouraged to employ the skills in the refinement of their programs.

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APPENDICES

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APPENDIX A

Teacher Skills Perception Survey

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Teacher Skills Perception Survey

Directions

Please provide the following information before completing the questionnaire:

1. How many years of teaching experience do you have (including this year)?_____ years

2. What is your level of educational attainment (check highest degree)?

   Bachelor's _____ Specialist _____ Master's +30 _____
   Master's _____ Doctorate _____

3. Please indicate the model(s) with which your school is working (check all that apply):

   ( ) Success For All   ( ) Accelerated Schools
   ( ) Co-NECT Schools   ( ) ATLAS Schools
   ( ) Audrey Cohen College   ( ) Coalition of Essential Schools
   ( ) Roots and Wings   ( ) Modern Red Schoolhouse
   ( ) Paideia Schools   ( ) Expeditionary Learning Outward Bound

4. As your school has worked to implement the "model(s) of reform" selected. how would you characterize your level of engagement with the implementation process?

   High _____ Medium _____ Low _____ None _____

5. As the process of implementation has proceeded. the role(s) of teachers at your school may have changed. Because of your engagement with the school model. how would you characterize the impact of the "model" on your role as a member of the school community?

   High _____ Medium _____ Low _____ No Change _____

6. Reflecting on the process and outcomes of school reform at your school. how would you characterize the impact of the school reform "model" on:

   Students: High Impact _____ Some Impact _____ Little Impact _____ No Impact _____

   Parents: High Impact _____ Some Impact _____ Little Impact _____ No Impact _____

   Teachers: High Impact _____ Some Impact _____ Little Impact _____ No Impact _____

   Community: High Impact _____ Some Impact _____ Little Impact _____ No Impact _____

For the purposes of completing the survey below, please consider the following situation:

You have been hired to teach within your discipline and at the grade level(s) that you wish to teach. In addition to your teaching responsibilities, you have been asked to serve on a number of committees. These committees include a departmental curriculum committee, a school –wide committee reviewing teacher evaluation procedures, and a committee of teachers, parents, students, and community members which is reviewing non-essential extracurricular activities and is charged with recommending continued funding or removal form the programs to be offered. No chairpersons have been named for the committees. Though you are busy with your classes, you have agreed to serve on the committees. As you read each item in the survey, please indicate the extent to which you perceive the skill to be important for your success as a teacher in helping your students to achieve in your classroom.

1= Not Important	2= Somewhat Important	3= Important	4= Very Important

	1	2	3	4
1) Developing and using curricula that encourage students to see, question and interpret	①	②	③	④
2) Building and participating in learning communities	①	②	③	④
3) Selecting and implementing strategies which impact student learning	①	②	③	④
4) Knowing about areas of exceptionality in learning	①	②	③	④
5) Setting goals	①	②	③	④
6) Solving problems	①	②	③	④
7) Planning and sequencing events	①	②	③	④
8) Modeling appropriate behavior	①	②	③	④
9) Engaging in curriculum review and design	①	②	③	④
10) Facilitating	①	②	③	④
11) Mentoring	①	②	③	④
12) Designing interactive meetings	①	②	③	④
13) Using knowledge of human motivation and behavior	①	②	③	④
14) Reflecting on change process	①	②	③	④
15) Understanding the process of "Inquiry"	①	②	③	④
16) Engaging in human resources function	①	②	③	④
17) Building skills and confidence in others	①	②	③	④
18) Varying the role of the teacher in the instructional process	①	②	③	④
19) Understanding how learning occurs	①	②	③	④
20) Establishing objectives	①	②	③	④
21) Engaging in collaborative work	①	②	③	④
22) Understanding of and engaging in group process	①	②	③	④
23) Examining issues from an organizational context	①	②	③	④
24) Engaging in research	①	②	③	④
25) Assessing progress	①	②	③	④
26) Acting as a catalyst for individual and school-wide improvement	①	②	③	④
27) Knowing about the process of second language acquisition	①	②	③	④
28) Assuming the role of evaluator	①	②	③	④
29) Working with other people	①	②	③	④

30) Creating interdisciplinary learning experiences   ① ② ③ ④

31) Assuming responsibility for leading reform   ① ② ③ ④

32) Appreciating individual variation   ① ② ③ ④

33) Exhibiting flexibility and patience   ① ② ③ ④

34) Collecting and organizing data about your school   ① ② ③ ④

35) Relating work to other units in the system   ① ② ③ ④

36) Using teaching approaches that are sensitive to the multiple experiences of learners   ① ② ③ ④

37) Representing and using differing points of view, theories and ways of knowing   ① ② ③ ④

38) Using instructional strategies that promote learning   ① ② ③ ④

39) Planning   ① ② ③ ④

40) Communicating with school stakeholders   ① ② ③ ④

41) Managing conflict   ① ② ③ ④

42) Educating new school "community" members (teachers, students, parents, and staff)   ① ② ③ ④

43) Engaging public about the roles and functions of teachers in school organizations   ① ② ③ ④

44) Motivating reluctant learners   ① ② ③ ④

45) Understanding that physical, social, emotional, moral and cognitive development influence learning   ① ② ③ ④

46) Allocating space, time, and resources   ① ② ③ ④

47) Understanding and awareness of expected developmental progressions within each domain (physical, social, emotional, moral, and cognitive)   ① ② ③ ④

48) Assuming responsibility for professional development   ① ② ③ ④

49) Stimulating reflection on prior learning   ① ② ③ ④

50) Linking new learning to prior understandings   ① ② ③ ④

51) Managing change   ① ② ③ ④

52) Building trust and rapport   ① ② ③ ④

53) Making effective use of multiple representations of concepts   ① ② ③ ④

54) Evaluating teaching resources   ① ② ③ ④

55) Communicating goals   ① ② ③ ④

56) Reaching beyond school to influence the district and the region   ① ② ③ ④

57) Assessing individual and group performance in order to design instruction   ① ② ③ ④

58) Working effectively with issues of cultural and community diversity   ① ② ③ ④

59) Evaluating educational effectiveness   ① ② ③ ④

60) Knowing how to help people work productively and
     cooperatively with others in complex social settings

① ② ③ ④

61) Creating positive work environments

① ② ③ ④

62) Implementing decisions which impact the school community

① ② ③ ④

63) Engaging students, peers, or other school community members

① ② ③ ④

64) Encouraging learners to assume responsibility for
     shaping their learning tasks

① ② ③ ④

This Concludes Part I of the
Teacher Skill Perception Survey

Please go to the next page and
begin Part II

For the purposes of completing the survey below, please consider the following situation: You have been hired to teach within your discipline and at the grade level(s) that you wish to teach. As you prepare for the year, teach through the year, and complete end of the year activities associated with your class, you will be confronted with many situations, decisions, and responsibilities directly related to your teaching. As you read each item in the survey, please indicate the extent to which you perceive the skill to be important for your success as a teacher in helping your students to achieve in your classroom.

1= Not Important   2= Somewhat Important 3= Important   4= Very Important

1) Engaging public about the roles and functions of teachers in school organizations   ① ② ③ ④

2) Engaging in curriculum review and design   ① ② ③ ④

3) Using instructional strategies that promote learning   ① ② ③ ④

4) Building skills and confidence in others   ① ② ③ ④

5) Implementing decisions which impact the "school community"   ① ② ③ ④

6) Representing and using differing points of view, theories and ways of knowing   ① ② ③ ④

7) Educating new school "community" members (teachers, students, parents, and staff)   ① ② ③ ④

8) Collecting and organizing data about your school   ① ② ③ ④

9) Creating interdisciplinary learning experiences   ① ② ③ ④

10) Selecting and implementing strategies which impact student learning   ① ② ③ ④

11) Building and participating in learning communities   ① ② ③ ④

12) Making effective use of multiple representations of concepts   ① ② ③ ④

13) Managing conflict   ① ② ③ ④

14) Allocating space, time, and resources   ① ② ③ ④

15) Engaging students, peers, or other school community members   ① ② ③ ④

16) Working with other people   ① ② ③ ④

17) Understanding that physical, social, emotional, moral and cognitive development influence learning   ① ② ③ ④

18) Using teaching approaches that are sensitive to the multiple experiences of learners   ① ② ③ ④

19) Setting goals   ① ② ③ ④

20) Establishing objectives   ① ② ③ ④

21) Communicating goals   ① ② ③ ④

22) Relating work to other units in the system   ① ② ③ ④

23) Varying the role of the teacher in the instructional process   ① ② ③ ④

24) Engaging in collaborative work   ① ② ③ ④

25) Evaluating educational effectiveness   ① ② ③ ④

26) Designing interactive meetings ① ② ③ ④

27) Linking new learning to prior understandings ① ② ③ ④

28) Engaging in human resources functions ① ② ③ ④

29) Assuming responsibility for leading reform ① ② ③ ④

30) Knowing about areas of exceptionality in learning ① ② ③ ④

31) Exhibiting flexibility and patience ① ② ③ ④

32) Encouraging learners to assume responsibility for shaping their learning tasks ① ② ③ ④

33) Creating positive work environments ① ② ③ ④

34) Understanding the process of "Inquiry" ① ② ③ ④

35) Mentoring ① ② ③ ④

36) Modeling appropriate behavior ① ② ③ ④

37) Solving problems ① ② ③ ④

38) Examining issues from an organizational context ① ② ③ ④

39) Assuming responsibility for professional development ① ② ③ ④

40) Assessing individual and group performance in order to design instruction ① ② ③ ④

41) Knowing how to help people work productively and cooperatively with others in complex social settings ① ② ③ ④

42) Assuming the role of evaluator ① ② ③ ④

43) Engaging in research ① ② ③ ④

44) Managing change ① ② ③ ④

45) Appreciating individual variation ① ② ③ ④

46) Reflecting on change process ① ② ③ ④

47) Acting as a catalyst for individual and school-wide improvement ① ② ③ ④

48) Understanding how learning occurs ① ② ③ ④

49) Reaching beyond school to influence the district and the region ① ② ③ ④

50) Planning ① ② ③ ④

51) Understanding of and engaging in group processes ① ② ③ ④

52) Motivating reluctant learners ① ② ③ ④

53) Building trust and rapport ① ② ③ ④

54) Using knowledge about human motivation and behavior ① ② ③ ④

55) Communicating with school stakeholders ① ② ③ ④

56) Assessing progress   ① ② ③ ④

57) Facilitating
                                                                          ① ② ③ ④

58) Stimulating reflection on prior learning
                                                                          ① ② ③ ④

59) Planning and sequencing events
                                                                          ① ② ③ ④

60) Evaluating teaching resources
                                                                          ① ② ③ ④

61) Ability to work effectively with issues of cultural
and community diversity   ① ② ③ ④

62) Understanding and awareness of expected developmental
progressions within each domain (physical, social, emo-
tional, moral, and cognitive)   ① ② ③ ④

63) Developing and using curricula that encourage stu-
dents to see, question and interpret   ① ② ③ ④

64) Knowing about the process of second language acquisi-
tion   ① ② ③ ④

This Concludes Part II of the
Teacher Skill Perception Survey

Thank You! for taking the time
to respond to this survey.

APPENDIX B

Teacher Survey Item Reference List

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1) Set goals	NBPTS(3); INTASC(5); Murphy (1994)
2) Establish objectives	NBPTS(3); INTASC(7)
3) Select and implement strategies	NBPTS(1); INTASC(7)
4) Evaluate educational effectiveness	NBPTS(3); INTASC(4)
5) Motivate reluctant learners	ITASC(4)
6) Flexibility and patience	INTASC(7)
7) Working with other people	NBPTS(4)
8) Effective use of multiple representations	NBPTS(2); INTASC(3)
9) Link new learning to prior understandings	NBPTS(1); INTASC(1)
10) Represent and use differing points of	INTASC(1)
11) Evaluate teaching resources	INTASC(1)
12) Engage students	NBPTS(3); INTASC(1)
13) Develop and use curricula that encourages students to see, question and	NBPTS(2); INTASC(2)
14) Create interdisciplinary learning	NBPTS(3); INTASC(1)
15) Understand how learning occurs	NBPTS(1); INTASC(2)
16) Use instructional strategies that	INTASC(7)
17) Understand that physical, social, emotional, moral and cognitive development influence learning	INTASC(2)
18) Aware of expected developmental progressions within each domain (p,s,e,m,and c)	INTASC(2)
19) Appreciate individual variation	NBPTS(1); INTASC(6)
20) Assess individual and group performance in order to design instruction	NBPTS(3); INTASC(2)
21) Stimulate student reflection on prior learning	INTASC(2)
22) Encourage students to assume responsibility for shaping their learning tasks	NBPTS(2); INTASC(5)
23) Know about areas of exceptionality in learning	INTASC(3)
24) Know about the process of second language acquisition	INTASC(3)
25) Use teaching approaches that are sensitive to the multiple experiences of	NBPTS(1); INTASC(3,5)
26) Vary role in the instructional process	NBPTS(3); INTASC(4)
27) Use knowledge of about human motivation and behavior	NBPTS(1); INTASC(5)
28) Know how to help people work productively and cooperatively with others	INTASC(5)
29) Catalyst for individual and school wide improvement	INTASC(5)

30) Examine issues within an organizational context	NBPTS(5); Murphy (1994)
31) Engage in collaborative work	NBPTS(4); INTASC(9)
32) Evaluator	Murphy (1994)
33) Build trust and rapport	Lambert (1998); Lieberman (1988)
34) Group process	Murphy (1994); Bahrenfus (1992)
35) Build skills and confidence in others	Lieberman (1992)
36) Assume responsibility for professional development	NBPTS(4); INTASC(9)
37) Create positive work environments	INTASC(5)
38) Curriculum design	NBPTS(4); Murphy (1994)
39) Researcher	NBPTS(4); Murphy (1994)
40) Problem solve	Weiss, Cambone & Wyeth (1992); Bahrenfus (1992); NBPTS(4)
41) Model appropriate behavior	NBPTS(4)
42) Responsibility for leading reform	Lambert (1998)
43) Implementation of community decisions	Lambert (1998)
44) Mentoring	NBPTS(5)
45) Reaching beyond school	NBPTS(5)
46) Plan and sequence events	NBPTS(2,5)
47) Design interactive meetings	Odden & Wohlstettler (1995)
48) Reflect on change progress	Lambert (1998); Lieberman (1988)
49) Assess progress	
50) Inquiry	NBPTS(5); Lambert (1998); Murphy (1994)
51) Collect and organize data about school	Lambert (1998)
52) Engage public about professional practice	NBPTS(5), INTASC(10); Lambert (1998)
53) Management of change	NBPTS(5)
54) Communication	Lambert (1998)
55) Conflict management	Lambert (1998); MacMullen (1996)
56) Facilitation	Lambert (1998); Murphy (1994)
57) Human resource function	Lambert (1998); Odden & Wohlstettler
58) Communication	NBPTS(5)
59) Allocation of space, time, resources	INTASC(5); Murphy (1994)
60) Planning	NBPTS(4); Lambert (1998)
61) Regulate activities	NBPTS(2,5)
62) Communicate goals	NBPTS(5); INTASC(10)
63) Educate new members	NBPTS(5)
64) Relate work to other units in the system	NBPTS(5)

APPENDIX C

Data Printouts

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TABLE 13

SKILL ITEMS AND THE IMPACT OF LEVELS OF ENGAGEMENT

Skills	No Level of Engagement Critical Value	Prob	Low Level of Engagement Critical Value	Prob	Medium Level of Engagement Critical Value	Prob	High Level of Engagement Critical Value	Prob
Developing and using curricula that encourages students to see, question and interpret	-0.816	0.414	-1.633	0.102	-1.378	0.168	-------[b]	-------[b]
Conflict management	-1.000	0.317	-0.707	0.480	-0.200	0.841	-1.437	0.151
Assessing progress	-0.447	0.655	-0.632	0.257	-------[b]	-------[b]	-0.295	0.768
Model appropriate behaviors	0.000	1.000	-0.302	0.763	-0.200	0.841	-1.461	0.144
Planning and sequencing events	0.000	1.000	-1.414	0.157	-1.773	0.076	-------[b]	-------[b]
Setting goals	-1.414	0.157	-0.816	0.414	-------[b]	-------[b]	-------[b]	-------[b]
Ability to problem solve	-1.414	0.157	-1.134	0.257	0.000	1.000	-------[b]	-------[b]
Using instructional strategies that promote student learning	-0.577	0.564	-0.447	0.655	-1.000	0.317	0.000	1.000
Creating positive work environments	-1.414	0.157	-0.577	0.564	-0.704	0.482	-1.092	0.275
Working with other people	-0.577	0.564	-1.667	0.096	-------[b]	-------[b]	-------[b]	-------[b]
Selecting and implementing strategies	-1.000	0.317	-0.816	0.414	0.000	1.000	-------[b]	-------[b]
Motivating reluctant learners	-0.577	0.564	-0.816	0.414	-0.898	0.369	-1.400	0.162
Establishing objectives	-1.000	0.317	-1.134	0.257	-0.174	0.862	-1.264	0.206
Exhibiting patience and flexibility	-1.000	0.317	-1.134	0.257	-0.090	0.929	-1.340	0.180
Encouraging learners to assume responsibility for shaping their learning tasks	-0.816	0.414	-0.477	0.655	-0.539	0.590	-0.507	0.612
Understanding how learning occurs	0.000	1.000	0.000	1.000	-0.256	0.798	-0.467	0.640
Understanding that physical, social, emotional, moral, and cognitive development influence learning	-0.577	0.564	-0.816	0.414	-0.822	0.411	-0.446	0.655
Building trust and rapport	0.000	1.000	-0.477	0.655	-0.946	0.344	-------[b]	-------[b]
Using teaching approaches that are sensitive to the multiple experiences of students	-1.732	0.083	0.000	1.000	-1.773	0.76	-------[b]	-------[b]
Linking new learning to prior understanding	0.000	1.000	-------[b]	-------[b]	-1.504	0.133	-1.512	0.131
Planning and sequencing events	-1.134	0.257	-1.134	0.257	-0.302	0.763	-1.300	0.193

Table 13 – (Continued)	No Level of Engagement		Low Level of Engagement		Medium Level of Engagement		High Level of Engagement	
Skills	Critical Value	Prob	Critical Value	Prob	Critical Value	Prob	Critical Value	Prob
Using knowledge about human motivation and behavior	-1.000	0.317	-------[b]	-------[b]	-1.431	0.152	-------[b]	-------[b]
Knowing about areas of exceptionality in learning	-0.477	0.655	-0.333	0.739	-0.019	0.985	-0.011	0.991
Communicating goals	-1.414	0.157	-0.905	0.366	-1.219	0.223	-------[b]	-------[b]
Varying the role of the teacher in the instructional process	-0.707	0.480	-1.100	0.271	-0.156	0.876	-0.779	0.436
Assessing individual and group performance in order to design instruction	-0.632	0.527	-0.632	0.527	-------[b]	-------[b]	-1.158	0.247
Evaluating educational effectiveness	-1.732	0.083	-0.378	0.705	-0.761	0.447	-------[b]	-------[b]
Understanding and awareness of expected developmental progressions within each domain	-0.577	0.564	-0.905	0.366	-1.300	0.194	-------[b]	-------[b]
Creating interdisciplinary experiences	-0.707	0.480	-1.265	0.206	-------[b]	-------[b]	-------[b]	-------[b]
Appreciating individual variation	0.000	1.000	-0.312	0.755	-1.783	0.075	-1.264	0.206
Representing and using differing points of view, theories and ways of knowing	-0.378	0.705	0.000	1.000	-0.617	0.537	-1.514	0.130
Educating new members	-1.265	0.206	-0.632	0.527	-0.152	0.879	-------[b]	-------[b]
Managing change	-0.577	0.564	-0.816	0.414	-0.007	0.995	-0.138	0.891
Assuming responsibility for professional development	0.000	1.000	-1.342	0.180	-0.354	0.724	-0.174	0.862
Stimulating reflection on prior learning	0.000	1.000	0.000	1.000	-------[b]	-------[b]	-------[b]	-------[b]
Ability to engage in curriculum review and design	-------[b]	-------[b]	-0.302	0.763	-------[b]	-------[b]	-1.809	0.070
Engaging students, peers, or other school community members	- 0.577	0.564	-1.732	0.083	-0.008	0.994	-0.469	0.639
Ability to engage in group process	-0.378	0.705	-0.632	0.527	-0.272	0.785	-0.373	0.709
Mentoring	-1.890	0.059	-1.134	0.257	-0.558	0.577	-1.508	0.132
Regulate activities	-0.577	0.564	-0.587	0.557	-0.131	0.896	-2.335	0.200
Making effective use of multiple representations of concepts	-1.000	0.317	-------[b]	-------[b]	-0.146	0.884	-1.359	0.174
Inquiry	-0.816	0.414	-0.816	0.414	-1.635	0.102	-1.808	0.071

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Table 13 – (Continued) Skills	No Level of Engagement		Low Level of Engagement		Medium Level of Engagement		High Level of Engagement	
	Critical Value	Prob	Critical Value	Prob	Critical Value	Prob	Critical Value	Prob
Acting as a catalyst for individual and school-wide reform	-1.732	0.083	-1.249	0.212	-------[b]	-------[b]	-1.914	0.056
Reflecting on the change process	0.000	1.000	-1.406	0.160	-------[b]	-------[b]	-1.294	0.196
Ability to examine issues within an organizational context	-1.000	0.317	-0.333	0.739	-------[b]	-------[b]	-1.213	0.225
Engaging the public about professional practice	-0.447	0.655	-0.632	0.527	-1.700	0.089	-------[b]	-------[b]
Ability to relate work to other units in the system	-0.447	0.655	-1.414	0.157	-4.086	0.000	-------[b]	-------[b]
Allocating space, time, resources	0-1.00	0.317	-1.000	0.317	-0.480	0.631	-1.333	0.182
Knowledge of how to help people to work productively and cooperatively with others in complex social settings	-0.577	0.564	-0.832	0.405	-0.748	0.454	-1.051	0.293
Facilitating	-0.333	0.739	-0.632	0.527	-0.135	0.893	-------[b]	-------[b]

[b] item does not fit criteria for accepting the null hypothesis

TABLE 15

RESULTS OF WILCOXAN TEST OF SIGNIFICANCE USING SAMPLE SUBSET: YEARS OF EXPERIENCE

Skills	1-4 yrs	1 - 4 yrs	5-11 yrs	5 - 11 yrs	12-25 yrs	12 - 25 yrs	26-40 yrs	26 - 40 yrs
	C Value	Prob	C Value	Prob	C Value	Prob	C Value	Prob
Developing and using curricula that encourages students to see, question and interpret	-1.859	0.063	-1.081	0.280	-2.000	0.045	-1.108	0.268
Regulate activities	-1.192	0.233	-0.282	0.778	-3.197	0.001	-1.093	0.274
Selecting and implementing strategies	-0.480	0.631	-0.209	0.835	-0.772	0.440	-0.928	0.353
Knowing about areas of exceptionality in learning	-0.143	0.887	-1.029	0.303	-1.180	0.238	-1.409	0.159
Setting goals	-3.157	0.002	-2.414	0.016	-0.333	0.739	-1.706	0.088
Ability to problem solve	-0.870	0.384	-1.257	0.209	-0.905	0.366	-1.061	0.289
Planning and sequencing events	-0.569	0.569	-1.441	0.149	-1.191	0.234	-1.151	0.250
Model appropriate behaviors	-2.117	0.034	-0.600	0.549	-0.378	0.705	-0.711	0.477
Ability to engage in curriculum review and design	-3.162	0.002	-1.411	0.158	-2.433	0.015	-2.043	0.041
Facilitating	-0.316	0.752	-0.924	0.355	-1.719	0.086	-1.099	0.272
Mentoring	-0.438	0.662	-1.134	0.257	-1.694	0.090	-0.657	0.511
Designing interactive meetings	-1.125	0.261	0.000	1.000	-2.593	0.010	-2.473	0.013
Using knowledge about human motivation and behavior	-1.199	0.231	-3.188	0.001	-3.359	0.001	-1.001	0.317
Reflecting on the change process	-2.989	0.003	-2.901	0.004	-0.365	0.715	-0.025	0.980
Inquiry	-1.298	0.194	-2.921	0.003	-1.836	0.066	-1.374	0.170
Ability to engage in human resource function	-1.395	0.163	-0.674	0.500	-0.012	0.990	-2.103	0.035
Building skills and confidence in others	-1.284	0.199	-0.507	0.612	-2.710	0.007	-0.201	0.840
Varying the role of the teacher in the instructional process	-1.072	0.284	-0.009	0.993	-0.310	0.756	-0.407	0.684
Understanding how learning occurs	-0.707	0.480	-0.285	0.776	-0.316	0.752	-1.803	0.071
Establishing objectives	-1.300	0.194	-0.174	0.862	-1.178	0.239	-0.408	0.683
Engaging in collaborative work	-1.317	0.188	-0.168	0.866	-0.283	0.778	-0.870	0.384
Ability to engage in group process	-0.128	0.898	-2.216	0.027	-0.496	0.620	-0.411	0.681
Ability to examine issues within an organizational context	-2.030	0.042	-3.112	0.002	-1.102	0.270	-0.378	0.709
Ability to engage in research	-0.923	0.356	-1.880	0.060	-2.036	0.042	-2.290	0.022
Assessing progress	-0.147	0.883	-0.034	0.973	-2.486	0.013	-1.961	0.050

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Skills	1-4 yrs C Value	1-4 yrs Prob	5-11 yrs C Value	1-4 yrs Prob	12-25 yrs C Value	12-25 yrs Prob	26-40 yrs C Value	26-40 yrs Prob
Acting as a catalyst for individual and school-wide reform	-1.768	0.077	-1.897	0.058	-2.123	0.034	-2.775	0.006
Knowing about the process of second language acquisition	-2.331	0.020	-3.760	0.000	-3.581	0.000	-2.216	0.027
Ability to assume the role of evaluator	-0.482	0.630	-2.495	0.013	-3.033	0.002	-1.739	0.082
Working with other people	-1.046	0.295	-1.000	0.317	-2.214	0.027	-2.872	0.004
Creating interdisciplinary experiences	-1.672	0.094	-2.296	0.022	-0.120	0.905	-2.646	0.008
Ability to assume responsibility for leading reform	-0.240	0.811	-2.622	0.009	-0.131	0.896	-0.139	0.889
Appreciating individual variation	-0.152	0.879	-2.959	0.003	-1.310	0.190	-2.354	0.019
Exhibiting patience and flexibility	-0.756	0.450	-1.615	0.106	-0.852	0.394	-0.163	0.870
Collecting and organizing data about school	-1.467	0.142	-3.702	0.000	-0.143	0.886	-0.557	0.557
Ability to relate work to other units in the system	-3.377	0.001	-3.840	0.000	-3.811	0.000	-3.169	0.002
Using teaching approaches that are sensitive to the multiple experiences of students	-0.489	0.625	-0.947	0.344	-0.621	0.534	-0.192	0.847
Representing and using differing points of view, theories and ways of knowing	-0.310	0.756	-0.476	0.634	-0.948	0.343	0.000	1.000
Using instructional strategies that promote student learning	-0.365	0.715	-0.600	0.549	-0.209	0.835	0.000	1.000
Planning and sequencing events	-0.918	0.358	-2.357	0.018	-2.502	0.012	-3.357	0.001
Ability to communicate with multiple constituencies	-1.267	0.205	-2.367	0.018	-2.502	0.012	-0.286	0.775
Conflict management	-1.633	0.102	-0.408	0.683	-2.296	0.022	-0.713	0.476
Educating new members	-1.411	0.158	-0.308	0.758	-1.747	0.081	-0.429	0.668
Engaging the public about professional practice	-3.120	0.002	-1.970	0.049	-1.558	0.119	-0.686	0.493
Motivating reluctant learners	-1.000	0.317	-1.043	0.297	-0.784	0.433	0.000	1.000
Understanding that physical, social, emotional, moral, and cognitive development influence learning	-0.539	0.590	-1.219	0.223	-0.491	0.623	-1.813	0.070
Allocating space, time, resources	-1.026	0.305	-0.365	0.715	-1.667	0.096	-0.615	0.539
Understanding and awareness of expected developmental progressions within each domain	-2.000	0.046	-2.335	0.020	-1.538	0.124	0.000	1.000
Assuming responsibility for professional development	-0.521	0.602	-1.177	0.239	-0.603	0.546	-0.365	0.715
Stimulating reflection on prior learning	-2.656	0.008	-2.263	0.024	-3.086	0.002	-1.899	0.058
Linking new learning to prior understanding	-1.054	0.292	-0.600	0.549	-0.156	0.876	-0.726	0.468
Managing change	-0.334	0.739	-0.008	0.993	-0.388	0.698	-1.652	0.099
Building trust and rapport	-1.126	0.260	-1.474	0.140	-2.795	0.005	-0.368	0.713

Skills	1-4 yrs C Value	1-4 yrs Prob	1-4 yrs C Value	1-4 yrs Prob	1-4 yrs C Value	1-4 yrs Prob	1-4 yrs C Value	1-4 yrs Prob
Making effective use of multiple representations of concepts	-1.206	0.228	-2.231	0.026	-0.141	0.888	-1.134	0.257
Evaluating teaching resources	-2.715	0.007	-2.419	0.016	-1.805	0.071	-2.207	0.027
Communicating goals	-0.192	0.847	-2.333	0.020	-5.009	0.000	-3.067	0.002
Reaching beyond the school to influence the district and the region	-1.353	0.176	-2.213	0.027	-0.614	0.539	-1.806	0.071
Assessing individual and group performance in order to design instruction	-2.160	0.031	-1.265	0.206	-0.664	0.507	-1.005	0.315
Working effectively with issues of cultural and community diversity	-0.632	0.527	-1.976	0.048	-3.884	0.000	-1.859	0.063
Evaluating educational effectiveness	-0.667	0.505	-1.768	0.077	-1.129	0.259	-0.346	0.730
Knowledge of how to help people to work productively and cooperatively with others in complex social settings	-1.447	0.148	-0.555	0.579	-1.118	0.264	-0.108	0.914
Creating positive work environments	-0.218	0.827	-1.058	0.290	-0.751	0.453	-0.156	0.876
Implementing decisions which impact the school community	-2.898	0.004	-1.732	0.083	-0.309	0.758	-1.688	0.091
Engaging students, peers, or other school community members	-1.581	0.114	-0.522	0.602	-0.283	0.777	-0.181	0.856
Encouraging learners to assume responsibility for shaping their learning tasks	-0.557	0.577	-0.600	0.549	-0.980	0.327	-0.955	0.340

TABLE 17

RESULTS OF WILCOXAN TEST OF SIGNIFICANCE USING SAMPLE SUBSET: MODEL

Skills	MRSH Sign Value	MRSH Prob	ELOB Sign Value	ELOB Prob	Co-NECT Sign Value	Co-NECT Prob	ATLAS Sign Value	ATLAS Prob	ACCEL Sign Value	ACCEL Prob	ACC Sign Value	ACC Prob	SFA Sign Value	SFA rob	PAID Sign Value	PAID Prob
Developing and using curricula that encourages students to see, question and interpret	-1.633	0.102	-1.633	0.102	-1.890	0.059	-0.333	0.739	-1.000	0.317	-1.890	0.059	-0.421	0.674	-1.414	0.157
Regulate activities	-2.236	0.025	0.000	1.000	-2.309	0.021	-0.632	0.527	-0.905	0.366	-0.758	0.448	-1.007	0.314	-0.905	0.366
Selecting and implementing strategies	-0.447	0.655	0.000	1.000	-2.333	0.020	-0.447	0.655	0.000	1.000	-0.905	0.366	-1.441	0.150	0.000	1.000
Knowing about areas of exceptionality in learning	-1.000	0.317	-1.633	0.102	-0.355	0.723	-1.667	0.096	-0.447	0.655	-0.535	0.593	-1.431	0.152	-1.134	0.257
Setting goals	-1.342	0.180	-1.000	0.317	-1.667	0.096	0.000	1.000	-0.333	0.739	-1.667	0.096	-2.556	0.011	0.000	1.000
Ability to problem solve	-1.000	0.317	-0.577	0.564	-0.302	0.763	-0.816	0.414	-0.707	0.480	-1.134	0.257	-0.469	0.639	-1.633	0.102
Planning and sequencing events	-0.333	0.739	0.000	1.000	-1.147	0.251	-0.707	0.480	0.000	1.000	-0.905	0.366	-0.140	0.889	-1.155	0.248
Model appropriate behaviors	-1.414	0.157	-0.577	0.564	-0.707	0.480	-1.414	0.157	-0.378	0.705	-0.302	0.763	0.000	1.000	0.000	1.000
Ability to engage in curriculum review and design	-1.633	0.102	-0.816	0.414	-1.000	0.317	-2.121	0.034	-2.333	0.020	-2.309	0.021	-1.234	0.217	-0.905	0.366
Facilitating	-0.816	0.414	-1.811	0.070	-2.309	0.021	-1.000	0.317	-1.811	0.070	-0.577	0.564	-0.133	0.894	-0.302	0.763
Mentoring	-1.000	0.317	0.000	1.000	-0.832	0.405	-0.707	0.480	-0.905	0.366	0.000	1.000	-0.130	0.896	0.000	1.000
Designing interactive meetings	-2.333	0.020	-1.428	0.153	-0.471	0.637	0.000	1.000	-0.786	0.432	-0.047	0.963	-1.372	0.170	-0.243	0.808
Using knowledge about human motivation and behavior	-0.333	0.739	-1.613	0.107	-2.500	0.012	-1.387	0.166	-2.309	0.021	-1.604	0.109	-0.692	0.489	-2.324	0.020
Reflecting on the change process ·	-1.000	0.317	-1.732	0.083	-0.243	0.808	-1.890	0.059	-0.832	0.405	-0.022	0.983	-0.917	0.359	-1.615	0.106
Inquiry	-1.732	0.083	-0.707	0.480	-2.111	0.035	0.000	1.000	-0.333	0.739	-1.811	0.070	-1.093	0.274	-1.667	0.096
Ability to engage in human resource function	-1.633	0.102	-2.070	0.038	-1.290	0.197	-1.387	0.166	-0.577	0.564	-0.587	0.557	-0.530	0.596	-0.632	0.527
Building skills and confidence in others	0.000	1.000	-1.890	0.059	-0.905	0.366	0.000	1.000	-1.897	0.058	-1.890	0.059	-0.365	0.715	-1.387	0.166
Varying the role of the teacher in the instructional process	-0.816	0.414	-1.000	0.317	-0.577	0.564	-1.134	0.257	-1.000	0.317	-0.535	0.593	-0.529	0.597	-1.155	0.248
Understanding how learning occurs	-1.342	0.180	0.000	1.000	-1.134	0.257	0.000	1.000	-1.732	0.083	-1.265	0.206	-1.389	0.165	-0.707	0.480
Establishing objectives	0.000	1.000	0.000	1.000	-0.707	0.480	-0.632	0.527	-1.342	0.180	-0.277	0.782	-0.343	0.732	-1.134	0.257
Engaging in collaborative work	-0.447	0.655	-0.333	0.739	0.000	1.000	-0.333	0.739	-1.342	0.180	-1.732	0.083	-1.000	0.317	-1.732	0.083
Ability to engage in group process	-0.447	0.655	-0.707	0.480	-0.218	0.827	-0.905	0.366	-2.530	0.011	-0.775	0.439	-0.392	0.695	-1.155	0.248

Skills	MRSH Sign Value	MRSH Prob	ELOB Sign Value	ELOB Prob	Co-NECT Sign Value	Co-NECT Prob	ATLAS Sign Value	ATLAS Prob	ACCEL Sign Value	ACCEL Prob	ACC Sign Value	ACC Prob	SFA Sign Value	SFA Prob	PAID Sign Value	PAID Prob
Assessing progress	0.000	1.000	0.000	1.000	-0.258	0.796	-1.155	0.248	-0.632	0.527	-1.667	0.096	-2.361	0.018	-1.311	0.190
Acting as a catalyst for individual and school-wide reform	-2.646	0.008	-0.302	0.763	-1.321	0.186	0.000	1.000	-2.486	0.013	0.000	1.000	-3.359	0.001	-0.258	0.796
Knowing about the process of second language acquisition	-1.890	0.059	-1.613	0.107	-1.968	0.049	-1.897	0.058	-1.890	0.059	-0.922	0.356	-1.946	0.052	-1.134	0.257
Ability to assume the role of evaluator	0.000	1.000	-2.111	0.035	-1.795	0.073	-0.378	0.705	0.000	1.000	-2.233	0.026	-2.476	0.013	-2.714	0.007
Working with other people	-1.134	0.257	-1.633	0.102	-0.707	0.480	-1.613	0.107	-2.333	0.020	-0.500	0.617	-0.365	0.715	-1.342	0.180
Creating interdisciplinary experiences	0.000	1.000	-1.265	0.206	-1.508	0.132	-2.121	0.034	-0.447	0.655	-0.034	0.973	-1.539	0.124	-2.309	0.021
Ability to assume responsibility for leading reform	-0.378	0.705	-1.342	0.180	-0.677	0.499	-0.378	0.705	-1.890	0.059	-0.881	0.378	-2.261	0.024	-0.577	0.564
Appreciating individual variation	-1.414	0.157	-1.000	0.317	-0.832	0.405	-0.632	0.527	-1.508	0.132	-0.966	0.334	-1.860	0.063	-0.943	0.346
Exhibiting patience and flexibility	0.000	1.000	-1.000	0.317	-0.258	0.796	-0.587	0.557	-0.302	0.763	-0.500	0.617	-1.208	0.227	-0.816	0.414
Collecting and organizing data about school	-0.333	0.739	-0.707	0.480	-1.155	0.248	-1.706	0.088	-1.000	0.317	-0.225	0.822	-1.298	0.194	-1.890	0.059
Ability to relate work to other units in the system	-0.577	0.564	-2.309	0.021	-0.885	0.376	-2.121	0.034	-0.577	0.564	-2.236	0.025	-3.435	0.001	-3.300	0.001
Using teaching approaches that are sensitive to the multiple experiences of students	-0.447	0.655	-1.000	0.317	0.000	1.000	-0.816	0.414	-1.342	0.180	0.000	1.000	-0.898	0.369	-1.414	0.157
Representing and using differing points of view, theories and ways of knowing	-1.134	0.257	-0.816	0.414	-0.302	0.763	-0.905	0.366	-0.816	0.414	-0.333	0.739	-1.773	0.076	-0.905	0.366
Using instructional strategies that promote student learning	-0.577	0.564	-1.000	0.317	-1.134	0.257	-0.378	0.705	-0.816	0.414	0.000	1.000	0.000	1.000	-1.000	0.317
Planning and sequencing events	-1.000	0.317	0.000	1.000	-1.134	0.257	-2.333	0.020	0.000	1.000	-1.414	0.157	-1.461	0.144	-1.732	.083
Ability to communicate with multiple constituencies	-0.378	0.705	0.000	1.000	-0.500	0.617	-1.000	0.317	-1.265	0.206	-0.277	0.782	-0.926	0.355	-0.832	0.405
Conflict management	-0.447	0.655	-1.414	0.157	-2.138	0.033	-1.633	0.102	-1.134	0.257	-1.508	0.132	-0.408	0.683	-0.378	0.705
Educating new members	-0.276	0.783	-0.277	0.782	-1.732	0.083	-1.000	0.317	0.000	1.000	0.000	1.000	-0.435	0.664	-0.378	0.705
Engaging the public about professional practice	-1.667	0.096	-2.714	0.007	-0.237	0.813	-2.000	0.046	-1.000	0.317	-0.775	0.439	-1.136	0.256	-1.410	0.159
Motivating reluctant learners	0.000	1.000	-1.342	0.180	-0.378	0.705	-0.816	0.414	-0.447	0.655	-0.378	0.705	-1.732	0.083	-0.816	0.414
Understanding that physical, social, emotional, moral, and cognitive development influence learning	-0.447	0.655	-0.707	0.480	-1.155	0.248	-0.378	0.705	-0.577	0.564	-1.890	0.059	0.000	1.000	-0.302	0.763
Allocating space, time, resources	-1.000	0.317	-0.577	0.564	-0.302	0.763	-0.333	0.739	0.000	1.000	-2.121	0.034	-0.174	0.862	0.000	1.000
Understanding and awareness of expected developmental progressions within each domain	-0.577	0.564	-1.134	0.257	0.000	1.000	0.000	1.000	-2.530	0.011	-1.000	0.317	-0.707	0.480	-0.302	0.763
Assuming responsibility for professional development	0.000	1.000	-1.000	0.317	-1.667	0.096	-0.816	0.414	0.000	1.000	-1.000	0.317	-0.522	0.602	-1.414	0.157
Stimulating reflection on prior learning	-1.134	0.257	-2.236	0.025	-0.832	0.405	-1.134	0.257	-0.707	0.480	-1.508	0.132	-3.244	0.001	-2.000	0.046
Linking new learning to prior understanding	-1.000	0.317	-2.000	0.046	-0.333	0.739	-0.577	0.564	-1.134	0.257	-0.707	0.480	-0.324	0.746	-0.632	0.527
Managing change	0.000	1.000	0.000	1.000	-1.213	0.225	-0.707	0.480	-1.265	0.206	0.000	1.000	-0.456	0.648	-0.577	0.564

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Skills	MRSH Sign Value	MRSH Prob	ELOB Sign Value	ELOB Prob	Co-NECT Sign Value	Co-NECT Prob	ATLAS Sign Value	ATLAS Prob	ACCEL Sign Value	ACCEL Prob	ACC Sign Value	ACC Prob	SFA Sign Value	SFA Prob	PAID Sign Value	PAID Prob
Evaluating teaching resources	0.000	1.000	-1.667	0.096	-1.886	0.059	-3.162	0.002	-0.500	0.617	-0.378	0.705	-0.924	0.355	-0.905	0.366
Communicating goals	-1.000	0.317	-2.111	0.035	-1.667	0.096	-1.897	0.058	-0.632	0.527	-1.414	0.157	-2.744	0.006	-1.342	0.180
Reaching beyond the school to influence the district and the region	-0.378	0.705	-1.890	0.059	-0.019	0.985	-1.265	0.206	-0.587	0.557	-0.302	0.763	-0.120	0.904	-0.566	0.572
Assessing individual and group performance in order to design instruction	0.000	1.000	-1.000	0.317	-0.243	0.808	-0.811	0.417	-0.577	0.564	-0.250	0.803	-1.274	0.203	0.000	1.000
Working effectively with issues of cultural and community diversity	0.000	1.000	-1.414	0.157	-0.471	0.637	0.000	1.000	0.000	1.000	-1.897	0.058	-1.750	0.080	-2.111	0.035
Evaluating educational effectiveness	0.000	1.000	-0.577	0.564	-1.387	0.166	-1.732	0.083	-2.236	0.025	-0.277	0.782	-1.333	0.182	-1.134	0.257
Knowledge of how to help people to work productively and cooperatively with others in complex social settings	-1.000	0.317	-1.313	0.257	-0.428	0.669	-1.221	0.222	-1.000	0.317	-1.155	0.248	-0.469	0.639	0.000	1.000
Creating positive work environments	-1.000	0.317	-0.333	0.739	0.000	1.000	-1.000	0.317	0.000	1.000	-0.513	0.608	-0.375	0.707	-2.333	0.020
Implementing decisions which impact the school community	-2.236	0.025	-1.342	0.180	-1.508	0.132	0.000	1.000	-2.530	0.011	-0.535	0.593	-1.065	0.287	-1.633	0.102
Engaging students, peers, or other school community members	-1.000	.317	-1.134	0.257	-1.000	0.317	-0.333	0.739	-0.816	0.414	-0.632	0.527	-1.151	0.250	-0.447	0.655
Encouraging learners to assume responsibility for shaping their learning tasks	-0.577	0.564	-0.577	0.564	-1.291	0.197	0.000	1.000	0.000	1.000	-1.414	0.157	-1.372	0.170	-1.134	0.257
Ability to examine issues within an organizational Context	-0.816	0.414	-1.633	0.102	-1.213	0.225	-0.832	0.405	-0.816	0.414	-0.465	0.642	-0.576	0.564	-1.355	0.175
Ability to engage in reserch	-1.414	0.157	-0.577	0.564	-2.138	0.033	-0.816	0.414	-1.732	0.083	-1.100	0.271	-0.570	0.569	-1.000	0.317
Building trust and rapport	-2.000	0.046	-1.387	0.166	-0.243	0.808	-0.711	0.477	0.000	1.000	-0.333	0.739	-1.672	0.094	-0.333	0.739
Making effective use of multiple representations of concepts	0.000	1.000	-1.667	0.096	-1.886	0.059	-3.162	0.002	-0.500	0.617	-0.378	0.705	-0.924	0.355	-0.905	0.366

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