Rapid social and demographic changes will have an impact on the future training of teachers. The emergence of an unmotivated urban student population from families who undervalue education will pose increasing problems for teachers. While teachers' knowledge of subject matter is essential, insights into the ecology of the classroom, the nature of the learner and learning, and a command of various teaching methodologies will be necessary. At present, several conditions constrain the quality of teacher preparation: (1) limited integration of a strong foundation in the arts and sciences; (2) limited integration of a strong clinical component throughout teacher education programs; (3) limited commitment of the best teachers and K-12 schools to teacher preparation; (4) lack of institutional characteristics and organizational features which provide coherence to programs and a sense of programmatic collegiality among faculty and students; and (5) limited numbers of courses and credits which define the scope of teacher education programs. The relationships between a markedly changing social demography and these five constraints is discussed. Studies on school effectiveness are cited as providing guidelines for improving teacher effectiveness in the future. Priorities for programmatic research and development are suggested. (JD)
THE NEXT GENERATION OF TEACHER PREPARATION PROGRAMS

A Paper Prepared For
The National Commission For Excellence
In Teacher Education

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The Knowledge Base in Perspective

My assignment for this commission was to project likely additions to or modifications in the next generation of teacher preparation programs, especially those of an empirically-supported nature. Such a task is complicated if only because of the number of different teacher roles in our elementary and secondary schools. These roles vary, often dramatically, and are differentiated in a number of ways. There are teachers who foster growth in the very young and those who work largely with young adults. There are those who primarily teach persons with conditions which greatly constrain or handicap their ability to learn and those who interact largely with youngsters of exceptional ability. There are teachers who instruct basically through very different media including music, machines, art, and athletics. There are those who teach in settings where youngsters reflect considerable cultural homogeneity and others who daily are in the midst of very considerable racial and cultural diversity. Finally, there are those who instruct across a spectrum of subject areas and those who specialize in but one of any number of academic disciplines.

Certainly it is far beyond the capacity of this writer and the scope of this paper to address the manifold changes in the many areas or domains of knowledge which have the potential for substantively impacting the several specialized functions embedded in these different teaching roles. Neither is it an easy task for any one individual in any inclusive sense on the one hand or with great precision on the other to identify advances in recent research and development which appear to pertain to any teacher (and hence any teacher preparation program) regardless of their assignment or function.
It is possible in general terms to identify guiding principles substantiated by or evolved from recent research related to core tasks of most teachers. I have identified five major areas where recent research informs the art and science of teaching. The first of these research literatures is concerned with the culture and climate of schools and how what transpires at the all-school level contributes to the effectiveness of individual teachers in individual classrooms. A second area of empirically-based literature contributes to a fuller understanding of the ecology of the classroom, especially the nature and complexity of common academic tasks which students engage in. A third literature speaks to what we have learned recently about how young people grow and develop and especially how they tend to think at different ages relative to different school tasks. A fourth research literature contributes to a more complete understanding and description of those patterns of teacher behavior found to be effective in terms of promoting greater-than-expected achievement from students. Corollary to this research literature are the recent insights gained in how to effectively manage a classroom and alter the social dynamics of the classroom in constructive ways.

To be sure, the empirically-supported literature above represents but a partial review of research related to common and core functions of teachers. There is a beginning literature relating the way in which teachers make decisions as they interact with students in the classroom, which could be included. Neither are advances in teaching methodology embedded in or wedded to the teaching of specific subjects reviewed nor was any attention given to the expanded knowledge base of how factors external to the school bear upon the work of teachers.

From Research to Practice

A straightforward way to proceed in terms of the task assigned
to me would have been to provide a brief explication of the salient findings from these various research studies and suggest where they might be incorporated into programs of teaching education. I have chosen not to proceed in this manner mainly for two reasons.

First, excellent reviews are provided in two recent volumes. One of these publications is an outgrowth of the 1982 Annual Meeting of the American Association of Colleges for Teacher Education and presents reviews of the literature by a number of distinguished scholars in each of the areas I noted earlier. This volume is titled Essential Knowledge for Beginning Educators. It was edited by David Smith and published by AACTE in conjunction with the ERIC Clearinghouse on Teacher Education in 1983. The second recent publication which provides thorough reviews of these various research studies is a special issue of The Elementary School Journal. The editor of that journal, Thomas Good, has a long and distinguished history of studying teachers and teaching. He also solicited excellent state-of-the-art reviews from leading scholars on the topics identified earlier. While I briefly address this research in terms of its implications for teacher preparation, I refer the reader to these two sources which provide both a broader and more in-depth overview than possible here.

The second major reason that I choose not to address the topic of the next generation of teacher preparation programs largely as a literature review is a prior concern for how these programs generally might be altered, if not expanded to accommodate these and other additional to our knowledge base. I believe there is substantial agreement among informed scholars about the relevance of this research for teacher preparation already. It is also increasingly likely that changes
in teacher preparation will be driven by tests of common or essential teacher knowledge. Hopefully, such tests will be tied to the empirical literature identified at the outset. However, methodological difficulties associated with current testing, let alone the challenges encountered in the translation of research findings to specific teacher training practices, suggest much work yet to be done. Whether these research findings will greatly impact programs of teacher preparation in the near future is problematic from this perspective. There are rather profound and sustaining conditions which continue to mediate the effective adaptation of new knowledge to practice in programs of teacher preparation and deter larger scale improvements in general. Those conditions need to be addressed in projecting changes in the next generation of teacher preparation and that is the first purpose of this paper.

Current Problems in Teacher Preparation

First, there is no question that the level, quality, and commitment of resources which vary considerably across the better than 1200 institutions which offer programs of teacher preparation contribute to the problem. This is not to say however that smaller institutions whether alone or as part of any number of creative consortia do not at present and cannot in the future offer high quality programs reflecting state-of-the-art curriculum and instructional practice. Nor does this suggest that when teacher preparation is embedded in institutions with a knowledge production mission that they de facto serve as flagships of teacher preparation. We know far better than that. I concur with what David Clark identifies as one of the major consequences of teacher education being everybody's business however when he writes:
This pattern of proliferation (1) dilutes the modest personnel and fiscal resources of the field, (2) impedes reform efforts that require upgrading of professional standards at the institutional level, and (3) divorces the bulk of the training programs from centers of knowledge production about education.

The omnipresence of teacher education in higher education is linked to four other characteristics of the field: (1) the lack of selectivity of teacher education candidates, (2) the placement of this teacher training at the undergraduate level, (3) the low level of fiscal support for teacher training, and (4) the lack of a tradition of scholarly inquiry in the field. (Clark, 1984: 8).

I do now however share Clark's perception of widespread mediocrity across programs nor his characterization of the general pool of teacher trainers as having exhibited 'minimal academic competence'. Admittedly, my perspective may be biased having just completed the first phase of a study of prospective teachers and the programs which prepare them in my state of Minnesota. We indeed may be more fortunate than many other states or regions in this country since it appears that generally we attract academically able students and have programs viewed as largely effective. I do maintain that the following conditions generally constrain the quality of teacher preparation across most programs including those in this state:

1) the limited integration of a strong foundation in the arts and sciences with programs of teacher preparation.

2) the limited integration of a strong clinical component throughout programs of teacher preparation.

3) the limited commitment of the best of our teachers and K-12 schools to the preparation of teachers, especially throughout these clinical activities.

4) the lack of institutional characteristics and organizational features which provide coherence to programs and a sense of programmatic collegiality among faculty and students.
5) the limited numbers of course and credits which define the scope of programs of teacher education

**Problem Identification Is Not Problem Resolution**

... It is, I'm sure, readily apparent to anyone associated with teacher preparation for some time that these are largely neither new nor uncommon concerns. For example, in reference to the lack of collaborative development between liberal arts scholars and education professors a distinguished dean of the Graduate School of the University of Minnesota over 30 years ago exhorted:...

The time has come in American education for the scholars of subject-matter specialization and those who profess professional education to find common ground and to grapple unitedly with the problems of education that are crucial to the oncoming generations of our people. Misunderstandings, where they befores the scene, should be swept away. Weakness, where it is discerned, should lead, not to epithets, but to efforts to build strength. Bases for mutual confidence and co-operation should be looked for. If there is alignment into enemy camps, why not mutually explore assumed reasons for hostility and make sure that we have, in truth, picked the right enemies to fight. (Blegen, 1953).

Likewise, the hue and cry concerning the need for a more substantive and protracted curriculum was underscored in a description of a series of what were viewed as milestone teacher education conferences held in the late 1950s:

... there ran one main theme (throughout these conferences): Whatever may be the proper ingredients of courses and hours in a teacher's education, they cannot all be jammed into a four-year program. The teacher needs a broader and deeper education than ever before; if this means five, six, or even seven years of preparation, that is the way it will have to be. Part of this theme was the call from all concerned for much higher professional standards, with the insistence that higher standards will lure more, not fewer, capable students into the field. (Hodenfield and Stinnett, 1961: 31).

Why is it that wise women and men over several years, if not generations, have identified the above as problems in the initial
education of teachers, in turn suggested what appear to be appropriate, albeit not always easily achievable, means for alleviating these problems and yet appear to have made but limited progress in so many instances? Certainly the proliferation of programs with the problems attendant to this as noted by Clark pertains here as an explanation. There are other plausible explanations as well. Not the least of which is that the problems in the past—perhaps as at present—really are not as severe or in crisis proportion as many critics and reformists would suggest, at least not strong enough to drive more fundamental changes in programs of teacher education. Whatever the reality of the present situation, I suggest that conditions in the not-too-distant future will magnify present shortcomings.

Certainly, the pervasive highly charged, often pointed rhetoric about the quality of teachers and teacher preparation at this time is not new. For example, only last week the cover of Newsweek in bold print asks, 'Why Teachers Fail' across a drawing of a teacher with a dunce hat drawn on the blackboard. The lead story in this one of our country's most popular magazines goes on to underline a two-page illustration with the caption: "Missing the point: Teacher Training often lacks rigor, stressing instead a curriculum of irrelevant courses in educational methodology that steals from academic work."

This period of time in education circles is similar in many ways to the late 1950's and the post-Sputnik era. Then, as now, the clarion call was for higher standards and a return to the basics. There was at that time an equally strident, and I might add undifferentiated, indictment of teacher preparation. In 1958 the cover of another popular journal, Better Homes and Gardens, and its lead story addressed
what were seen as massive shortcomings in teacher education. It was titled, "How Well are Our Teachers Being Taught" Never Worse!" John Keats, the author of the lead article in that journal described what he believed to be a typical teacher education institution and termed it "Fairly Normal". He wrote:

A future English teacher may spend one-third of his time learning 'How to Teach', and as little as one-seventh of his time studying English. For this reason, the English courses are hasty surveys with no emphasis on mastery of any particular phase of the material. I plucked a paper at random from a pile of Fairly Normal freshman essays. It was eight paragraphs long, entitled 'How to Shot a Bow." Unfortunately, the author will not have an opportunity to increase his proficiency, because Fairly Normal requires only one semester in English composition. Four years from now he may be teaching composition to your child. Or perhaps they may be teaching French, which he did not study in either high school or at Fairly Normal, because teachers' colleges believe good teachers can teach literally anything. (Keats, 1958: 51-52).

I am not suggesting that there are not in many instances major limitations in the way teachers are prepared. I identified 5 major concerns earlier. We should be concerned. Those within teacher education should largely welcome the attention revisited upon us once again. I am pointing out that similar concerns in the past have caught the public's attention without major consequence. Certainly prestigious commissions have been formed in the past to recommend changes for teacher education without major consequence. I turn now to those conditions and events on the horizon, which have the power to drive more substantive change especially in terms of the problems I have identified.

The Changing Global Demography

Present demographic trends should have a profound impact. They could well trigger a strong coalition of advocates for teacher education. I was asked to address the next generation of teacher education programs.
In an attempt to provide an historical perspective over approximately 3 generations relative to changing social conditions, I quote from a study of the social context of teachers in the late 1930s. While this was reported as a national study, obviously the teachers described below lived to teach in smaller rural communities:

As to conduct, teachers, board members, students, and laymen were asked to indicate their approval or disapproval of teachers engaging in a variety of behaviors (for male and female teachers separately), and in one study, teachers were asked to estimate the probable reaction of the community to teachers who engaged in such behaviors. The most universally disapproved forms of teacher behavior among the reporting groups were drinking alcoholic liquor and dating students. Running for political office and making political speeches tended to be disapproved. Of perhaps greater interest are the forms of behavior which were approved or on which there were no clear normative expectations: dating a town person or another teacher, leaving the area over the weekend, buying clothes outside the area, joining a teachers' union, smoking in private, dancing, and even teaching controversial issues (mildly disapproved by board members). Expectations on the female teachers in a few areas were more restrictive than on the male teacher, particularly with respect to smoking and playing pool and billiards; (Cooke & Greenhoe, 1939: 768).

Contrast that with socio-demographic data, my good friend and colleague Martin Haberman shared in a recent article:

In 1982, almost one of every six students enrolled in the public schools was from a poor family and almost one of every ten was handicapped. More than one of every four students enrolled was a member of a minority. All these data were up from the previous decade.

If present trends continue—and there is every reason to believe they will accelerate—the public schools in 2000 will have substantial numbers of minority, low-income, and handicapped students. An increasing number of cities (and states) will have schools where the majority of students will be characterized by one or more of these attributes (that is, minority, poverty, handicapped).

In some states, where the minority population will constitute the majority of students, Spanish speakers will dominate (for example, Texas and New Mexico). In other states, the new majority will be composed primarily of Spanish speakers and Blacks but will also include several minorities, such as Asians and Haitians (for example, California, New York, and Florida).
In almost every major city of over 500,000 population, the majority of students will be those now defined as minority, poverty, handicapped. The shift in the general population from the older industrial areas to the Sunbelt will not mitigate this trend. Although the Sunbelt has almost all the fastest-growing urban areas, it is also characterized by large and rapidly increasing minority populations and increasing number of poor people. (Haberman, 1984: 498-499).

This increase in ethnic diversity and the likely concomitant exacerbation of differences in resources and opportunity between the 'haves' and the 'have nots' is but a reflection of even more dramatic demographic trends internationally. At the recent United Nations International Conference on Population in Mexico City, the population data in Figure 1 below was shared.

New York City, currently the second largest city in the world and but one of only three cities of 15 million and over, is projected as the sixth largest city by the year 2000. The United Nations' demographers project 20 cities as having 11 million or more people by the turn of the century. (There are only 7 such cities now). The United States, Canada, Western Europe, and Australia will be represented by only two cities of this size: New York and Los Angeles. Both of these cities in light of these current migration patterns will likely reflect even more cultural diversity than at present with a large Spanish-speaking population. These data should give us all pause for reflection.

Again contrast this social context with more recent socio-demographic data about teachers. The Center for Educational Statistics (1981) reported that 91 percent of recent Bachelors Degree recipients and those newly qualified to teach were white, non-hispanic; 6% were black, and 1.7% were hispanic.
### 1980 Population (In millions)

<table>
<thead>
<tr>
<th>Rank</th>
<th>City, Country</th>
<th>Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Tokyo-Yokohama, Japan</td>
<td>17.0</td>
</tr>
<tr>
<td>2</td>
<td>New York, USA</td>
<td>15.6</td>
</tr>
<tr>
<td>3</td>
<td>Mexico City, Mexico</td>
<td>15.0</td>
</tr>
<tr>
<td>4</td>
<td>Sao Paulo, Brazil</td>
<td>12.8</td>
</tr>
<tr>
<td>5</td>
<td>Shanghai, China</td>
<td>11.8</td>
</tr>
<tr>
<td>6</td>
<td>Buenos Aires, Argentina</td>
<td>10.1</td>
</tr>
<tr>
<td>7</td>
<td>London, UK</td>
<td>10.0</td>
</tr>
<tr>
<td>8</td>
<td>Calcutta, India</td>
<td>9.5</td>
</tr>
<tr>
<td>9</td>
<td>Los Angeles, USA</td>
<td>9.5</td>
</tr>
<tr>
<td>10</td>
<td>Rhein-Rhur, W. Germany</td>
<td>9.3</td>
</tr>
<tr>
<td>11</td>
<td>Rio de Janeiro, Brazil</td>
<td>9.2</td>
</tr>
<tr>
<td>12</td>
<td>Peking, China</td>
<td>9.1</td>
</tr>
<tr>
<td>13</td>
<td>Paris, France</td>
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</tr>
<tr>
<td>14</td>
<td>Bombay, India</td>
<td>8.5</td>
</tr>
<tr>
<td>15</td>
<td>Seoul, South Korea</td>
<td>8.5</td>
</tr>
<tr>
<td>16</td>
<td>Moscow, Russia</td>
<td>8.2</td>
</tr>
<tr>
<td>17</td>
<td>Osaka-Kobe, Japan</td>
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</tr>
<tr>
<td>18</td>
<td>Tianjin, China</td>
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<td>19</td>
<td>Cairo, Egypt</td>
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<td>20</td>
<td>Chicago, USA</td>
<td>6.8</td>
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### Projected 2000 Population (In millions)

<table>
<thead>
<tr>
<th>Rank</th>
<th>City, Country</th>
<th>Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Mexico City, Mexico</td>
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</tr>
<tr>
<td>2</td>
<td>Sao Paulo, Brazil</td>
<td>24.0</td>
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<td>3</td>
<td>Tokyo-Yokohama, Japan</td>
<td>17.1</td>
</tr>
<tr>
<td>4</td>
<td>Calcutta, India</td>
<td>16.6</td>
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<td>5</td>
<td>Bombay, India</td>
<td>16.0</td>
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<tr>
<td>6</td>
<td>New York, USA</td>
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<td>7</td>
<td>Seoul, South Korea</td>
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<td>Shanghai, China</td>
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<td>9</td>
<td>Rio de Janeiro, Brazil</td>
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<tr>
<td>10</td>
<td>New Delhi, India</td>
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<td>11</td>
<td>Buenos Aires, Argentina</td>
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<td>12</td>
<td>Cairo, Egypt</td>
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<td>13</td>
<td>Jakarta, Indonesia</td>
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<td>14</td>
<td>Baghdad, Iraq</td>
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<tr>
<td>15</td>
<td>Teheran, Iran</td>
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<td>16</td>
<td>Karachi, Pakistan</td>
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</tr>
<tr>
<td>17</td>
<td>Istanbul, Turkey</td>
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<td>18</td>
<td>Los Angeles, USA</td>
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<tr>
<td>19</td>
<td>Dhaka, Bangladesh</td>
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</tr>
<tr>
<td>20</td>
<td>Manila, Philippines</td>
<td>11.1</td>
</tr>
</tbody>
</table>

Source: United Nations

**Figure 1** The 20 largest cities in 1984 and 2000
Based on a large scale study of teacher preparation in the late 70s, by Yarger, Joyce and Howes, we develop the following profile of a 'typical' teacher candidate:

A discussion with this average teacher candidate about her background creates several impressions. One is of provincialism. She still tends to come from a small city or from a rural area. She and her colleagues are clearly monolingual, with only three percent stating that they could use either Spanish or French as a medium for instruction (fewer than one percent specified any other language). Five out of six of the students attended college in their home state, with an amazing two-thirds attending college within 100 miles of their home. She and most of her colleagues selected their teacher training institution because of the programs that were available, the cost factor, convenience to home, and what was perceived as adequate job prospects upon graduation. (Yarger et al., 1977: 34)

There are, of course, major differences among individual teacher candidates in terms of background and one must be cautious in terms of attribution to social or economic strata. Recent studies at specific institutions and in more defined regions of the country such as the study undertaken by institutions preparing teachers in this state suggest student profiles may well vary from region to region and institution to institution.

Regardless the largely white, monolingual and somewhat parochial perspective of these teachers appears generalizable. For example, when we asked teacher education students in our preservice study about preferences in terms of the context in which they would like to teach, only 1 in 3 suggested they would prefer a multi-racial setting. The majority desired to teach in either a suburban or small town setting with only 12 percent expressing a preference for an urban setting. Given this background and their likely experience in their preparation for teaching which will be discussed shortly, this should not be surprising.
The impact of these changing demographic patterns should be increasingly profound in terms of the attitudes, behavior and fundamental life-style of many. While I cannot predict the multiple implications of these patterns, the challenge to public schools, especially given the present and for-some-time-in the future teaching force will be very, very considerable. It is difficult not to project considerable turmoil on the horizon; conditions which will greatly challenge public schools. I suggest that conditions in our urban areas especially will indelibly underline 3 major propositions.

1. that a strong system of free public schools is essential to this country

2. that highly competent teachers are the absolute cornerstone to the success of those schools

3. that greater investment in the preparation of teachers is needed

We should strenuously reinforce these propositions now with specific proposals for how teacher preparation can be strengthened.

Alternative approaches to the preparation of teachers need to be explored and systematically studied. Means of credentilly qualified individuals as teachers without major commitments of time for further education should be pursued. However, in light of what will be growing, not receding, challenges to schools and teachers, schemes which will evolve to attract "more qualified" teachers or to insure better preparation for "the realities of the classroom" that are founded largely on expediency will only further contribute to the challenges which lie ahead. Most assemble our primary course must be toward more substantive and protracted training. Stronger links between general studies, professional knowledge, and pedagogy studies are needed to meet the challenges ahead.
More Than Raising Standards

The preparation of teachers is of course integrally related to the mission and structure of schools. How will our schools accommodate these dramatic shifts in demography? My close colleague William Gardner provided what I believe was one of the most cogent analyses of the report issued by the National Commission on Excellence in Education. In his critical analysis he notes how this Commission which was charged with assessing the extent to which "major social as well as educational change in the last quarter century has affected student achievement," largely ignored the profound impact of the era of access and opportunity which occurred over the last two decades. Likewise the Commission appeared largely oblivious of the trends noted here. He shares Torsten Husen's studied observation that on both sides of the Atlantic a new educational underclass has evolved and that this is the most serious problem facing schools today. This is to say that less formally educated parents tend to be suspicious of the schools as an institution and very early in their school careers youngsters from these homes give up competing for success. The dropout rate in many urban settings by students in this 'underclass' is tragic testimony to this observation.

Gardner cautions against proposing simple solutions to complex problems, i.e., focusing largely on imposing harder study and harder subjects and asks for further reflection:

Can it be that after decades of encouraging all young people to attend high school that we are left with a pattern of alienation? Do adolescents (and parents) from the 'underclass' perceive the educational race to be decided before it starts along socioeconomic lines? Clearly, the problem noted by Husen is potentially of the first magnitude; its solution would involve far more than a reconsideration of educational standards. (Gardner, 1984: 14).
In a similar criticism of the recent proposals for reform of education the venerable Harold Howe shared these observations:

Dropouts: I list this as the first priority: It is absolutely astounding to me that so many intelligent people could look for so long at American schools and say so little about this problem. John I. Goodlad says in A Place Called School: "The quality of an educational institution must be judged on its holding power, not just an assessment of its graduates." I say "amen" to that.

The fact is, of course, that the national groups issuing reports on the schools weren't terribly interested in this subject or even in the 5.5-percent increase in the school dropout rate from 1972 to 1982. Their recommendations for more homework, more demanding courses, longer school days, and more tests are likely to be implemented in ways that will further increase the number of dropouts, although some schools may be skillful enough to avoid this hazard. (Howe, 1984: 1).

Perhaps John Lawson, Massachusetts' Commission of Education makes the point most graphically, "If a kid can't clear four feet, it doesn't do much good to raise the bar to four feet, six inches. It does help to give more and better coaching, more and better training."

The assumption it appears by many school reformers is that a new orthodoxy can be created in the name of rigor and quality. Gardner, Howe, and Lawson obviously are not opposing high standards. Their argument is that unless changes in curricular standards are accompanied as well by fundamental changes in the climate which exists in many schools, in the way teachers and students are organized, in how the very craft of teaching is pursued, and in how students can be involved in more authentic ways in learning, that these efforts to mandate rigor will accomplish little.

It is here that the growing knowledge base which I identified at the outset takes on such critical importance. From this science of pedagogy is derived much of the teacher preparation curriculum which
addresses these critical needs above. The classroom teacher’s knowledge of subject matter must many times each day be filtered through a repertoire of skillful instructional strategies. Certainly, teachers’ knowledge of the subject matter in which they instruct is essential but without insights into the ecology of the classroom, the nature of learner and learning and a command of varying teaching methodologies and a knowledge of when to employ these, the result too often is sterile instruction falling on largely deaf ears.

Future Conditions and Current Constraints

What is the relationship between a markedly changing social demography and the five constraints in present teacher preparation identified earlier? The first of these was the weak link or lack of integration between the arts and sciences curriculum and professional education. The need for understandings which contribute to living harmoniously and teaching effectively in our rapidly changing society will soon surface again as a priority. I believe that lessons learned from how many attempted to enhance our social consciousness in the 1960s are instructive here. There were many 'quick-fix' responses in our higher education curricula at that time. Siegel (1981) speaks to the ironic results of such all-intended efforts:

The jargon of studies intended to promote social reform—"appreciation of culture and world values," "exploring human nature," "ethnic heritage programs," "global perspectives"—conceals a shallowness in the resulting curricula. It is not likely that students will come to any real understanding of human nature without studying literature and history. It’s not likely that "global perspectives" will be informed if they are taught without geography and foreign languages. "Relevant" contemporary issues can’t be grasped in any depth without some back-
ground in the natural sciences, mathematics, and economics. Popular, contemporary treatment of social issues leads, at most, to shallow understanding of those issues. What is worse, it teaches that history, literature, mathematics, science and languages are not really very important in dealing with contemporary issues. Such studies promote nothing but uninformed and undisciplined conviction, which, even if right, has no roots in knowledge or reflection. (Siegel & Delattre, 1981: 17).

A theme such as global understanding has the power to drive dialogue and planning across faculties; to forge stronger links between arts and science and teacher education faculties. Perhaps in time the move to an expanded teacher preparation curricula will remove it from undergraduate studies. For the time being, however, a most viable option is to pursue means of more integrative, all-institutional study of teacher preparation at many colleges and universities. How might the foundational study identified as essential by Siegel be better integrated with professional studies?

Rodriguez in reviewing how multicultural perspectives tend to be addressed at present in teacher education programs speaks to the solution:

The principle problem which emerges from an analysis of these studies is not one of content but of the interpretation and application of a multicultural perspective in teacher education curricula. The missing element in multicultural education is that it is thought of as subject-matter and not as a curriculum-wide consciousness. This ideal vs real gap has occurred despite the best intentions of literally thousands of individuals, schools, publishers, state departments of education, and accreditation agencies. The primary reason for this gap has been the absence of a holistic view of multicultural education, a view which incorporates and integrates multicultural perspectives and teaching throughout the entire teacher education program. (Rodriguez, 1984).
Certainly it is no simple task to broaden student and faculty understandings of and attitudes towards cultures other than their own - to achieve a curriculum-wide consciousness. William Gardner and I identified characteristics of our college located within a major university, relative to achieving a global perspective (multicultural could be substituted for global):

- It provides faculty with opportunities to be international and comparative in their research, to be universal in the realm from which data are drawn, questions are asked, and ideas are tested.
- It provides students with a curriculum representative of ideas and examples from all of the world's knowledge, transcending cultures, ideologies, historical epochs, and national boundaries.
- It provides for the presence on campus of faculty from other countries and opportunities for our faculty to do research and to teach in institutions in other countries.
- The student body includes international students in substantial numbers, to ensure a mix of cultures and viewpoints in the enterprise of learning.
- It provides a wide range of opportunities for students, both undergraduate and graduate, to study and do research abroad.
- It enables faculty and students to cooperate across departmental and collegiate lines in carrying out international projects. International activities are organized so as to facilitate the efforts of faculty who wish to approach questions in an international comparative and cross-disciplinary manner.
...In values international contributions in the hiring, tenuring, promoting, and salary discussions of faculty.

- It affords faculty and students opportunities to gain experience and to serve with international technical assistance projects and other kinds of international work.

In summary, I believe that a greater emphasis on a needed global perspective will underscore the need for examining how contemporary issues can be better related to core disciplines as Siegel suggests. This theme can also bring faculty and students together in a variety of projects across colleges. Such alliances are not always easy but certainly multiple opportunities exist in many institutions for demonstrating not only curriculum balance but numerous interrelationships between general studies and professional teacher education.

The Extended Involvement of Teachers

A second major constraint identified was the lack of first-hand involvement by the best of our teachers in substantive ways throughout our programs of teacher preparation. How might a more effective partnership be achieved? A number of factors are likely to promote relatively higher teacher salaries in the immediate future including rather dramatic changes in many situations relative to supply and demand, heightened public concern about quality, and deviations from current collective bargaining arrangements which are designed to raise beginning teacher salaries. An example of this would be bargaining for identical raises for all teachers regardless of training or experience during a given contract period in order to build a higher beginning base. Whatever salary inroads are made in the immediate future, I predict will quickly
be eroded if these are not seen as contributing to desired achievement by students. A look at the present priorities of teachers is instructive here. A major concern now is the quality and status of teachers. The position of the teachers' organizations is that higher salaries will attract better teachers and enhance their status generally. Demonstrating such a link is very unlikely, in the near future, especially if I am correct in my projection of more difficult times ahead. The likelihood is rather that teachers will come under even more fire.

In the long run one simply cannot expect major advances in teacher salaries without a concomitant move toward initial preparation more commensurate with other professionals. It should be clear to the leaders in the teacher organizations that the key to significant advancement in the status of teachers and what that reflects in terms of salary, autonomy and working conditions, in fact, is rooted in their initial preparation. I believe that growing acknowledgement of this will spur the teacher organizations to work more closely with their colleagues in higher education in this regard.

There is also an important and timely concept through which teachers can contribute in more substantial ways to initial teacher preparation and at the same time enhance their own credibility. By this I refer to the further development of the concept of career lattices. Not withstanding an increasing emphasis on teacher accountability the concept of merit pay is immersed in such a political morass and confronted with such diverse practical realities that it is not likely to gain any widespread endorsement in the immediate future. On the other hand the concept of differentiated staffing and hierarchical roles with clearly specified differences in the scope and nature of responsibilities is an idea which has been with us for a long time and it appears that at long
last that its time may have come. The most politically viable type of leadership role for teachers whether the term employed is master teacher, senior teacher, or lead teacher is one which places teachers in a teacher educator function and especially one which can assist first-hand beginning teachers.

The development of various types of clinical professor roles assumed by teachers would communicate to the general public a more professional posture than the present one which is often viewed as unnecessarily self-serving. It would also have a very important effect on retaining outstanding teachers and of course could make a very real contribution to addressing what I believe is the most basic problem currently in programs of initial teacher preparation, that of the weak clinical component.

Coalitions between those in teacher education and the teacher organizations should be able to garner support for such leadership roles. It is a concept that has considerable potency for both beginning and experienced teachers, yet is largely misunderstood by both teachers and teacher educators. Certainly this commission should consider how such a concept can be fostered.

Clinical Integration

The third major constraining factor identified was that of clinical integration throughout programs of teacher preparation including early and continuing experiences in schools for prospective teachers. In some respects considerable momentum for addressing the problem has been achieved already. The most common alteration in programs of teacher education across the country in recent years has been the increased number of hours preservice teachers spend in schools at various stages throughout their preparation program. It is not uncommon
for the prospective teacher to have at least 200 hours of involvement at school sites prior to student teaching. In an effort to improve initial teacher preparation there have been states that have mandated the number of hours which preservice students must spend in these clinical activities. While here in the state of Minnesota there has been no such mandate fortunately, the institutions surveyed recently nonetheless all report more substantive involvement by their teacher candidates in schools in recent years. While the quantity of experiences in schools has increased, concern about the quality of these activities in many instances appears justified. The occasional observer of teacher education policies and practices would assume a considerable degree of collaboration between teacher preparation programs and cooperating schools. One could expect, given the major responsibility of "cooperating" teachers, that they would be selected with considerable care, provided specialized training, and be substantially reimbursed for their efforts. This is simply not the case. After examining data about student teaching policies and practices from across the country in the late 1970s we wrote:

Fewer than one-fifth of the department chairs reported level of experience as a teacher, advanced training or previous supervisory experience as the most important factors in the selection of cooperating teachers. Instead, the general reputation of the teacher and a willingness to work with student teachers appear to be the chief criteria for selection.

It may well be that the role lacks appeal for many teachers. A sense of professional responsibility on the one hand and the reciprocal assistance provided by the novitiate in the classroom on the other appear to be the basic incentives for assuming such a role. Certainly, the modest Honorarium provided in half the institutions to cooperating teachers has limited drawing power, to put it mildly. The average program offers $30.00 but many provide none. (This figure has risen but only modestly in recent years). Various inkind considerations and faculty assistance to teachers of one type or another are provided to some degree. No
one practice is common, however, and there are considerable differences in terms of what is provided to teachers. While the student teaching experience does appear to be the hub for some college-school collaboration, it would appear to contribute little to advancing school practices in the vast majority of cases. (Howey, 1978: 35)

There is even less monetary support for faculty to work with students at school sites in pre-student teaching experiences. It is extremely rare, for example, when funds are available to reimburse teachers for their participation in these activities. Selection again appears to hinge primarily on the availability and willingness of those practicing teachers to work with students in these shorter term experiences.

One might infer from the care and attention given to these experiences in many instances that their educational value might indeed be problematic and there are numerous references in the literature which question the value of many of these field-based experiences. A typical characterization of these early experiences has pre-service teachers assuming a limited apprenticeship role and engaging in largely pedestrian tasks (Hoy & Rees, 1977).

Zeichner suggests that student teaching itself appears to embrace a rather complicated and subtle set of both positive and negative consequences. After reviewing the literature on student teaching, he concluded:

Consequently, the literature does not support the contention that practical experiences in schools are necessarily beneficial; nor can it be taken for granted that more time spent in schools will automatically make better teachers. There are definitely many decrements reported by student teachers in attitudinal variables by the end of their experience (e.g., self-concept). Probably the most clear and consistent finding from the research is that the cooperating teacher has a tremendous impact on the attitudes and behaviors of student teachers, an effect which in some cases is not desirable. On the other hand, the university supervisor seems to have little or no effect. (Zeichner, 1978: 59)
There have been long-standing exhortations for pre-service teachers to assume a more scientific, clinical and inquiring posture in their role. There is little evidence in studies of pre-service teachers in schools that they engage in such behavior. Also, little attention appears given to the moral and ethical dimensions of teaching in these experiences. John Mergendoller speaks to the comprehensive nature of the moral basis of teaching:

I conceive of the classroom as having a moral order which permeates nearly every aspect of student life and activity. The status differential between teachers and students is one aspect of this moral order, but there are many more: establishment of behavioral norms and academic expectations, reward and punishment strategies, distribution of teacher help and attention, and group decisions. I think the overarching concept of a moral order is broad enough to encompass most of what we do as teachers, but I think the definition of moral needs to be spelled out quite carefully. It is a word which invites misinterpretation. (Mergendoller, 1984: 95).

I am not sure of the extent to which the many experiences which pre-service students have in schools lie more in the direction of rather unthinking, pedestrian activities or the extent to which there are a variety of well-conceived activities in which students have a number of opportunities to inquire, to experiment and to reflect on the subtleties and complexities of the classroom. Whatever the situation may be generally there can be no doubt that it is at these critical junctures between the acquisition of knowledge and the testing of it in classrooms that there is considerable room for improvement. It is here that the teacher organizations can make a most significant contribution. While preservice teacher educators must, of course, assume considerable responsibility for the type of activity and level of performance which one can reasonably expect for preservice teachers in a variety of clinical settings, research confirms the extensive influence of experienced teachers in these
settings. The settings themselves also influence preservice activities to a very considerable degree.

A much better dialogue is needed relative to how the quality of these experiences can be maximized through stronger partnerships between those in the colleges and those in the classrooms. I am cautiously optimistic that teacher preparation programs will witness a growing first-hand involvement by teachers in pre-student teaching, student teaching and continuing intern-types of experiences in the schools. Again, the basic tactic will be for institutions of higher education to join hands with teacher organizations to lobby for monies to support the training/selection of master teachers who will have as a primary function the mentoring of beginning teacher education students throughout all phases of their program. There will be several variations on this theme with some programs emphasizing well-delineated structured early experiences and other programs extended forms of student teaching through internships or induction schemes.

The two major remaining constraints, the lack of programmatic coherence and adequate space in the curriculum will be addressed shortly within my brief review of the expanding knowledge base. First, in summary to this point, I suggest that visible demographic trends, resultant conditions in schools, actions by those within education have the power to generate more fundamental changes in initial teacher preparation. While any number of alternative schemes will evolve to recruit and prepare teachers for school settings in the short term, in the long run the push will be to expand initial teacher preparation. The primary catalyst for this will be the increased recognition of the essentiality of public schooling and the magnitude of the problems
confronting those schools, especially, in the urban areas. Stronger coalitions than currently exist between academics, teacher educators, and those within schools primarily, teachers through their teacher organizations will evolve.

These coalitions will be difficult but one predictable result will be a stronger welding between academic disciplines with relevant professional courses and experiences (recall the list of characteristics of institutions or programs with a global emphasis) and considerably expanded pedagogical training or clinical experiences in the schools and community. These coalitions and the interests they represent will forge various augmented forms of teacher preparation. I admit, of course, to the speculative nature of such a scenario as well as the largely optimistic or more accurately a silver-lining-in-a-cloud projection. It does seem to me however that one of the most important functions that papers prepared for this commission can serve is to not only identify current and likely future problems but what possibilities exist for confronting these problems as well.

Research on School Effectiveness

The pedagogically related findings which I believe have the most potential for altering the structure and form of initial teacher preparation are those acquired through a number of recent studies into what differentiates more successful schools from less successful ones. Stewart Purkey and Mike Smith (1983) provide an excellent review of the literature on what is commonly termed school effectiveness. The importance of these studies is especially significant in that they challenge the assumption supported by prior studies of schools (Coleman et. al., 1966, Jencks, et. al., 1972) that differences among schools in fact have
little effect on student academic achievement. These more recent research studies, while tentative in many respects, nonetheless support both common sense and theory relative to how schools make a difference.

Purkey and Smith conclude that academically effective schools are distinguished by their culture, by structure, and by a climate of values and norms that emphasize successful teaching and learning. These school-level factors identified below set the stage for what goes on in the classroom and tend to define the climate and the culture of the school. Key organizational/structural variables which they derive from the literature include:

1) School-site management
2) Instructional leadership
3) Staff stability
4) Curriculum articulation and organization (articulation speaks to how curriculum is related across grade levels or subject areas)
5) School-wide staff development
6) Parental involvement and support
7) School-wide recognition of academic success
8) Maximized time for learning
9) Level of district support

Certainly findings from these studies of schools are increasingly finding their way into programs of initial preparation. This research should directly affect teacher preparation, and, in ways other than as content for study. A number of states have already legislated support for schools which are willing to invest their faculty resources in moving more fully toward profiles of effective schools. As this
practice expands there should increasingly be linkages with programs of teacher education. Throughout the history of teacher education, colleges and universities have developed continuing working relationships with laboratory or demonstration schools. For a variety of reasons in recent history there has been a decline in such arrangements. It is likely, with enlightened legislative support that these collaborative arrangements will expand once again and the likely focus for such arrangements will be for schools targeted as effective school or school-improvement sites. While all schools will be influenced to move towards those ideals espoused for effective schools, past history suggests that the development of prototypes or lighthouse schools which bring together the best of resources across role groups and institutions is a more predictable course of action. These partnerships revolve around continuing contributions by college faculty to the school improvement process in return for exemplary training sites where multiple students can engage in clinical practice.

Close working relationships between those in the schools and those in higher education relative to a variety of educational innovations are not new. Such efforts were central to many personnel development programs funded at the federal level throughout the 1960s and 70s. This form of collaboration raises yet another distinct possibility in terms of how the emphasis on all-school characteristics might impact teacher education programs. I believe the school-effectiveness movement will help promote support for targeted research and development for model programs of teacher education.

Research and Development and Programmatic Coherence

How might research and development in schools affect similar research
and development in teacher preparation? Purkey and Smith in their review of the school effectiveness literature identify four factors which appear to be the sustaining characteristics of a productive school culture: collaborative planning and collegial relationships, a sense of community, clear goals and high expectations commonly shared, and a sense of order and discipline. Certainly these characteristics imply a closer working relationship among teachers than currently is witnessed in the vast majorities of schools across this country. The success of groups which work closely together on tasks over time in whatever work setting depend upon two key factors. The first is that those persons involved bring different abilities to that task which complement one another; the second that they can achieve consensus. Sustained collaborative planning is most difficult when it is conducted by persons who work largely independent of one another and who bring largely the same strengths and similar perspectives to the problem or task.

Yet, the most common practice across this country is for elementary teachers to teach basically in what has been called a self-contained classroom. This is to say that teachers are largely responsible for teaching all of the subjects to the same group of children over the course of at least one year. Rarely in these critical years of schooling do teachers acquire an in-depth specialization in any given discipline nor are they recruited or assigned to teach in that manner. Beyond that little consideration has been given to the possibility of incorporating a mix of teachers in elementary schools who would have their responsibilities differentiated along other lines such as in terms of their expertise in social development or in special roles that would better bridge the school and home. Yet another possibility is a special role which would allow more attention to the emotional needs of the young, especially
the many who come to school from an environment largely barren in terms
of love and support from a significant adult.

I am not projecting any imminent or radical reorganization of
schools. Nonetheless I believe that what the school effectiveness
literature implies about how schools are organized, combined with the
magnitude of the task which confronts many teachers at present let
alone in the future, will indeed in incremental ways move teachers towards
more differentiated, complementary and collaborative relationship
especially in elementary schools. While the emphasis at present is on our
secondary schools and their standards and curricula it is clearly the
case that major interventions in schools are needed very early for
many youngsters or they will be long gone from school to benefit from
whatever reform occurs at the secondary level. Such a transition would have
obvious implications for the way in which we prepare teachers.

Just as selected school sites will be funded in terms of their commitment
to various forms of school improvement similarly I believe planned
variations in programs of teacher education which can be systematically
studied will garner support for research, development, and evaluation.
This research and development needs to address not only the various ways
in which teachers might be best prepared but also the question of just
which types of teachers and teacher roles are needed at different levels
of schooling. Some have argued that teacher preparation has its hands
full attempting to prepare teachers for today's school and cannot lead
in changing schools. I strongly disagree. What is needed are
better alliances within the education professions to cooperatively
address the highly interactive and interdependent question of 1) how
can schools best accomplish a broad range of functions and 2) what
types of teachers and what types of training are needed to achieve those goals.
Support for research and development not only between colleges and K-12 schools but across colleges working in complementary fashion is needed. I suggest the following priorities for programmatic research and development in teacher education:

1) Programs which reflect both new and strengthened roles and relationships with those in K-12 schools; whether in earlier and continuing experiences which permeate the entire curriculum or whether in internship or induction experiences which extend beyond the four-year programs.

2) Programs founded on explicitly different orientations of teaching such as an emphasis on the 'teacher as scholar'. This specific example should be especially appealing for just as the status of teachers is likely to be enhanced through more robust initial teacher preparation programs, so also the image of teachers as more authentic partners in the development of a knowledge base will greatly enhance their status in the long run.

3) Programs which develop variations in the way initial programs of teacher preparation can be extended in substantive ways. AACTE has concisely illustrated a number of options in their monograph Educating A Profession: Extended Programs for Teacher Education. For example, both of what are referred to as Four-Plus-One models are candidates for more systematic research and development. An emphasis should be on the efficacy of the expanding knowledge base as implemented differentially in these schemes.

4) Programs which as I suggested above concentrate on more major alterations in the role of teaching i.e., moving from an emphasis on an all-purpose elementary teacher to roles which would be more specialized and interdependent.
To return briefly, and summarize the school effectiveness research, this literature has implications 1) not only for inclusion as content for study in the curriculum, but for 2) defining the types of school sites with which programs of teacher education should align themselves and finally and even more fundamentally 3) for suggesting basic alterations in programs of teacher education which could be model research and development sites. In this latter vein, this literature suggests that more attention to collaborative forms of teaching is needed and that those critical process variables which appear to define the general concept of school culture and climate should be studied in terms of how programs of teacher education are organized as well.

Classroom Ecology

The second research literature which can contribute to teacher preparation is that which examines the ecology of the classroom from a variety of perspectives. In this regard the review of the intrinsic character of academic work in elementary and secondary schools by Walter Doyle is especially noteworthy. His very comprehensive and insightful review and analysis was published in the Summer 1983, Review of Educational Research. This important work has specific applications for a fuller understanding of academic tasks experienced by both students and teachers and for identifying realistic ways in which the quality of those efforts can be enhanced. This work provides excellent insights for example into what students invent for managing the considerable ambiguity and risk which is often associated with different classroom tasks. The review of ecological studies by Hamilton in the special 1983 edition of the Elementary School Journal is also to be commended as is the work of several scholars with related lines of inquiry.
who have studied the ecology of the classroom at the Far West Laboratory including Mitman, Mergendoller, Mien, Ward, and Tikunoff (1981).

The importance of this emphasis on the ecology of the classroom is that it provides a more fine-grained and complete understanding of many of the dimensions of the classroom as a complex social system. Such understandings can be prerequisite to actual instruction in a classroom. Familiarity with the disciplines and the perspectives of the numerous scholars who have studied classrooms whether linguistic, social-psychological or anthropological in nature provide as well a number of excellent conceptual lenses through which beginning students of education can critically study and reflect on the nature of teaching and learning. The use of this literature for the type of inquiry and reflection advocated for teachers by many is obvious.

Cognitive Psychology

The third general area of research which is especially relevant falls within the general domain of cognitive psychology. Winne and Marx (1981) reviewed aspects of this literature for the Educational Testing Service relative to what the question of what should be included in the common portion of a national teachers' examination. Winne and Marx suggest that cognitive psychology is central to three generic aspects of teaching: instructional design knowledge, instructional delivery skills or general teaching methodology, and teacher competence in decision-making.

They suggest that the lynchpin that ties these three general teacher competencies together are the cognitive strategies employed by learners as they respond to instruction. They suggest that various technologies for instructional design based on cognitive theories of
learning provide a far more generalizable base of knowledge than the behaviorally-based systems that preceded them. They refer to the emerging research on how students cognitively mediate instructional events in the classroom. Finally they review the research on teachers' judgement and decision-making which has a somewhat stronger empirical base at this time.

Shavelson (1984) and Clark (1983) also review this latter literature. According to Shavelson, teacher's behavior tends to be guided by more simplified models of the complex reality of the classroom. Teachers rely on various sources to construct these realities including their own values obviously and the organizational constraints of the school district and schools in which they work. However, one potentially important source of information which appears to be largely ignored in these teachers' decisions about classroom activity is the type of cognitive processing which they ask students to engage in: This research literature should be of assistance to preservice teachers in analyzing various instructional activities in terms of the kinds of cognitive abilities they will acquire of students. Given the considerable limitations which Griffin (1983) has found in the planning and decision-making skills of preservice teachers in recent research conducted by the Texas Research and Development Center for Teacher Education, research findings which link cognitive development to teacher decision-making skills would appear to be especially helpful.

There have been numerous studies as well which examine various forms of cognitive or learning style which may be more predispositional and sustaining in character for different learners, including studies which focus on cultural differences. Given the dramatic demographic changes
noted earlier in this paper this latter body of information should become increasingly important in programs of teacher preparation. Many findings derived from these literatures seem especially suitable for incorporation into micro-teaching settings where the preservice teacher can more systematically analyze the effects of different instructional decisions or strategies.

**Classroom Management**

There is of course also a growing research literature on classroom management and organization. Both of the publications I noted at the outset of this section include excellent reviews in this regard. Recent major reviews of the literature include those by Brophy (1983), Weber (1983), and Walberg and Waxman (1983). This literature now provides preservice students with a number of different perspectives for managing and organizing classrooms. This research is relatively new and was in many ways first initiated by Kounin less than a quarter of a century ago. These studies now provide the beginner with an applied science base where only a short time ago general psychological principles or such questionable advise as "run a tight ship" guided practice. This literature provides clear and detailed descriptions of how highly successful teachers manage classrooms and respond to students organizationally. Weber outlines seven general strategies of classroom management, for example.

One family of strategies has its roots in social psychology. Johnson and Johnson (1981) have conducted studies in a number of classrooms across the country where teachers purposely intervene to alter classrooms to either a largely competitive environment, an individualistic environment or one that is primarily cooperative in nature. They demonstrate the efficacy of each of these different classroom climates for different instructional objectives. In an extensive review of the literature,
they report significant positive correlations between classrooms with cooperative goal structures and a number of desired student outcomes including various types of cognitive achievement and desired attitudes towards school and others.

In summary, this literature on classroom management and organization can provide the beginning teacher not only with a number of alternative strategies for managing a classroom but again provide a variety of conceptual lenses for examining behavior and the potential causes of that behavior in classrooms in which they observe and teach throughout their preparation programs.

Effective Teaching

The most comprehensive and likely most informative studies for teacher education are those which look at patterns of effective teaching itself. There is a teacher effectiveness literature just as there is a school effectiveness data base. Numerous scholars have provided us excellent reviews and critiques of studies in this area including Rosenshine (1984), Gage (1980), Good and Brophy (1984), and Soar (1983). Patterns of teaching behavior are articulated which have been shown to obtain greater-than-expected achievement from students of various types and in various contexts. These findings have been derived from both naturalistic and experimental research. Specific constructs such as active and direct teaching have evolved. While behavioral prescriptions don't exist, principles to guide instruction for certain goals appear clear and again alternative ways of thinking about and looking at teaching are presented.

There are two related areas of research which should also be mentioned at this time. The first has to do with teacher expectations.
The very thorough review by Good (1983) relative to the impact of teacher expectations has multiple implications for teacher education curricula. This literature clearly points out that teacher expectations are communicated often differentially to students, and in a multiplicity of ways. For example while a teacher may verbalize one type of expectation to a student, his or her behavior may well communicate a different message. Likewise the amount of time a teacher waits for an answer from a student, the type of criticism provided to a student, the way rewards are distributed in a classroom, and the frequency and type of interaction a teacher has with students all communicate expectations. The fact that expectations have a profound influence on both students' attitude and achievement underscores the significance of this literature. The incorporation of this knowledge into the teacher education curriculum should provide beginning teachers with better understandings of and more sensitivity to the multiple messages which they communicate in the classroom.

The teacher expectation literature can also assist the preservice teacher in examining the moral and ethical dimensions of teaching. In this regard, Alan Tom (1984) in his recent book Teaching As A Moral Craft provides an excellent complementary perspective to the reviews of the literature on teaching effectiveness noted earlier.

Finally, the pioneer work of Bruce Joyce (1980) and his colleagues relative to the development of a variety of models of general teaching should also be noted when discussing teaching effectiveness. Numerous studies have supported a correlation between effectiveness in the classroom and the adaptability of the teacher. Teacher adaptability in many respects is related to the repertoire of teaching skills which a
teacher possesses. Joyce provides a foundation for examining how social and personal as well as cognitive goals may be promoted in the classroom through the use of a variety of general teacher methodologies. Certainly Joyce's work speaks directly to the concerns raised in recent studies about the limited range of instructional strategies and teaching tactics employed in many high school classrooms across the country.

While this review was limited to studies related to teaching effectiveness, there are of course other factors which will considerably impact the teacher preparation curricula in the next generation. Not the least of these, of course, are the rapid advancements in technology. One can only speculate for example on the variety of ways a melding of the two great delivery systems of television and computers will effect teacher preparation.

In summary, I have suggested that the growing knowledge base reviewed here however potent it may be for enhancing teacher effectiveness, is not likely in itself, to be enough of a catalyst to alter teacher preparation in significant fashion in the short run. This is not meant to demean the work of many outstanding scholars nor the efficacy of this research but rather to suggest that past history, at least, has demonstrated the difficulty of altering programs of teacher education substantially.

Thus, in this paper I have tried to identify a number of salient factors external as well as internal to education which I believe have the power in the future to restructure these programs in more substantial ways and which will allow for much fuller consideration of how the various domains of knowledge which were reviewed above might best be incorporated into teacher preparation. The emphasis in this
paper has been on an analysis of which factors might be further abetted by a commission such as this so that the knowledge-to-practice transition becomes more than the occasional production of a new course or two or the incorporation of content into existing courses. Therefore common, cross-cutting problems — or constraints in many teacher preparation programs were identified and suggestions for how these might possibly be addressed were shared. Hopefully this exercise will be of assistance to the commission.
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