This monograph identifies key policy areas that support the concept of teaching for understanding. Part 1, "Teaching for Understanding," explores the mission and practices associated with teaching for understanding, presenting this practice from the viewpoint of the student, teacher, and school system. Part 2, "Policy Areas," identifies four areas of policy that are critical to the reform of the education system (teacher evaluation; staff development; school organization and culture; and teacher preparation, certification, and licensure). Part 3, "Policy Application," builds upon the information discussed in part 2 to develop a framework from which educators can identify the policy parameters within the scope of teaching for understanding. The monograph concludes that it is essential for educational researchers to understand the importance of policy factors in the reform process. (Contains 49 references.) (SM)
TEACHING FOR UNDERSTANDING:
POLICY TO PRACTICE

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CONTENTS

INTRODUCTION ......................................................... 5

PART I TEACHING FOR UNDERSTANDING ..................... 6
Role of the Student ................................................. 7
Role of the Teacher ................................................ 8
   Knowledge ....................................................... 9
   Skill .................................................................. 9
   Professional Networking ...................................... 9
Role of the System .................................................. 10
Summary ............................................................... 10

PART II POLICY AREAS ........................................... 12
Teacher Evaluation ................................................ 12
   Evaluation Methods ........................................... 13
Staff Development .................................................. 15
School Organization and Culture ............................... 17
Teacher Preparation, Certification, and Licensure ........ 21
   Pre-Service Education ....................................... 21
   Certification and Licensure ................................. 23
Summary ............................................................... 27

PART III POLICY APPLICATION ................................. 29
Teacher Evaluation ................................................ 29
Staff Development .................................................. 30
School Organization and Culture ............................... 31
Teacher Preparation, Certification, and Licensure ........ 32

CONCLUSION .......................................................... 34

REFERENCES .......................................................... 35
INTRODUCTION

The practice of teaching for understanding has received increased support in recent years by many educators. Although not a new practice, teaching for understanding is a departure from traditional practices of teaching in the United States. In essence, teaching for understanding is an attempt to engage students in practices which encourage the use of higher order thinking skills to solve problems as well as to comprehend the real-world meaning of their classroom learning. The outcome of teaching for understanding is the ability of students to comprehend and transpose their knowledge to other problems, concerns, and situations.

Unfortunately, the pedagogical and curricular foundation of our nation's schools has remained largely unchanged since the time of John Dewey, who originally proposed a progressive teaching philosophy not unlike that of teaching for understanding. The problems that Dewey encountered a century ago are similar to those that block restructuring groups today. The result of ingrained educational policy and practice hampers the creative development of new alternatives in education. The reality of the issue is that these aged policies are not conducive to the introduction and practice of teaching for understanding, and in fact may constrain the implementation or effectiveness of any pedagogical reform.

The concern of this monograph is to identify the policy implications of teaching for understanding practice and develop a policy framework which may be used to determine the effect of district policies on the establishment of teaching for understanding practices in the classroom. To meet this goal, this monograph is divided into three parts. Part I defines the relationship between policy and practice as well as identifies the key elements of teaching for understanding. Part II looks at four specific areas directly related to teacher policy and to the needs of teaching for understanding. Part III then draws from the information presented in Part II to develop a framework from which educators can identify the policy parameters within the scope of teaching for understanding.
PART I TEACHING FOR UNDERSTANDING

The concept of teaching for understanding differs from traditional instructional practices more synonymous with lecturing, memorization, and factual procurement. Teaching for understanding aims to revise our current pedagogy in education to commit to the goal of conceptual understanding—to teach in a way that students will not only create a knowledge base to use for future reference, but to comprehend and apply knowledge such that it may be useful in future situations. Thus, the emphasis of teaching for understanding is, as described by Cohen, McLaughlin, and Talbert in their book Teaching for Understanding, based upon the "promotion of students' critical thinking skills and authentic learning" (1993, p. xi).

Teaching for understanding is a collaborative affair between students and teachers, in which the acquisition of knowledge is constructed jointly, further supporting the development of subject matter that will allow them to "explore, imagine, reason, formulate, and solve problems" (McLaughlin & Talbert, 1993b, p. 2). Teachers practicing teaching for understanding strive to motivate their students to apply rather than recite learned knowledge; develop inquiry-based learning practices as opposed to the acquisition of facts; and to conceptualize the impacts and use of information and knowledge.

The core principles of teaching for understanding include:

1. a conception of knowledge as constructed by the learner and therefore situated in the context of prior knowledge, skills, values, and beliefs;
2. a conception of teacher as guide, as co-constructor of students' knowledge; and
3. a conception of the classroom as a community of learners, in which shared goals and standards, an atmosphere of mutual trust, and norms for behavior support students in taking the risks and making the sustained efforts entailed in serious learning. (Talbert & McLaughlin, 1993, p. 169).
This departure from the conventional practices of teaching and learning in public institutions requires new expectations of students, teachers, administrators, and policy makers. In the next few pages we shall clarify the roles of the student, teacher, and system in support of teaching for understanding.

ROLE OF THE STUDENT

Teaching for understanding requires a new responsibility of the learner. Previously a somewhat passive participant in contemporary schooling, teaching for understanding requires the students to be responsible for their learning as well as the learning of their peers. This participatory methodology lets students engage other students in an act of reciprocal learning; that is, the thoughts and cognitive processes of one student will feed, sustain, or develop the same processes in other students. Students in a participatory learning situation ‘experience’ their learning, and cognition developed from experience is different from person to person. In effect, each student internalizes the learning process in a uniquely individual way.

The nature of teaching for understanding is not unlike that of the John Dewey’s progressive education practice conducted in Chicago during the 1890s. In Progressivism, Dewey and his cohorts felt that group activities and cooperative discussion were basics to successful education with emphasis on hands-on learning activities to foster the direct application of knowledge. In addition, Progressivism also required students to assist one another and make regular contributions to the community in which they lived (Gardner, 1991). Teaching for understanding attempts to rekindle these traits in the learning process while also acknowledging the general insensitivity toward children’s needs and the lack of useful assessment procedures inherent to Dewey’s Progressivism theory.
ROLE OF THE TEACHER

The teacher, conventionally regarded as the disseminator of information, is now charged with the task of creating worthwhile learning activities that engage the learner to strive for higher levels of knowledge. In addition, the teacher is responsible for the selection of learning materials appropriate to the attainment of the instructional goals that support classroom learning (McLaughlin & Talbert, 1993b, p. 2). The teacher must redefine his or her philosophy of education and engage in the development of new pedagogical tools in order to fully assimilate the practice of teaching for understanding. The difficulty in achieving this renewal lies in the need for teachers to ‘unlearn’ their previous practices of conventional teaching pedagogy and ‘learn’ the new strategies on which teaching for understanding is based. As often stated, old habits are hard to break, and many teachers view the change process as risky, uncomfortable, and frustrating (McLaughlin & Talbert, 1993b).

In order to be successful in the practice of teaching for understanding, it is essential that teachers attain the following competencies:

- Comprehensive and in-depth knowledge of subject matter
- Competence in representation and manipulation of this knowledge in instructional activities
- Classroom management skills
- Pedagogical content knowledge
- Knowledge of the learner
- New strategies of assessment and evaluating students’ work and progress. (McLaughlin & Talbert, 1993, p. 2)

In constructing the needs of teaching for understanding teachers, McLaughlin and Talbert make explicit mention of the “substantial new learning” that teachers must endure in the process of reform. Teachers must, in essence, become ‘experts’ in their subject area, which is not standard practice in today’s schools. In fact, research shows that only a modest fraction of public school teachers possess the deep knowledge needed
to effectively teach at a higher, more cognitive level (Cohen & Spillane, 1991).

A synthesis of the available information and research regarding teaching for understanding suggests that there are three major factors that teachers must regard in the transitional process: knowledge, skill, and professional networking.

• **Knowledge**
  As previously mentioned, teachers must become subject area experts in order to be effective. In addition, they must also possess knowledge in areas of child/adolescent development, classroom management, lesson development, and other instructional practices. Teachers of today must also be cognizant of multicultural and other social factors that affect their classroom.

• **Skill**
  A key to the integration of knowledge and the practice of teaching for understanding is the ability of the teacher to put knowledge into practice. Not unlike the goals of students in this philosophy, teachers also must be able to convey their subject area knowledge in different situations and in different ways, while also allowing for students' individuality (Meece, Blumenfeld, & Puro, 1989; Pechman, 1992; Stodolsky, 1988). The application of knowledge is essential to the success of any given classroom. In today's high tech society, teachers are even more burdened with the task of addressing highly technical information in a way that will stimulate and engage students (Darling-Hammond & Berry, 1988).

• **Professional Networking**
  The ability of teachers to interact with other teachers is an essential part of the learning process. Research shows that networking can play an important role in a teacher's ability to gain interest in new areas and expand his or her capacity to learn (Talbert & McLaughlin, 1993). The current system of education in this nation impedes the professional learning of teachers by restricting their ability to interact with other teachers. Only recently have we seen movement toward creative scheduling and professional development opportunities for teachers. Professional networking is a key aspect of the teacher's ability to attain new knowledge in subject area and pedagogical methodology.
ROLE OF THE SYSTEM

The current system of education does not support the many facets of preparation required to practice teaching for understanding. Reform toward this new measure of teaching and learning requires change in almost all aspects of education. Unlike many other reform measures in education, teaching for understanding requires wholesale changes in how we teach children and how we envision and support our schools. Teachers will require a substantial support network to ensure that they may have access to people and information that will help them make the transition to teaching for understanding practice. Current policy mandated to local districts, and in turn classroom teachers, create burdensome tasks for instruction. Standardized tests and curricula, bureaucratic paper filing, and routine school procedures limit the time that teachers can spend learning new methodologies and updating their knowledge base (Rowan, 1990; Talbert, McLaughlin & Rowan, 1992; Weber, 1947).

If teaching for understanding is to occur in any magnitude in this country, reform and support from policy makers, school officials, administrators, and teachers will be necessary. Schools will be forced to change their internal operations and their policies toward teacher development and professionalism.

SUMMARY

Teaching for understanding represents a significant change in the ideology of teaching in America. The evolution of new policies regarding what and how we teach in this country will undeniably factor into our ability to attain the goals outlined in the GOALS 2000 Act recently enacted in Congress.

The emphasis on student constructed knowledge, community learning, and the new role of the teacher in the classroom are all important aspects of teaching for understanding. Each of the three important players in the reform process—the teacher, the student, and the administration—will
require new policies and networks which will allow risk-taking, cooperation, and creative practice.

The following section will identify four areas of policy which are key to the successful reform of public educational systems and the institutionalization of teaching for understanding practices. Teacher evaluation, staff development, school organization and culture, and teacher preparation, certification and licensure are important areas of educational policy and practice that are critical to educational reform. Part II will identify some of the recent reforms and practices within these policy areas which support the concepts associated with teaching for understanding.
PART II POLICY AREAS

This section of the paper will focus on the policy areas of teacher evaluation, staff development, school organization and culture, and teacher preparation, licensure, and certification. Although these areas do not cover all issues which have implications for policy development and teaching for understanding, they are significant in terms of the development of coherence between policy implementation and actual classroom practice.

TEACHER EVALUATION

Although several studies have suggested that teacher evaluation techniques in the United States are ineffective and fruitless (Scriven, 1981; Wise, 1985), they do provide an important service to the school district. According to Edward Iwanicki (1990) of the University of Connecticut, there are four main purposes for teacher evaluations:

1. **Accountability** - to ensure that only effective teachers continue in the classroom

2. **Professional Growth** - to foster the professional growth of new and continuing teachers

3. **School Improvement** - to promote school improvement and the enhancement of student learning

4. **Selection** - to ensure that the best qualified teachers are hired (p. 159)

As suggested by Iwanicki, while most developers of teacher-evaluation programs focus primarily upon accountability and professional growth, the optimal situation would be to use teacher evaluations to select the best teachers and then use the process to support professional growth and promote school improvement. This practice would take a large step in eliminating unprepared teachers from entering the classroom while also building a truly professional climate within the school.
According to Pembroke and Goedert (1982), the evaluation process must be accepted by the teacher as one which is fair, objective, and specific to the elements of his or her position. Without any involvement in the evaluation process by teachers, the process will be of little value to the system. Barber (1990) suggests that the use of peer review, non-threatening collegiality, modeling, and peer sharing of quality teaching are excellent methods of producing the type of results suggested by Pembroke and Goedert. Barber also notes that those teachers who practice teaching in a professional manner strive for continued individual excellence and look at a fair evaluation process as a feedback mechanism to help them improve their teaching.

**Evaluation Methods**
While there are several methods of evaluating teachers, much of the literature agrees that there is no "one best way" to assess a teacher's performance (Collins, 1990; Redinger, 1988). In fact, the trend in teacher evaluation is to use a number of techniques to perform evaluations. Classroom observation, self-assessment, the use of student test scores, classroom simulations, and the more recent use of teacher portfolios are examples of the types of evaluations which have been used as evaluation tools in America's 110,000 schools (Barber, 1990).

**Classroom Observations** - Classroom observations have been a staple of teacher evaluation models, but Stodolsky (1990) cautions us that observations are dependent upon the evaluator's belief and knowledge of teaching. Stodolsky states that observation techniques are good for looking at behavior or actions, but are essentially limited when it comes to assessing the affective areas of the teaching process. Therefore, while observation techniques may be an effective method of evaluating the overt activities of a teacher, they do not allow for the assessment of other important, non-observable, teacher functions that support their classroom practice.

**Rating Scales** - The use of teacher rating scales has also been a standard practice in our schools dating back to the late nineteenth century (Good & Mulryan, 1990). Most rating procedures are used by school districts in conjunction with classroom observations and allow evaluators to rate the teacher on a Likert-type scale (e.g., *very poor to excellent*). However, Good and Mulryan contest that there are discrepancies in what is rated and how it is rated. The authors do conclude that those school districts that do choose to "learn" from their evaluation process are those who carefully match their objectives with the evaluation procedures.
**Formative Assessment** - Barber (1990) suggests that formative evaluations are most effective in assisting teachers in the improvement of their classroom techniques and teaching. As Barber states, the formative evaluation is "a helping, caring process that provides data to teachers for making decisions about how they can best improve their own teaching techniques, styles, or strategies" (1990, p. 216). One major component of successful formative evaluations is that of the self-assessment. Although the self-assessment process is much too complex to describe in detail within the scope of this monograph, it is in fact a powerful method of assessing one's own teaching ability for the purpose of improvement. Barber cites the use of videotapes, self-rating forms, self reports, self-study materials, peer review, interviews, and use of consultants as some possible methods of self-assessment.

**Portfolios** - The teacher portfolio, as mentioned earlier, is a more recent form of teacher evaluation. Tom Bird (1990) compares the teacher portfolio to the artist's or photographer's carefully amassed and chosen portfolio, or the logs and pacts of lawyers and social workers. A teacher's portfolio may include examples of examinations, lesson plans, and student work, among others. In contrast to pencil-and-paper tests and classroom observations, the portfolio provides the evaluator with an opportunity to view a teacher's work in the context relative to their role as a teacher. This type of assessment is a continuous, formative process in which the teacher continually updates their portfolio, such that they can at any time present an up-to-date portfolio illustrating their contribution to the classroom.

Because of its continuous development, the portfolio is very useful in supporting reflective practice among teachers. Research by Ryan and Kuh (1993) suggests that the portfolio provides generous opportunities for teachers to analyze their own practices and monitor their personnel development. However, one problem that teachers have observed in developing their portfolio was deciding on what information to include. Bird cites one informed observer who suggested that the portfolio "became an exercise in amassing paper" (p. 241). Care must be taken to ensure that the portfolio represents an effective snapshot of teacher activity and ability, and not simply become a collection of everything that the teacher has compiled over a 20 year career.

Because the evaluation process for teachers is uniquely a district-level responsibility, it is of no surprise that the methods and practices of teacher evaluation in use today are vast. According to Wise & Gendler (1990),
those school districts which continue to use teacher evaluations and minimum competency tests as screening procedures will have difficulty supporting teacher development and improvement. In contrast, those districts using the evaluation process to encourage teacher development may benefit the improvement of teacher practice.

**STAFF DEVELOPMENT**

Staff development is an integral part of any educational reform effort. The following studies have each identified the importance of teacher empowerment and involvement in developing an effective and progressive staff development plan.

The first study, conducted by RAND between 1973-78, found four broad factors crucial to the success of reform efforts and staff development:

- **Institutional motivation.** RAND found that teachers’ motivation was dependent upon the motivation of their peers and administrators, and that top-down planning practices alienated teachers while bottom-up planning did not receive support from the administration. Thus, RAND concluded that a mixture of the two is essential.

- **Project implementation.** The study found that well-conducted staff training and support activities, including the use of consultants, teacher participation in project meetings, and classroom assistance by local personnel, improved the implementation process.

- **Institutional leadership.** Effective leadership during implementation was found to achieve a higher percentage of project goals and generate student improvement. Teachers tended to work harder and accept change better under an effective leader.

- **Teacher characteristics.** The implementation process was affected by the characteristics inherent in the teacher’s practice. In particular, it was found that
a teacher's sense of efficacy, that is; their belief that they can help even the most difficult or unmotivated students, was the most influential factor in the success of a program. Thus, the district provided support activities such as peer consultations, timely assistance, promoted collegial encouragement, and allowed teachers to adapt the reform methods to their students' needs and classroom situations.

Ann Lieberman and Lynne Miller, in Revisiting the Social Realities of Teaching (1991), suggest that the following perspectives be used in viewing staff development:

- Staff development should connect the renewal of schooling to the renewal of educators rather than promote the outdated model of staff development as training and remediation.
- Staff development should expand the realm of teaching and promote reflective practice.
- Staff development should connect activities with the learning outcomes for students.
- Staff development should promote collaboration and collegiality and also sustain individuality, integrity, and artistry for the teacher.

The main ingredient of Lieberman and Miller's research is the element of "connection." The study suggests that connections should be commonplace between staff and administration, activities and learning outcomes, and teacher learning and school reform. It is through these connections, or perhaps more appropriately named "synapses," that staff may reach new levels of productivity and professionalism and contribute to the culture of the learning environment.

Judith Schwartz (1991) identified several criteria related to the success of staff development activities and to the creation of a professional culture within a school district. Essential to this success is the fact that activities cannot be imposed upon the teachers. Schwartz concurs with other researchers who suggest that when the decision-making process is imposed upon a group the initial tendency is to disassociate with that decision. Also, activities should be such that all stakeholders feel ownership over the process and delivery of staff development activities, and that the staff
development is true to the teachers’ vision of moral and ethical purpose. Finally, staff development must reflect the collaboration of all parties involved and be supported in all aspects by the leadership, in particular the superintendent of the district. Schwartz also cited teacher research, cooperative learning, teacher mentoring, peer review, and a shared interest in the development of all professional development activities by the teachers as key elements to professional growth.

Research by Joyce and Showers (1983) also support Schwartz’ finding that peer review and coaching is an important part of staff development. The research by Joyce and Showers places a large emphasis on the acquisition of knowledge and the development of skill in such a way that teachers are given the opportunity to attain a high proficiency of skill prior to classroom practice.

SCHOOL ORGANIZATION AND CULTURE

The basic organization of a school building or district and the culture that is created in part by that organization are important elements of the education process. Two words in particular are important in this part of the review—culture and climate. As defined by Valentine (1992), culture is the personality of an organization as viewed through the values and beliefs of those within that organization, while climate is the attitude of the organization as perceived by the members of the organization. Each of these concepts has an effect on the professionalism of a school system as well as the school system’s capacity to change, evolve, and progress. The development of this professional culture within a school district involves the building of a new set of relationships within the members of the school community, an enlargement of the leadership team in schools, the creation of new roles for both teachers and administrators, a new structure of school organization, and a redefinition of what subject matter should be taught (Lieberman, 1988).

Rosenholtz (1989), in a study of eight Tennessee school districts in the early 1980s, was particularly interested in the social organization of schools and its affect on teachers’ beliefs, cognitions and behaviors, as well as the reciprocal affect on the school’s social organization. The difficulty in this
study, according to Rosenholtz, was not in how to measure school effectiveness, but what to measure. Rosenholtz’s main thesis in the study involved the sharing of goals and the consensus of teachers toward those goals.

Rosenholtz found that schools that had a high-consensus of school goals among its staff revealed a style, attitude, and single-minded characterization. The schools exhibiting a collaborative nature had strong administrative leaders who expanded the teachers’ sense of possibility. The study also found that teacher learning was enhanced in climates where collaboration was encouraged from the principal on down. Experienced and successful teachers were often teamed with less experienced teachers, who in turn became more confident and less uncertain. Conversely, low-consensus schools found teachers unattached to anybody or anything. Ambiguous goals, infrequent evaluation, and lack of common purpose led to greater instructional uncertainty, increased self-reliance, and increased professional isolation from one’s colleagues.

The Rosenholtz study also found that teacher certainty, or efficacy, was an important part of a successful school culture. Positive feedback to teachers regarding their performance as well as mobilization of resources to assist in the acquisition of technical knowledge by the teachers were regarded as important factors in teacher certainty. In addition, Rosenholtz found that teachers’ empowerment and learning opportunities were important elements of the teachers’ commitment to the school and their jobs.

Perhaps the key finding in the Rosenholtz study was the identification of five duties with which progressive school districts delegated to teachers: 1) selecting key school personnel, 2) helping principals set school goals, 3) allocating fiscal resources, 4) selecting appropriate teaching materials, and 5) determining their own inservice needs. Principals and superintendents of these progressive cultures were overtly supportive of their teachers’ professional needs, while the “stuck” superintendents, that is, those superintendents who were locked in to a non-progressive mode, ignored those needs.
In 1987, the Center for Research on the Context of Secondary School Teaching (CRC) initiated a five-year study involving school districts in both California and Michigan (McLaughlin & Talbert, 1993; McLaughlin, Talbert, and Phelan, 1990). This much-heralded study focused primarily on the professional community organizational patterns within the study populations, including teachers’ perspectives on today’s students and students’ perspectives on teachers and school. Findings from the study resulted in the conclusion that teachers’ groups and professional communities offered the most effective unit of intervention and reform. The study in particular found that collegiality, support for learning, faculty innovativeness, and professional commitment were all positively correlated to each other and that there was also a high positive correlation between the support for state systemic reform and the level of teacher professional community involvement (See Figure 1).

The CRC study found that state systemic reform provided the foundation for the development of new, successful teaching strategies, and that a strong professional community was an essential part of the state educational framework. The professional community of the teachers provided the opportunity to discuss new teaching materials and develop strategies that supported professional risk-taking. In addition, the study also found that
some of the teachers who attempted to implement teaching for understanding practices in their classroom became frustrated and discouraged because of the difficulty in working against the grain of traditional classroom practice.

McLaughlin and Yee (1988), in discussion of their two-year, all-grade study of 85 school teachers in California, found that adequacy of resources, common goals, collegiality, problem-solving orientation, and the presence of a reward structure were interrelated elements of a school environment which enabled a sense of professionalism and effectiveness. Teachers who felt they were "moving," in contrast to stagnating, also felt a sense of challenge and growth, developed higher aims, worked harder, and expressed a higher level of commitment to their organization. Unfortunately, McLaughlin and Yee also acknowledged that most teachers work in school buildings where these conditions are either inequitable or absent. The authors suggest that the major policy task is to develop strategies that will "acknowledge the multifaceted, individual nature of a teaching career" (p. 41).

**Table 1** **Key Development Areas for Professional Culture** *(Miller, 1988)*

- Teachers work together as colleagues
- There is a time and a place for discourse about instructional issues.
- Peers provide feedback and rewards to each other
- Teaching has a firm knowledge base
- Teachers are creators as well as users of curriculum products and instruction materials
- Teachers are researchers and evaluators
- Teachers provide for their own professional development and inservice activities
- Teachers depend on each other for professional information
- Teachers are theoreticians as well as practitioners; they create knowledge
- Instructional leadership is the purview of teachers
- Teachers are decision makers about professional practices
- Teachers are problem solvers and activists
Lynne Miller (1988), during her tenure as an administrator in South Bend, Indiana, concluded that the district office was more important in creating a professional culture than the building principal. In fact, Miller suggests that the district office, in particular the Office of Curriculum and Instruction, was the arena for initiation of reform activities. Central to the success of the cultural transformation in South Bend was the power distribution to teachers. Teachers were given active roles in curriculum writing, staff development, development of practicum-oriented research, and the coordination of the district program. By developing the curriculum, teachers found that they had to organize ways to introduce the new materials to other teachers, and because of fiscal restraints, resorted to identifying and utilizing expert from within their system. Thus, teachers became instructional leaders and conducted their own staff development. To substantiate the curriculum and practice, teachers then developed a research team to conduct a program evaluation. Table 1 depicts the key development areas for professional culture as defined by Miller.

TEACHER PREPARATION, CERTIFICATION, AND LICENSURE

The past decade has seen many changes in the practices associated with teacher preparation, certification, and licensure in the United States. Each of these areas is inextricably linked to the others through regulations and practices. In fact, the link between certification and licensure is so tight that there is often confusion between the terms. As will be discussed, some professional institutions use these terms interchangeably, when in reality they each hold attributes that are quite antithetical to each other. This section will concern itself with the discussion of new trends in pre-service teacher education, certification, and licensure which support teaching for understanding.

PRE-SERVICE EDUCATION

The initial preparation and education of teaching professionals is a critical point in the reform agenda in America's schools. Without significant change or revision on the part for participating teacher preparation institutions, real change will be difficult to enforce or promote in the nation's 110,000 schools.
Determining what makes a teacher effective is a difficult mission at best. The attributes of a "good" teacher are varied and diverse in their nature. While the assessment of these skills is often difficult, the identification of the evaluation criteria and areas of assessment can be even more difficult. As Ryan and Kuh (1993) decry about the difficulty of pre-service assessment, "The phenomenon being studied is too complex, too difficult to define, and perhaps too variable to be adequately captured by reducing it to constituent parts and empirical indices (p. 76)."

While current methods of teacher education are not considered altogether progressive, or even adequate in some circles, many institutions are devoting much time and thought to the development of new methods of teacher preparation and assessment. The University of South Carolina is one institution which has implemented a new standard of pre-service assessment. USC's new formative assessment is based upon the development of a student portfolio. The portfolio enables faculty members to evaluate the knowledge, skills, and dispositions of prospective students through the student's collection of school work and other items. The ongoing development of this portfolio throughout the student's education allows faculty to assess that student's development on a regular basis and identify the changes that are occurring. In addition, the portfolio facilitates supervision, self-evaluation, and reflection of the student.

Teacher preparation programs are beginning to put a larger emphasis on practical experience and real-world practices. Outside of the student teaching experience, many colleges and universities are creating "laboratory" experiences to bring the real-world into the institution. Cruickshank and Metcalf (1993) identified three alternative pre-service preparation techniques which have been receiving more attention recently:

*Microteaching* - An opportunity for a student to create and deliver a lesson to a peer group of approximately 3-4 students. Often videotaped for feedback and reflection.

*Simulations* - Real-world simulations in which students must handle a variety of classroom situations and problems.

*Reflective Teaching* - Opportunities for students to deliver brief, specific lessons to peers, which become the "springboard" for reflection and on teaching and learning.
These three methods are not new to teacher education programs. In fact, microteaching became popular back in the mid-1970s. However, until recently, teacher preparation programs have remained fairly stagnant in their curriculum and methodology programming. The re-emphasis on pedagogical practice is of major significance in the professional development of tomorrow's teachers.

**Certification and Licensure**

As previously mentioned, certification and licensure, although seemingly similar, are designed for uniquely different service to accreditation groups. The term licensure is referred to almost exclusively as a "minimum standard" to entry into a professional field. In terms of education, the state is usually responsible for the licensure of teachers, which is designed to protect the public from incompetence within that field (Sykes, 1990). Conversely, certification refers to a voluntary process (some professionals would argue the extent to which these processes are voluntary) in which a professional illustrates a high proficiency in a professional field. This process often cites licensure standards, but is controlled by non-state agencies who determine the standards of special or advanced competence within that field of practice.

Over the past few years, licensure systems have undergone intense scrutiny due to their low standards and reliance on standardized tests for evaluative purposes. In fact, states use a number of criteria to determine the suitability of candidates for the profession, including standardized tests (NTE), teacher education program evaluations (NCATE and NASDTEC), and state guides, standards, and laws.

A vital component of the licensure of prospective teachers is the accreditation of their degree-granting universities and colleges. Approximately 41 states base their licensure programs upon whether or not a candidate has obtained a degree from an approved teacher preparation program. For the most part, these institutions are accredited through organizations such as NCATE and NASDTEC. NCATE (National Council for Accreditation for Teacher Education) is the most widely used and well known. Now in its fifth decade of operation, NCATE accredits approximately 40 percent of the teacher education institutions in the country, representing over 80 percent of the teacher candidates (Feistritzer, 1984). NASDTEC (National Association of State Directors of Teacher Education and Certification) has been operating for over 30 years, and more than half of the states rely on program verification and accreditation from this organization for institu-
tional licensure. Both NCATE and NASDTEC have recently shown an ability to work with institutional reform, allowing teacher education institutions to evaluate and redefine their programs to better represent the needs of today’s schools.

As with institutional licensing, many of the state’s standards for licensure are similar. For instance, most of the state licensure systems require teachers to recertify every five years in an effort to ensure that teachers are constantly updating their knowledge and skills. Approximately 21 states require graduate credits from post-secondary institutions as recertification credit (Feistritzer, 1984). In reality, this recertification is actually a “re-licensure” as opposed to recertification, as it still points to minimum qualifications and requirements to remain licensed within a state. In an attempt to correct this misinterpretation, the Virginia State Board of Education officially invoked action in 1992 to change the terms certificate/certification to license/licensure.

Many states impose upon school districts a “point” system which must be obtained before teachers are confirmed for a continuation of their license. Virginia is one of many states whose State Board of Education requires that teachers accumulate 180 recertification points to qualify within five years of their previous certification. This point system translates such that one-three credit hour graduate course is equivalent to 90 recertification points. Other activities, including workshops and curriculum writing, may also be used for recertification points.

Licensure practices have undergone many changes in the past decade, and it is generally agreed that most states will conduct licensure revision before the end of this decade. Sykes (1990) identified four trends in recent licensure reforms:

1) Introduction of clinical portions of teacher education (including practice teaching, internships, and apprenticeships);

2) Emphasis on subject knowledge;

3) De-emphasis on education course work, and

4) On-site performance assessments.
States have begun to look at these and other revisions to their licensure systems in reaction to a renewed interest and scrutiny from the public pertaining to teacher competence. The state of Ohio is one example where reform efforts are beginning to transform its licensure system. In 1992, the state Board of Education voted to allow a revision of state education standards, including those for teacher education and licensure. The new licensure system would allow students to obtain only a provisional, or "restricted license," after completion of their teacher preparation programs. After a one-year residency, the candidates would be assessed by the state and either granted a full licensure or have their restricted license revoked. This type of on-site assessment has been added to the licensing standards of several states in the past few years (Millman & Darling-Hammond, 1990). Ohio also plans to include institutional evaluations of candidates, in addition to the use of multi-choice and constructed response examinations, portfolios, and real situation or simulated performance evaluations (Sanders, 1993).

Another example of licensure reform is currently under development by the Interstate New Teacher Assessment and Support Consortium, or INTASC. Established in 1987 by the Council of Chief State School Officers, INTASC was developed to enhance collaboration among states interested in rethinking teacher assessment for initial licensing and preparation for the teaching profession. Chaired by Linda Darling-Hammond, the development of model standards for licensing teachers was conducted by teaching professionals from 17 state education agencies and is compatible with the NBPTS objectives. In order to reform licensure practices, INTASC has established the following 9 core principles upon which their model standards are based:

- Teacher knowledge
- Child development and learning theory
- Child diversity
- Pedagogical strategies and methodologies
- Student motivation and behavior
- Communication techniques
- Development of instructional plans
- Assessment
- Reflective practitioner
The goal of the task force is to create model standards in teacher licensing that are "board-compatible" and that may be used by state boards to set their own standards.

Shifting the discussion from licensure to certification, we can recognize the new emphasis on certification within the profession by examining the number of policy changes that have been forged at the state level. Millman and Darling-Hammond (1990) acknowledge that between the years of 1984 and 1986 the number of states that implemented alternative routes to certification increased from 8 to 23. By 1986, 46 states had mandated teacher competency tests as a requirement for teacher education program admission and certification. Concurrent with Sykes' (1990) analysis of trends in licensure reforms, Millman and Darling-Hammond also acknowledge the de-emphasis of education courses as requirements and the increased emphasis on subject matter knowledge in recent reform efforts in certification.

The most significant change in certification during the past few years has been the establishment of the National Board of Professional Teacher Standards. Established in 1987 from the recommendations of Carnegie Forum on Education and the Economy Task Force on Teaching as a Profession, the NBPTS' mission is:

To establish high and rigorous standards for what teachers should know and are able to do, certify teachers who meet all standards, and advance related educational reforms, all for the purpose of improving student learning in U.S. schools (Baratz-Snowden, 1993, p. 82)

Quite different from licensing requirements, the NBPTS aims to upgrade the standard of teaching and promote professionism within the field to equate teaching with other professions, such as accounting and medicine. As with most certification processes, the NBPTS is voluntary and is not required by state or local agencies.

The NBPTS, building upon its belief that the most valid teacher assessment process is one that engages candidates in the activities of teaching, has developed two modes of operation to ensure adequate teacher assessment. The first method of assessment is school based, and involves the development of a teacher portfolio. The portfolio will contain examples of
lesson plans, assessment activities, artifacts, videotapes, and the attestation of peers, students, administrators and parents. This portfolio is hoped to become a continuous collection of the teachers experience and will support formative assessment within the school district. The second part of the assessment activity will take place in an assessment center, and will require candidates to respond to typical teaching problems or situations by interview, simulations, or written tests. This “practicum,” as it may be construed, will offer a different view of the teacher than through a self-prepared portfolio.

The NBPTS process was initiated in several test sites across the country during the 1993-94 school year, including Fairfax County Public Schools in Northern Virginia. It will be tested again during the 1994-95 school year in other school districts, and it is hoped to be made available to all school districts by the end of the decade.

SUMMARY

The four areas discussed in this section (teacher evaluation, staff development, school organization and culture, and teacher preparation, licensure, and certification) are all undergoing dramatic changes and are expected to endure even greater changes within the next few years.

Recent trends in evaluation reform are beginning to erode the conservative and traditional techniques which are neither progressive nor supportive to teachers. New methods of evaluation which are formative and productive allow teachers to be creative without worrying about the risk of failure, while also developing a more professional attitude toward teaching and learning.

The evolution of teacher empowerment and the inclusion of teachers in the decision-making processes of a school and district are helping to redefine the staff development process. Where teachers were formerly subjected to the professional activities as handed down by the administration, more and more districts are placing teachers in the developmental roles, thus creating professional activities more closely suited to the needs of the classroom teacher.
School culture is also being affected greatly by teacher empowerment. The redefinition of the role of the teacher within the school building is creating a new sense of professionalism within these schools. Teachers feel more control and involvement in the education process, and are given more freedom and latitude to develop diverse support networks through their subject-area departments, unions, and associations that support professionalism in teaching.

Finally, the recent changes in the practices of licensure and certification, combined with the recognition on behalf of teacher preparation programs around the country that changes need to take place, are altering the type of teacher entering the teaching profession. Higher expectations and heightened controls are demanding that teachers be well prepared for classroom life, with a solid experience of practice and firm sense of subject matter supporting them.

It is the combined impact of each of these four areas which fertilize the soil for systemic and practical reform within the nation's schools. Separately, districts and schools can make inroads to better teaching practices, but combined they create an institutional change which will significantly alter the classroom practice and learning experiences found in our nation's schools.
PART III POLICY APPLICATION

The four policy and practice areas discussed in the last section represent critical areas of educational reform. The concepts identified within the literature are examples of practices that have been found to be effective in attaining some of the goals supported by teaching for understanding. The following is a quick synopsis of the key areas which support educational reform and teaching for understanding practices.

TEACHER EVALUATION

Teacher evaluation procedures should involve an ongoing process, not limited to the sporadic observation techniques prevalent in many of today’s schools. The use of teacher portfolios to provide a structure for collecting student data, teacher activities, and other input provides a good forum for this ongoing activity. The portfolio activity also supports reflective practice by ensuring that the teacher thinks carefully about what goes into the portfolio.

Evaluation reform efforts should focus on developing techniques that support professional development at the classroom level. No longer should evaluation be considered an endurance test or a threat to the teacher. The professional associations and other teacher groups have a responsibility to promote the evaluation process as productive practices for teacher enhancement. Peer assessment techniques are examples of practices which allows teachers to share experiences and learn from cooperatively. The recent trend of linking evaluation with student outcomes is also becoming very popular and will surely be emphasised in the future. The new business of education will look very closely at the link between teacher practice and student outcomes. This activity is linked closely with professional development activities and is supported by the professional culture within the school.
The following are key elements of teacher evaluation that support teaching for understanding:

- Classroom observation
- Classroom simulations
- Formative evaluation
- Modeling
- Peer Review
- Self-Assessment
- Teacher portfolios
- Use of student test scores

**STAFF DEVELOPMENT**

It is essential that staff development activities support the needs of teachers and the professional climate within the district and school building. As previously defined, it is imperative that teachers are empowered to take additional responsibilities within the educational system; the development and presentation of professional development activities is an important area for that involvement. Teachers should be given the opportunity to structure the process which is essential to the attainment of school goals and the continuing education of teachers.

The advent of teachers as researchers is also an important area to be developed. Each school site should be regarded as a working laboratory of students, teachers, and administrators. Each player in this laboratory is part of a grand experiment to improve the process in which everybody learns. Teachers must be given the tools to undertake this type of service, and must also realize that analysis of their activities is crucial to their improvement and the outcomes of their students. The collegiality of the entire professional staff is also essential to support this need, in addition to the efficacy of the staff and the consensus of school goals.

The following are key elements of staff development which support teaching for understanding principles:
Teaching for Understanding—Policy to Practice

- Activities not imposed upon the teacher
- All stakeholders feel ownership
- Collaboration and collegiality
- Connection with student learning outcomes
- Cooperative learning
- Institutional leadership
- Institutional motivation
- Peer Review
- Reflective practice
- Shared interest in development of activities
- Sustain individuality, integrity, and artistry for the teacher
- Teacher mentoring
- Teacher Research

SCHOOL ORGANIZATION AND CULTURE

The development of positive and progressive school organization and culture must learn from the business world to share the responsibilities and rewards of practice throughout the hierarchy of education. While administration needs to relegate some of the power and authority vested with them, teachers and other paraprofessionals need to take on additional responsibilities as their end of the bargain. Districts need to empower teachers, and teachers need to take up the challenge. As stated in Part II, top-down and bottom-up approaches used independently are not ideal methods of generating productive leadership and ownership over the activities of a school district. Only the combination of the two will bring about real opportunities for change.

The shared development and concensus of school goals will promote efficacy, collegiality, and a shared sense of responsibility for the actions and outcomes of the school. The introduction of peer feedback, mentoring, and teaming will provide a collegiality and community within the school that will harbor professional development and activity, both within subject area departments and beyond the confines of the school and district. Other activities such as curriculum development and the development of school rules and regulations will also support the ideals previously mentioned. More progressive schools may even take further steps toward
teacher empowerment, including fiscal allocation and staff selection, as mentioned by Rosenholtz.

It should also be remembered that the culture created within the school is not isolated to any individual player or group. Rather, the activities and attitudes of all participants impact upon everyone within the school, compounding the positive or negative effects on the school climate and culture.

The following are key elements of school organization and culture which support teaching for understanding principles:

- Active professional communities
- Adequacy of resources
- Collaborative nature
- Collegiality
- High consensus of school goals
- New community relationships
- Peer feedback
- Reward structure
- Strong instructional leaders
- Teacher efficacy
- Teacher empowerment
- Teacher mentoring/teaming
- Teachers given responsibilities that may include:
  - decision making about professional practices
  - curriculum development
- Teacher given roles as:
  - instructional leaders
  - researchers
  - problem solvers

**Teacher Preparation, Certification, and Licensure**

The area of teacher preparation must evolve to produce the type of teacher that will support the criteria mentioned in both staff development and school organization and culture. The teacher preparation programs must
expose teachers to real-world situations, either through simulation or actual practice. These institutions must also provide feedback mechanisms so pre-service teachers can learn from their practice and continue to evolve during their pre-service education. During their education, pre-service teachers should be exposed to the following techniques:

- Clinical teacher education
- Formative assessment
- On-site performance assessment
- Practical experience and real-world practices
- Reflective practice

In terms of licensure, the state regulatory commissions and Boards of Education should raise standards and allow for revise the content and criteria of their licensing bodies. Meanwhile, certification groups, such as the National Board of Professional Teaching Standards, should continue to emphasize the importance of “professionalizing” teaching, for the benefit of teachers, students, and the nation. Teachers must be prepared and licensed in such a manner that they can demonstrate knowledge and skill in:

- Assessment procedures
- Child development and learning theory
- Communication techniques
- Instructional plan development
- Pedagogical strategies and methodologies
- Student motivation
- Subject knowledge
CONCLUSION

This paper has attempted to identify the key policy areas which support the concept of teaching for understanding. Part I explored the mission and practices associated with teaching for understanding, presenting this practice from the viewpoint of the student, teacher, and school system. Part II identified four areas of policy which are critical to the reform of our education system, with special emphasis on research that has supported teaching for understanding principles. Finally, Part III has built upon the information discussed in Part II to create an “identity” or “nature” of teaching for understanding from a policy standpoint. To put this in perspective, I would submit that if someone wanted to know what activities or practices needed to be present to support and sustain teaching for understanding within a school district, the list prepared in Part III would provide a simple, but significant, index from which to work.

While this paper has perhaps succeeded in identifying these key policy elements of teaching for understanding, the information has not been put into a practical, usable form. The next logical step in this progression would be the development of an inventory instrument that would apply the criteria in Part III against actual school district policies and practices. Though this paper has not either the scope nor the basis to perform this research and development, it is hoped that the material provided within can be used to assist in that process in the near future.

In conclusion, it is essential that educational researchers understand the importance of policy factors in the reform process. As is now clearly understood from early efforts such as the 1965 Elementary and Secondary Education Act, the best policies do not always make way for the best practices. These and other early lessons have taught us the need to understand fully the policy process and its effect on educational efforts. The material presented in this paper will hopefully fulfil that need for teaching for understanding.
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