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ABSTRACT

This paper introduces the purposes of school learning communities. Section 1, "Foundations of a Learning Community," presents a definition and discusses different approaches to reforming schools. Section 2, "Key Aspects of a Learning Community," highlights three components of learning communities (student learning, teacher learning, and collaborative learning); new conceptions of learning for all students (developmental aspects of learning; learning transfer; novice, competent, and expert learners; environmental and social conditions to promote learning; expert teachers; technology; assessment; and new conceptions of learning and learning communities); and teachers as learners (developmental considerations, socially constructed teacher learning, structural conditions for teacher learning, teacher learning focused on the whole system, and bringing together multiple perspectives on teacher learning to enhance professional development and student outcomes). This section also discusses a collaborative culture (incentives and opportunities for collaboration to build knowledge, a climate favoring continuous school improvement, and transformational leadership by school principals). Section 3, "An Approach to Implementing Data-Based Decision Making," describes the KEYS (Keys to Excellence for Your Schools) initiative, which provides an instrument and guidelines for facilitating the self-study process. Section 4 presents "Suggested Readings." Two appendixes offer the NPEAT principles of professional development and a description of KEYS. (SM)

National Partnership for Excellence and Accountability in Teaching

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Organizational and Individual Learning

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Practitioners' Guide to Learning Communities

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Section I. Foundations of a School Learning Community

In recent years there has been a growing interest in a new concept of school improvement, schools which are learning communities. This briefing paper introduces the purposes of school learning communities. It discusses the main ideas, which drive this approach to improving schools, including some references for further reading. Finally, for those readers who are interested how to start a learning community and how to sustain one, the paper offers the reader some suggestions and guidelines for implementation.

A simple definition of a learning community is:

A group of educators committed to working together collaboratively as learners to improve achievement for all students in a school. A learning organization is one that consciously managed learning processes through an inquiry-driven orientation among all its members.

Learning communities are founded on three philosophical premises. The first premise is that good teaching involves preparing all students to achieve at high levels. Helping all students master a challenging curriculum poses significant challenges for teachers. First, each teacher must be committed to the idea that all students are capable of being successful in their classroom, and second, each must be willing to work to achieve that goal.

The second philosophical premise upon which learning communities are built is the belief that each teacher is a learner. Teachers can only meet the daunting challenges facing them today by mastering new content and developing new instructional strategies for reaching all students. Many teachers, however, are not accustomed to viewing themselves as learners. The two customary routes for teachers to improve their professional knowledge are pursuing advanced

degrees and participating in professional development activities in their school district. Too often, however, degree programs and professional development are not linked closely to teachers' day-to-day work. Frequently professional development is chosen for teachers, and their professional development represents a series of unconnected training activities. In other words, teachers have little opportunity to become self-directed learners.

The third philosophical premise is that for schools to be successful with all students, schools must be reorganized as collaborative professional communities. Too often schools are organized as an administrative hierarchies rather than as groups of professionals working toward shared goals. The culture of schools traditionally encourages teachers to work in isolation. By contrast, schools organized as professional communities emphasize collaboration and norms, which shape expectations for each individual and the group. Learning communities believe that true school improvement requires working together.

A school can become a learning community only when teachers and administrators seriously attempt to act on all three of these philosophical commitments. Creating a learning community requires simultaneous attention to student learning, teacher learning, and the development of a collaborative community. A learning community cannot be built without significant changes in attitudes, structures, and procedures, which help these philosophical ideals become a reality.

A Different Approach to Reforming Schools

In the past, many school reforms worked on one or two of these ideals, but the failure to address all three commitments explains partly why so many ambitious school reforms have failed, or seem destined to fail. Some examples of past and current reforms can help illustrate this point, specifically, the effective schools movement, standards-based reform, programmatic reforms, systemic reform, decentralization, and professional development.

The Effective Schools Movement - Consider the effective schools movement that began in the 1970s. Educators committed themselves to the precept that all children can learn. No longer were school leaders willing to accept the belief that some children, because of their family backgrounds or the neighborhoods where they lived, lacked ability or were incapable of becoming motivated learners. Thus, the effective schools movement attacked one of

the impediments to good teaching, low expectations by some teachers for some of their pupils. In time, however, the limitations of this approach to school reform became readily apparent. School curricula and student assessments were committed to assuring that all children should learn basic skills. In some states, even teachers were required to pass basic skills tests as a condition for licensure. This commitment to the ideal that all children can learn was a necessary but not a sufficient response to the problem of low student achievement. Unfortunately, there was not, however, a comparable commitment to assuring that all students learn rigorous content and think critically. Inadvertently, what began as an effort to raise expectations led to declining expectations for students. In other words, it is not sufficient to create a school-wide vision for student learning. The expectation must be, as it is in schools that organize themselves as learning communities, that all students can be taught to learn at high levels. The effective schools movement also erred in assuming that strong principal leaders can lead teachers to buy-in to this vision. In order to achieve significant changes in classroom practice, teachers must have an opportunity to participate in shaping a school's vision, as they do in schools organized as learning communities.

Standards-based reform- Standards-based reform has addressed the deficiency of low expectations for students that plagued the effective schools reforms of the 1970s and 1980s. Nearly every state has adopted some standards that are intended to indicate the specific kinds of higher-order knowledge students now are expected to master. Typically, the standards are specific enough to include some indication of what constitutes student proficiency in that content area. In some states and school districts, the standards are aligned to curriculum content, student assessments, and accountability standards for schools. Nonetheless, this approach to school reform, while remedying the problem of low expectations for students, has a number of limitations. One of them is that until recently when a teacher shortage became apparent, the needs of teachers received scant attention by standards enthusiasts. Like so many previous reforms, teachers were largely ignored. The first Education Summit, convened by President Bush with the nation's governors and business leaders, focused on national goals. The second Summit addressed the need for standards. Only in the third Summit, convened in September 1999, did the need for a quality teaching force receive attention. Until recently, then, the assumption of many policy makers, who are impatient for improvement in school performance, has been that teachers could simply learn new content and adapt their instructional methods to teach more rigorous content. By the late 1990s, though, due to lack of dramatic improvements in student achievement on many standards-based assessments, it became apparent to policy makers that teachers are key to making school improvement

a success. Too many teachers today lack the knowledge or skills to teach high standards-based curricula effectively. Yet teacher's opportunities for quality professional development are severely limited. Furthermore, in most cases their schools are not structured to provide them with the time and resources to work with colleagues in learning how to teach the new content. Often, there is little school-wide collaboration among teachers, administrators, and parents to align teaching with school goals directed at meeting the standards. Learning communities address all of these aspects of teacher learning.

There are signs that the standards movement is trying to broaden its focus. Still, this approach to school reform is hampered by a tendency to view school improvement as a technical problem. One advantage of the learning community approach is that it views school reform broadly as a task requiring commitment to high standards by all the stakeholders, beginning with teachers but also including administrators, and those who support the school such as parents. Moreover, learning communities are committed to making the changes necessary in schools for all students to be successful.

Programatic- In the past, many reforms were programmatic, that is, they were directed at changing a particular part of the school program, such as introducing a new math curriculum, building a new computer lab, or adopting a new approach to student discipline. Such reforms were fine as far as they went, but usually their potential for success was thwarted. One of the lessons we have learned from these school reform efforts is that the many interconnected pieces of the educational system require improvement. Operating on one factor in isolation from the others usually neutralizes attempts at reform over time. By contrast, learning communities are committed to examining all aspects of their schools that might interfere with high student performance. A professional learning community uses data-based decision making which continuously monitors all aspects of the educational program and develops appropriate strategies for school improvement.

Systemic Reform - There have been a number of attempts to address reform comprehensively and to step outside piecemeal approaches to improving schools. One reform strategy adopted by many states (and some urban school districts) is systemic reform. The idea is that the policy system needs to be more coherent. For example, the curriculum needs to be aligned with new standards. Also, student assessments must test pupils on a standards-based

curriculum rather than on basic content. Systemic reform also addresses whether teacher professional development is aligned to student standards. One criticism of systemic reform, however, is that in many states and school systems it has been implemented as a top-down model. Individual schools are expected to improve their performance, but how they do this seldom is addressed by advocates of systemic reform. Learning communities, by contrast, help answer how systemic reforms adopted at higher levels can be translated into actual improvements at each school. Each school has somewhat different problems, and each must tailor strategies for school improvement which are unique to that school.

Decentralize Responsibility to the School-Level- Still another attempt to address the fragmentation of reform efforts is to decentralize responsibility to the school-level. School-site councils supposedly bring together stakeholders to make critical decisions concerning a schools future. Site-councils were popular in the 1980s, and while they continue to exist in many places (and often are mandates by states or school districts), their achievements have been disappointing. Why is this true? There are a number of reasons cited by researchers and for the shortcomings of decentralization, and each of these reasons is addressed through a learning community approach. One problem with many site councils has been a lack of focus on student performance. Councils may be busy making school improvements, but they do not reach into the classroom to touch what students learn and how teachers help them learn. Another problem with many councils has been that they are dominated by the school principal. While councils have promised teachers empowerment, seldom have they delivered on this promise. Sometimes school councils are not given sufficient authority by their school district to make the changes they envision. Learning communities strive for collaborative cultures in which teachers and administrators work together and in which they reach out to parents as partners.

Professional Development- In limited ways, many school reform efforts have incorporated professional development opportunities for teachers. Unfortunately, even new commitments to professional development being adopted by states and school districts, often with substantial expenditures, are built on outdated knowledge about teachers as learners. One of the most grievous faults of many of these professional development plans is that the goals and content of these efforts is prescribed for teachers rather than by them. By contrast, schools organized as learning communities are committed to engaging teachers in their own professional development, working within the context of district and state goals.

To recap, these examples of other reform efforts underscore the importance of bringing together all three

philosophical premises mentioned at the start. Schools must be committed to the idea that good teaching involves preparing all students to achieve at high levels. They must also commit themselves to the belief that each teacher is a learner. Finally, they must be reorganized as a collaborative professional community.

These three features can be expected to interact somewhat differently at each local school. Therefore, working within these three common features, learning communities take many forms. In this sense, a learning community is a dynamic approach to school reform because it rejects the one-size-fits-all approach that attempts to impose one formula on all schools.

Section II. Key Aspects of a Learning Community

The Three Components:
Student Learning, Teacher Learning, and Collaborative Culture

In the previous section three philosophical premises guiding all learning communities were discussed. These principles find their origins in current educational research. They are 1) new conceptions of learning are applicable for all students; 2) teachers are learners whose increasing knowledge and skill base is essential to improving student achievement; and 3) collaborative school culture works in the services of commonly agreed on goals for achieving improved student achievement.

Therefore, building a learning community requires giving simultaneous attention to three components--student learning, teacher learning, and the development of a collaborative community. In this section we will examine each of these three dimensions of a learning community in more detail.. The development of a learning community requires all members to simultaneously challenge existing assumptions, make sometimes fundamental shifts in educational philosophy, and support those changes with necessary and appropriate structural and procedural changes. As we explore both the origin and construction of these three foundations, we will describe a variety of associated procedural and structural conditions necessary to insure full implementation of a learning community.

New Conceptions of Learning for All Students

Changes in school goals, student populations, and technological advances have resulted in the development of curricula that are more child centered, culturally sensitive and require new pedagogical approaches to ensure enhanced student learning. Underlying these shifts in curricula and pedagogy is an increasingly deeper understanding of how children learn and the conditions necessary to facilitate that learning. Researchers have developed greater understanding of the developmental aspects of learning and competency, how learning transfer occurs, distinctions between competent and expert learner performance, as well as, environmental conditions necessary to support and enhance student learning. Learning communities embrace these new concepts of student learning and strive to ensure that all students, especially those at-risk benefit from this expanded notion of student learning. What follows is a brief description of the four areas of knowledge researchers have identified as salient to improving student learning.

Developmental Aspects of Learning- It has long been understood that children are born with an innate capacity to learn from their environment and caregivers. Infants and young children engage in an interactive developmental process by which they begin to construct and organize an understanding of their environment. More recently researchers have come to understand how this early cognition is related to learning. Some findings include 1) children are predisposed to learn particularly in areas of language and causality; 2) children have the ability to reason based upon their prior experience and current knowledge base; 3) problem solving and question asking is an innate characteristic; 4) persistence associated with problem solving is the result of intrinsic motivation; 5) metacognition, awareness of one's own learning capabilities, occurs early and is associated with children's error detection; and 6) early learning is necessarily mediated and supported by caregivers and the environment. These and other findings have led researchers to conclude that the organization of the brain is dependent on experience and that cognitive development is not solely driven by biology. It is the reciprocal nature of children's relationship with their environment that selectively promotes, regulates, and structures young children's expanding concepts of their environment. This suggests that attention to the qualitative aspects of learning opportunities is essential to ensure children's ability to infer and categorize information.

Learning Transfer- Traditional approaches to instruction, learning, and assessment have focused on rote memorization of facts and concepts. New research on learning suggests that more important is students ability to transfer what they have learned in one context to a new situation as well as the ability to assess whether ones prior

knowledge is useful for meaning making in the current situation. Current findings suggest that an individual's ability to transfer what they have learned to new contexts depends on 1) the initial level of understanding of a subject; 2) the ability to seek feedback and evaluate their own learning strategies and understanding of the subject matter; 3) the development of themes and overarching concepts rather than mastery of facts; 4) the ability to struggle with concepts in multiple contexts; 5) the development of understanding under which conditions a certain knowledge base is applicable; 6) the students level of understanding of initial concepts; and 7) the identification of misconceptions and the subsequent development of context appropriate conceptions. Research suggests that attention to these aspects of learning transfer are necessary to better prepare students to become flexible, adaptive, and creative problem solvers of the future.

Novice, Competent, and Expert Learners- Currently researchers distinguish between novice, competent and expert learners on the basis of the learners' ability to recognize meaningful patterns of information, utilize core concepts, selectively retrieve relevant information, and monitor one's approach to problem solving when faced with a novel situations. Five factors associated with expert learner competence are 1) an awareness of relevant patterns of information; 2) a deep understanding of subject matter; 3) the ability to associate knowledge with applicable contexts rather than hold them as discrete facts; 4) flexible and fluent knowledge retrieval; and 5) flexibility when approaching new situations. The research suggests that by building on learners extant knowledge, helping students engage deeply with material, correcting learners misconceptions, and assisting learners to engage with others during the learning process teachers and schools can do much to develop expert learner capabilities in all children.

Environmental and Social Conditions to Promote Learning- Promoting in-depth learning in all children not only requires attention to the developmental aspects of learning, facilitating learning transfer, and expert learner development, it requires concomitant attention to environmental conditions associated with student learning. What follows is a brief overview of current findings about the role of expert teachers, technology, and assessment in creating conditions for higher-order thinking skills in children.

Expert Teachers- Current research suggests that in-depth learning is associated with specific pedagogical approaches utilized by expert teachers to create learning environments, which make use of technology, and assessment to support learning. Until recently it has been assumed that a single approach to instruction was sufficient to promote and

sustain student learning. New studies have revealed that teachers should posses 1) expertise in subject content as well as in instructional practices; 2) knowledge of basic principles of the discipline as well as appropriate pedagogical approaches; 3) an understanding of the effect of culture and individual traits of learners; and 4) an understanding of children's cognitive development. Additionally, the research suggests that teachers are learners and the previously describes principles of learning applies to teachers. (See the following section). Given the role of life-long learner, teachers' professional development plans should not be based on an outdated model of learning but rather on developing and enhancing in-depth content and instructional knowledge.

Technology- Current research reveals many ways that technology can facilitate the creation of effective learning conditions and the development of deeper student learning processes. These include increasing opportunities for representational thinking, providing additional contexts for learning and transfer, and facilitating independent and collaborative learning opportunities for students as well as teachers. While much attention has been given to technology as rich and efficient source of information, research suggests that the merits of technology also lay in its possibilities as an alternative pedagogical tool that can enhance and sustain expert learning and knowledge transfer.

Assessment- Currently much assessment is focused on measuring what facts and bits of information students have memorized and are able to retrieve. New conceptions of thinking and learning suggest that on-going assessment and feedback is an essential feature of instructional approaches aimed at promoting the development of higher-order thinking skills. In short, meaningful assessments reveal not only levels of content mastery but also the quality, depth, and breadth of student mastery. Research suggests that assessment intended to facilitate learning and understanding should be on-going, embedded in instructional practices, and provide relevant information to teachers, students, and parents about what and how content is being learned.

New Conceptions of Learning and Learning Communities

For some schools, building a learning community may require significant shift away from traditional views of learning and learners. New conceptions of learning suggest the need for a learning environment that is:

- Learner centered.
- Employs developmentally appropriate instruction.
- Builds links between what students currently know and the content they are asked to master.
- Pays attention the development of well organized and critically assessed information bases.
- Utilizes formative assessment to improve learning.
- Promotes a sense of community.

Attention needs to be paid to developmental aspects of learning, ensuring high levels of learning transfer, and facilitating novice and competent learners to achieve expert learner status while ensuring conditions that make possible a learning environment. Assumptions about students and expectations for their success may need to be reexamined by the community at large. In the process of becoming a learning community, barriers to student leaning should be identified and appreciation of student diversity cultivated. In addition, the purpose and focus of curriculum, assessment, instructional strategies, and school organization should be considered in light of new conceptions of learning for all students. These efforts will require school-community members to engage in personal reflection, sustained and on-going discussions with others, and the development of a collective cross-school vision.

Teachers as Learners Until recently, we have not thought of schools as places where *teachers* learn. Yet the principles of learning just discussed for students also apply to adults working in schools. In fact, one of the reasons for creating a learning community in a school is that the adult learning community should model for students what it means to be a learner. While there are a variety of things teachers must learn such as content knowledge aligned to school goals and student standards; formative assessment to inform instructional strategies; new instructional strategies to make rigorous content relevant to all learners; clearer understanding of underlying philosophies and assumptions about teaching and learning; and learning how to work collaboratively to enhance student learning. It is beyond the scope of this paper to address the content of what teachers learn, instead it will focus on how teachers learn.

While much has been written about the ways in which teachers learn, there is no single theory on teacher learning. The discussions about teacher learning can be divided into four approaches, developmental, constructivist, structural, and whole systems perspectives. Each

of these types of learning require different strategies and points of entry for improving teacher learning and effecting change in instruction and student outcomes. Despite the differences among them, the four approaches are complementary and need to be considered whenever addressing any of the above content areas. Simultaneously, considering these four dimensions will help to assure that the newly acquired knowledge is put into practice.

Developmental Considerations in Teacher Learning- Teachers' personal growth and development is a key component for understanding how teachers learn. The research stresses that teachers' motivation to learn or change their

behavior is deeply affected by the individuals' life stage and experience. Accordingly, professional development must take into consideration individual learner's developmental and career stages, as well as their needs, interests, and experiences. The developmental view of teacher learning suggests a diversified approach to professional development based on teachers identified needs and guided by clearly defined school objectives. Examples of professional development activities that attend to teacher learning from a developmental perspective include:

- Meaningful mentoring experiences, particularly for new teachers
- Sabbaticals, leaves of absence, and job sharing options tailored to the needs of individual teachers
- Teacher-identified problem areas, examined through study groups
- Long-term professional development plans for individual teachers

As valuable as this developmental approach to understanding the learning needs of teachers, it has limitations. A developmental approach rooted primarily in the individual's needs does not address the collective needs of teachers and the larger needs of the school and community. Sound professional development also involves working collaboratively with other teachers to jointly construct meanings and beliefs concerning teaching and learning. The next section addresses these collective aspects of successful teacher learning.

Socially Constructed Teacher Learning- Evolving conceptions of teacher learning suggest that teacher knowled socially constructed and recognizes that individuals' context inform their learning. It is the teacher's social context that faci learning through repeated interaction, feedback, guidance, encouragement, explanations, suggestions, and reflection. Teach learning occurs when teachers have the opportunity to share, discuss, and elaborate on their thoughts, experiences, and lear

The constructivist view of learning also requires teachers to examine the underlying values and belief structures th influence their approaches to instruction and their interactions with individual students. This self-examination may also inv reassessment of traditional policies and practices, such as ability grouping, grading, expectations for various groups of stud and so on.

The constructivist view of teacher learning suggests that teachers should have a variety of on-going and sustained opportunities for collaborative learning and problem solving. Professional development opportunities should occur within groupings of teachers involved in collaborative problem-solving situations. Examples of professional development activitie

attend to teacher learning from a constructivist perspective include:

- Teacher problem solving groups around curricular content,
- Development of individual and group skills in challenging assumptions, coping with change, risk-taking, an collaborating,
- Attention to shared beliefs including appreciation of diversity, importance of continual learning, and shared responsibility for student learning, and
- Use of student data for instructional planning and evaluation of curriculum and programs.

Attention to the developmental aspects and the social construction of learning increases the possibility that the individual and collective learning of teachers can be applied to the improvement of schools and instruction. Even if professional development is consistent with these, however, issues of structure and the larger context can prevent professional development from being effective.

Structural Conditions for Teacher Learning- The structural view of teacher learning asserts that there are certain conditions within schools and within the schools' larger context that can be changed to enhance or inhibit opportunities for teachers to be involved in meaningful learning activities. Researchers in the field are concerned with the relationship between teacher learning and whole school change processes and, as such, spend considerable time identifying structural conditions associated with teacher learning. Structures that afford time for planning, learning, and collaborating around activities related to school goals are deemed essential. This requires attention to scheduling and time constraints. In addition, authors in this area recommend:

- Increased and broadened teacher roles and responsibilities
- Decreased pupil loads,
- Decreased isolation and privacy of the teaching/learning process through participation in teacher networks across schools,
- Establishment of community norms and values which support and encourage teacher learning,
- Creation of structures which allow the collection, dissemination, and evaluation of data from multiple sources to teachers to inform their learning and teaching,
- Investment of greater rights, authority, and responsibilities in teachers
- Opportunities to attend to specific school needs rather than district state mandates
- Giving greater teacher control over professional development resources
- Freedom and support for experimentation/ inquiry from all levels of leadership

It essential that the structure of schools foster, rather than constrain, professional development so that individual and collective learning needs of teachers are taken into account. However, the three preceding

strategies overlook the fact that the school is embedded or nested in a larger context which brings forces to bear on all three. Attention to the whole system of schooling, the next section, is a necessary complement to the three dimensions discussed thus far.

Teacher Learning Focused on the Whole System- Researchers who consider teacher learning from a whole systems view believe that to best be able to meet the needs of learners, teachers need to have knowledge of what is going on both inside and outside of their classroom and schools. Teacher learning includes the ability to make informed decisions about appropriate approaches to instruction, student learning, and school change based on accurate and in-depth understandings about the political and organizational contexts in which these activities occur.

There are two different reasons given why this whole system perspective is an essential component of teacher learning. Some argue from a social reconstructionist philosophy; in this view teaching should involve giving attention to issues of social inequality and the creation of a more just society. Therefore, teachers must know how to analyze social contexts. The second argument for a whole systems approach to teacher learning points to the fact that teaching is embedded in a larger policy system. This perspective recognizes that the numerous elements of schools and school systems are interrelated and, thus, changes in one aspect of schooling effect and are affected by changes in other areas. Increased flow of information throughout the system and the development of skills in recognizing interrelationships help teacher to make informed decisions. This requires that teacher learning attend to district, state, and community forces in education as well as make use of data from multiple external and internal sources. Thus, teacher learning must incorporate a larger system perspective.

Examples of professional development activities that attend to teacher learning from a whole system perspective include:

- Educational goals and expectations for students are shared among multiple levels of system
- Teachers and administrators attempt to identify and attend to external and internal causal factors affecting student motivation and learning
- Teacher participate in networks of other teachers so that they see alternative ways of organizing their work

- Policy makers and administrators at higher levels of the educational and policy system openly share information with teachers so that they understand the broader context for their work
- Strategic long-term planning includes teachers so that their needs as learners are incorporated and concomitantly they understand the complexities of the context in which they work
- Teachers have an opportunity to help construct a curriculum that incorporates school-level, district, state, and national goals

When the developmental and social constructivist views of teacher learning are combined with an attention to the structure of schools and the integration of the whole system of schooling, the ground work is in place for creating professional development that improves teacher learning.

Bringing Together Multiple Perspectives on Teacher Learning To Enhance Professional Development and Improve Student Outcomes-Traditional models of professional development have focused on a single aspect or view of teacher learning. Because of the failure to attend to various aspects of teacher learning and the conditions necessary to ensure them, traditional professional development activities fail to 1) capitalize on the various sources of learners extrinsic and intrinsic motivation, 2) afford opportunities for teachers to collectively make sense of their learning while simultaneously meeting their individual needs, and 3) develop lasting organizational norms and structures conducive to teacher learning and organizational goal attainment. In the last decade, there has been an increasing amount of attention paid to professional development and its relationship to student learning. As a result, much attention has been given to improving professional development opportunities for teachers and identifying aspects of effective teacher development. Toward those ends, the National Partnership for Excellence and Accountability in Teaching (NPEAT) has identified nine principles based on current research which are likely to be effective in improving the outcomes of professional development (See Appendix A for full description of NPEAT principles). The principles attend to (1) the content of professional development should focus on what students are expected to learn as well as effective instructional strategies (2) the relationship between student performance and school goals, (3) how to involve teachers in the planning of professional development, (4) the need for school base activities, (5) opportunities for collaborative problem solving, (6) the importance of continuous follow-up and support, (7) the importance of evaluation being based on multiple sources of information, (8) opportunities to develop in-depth understanding, and (9) basing professional development on a comprehensive school change process.

These nine principles do much to describe the form and characteristics of effective professional development but do not inform practitioners about how teachers learn when involved in these activities. The development and implementation of truly effective professional development that results in increased positive outcomes for students and the achievement of identified school objectives requires attention both to principles of effective professional development as well as the various views of teacher learning.

Below is a table which gives examples of the relationship between the nine NPEAT principles contained in Appendix A and the key aspects of the four views of teacher learning described above. As shown, the unit of analysis in the Developmental, Social Construction, Structural, and Whole System views of teacher learning falls on a continuum from individual teacher, to teachers and students, to teachers, students, and schools, and ending with teachers, students, schools and the larger environmental context, respectively. As such, it is appropriate that the potential activity described in the Developmental dimension addresses professional development activities geared towards individuals, just as the Social Construction column will focus on activities for groups of teachers and students, and the Structural column will attend to issues affecting the school at large. The cells in Table 1 have been filled in using the development of a school strategic plan as an example of how an activity can address dimensions of teacher learning and principles of effective professional development. This is provided as an example only; there is no one correct way to implement this particular activity, and there are multiple strategies that may be used to address any one cell.

Table 1

Operationalizing Professional Development Principles and Teacher Learning Theory: Strategic Plan Development as an Example

her Learning Theory	Developmental	Constructivist	Structural	Whole System
AT Principles	Individual level	Individual and Group Levels	Individual, Group, and School Levels	Individual, Group, School, and System Levels

content of professional lopment focuses on t students are to learn how to address the rent problems students have learning the rial.	PD will be tailored to what teachers need to know about content and possible problems students may encounter.	Teachers work together to develop in-depth understanding of content and problem-solve on how to address particular student problems.	Release time is provided for teachers to become familiar with content and to develop problem-solving strategies associated with delivering content to particular students.	Alignment of goals for teacher PD, instruction, and assessment and monitoring of student progress
essional development ld be based on yses of the differences een (a) actual student rmance and (b) goals standards for student ing.	PD will be tailored to what teachers need to know in order to assess discrepancies between student performance and student outcome goals to determine what plan should address	Teacher s come to shared agreement about identification of discrepancies	Mechanisms for collecting data to ensure that teacher evaluation, student assessment, curriculum, and desired student outcomes are being achieved	Assessing and monitoring alignment of schools student outcomes with state and national standards
essional development ld involve teachers in dentification of what need to learn and in evelopment of the ing experiences in h they will be lved.	Teachers choose specific areas of plan to work on consistent with their interests	Teachers discuss goals of strategic plan	Release time is created for participation in plan development	Teachers are given authority to participate in strategic planning and identifying specific goals of plan
essional development ld be primarily school- d and built into the to-day work of ing .	Relevant PD for the individual is grounded in their school based practice. These interests are reflected in the plan	Groups of individual s in the school work together on the strategic plan	School members have responsibility and authority for the development and implementation of the strategic plan	Larger system delegates authority for schools to develop and implement plan
t professional lopment should be nized around borative problem ing.	Individuals work in collaborative groups that are appropriate to their individual plan development. Groups centered on relevant school problems	Teacher s develop strategies to address identified weaknesses	Involve Teachers students , and principal in developing plan and identifying goals/problems	Involve Teachers students, principal, and community in developing plan and identifying goals/problems
essional development ld be continuous and oing, involving w-up and support for e learning....	Teachers receive additional professional development to address identified needs of individuals strategic plan	Revisit strategic plan on a regular basis and make necessary adjustments	Develop structures to monitor strategic plan implementation and goal attainment	Resources from larger environment are accessed to support strategic plan goals

essional development ld incorporate uation of multiple ces of information on utcomes for students (b) the instruction and r processes that are lved in implementing essons learned through essional development.	Teachers receive appropriate PD for their needs: e.g. interpreting data, participate in plan development, assisting others	Opportunities to explore multiple interpretations of data on which to base plan decisions	Involve teachers, principals, and students as sources of information and provide same with information about the plan	Scan environment for changes/ trends in education
essional development ld provide rtunities to develop an rstanding of the theory rlying the knowledge skills being learned.	Teachers are given opportunities to increase knowledge base to fully understand issues related to strategic plan areas	Teachers discuss their understanding of knowledge, attitude, and skills of their section of the plan	Structures allow access to a larger body of relevant knowledge and theory in the service of developing strategic goals	In developing the strategic plan teachers are increasing their knowledge of the larger environmental context
essional development ld be connected to a prehensive change ess focused on oving student ing.	Providing individual teachers with opportunities to apply new knowledge to their practice in the service of the strategic plan.	Teachers relate and apply what they learned or discussed about separate plan areas. Teachers evaluate alignment of plan areas with overall strategic plan.	Identifying structural changes necessary to implement strategic plan.	Scan environment for pending policy changes. Local/district/state/ federal alignment.

A Collaborative Culture

In the previous section, the role of teachers as learners was discussed. New approaches to professional development have made us aware of the need to view teachers as active learners responsible for determining what new knowledge they need to meet student goals and increase student learning. It was emphasized that teacher learning requires, among other things, opportunities for teachers to collaborate in their efforts to improve student learning.

In this section we examine how a school's culture can either assist teachers in their learning goals or impede their professional development. All schools have organizational cultures. In this respect they are no different than other organizations. Cultures are the system of values, norms, and rules that bind people together in a collectivity. Cultures operate in many contexts, including workplaces. While each school has some unique cultural properties, overall schools tend to have a core of common cultural features. The fact is that the organizational culture of most schools affords little opportunity for teachers to be active learners. What are some of these impediments?

- Many schools are organized as a top-down hierarchy.
- Teachers conduct their work in isolation. They have few opportunities to share their knowledge and learn from one another.
- They also complain of a lack of connection between their work in the classroom and the needs of the entire school, and especially their lack of connection to the world outside their school.[1]

Given these barriers, it is not surprising that too many teachers also complain of job dissatisfaction, feel their work is meaningless, and feel unsupported. Also, there are unusually high rates of attrition among inexperienced teachers. Schools can be structured differently, however, in order to create the conditions which make teaching more rewarding. To build a learning community, several important aspects of organizational culture and attendant leadership need to change:

- Incentives and opportunities for collaboration in building knowledge must increase.
- A climate that favors continuous school improvement must be fostered.
- Transformational leadership by the school's principal is needed to bring about these changes.

Below each of these aspects of a collaborative organizational culture is discussed.

Incentives and Opportunities for Collaboration in Building Knowledge-

How can the isolation in which most teachers work be broken down? The creation of a professional community is an attempt to address this negative feature of most school cultures. In most schools, to the extent that there is any community present, it is a liberal conception of community emphasizing individual rights and responsibilities of staff (and students). By contrast, collective communities are characterized by shared goals. According to researchers, a school characterized as a professional community has three key features.

Ethic of Interpersonal Caring- The first feature is an ethic of interpersonal caring characterized by trust and respect permeates the school, affecting teachers, administrators, and students. In such schools there are shared norms and values concerning the goals of the professional community. Members of the staff are focused collectively on student learning, rather than a host of other issues that can distract them from their core mission. Also, there is a core of shared values about what students should learn, about expectations for behavior, and for the maintenance of the community. These norms and values create common expectations for all students' ability to learn, for how students should be treated in and out of class, and for teachers' obligations to nurture student development beyond student achievement.

Opportunities to Develop Common Understandings, Values, and Expectations- The second feature is a common set of activities affords many opportunities for face-to-face interactions and for common understandings, values, and expectations to emerge. In such schools there is a deprivatization of practice so that teachers

feel comfortable challenging assumptions, discussing their teaching with one another, taking risks, and experimenting.

Collaborative Culture- The third feature is these collaborative cultures are not only teacher centered. Equally important, they are *knowledge-centered.* That is, their goal is to help teachers rethink their disciplinary knowledge as well as their teaching strategies. Rethinking one's practice requires teachers to take risks, because they make themselves vulnerable. Concern over peers' reactions and administrators' perceptions can be an impediment. Thus, the culture must support taking these risks so that teachers feel comfortable with the role as learners. Building "communities of practice" requires teachers being willing to share successes and failures with curriculum development and teaching practices. Specific structures to support opportunities for reflective dialogue on serious issues or problems related to student learning, including coping with change and ambiguity are necessary to the development of incentives building knowledge collaboratively. Teams of teachers or study groups are focused on improving student achievement or related problems. For example, a group of teachers at a grade level may study student work in a nonjudgmental fashion as a way to assess student needs and devise new strategies for improving student learning.

A Climate That Favors Continuous School ImprovementA Climate Which Favors Continuous School Improvement

Schools organized as a learning community also focus on learning as a tool for school improvement. Many schools now are required to do school planning. In learning communities planning is a continuous process. Teachers and administrators work together to set goals, diagnose the gap between where they are and where they want to be, devise a plan of action based on research, and then use data to assess their progress. The process of school improvement never ends. Changes in external conditions, as well as new information about student performance and needs, require continuous planning.

Multiple Sources of Data- Learning communities utilize data gathered from multiple sources to make decisions regarding student learning. As mentioned above, in such schools teachers often collectively use student work as a vehicle to study how to improve their own teaching and to enhance student learning. That is, they seek to learn in a community. Many teachers also try to organize their classrooms to model a learning community.

Assessment Data- Data-based instruction is an increasingly common feature in such schools. However, in some schools student achievement data are used primarily to improve test scores rather than to assure that students acquire higher-order knowledge. By contrast, in schools striving to be a learning community, teachers utilize a rich array of assessment data that helps them assess the progress of all the pupils in their classes. Assessment data allow them to ask: Am I meeting the needs of all my pupils as effectively as I can? Assessment data allow them to set initial goals for each student, track student progress over time and then reassess whether their instructional strategies are reaching all learners. In many schools utilizing data-based instruction, groups of teachers meet periodically to share their results and to work together on improved instructional strategies.

Data-Based Decision Making- Data-based decision making also can help the school identify strengths and deficiencies in the educational program related to clearly-defined school goals. There is an effort to link the data-based instructional decisions of individual teachers with overarching school goals. This information can be used in planning, beginning with decisions about how to best meet the needs of groups of children and how to articulate curriculum across and within grade levels. Data are used to consider the broader consequences of decisions for the students and the larger community.

Continuous school improvement therefore accomplishes a number of goals simultaneously. First, planning affords an opportunity for school staff to collaborate around common school goals. Second, information assists the administration in maintaining a clear direction for school improvement. Decisions are based on relevant information rather than intuition, history, and speculation. Third, it affords administrators an opportunity to foster leadership competencies among teachers, so that responsibilities for school improvement (and its ownership) are shared. Hopefully, this permits school improvement to continue even though individual teachers or the principal may leave the school. To be truly effective, therefore, school-based decision making needs to reach beyond a few data-crunchers or gurus. Teachers must both become comfortable with the use of data for continuous progress as well as become capable of envisioning how their instructional improvement in the classroom relates to individual students and school-level improvement strategies. Beyond that, however, administrators need to encourage them to develop their leadership capacities.

Develop Strategies to Meet Learner's Needs- Schools organized as learning communities are committed to a

developing a comprehensive set of strategies for addressing learner needs. These strategies need to mutually reinforce on another, creating an organizational push towards raising the achievement of students. Learning communities work to align, as best they can, the goals, objectives, and actions of all school members to develop a coherent and collective vision for the desired outcomes of the educational program.

High-Performance Organizations- Schools characterized by organizational learning are committed to continuous change, not just for change sake, but in the service of improving student outcomes, enhancing teacher learning and the facilitating collaborative school culture. This approach to organizational functioning seeks to institutionalize what we have learned about high-performance organizations. High-performing organizations are able to accomplish their mission by continually improving their capacity to deliver highly valued outcomes to their stakeholders. What are some of the attributes of high-performing organizations?

Open Systems- Such organizations are open systems that seek to understand the changes in their environments and to react accordingly. The environment of schools can include changing family values and needs, community expectations, government regulations, and a host of other influences.

New ways of Responding to Challenge- Schools seek to learn by exploring new ways of responding to their challenges rather than seeking only to exploit old solutions. They try not only to adapt to immediate challenges but also to anticipate emerging problems. They identify root causes of problems rather than address symptoms.

Reducing or Preventing Failure- These organizations the focus is on reducing or preventing failure of students as well as teachers rather than merely managing low performance. Attention is given to reducing the variability in individual and group performance in the interest of high reliability.

Ever-increasing Standards of Performance- High performance is not a steady state but a moving target of ever-increasing standards of performance. Thus, learning processes are a way for a school or any organization to increase the value of its outcomes and the level of its employees' performance in pursuit of those outcomes.

Continuous school improvement must operate in tandem with a school that organizes itself as a professional learning community. As a group, the faculty at a school must be committed to a never-ending process of evaluation and an openness to change. This process also requires building high levels of interpersonal trust and a willingness to strengthen the capacity of the group to function as a learner.

Transformational Leadership by the School Principal

Schools that are learning communities require skilled principal leadership. Principals must be transformational leaders, as distinct from managers. Transformational leaders attempt to foster organizational learning, which includes both individual's learning in the context of an organization and the collective learning of the whole organization.

Transformational leaders are more than instructional leaders. As principals work to improve the curriculum, instructional practices, and assessment, they must empower teachers to share the instructional leadership role. They can accomplish this by cultivating the development of collaborative decision making processes in the school and helping teachers shape their own professional development. The principal's role is to nurture the development a learning community, which requires a concern for cultivating opportunities for teachers to be learners. From this perspective, the principal is responsible for facilitating the development of strong professional communities in which teachers have high levels of autonomy and flexibility to respond to specific needs they see.

Reflective Practice- As a part of the effort to create a learning community in a school, some principals have adopted a reflective practice approach to guide their own professional development, which in turn can serve as a model of learning and growth for the entire learning community. Reflective practice can be thought of as leaders having a "conversation with the situation"[2]. There are specific strategies principals can use to foster critical reflection on practice:

- They can involve staff in decisions concerning implementation,
- Use a team approach,
- Compare performance results, and
- Provide feedback to the school (and teachers as individuals or as a

group) from an external agent such as evaluators, mentors, or school networks.

Reflective principals become students of their practice. They model continuous reflection and learning for the members of their staff. As such, principals must be open to improvement and willing to accept feedback on their own performance from members of their staff. Principals should strive to be head learners in a school rather than head managers.

Structural Changes- In addition to changing the norms and incentives supporting teacher learning, principals can foster specific changes in structures and processes to create a professional learning community. Of course, they need to "walk the talk" by actually supporting efforts of teachers in their school to create learning communities. Some examples are:

- They can help teachers assess their own needs for growth and provide access to professional development sources responsive to those needs.
- As mentioned above, they can nurture teachers to develop teachers' leadership capabilities. They can assure that responsibility for teacher development is widely distributed throughout the school.
- They can recognize and publicly acknowledge teachers' accomplishments.
- They can provide opportunities for teachers to develop a shared view of the school's overall mission.
- They can provide support for data-based school improvement, including data-based instruction.
- They can support opportunities for teachers to meet on professional development during the school day, which often requires reallocation of resources and a restructuring of the school calendar and/or time schedule. Adequate financial, time, personnel, material and other resources must be made available.
- Principals can support collaborative professional development by linking teachers to larger reform networks and groups of teachers outside the school who also are seeking to improve their practice.

In conclusion, creation of a collaborative school culture is a key strategy in achieving high levels of student learning for all pupils and promoting opportunities for teachers to become active learners. Several strategies have been

reviewed: incentives and opportunities for collaboration, a climate that focuses on continuous school improvement, and facilitative leadership by the school principal.

Section III. An Approach to Implementing Data-Based Decision-Making:

The KEYS InitiativeSection III [3]

In order to become a learning community, one of the first steps a school might take is to engage in self-study, a process that can ultimately result in a consensual plan for school improvement. The NEA has developed an instrument and guidelines, known as KEYS (Keys to Excellence for Your Schools), to facilitate such an initiative. The process begins with the completion of a survey by members of the school population. The instrument focuses on five dimensions of school culture and thirty-five indicators of quality schools linked to those five strands. These five strands are:

- Shared understanding and commitment to high goals
- Open communication and collaborative problem solving
- Continuous assessment for teaching and learning
- Personal and professional learning
- Resources to support teaching and learning

The thirty-five specific indicators are listed in Appendix B. The above strands and indicators relate directly to the three key aspects of a learning community discussed here, namely, student learning, teachers as learners, and a collaborative school culture.

Conducting the self-study using the KEYS instrument is a possible first step in creating a comprehensive approach to school improvement. Because of the alignment of the KEYS indicators with the overall approach to building a learning community, it can serve as a valuable diagnostic tool. Analysis of the data obtained via this instrument provides the school with a basis for assessing its current state of readiness for implementing reform.

The NEA guidelines recommend the formation of a task force. It should be representative of the entire school and community population (teachers, administrators, support staff, students, parents, community members, civic leaders), and its role is to lead the change process. This is an opportunity to establish the foundation for a learning community.

The team's first charge is to study the KEYS plan and guidelines to gain familiarity with the change process. The task force then uses these guidelines and the data analysis report to assess the following issues:

- How change best occurs in this particular school setting,
- What methods and styles of adult learning work best in this school setting,
- What methods of problem solving are most effective in this setting, and
- How collaboration can best be encourage among members of this school community.

The next step involves the selection of one of the five strands from above to follow in order to address the schools most pressing issues. For example, the task force may begin with the dimension "Shared Understanding and Commitment to High Goals" or alternatively, "Open Communication and Collaborative Problem Solving."

A strategic plan would then be developed and presented to the schools' staff. The entire process is intended to be highly interactive, so that, upon receipt of input from the school staff, the leadership team would continually reassess its strategy and progress. Eventually the team works through the entire five strands, addressing problems sequentially while expecting multiple ripple effects from each single improvement.

While KEYS guidelines offer suggestions for techniques in making improvements, it offers no hard and fast rules, nor does it attempt to assess programs currently in place. It relies on management of the institution's self-awareness and its readiness to become a learning community.

Suggested Readings for Practitioners' Guide to Learning Communities

Section IIA – General Learning Community

Argyris, C. (1993). *Knowledge for action: A guide to overcoming barriers to organizational change*. San Francisco: Jossey-Bass.

Cousins, J. B. (1996). Understanding organizational learning for educational leadership and school reform. In K. Leithwood, J. Chapman, D.Carson, P. Hallinger, & A. Hart (Eds.), *International handbook of educational leadership and administration* (pp. 589-652). Dordrecht, The Netherlands: Kluwer Academic Publishers.

Dixon, N. (1994). *The organizational learning cycle: How we can learn collectively*. Berkshire, England: McGraw-Hill.

Leithwood, K. (1999). *Organizational Learning in Schools*: Swets and Zeitlinger Publishers.

Levitt, B., & March, J. G. (1996). Organizational Learning. In M. Cohen & L. Sproull (Eds.), *Organizational Learning* (pp. 516-540). Thousand Oaks, CA: Sage Publications.

Louis, K. S., & Leithwood, K. (Eds.). (1998). *Organizational Learning in Schools*: unpublished.

Section II B- New Conceptions of Learning

Bandura, A. (1986). *Social foundations of thought and action: A social cognitive theory*. Englewood Cliffs, NJ: Prentice Hall.

Bransford, J., Brown, A., & Cocking, R. (Eds.). (1999). *How people learn: Brain, mind, experience, and school*. Washington D.C.: National Academy Press.

Cohen, D. K., McLaughlin, M. W., & Talbert, J. E. (Eds.). (1993). *Teaching for understanding: Challenges for policy and practice*. San Francisco: Jossey-Bass.

Salomon, G., & Perkins, D. N. (1998). Individual and social aspects of learning. In P. D. Pearson & A. Iran-Nejad (Eds.), *Review of Research in Education* (Vol. 23, pp. 1-24). Washington D.C.: American Educational Research Association.

Tharp, R. G., & Gallimore, R. (1988). *Rousing minds to life: Teaching, learning, and schooling in social context*. New York: Cambridge University Press.

Wang, M. C., Oates, J., & Weishew, N. (1995). Effective school responses to student diversity in inner-city schools. *Education And Urban Society, 27*(4), 484-503.

Section IIC- Teachers as Learners

Darling-Hammond, L. (1995). Changing conceptions of teaching and teacher development. *Teacher Education Quarterly, Fall*, 9-26.

Deming, W. E. (1986). *Out of the crisis*. Cambridge, MA: MIT Press.

Duckworth, E. (1997). *Teacher to teacher: Learning from each other*. New York: Teachers College Press.

Fessler, R. (1995). Dynamics of teacher career stages. In T. R. Guskey & M. Huberman (Eds.), *Professional development in education* (pp. 171-192). New York: Teachers College Press.

Guskey, T. R., & Huberman, M. (1995). *Professional development in education*. New York: Teachers College Press.

Knowles, M. (1973). *The adult learner: A neglected species*. Houston: Gulf Publishing Company.

Lieberman, A., & Grolnick, M. (1996). Networks, reform, and the professional development of teachers. *Teachers College Record, 98*(1), 7-45.

McLaughlin, M. W., & Oberman, I. (Eds.). (1996). *Teacher learning: New policies, new practices*. New York: Teachers College Press.

Tillema, H. H., & Imants, J. M. (1995). Training for the professional development of teachers. In T. R. Guskey & M. Huberman (Eds.), *Professional development in education* (pp. 135-150). New York: Teachers College Press.

Zeichner, K. M., & Gore, J. M. (1990). Teacher socialization. In W. R. Houston (Ed.), *Handbook of research on teacher education* (pp. 329-348). New York: MacMillan.

Section II D- Collaborative Culture

Argyris, C., & Schon, d. (1996). *Organizational Learning II*. Reading, MA: Addison-Wesley Publishing Company.

Barth, R. S. (1990). *Improving schools from within: Teachers, parents, and principals can make the difference*. San Francisco: Jossey-Bass.

Cohen, D. K., McLaughlin, M. W., & Talbert, J. E. (Eds.). (1993). *Teaching for understanding: Challenges for policy and practice*. San Francisco: Jossey-Bass.

Deming, W. E. (1986). *Out of the crisis*. Cambridge, MA: MIT Press.

Cibulka, J., & Kritek, W. (1996). *Coordination among schools, families and communities: Prospects for education reform*. Albany: State University Press.

Devos, G., Van den Brock, H., & Vanderheyden, K. (1998). The concept and practice of school-based management contest: Integration of leadership development and organizational learning. *Educational Administration quarterly, 34*(Supplemental, December 1998), 700-717.

Elmore, R. (1997). *Investing in teacher learning: Staff development and instructional improvement in Community School District #2, New York City* . Washington D.C.: National Commission on Teaching and America's Future, Consortium for Policy Research in Education.

Hawley, W. D., & Valli, L. (1998). The essentials of effective professional development: A new consensus. In G. S. L. Darling-Hammond (Ed.), *The heart of the matter* . San Francisco: Jossey-Bass.

Leithwood, K., Jantzi, D., & Steinbach, R. (1999). Redesigning the organization: Culture, structure, policy and community relationships, *Changing leadership for changing times* (pp. 82-96). Philadelphia: Open University press.

Levin, H. M. (1991). *Building school capacity for effective teacher empowerment: Applications to elementary schools with at-risk students* (CPRE-RR-019). New Brunswick, NJ: Consortium for Policy Research in Education.

Louis, K. S., & Kruse, S. D. (1995). *Professionalism and community: Perspectives on reforming urban schools*. Thousand Oaks, CA: Corwin Press.

March, J. G. (1991). Exploration and exploitation in organizational learning. *Organization Science, 2*(1), 71-87.

Mohrman, S. A., Wohlstetter, P., & Associates. (1994). *School-based management: Organizing for high performance*. San Francisco: Jossey-Bass.

Murphy, J., & Seashore Loius, K. (1994). *Reshaping the principal*. Thousand Oaks: Corwin Press.

Lawler III, E. E. (1992). *The ultimate advantage: Creating the high involvement organization*. San Francisco, CA: Jossey-Bass.

Leithwood, K., Jantz, D., & Steinbach, R. (1999). Creating the Conditions for Growth in Teacher's Knowledge and Skill, *Changing Leadership for Changing Times* . Philadelphia: Open University Press.

Levin, H. M. (1991). *Building school capacity for effective teacher empowerment: Applications to elementary schools with at-risk students* (CPRE-RR-019). New Brunswick, NJ: Consortium for Policy Research in Education.

Louis, K. S., & Kruse, S. D. (1995). *Professionalism and community: Perspectives on reforming urban schools*. Thousand Oaks, CA: Corwin Press.

Pounder, D. G. (Ed.). (1998). *Restructuring schools for collaboration: Promises and pitfalls*. Albany, NY: State University of New York Press.

Schein, E. H. (1992). *Organizational culture and leadership*. (2nd ed.). San Francisco: Jossey-Bass.

Schon, D. A. (1984). leadership as reflection in action. In T. J. Sergiovanni & J. B. Corbally (Eds.), *Leadership and Organizational Culture* (pp. 64-72). Urbana-Champaign, IL: University of Illinois Press.

Scribner, J., et al. (1999). Creating professional communities in schools through organizational learning: An evaluation of a school improvement process. *Educational Administration Quarterly, 35*(1), 130-160.

Senge, P. M. (1990). *The fifth discipline: The art and practice of the learning organization*. New York: Currency Doubleday.

Speck, M. (1999). *The principalship: Building a learning community*. Upper Saddle River, NJ: Prentice-Hall.

Stringfield, S., Datnow, A., & Ross, M. (1998). *Scaling up school restructuring in multicultural, multilingual contexts: Early observations from Sunland County*. Washington D.C.: Center for Research on Education Diversity and Excellence.

Section III- Keys

National Education Association. (1996). *KEYS interactive start-up guide*. Washington D.C.: National Education Association.

Appendix A

NPEAT Principles of Professional Development (NPEAT 1998)

- The content of professional development focuses on what students are to learn and how to address the different problems students may have in learning the material.
- Professional development should be based on analysis of the difference between (a) actual student performance and (b) goals and standards for student learning
- Professional development should involve teachers in the identification of what they need to learn and the development of the learning experiences in which they will be involved.
- Professional development should be primarily school-based and built into the day-to-day work of teaching.
- Most professional development should be organized around collaborative problem solving.
- Professional development should be continuous and on-going, involving follow-up and support for further learning B including support from sources external to the school that can provide necessary resources and new perspectives.
- Professional development should incorporate evaluation of multiple sources of information on (a) outcomes for students and (b) the instruction and other processes that are involved in implementing the lessons learned through professional development.
- Professional development should provide opportunities to gain an understanding of the theory underlying the knowledge and skills being learned.
- Professional development should be connected to a comprehensive change process focused on improving student learning.

Appendix B

KEYS to Excellence in Your Schools.

1) Shared understanding and commitment to high goals

- Parents and school employees are committed to long-range, continuous improvement.
- Central and building administrators are committed to long-range, continuous improvement.
- Goals for achievable education outcomes are clear and explicit.
- Teachers, education support personnel, students, and parents believe all students can learn.
- School district administrators and school board members believe all students can learn.

2) Open communication and collaborative problem solving

- Teachers, education support personnel, parents, school building administrators, students, school board members, district administrators, and civic groups are all involved in improving education. Everyone actively seeks to identify barriers to learning.
- There is a general willingness by everyone to remove barriers to learning.
- School staff work to remove barriers to learning.
- Students and parents work to remove barriers to learning.
- School and district administrators work to remove barriers to learning.
- Cooperative problem-solving process is used to remove barriers to learning.
- There is two-way, non-threatening communication between school administrators and others
- There is two-way, non-threatening communication between the school staff and district administrators
- There is two-way, non-threatening communication among teachers.
- All communication takes place within a climate for innovation

3) Continuous assessment for teaching and learning

- Teachers assess student improvement daily.
- Administrators assess student improvement daily.
- The school uses teacher-made tests to assess students.
- The school uses oral classroom activities to assess students.
- The school uses exhibitions to assess students.
- Assessments take into account student background.
- Academic programs are assessed.
- Teachers consistently rate program quality.
- Assessment results are actually used, and classroom decisions are based on assessment. Instructional materials are selected based on quality.
- Instructional materials are selected based on appropriateness to student needs
- Instructional materials are not selected based on cost.

4) Personal and professional learning

- School is an overall learning environment for employees and students.
- There is ongoing, consistent staff development in the areas of decision making, problem solving, leadership, and communication
- Staff development is an ongoing, high quality, state-of-the-art, practical experience for all school employees.

5) Resources to support teaching and learning

- Space is adequate within the school building.
- Supplies are adequate.
- Support services are adequate.
- Psychological and social work services are available.

[1] In high schools, the departmental structure, whatever its merits, can be a barrier between individual teachers in different departments.

[2] (Schon (1984) p. 65, quoted in Speck (1999), p. 94)

[3] The following source served as the primary basis for this section: NEA (1996).

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