An earlier review (Daresh and LaPlant 1985) resulted in an impression that most field-based training in educational administration is understaffed and undervalued. Accordingly, this review analyzes the historical development of apprenticeship models used in the preparation and continuing education of practitioners in medicine and law, in order to discover commonalities and differences in underlying assumptions with the field of educational administration. Topics discussed include (1) the historical relationship between apprenticeship and employee training; (2) the development and assumptions of legal education; (3) the history of medical education; and (4) the trends and issues in medical education. The subsequent section presents analogies and differences between the assumptions governing education and training in law and medicine and those that characterize the field of educational administration. The paper concludes with seven "lessons" to be learned from the comparison with respect to administrator preparation programs. (TE)
AN EXAMINATION OF APPROACHES TO FIELD-BASED LEARNING
IN OTHER PROFESSIONS

by

James C. LaPlant
Professor of Education
University of Cincinnati
Cincinnati, Ohio 45221-0002

Paper presented at the Annual Meeting of the
American Educational Research Association
New Orleans, Louisiana
April, 1988
An Examination of Approaches to Field-Based Learning in Other Professions

The modeling of administrator preparation programs after other professional schools and having the public schools becoming full partners in the preparation of school administrators are two of the significant recommendations of the National Commission on Excellence in Educational Administration (1987). Those recommendations along with specific recommendations calling for improved field-based training, supervised practice, shared responsibility among the public schools and professional organizations are the impetus for this examination of the nature of the field-based components of professional preparation in other professions, particularly in the legal and medical professions.

The purpose of this preliminary review is to analyze some alternative models used to combine theory and practice in the preparation and continuing education of professional practitioners. Existing literature was examined to discover commonalities and differences in underlying assumptions with the field of educational administration. Issues are proposed for consideration in the improvement of administrator preparation programs.

An earlier review (Daresh and LaPlant, 1985) of field-based training in UCEA institutions resulted in the impression that most field-based training in educational administration is
included primarily to meet state certification standards, that such training is usually understaffed and undervalued by most programs, that the training is monitored by a university professor with little attention being given to the quality of the mentor's background and skills, and in some situations the field experience is neither supervised nor valued by the cooperating school administrator and school system. While that view appears to be despairing, this paper will attempt to look below the surface of the field-based training experiences in other professions and raise issues that might help us understand why these conditions exist in educational administration and what might be done to change the situation in administration.

An ERIC search for articles and reports of field-based learning or training in other professional areas revealed considerable literature that tends to describe and/or evaluate models of field-based training in specific institutions or professions. An ERIC search for articles and reports on education in five professional areas identified over 10,500 references for the twenty year period ending August 1987. Of these references, there were 142 pertaining to some aspect of field-based training/learning or internships. The quantity and distribution of the references among the professions is revealing. Medical education accounted for almost 40 percent of the ten thousand plus references and over 56 percent of the references on field-based learning.
Professions or careers that use the apprenticeship model of training include a wide variety of medical and allied-health related occupations, law and law related occupations, engineering, nursing, architecture, criminal justice and education. The reported field-based programs spanned the complete educational spectrum from pre-college to post-graduate experiences. The review of the reports suggested a host of reasons for field-based education, some of which were not directly related to training needs of the learners. The themes of providing practical education, the integration of clinical knowledge and experience, and the demonstration of clinical skills could be considered central to most programs. However, other purposes mentioned included initiation into the professional responsibilities, reducing the anxiety of entry into a field, increasing awareness of career opportunities, providing services through internships in geographic locations and professional areas where such services might be in short supply, resolving larger societal problems through use of eager interns, and even solving unemployment problems by creating internships for fully trained but unemployed professionals. While some of the evaluation reports suggested that conceived purposes were not always supported by the data, field-based experiences were
generally held in very high regard by the learners and the practitioners.

This is not unlike the field of educational administration where the response of students to internships or field experiences are generally very positive even though the objectives may be unclear or non-specific. An annotated bibliography regarding the use of field experience to train educational leaders (Daresh, Gallagher, and Balmores, 1987) also shows considerable interest in the subject within educational administration. The bibliography contains 60 published articles, 43 chapters or books, 17 unpublished documents, and 20 dissertations for a total of 140 references.

Much of the educational administration literature is oriented toward advancing the cause of practical training through the description of local field-based programs, surveys of the need for such training, examining the issues involved in practicum programs, and presenting model programs for field-based training. There is very little of what might be called disciplined inquiry regarding the efficacy of different models or components of models. Interestingly, much of the extensive writing on the subject done in the 50's and 60's appears to be just as current today as it was 20 to 30 years ago.

When other professions are mentioned as possible models, the medical and legal professions are most often presented as exemplars. Therefore, this paper is a preliminary examination of
the historical development of the systems of education in those two professions as well as the more general development of apprenticeships as a means of training. It is preliminary because the review depends upon descriptions of those systems by others and a more thorough investigation might be useful to determine what actually occurs in specific training settings. Even so, the review of extant literature regarding the development of education in those professions raises some interesting considerations for the preparation of educational administrators. The particular focus of the review was the historical development of the training model, the apparent reasons or assumptions behind the particular model, and finally a comparison with the situation being addressed in the recommendation for improved field-based training for administrators.

Apprenticeship and Employee Training

Apprenticeship is defined as training in an art, trade, or craft, under a legal agreement defining the relationship between the master and learner and the duration and conditions of their relationship. Consideration of the historical development of the apprenticeship adds to our understanding of the above definition.

The training of artisans and craftsmen can be traced back to Egypt and Babylon. In many instances the craft was kept within the family and passed from generation to generation. In the latter years of the Roman Empire, craftsmen organized themselves
into *collegia* to maintain the standards of their trades. In the 13th century, the craft guilds became the overseer of training and an artificial family relationship was created, with the apprenticeship taking the place of kinship. The trade unions gradually replaced the medieval guilds as guardians of the principle of restricting entry to skilled trades by means of rigorous apprenticeship, but with the opportunity for semi-skilled workers to move gradually into skilled jobs. Apprentices were paid at a lower rate, as much as 40-50 percent of the journeyman's rate as late as the 1920's.

The industrial revolution destroyed that personal relationship and that feeling of kinship as little attention was paid to the training of workers or of managers. Experience, learning the "hard way," was the essential qualification for supervision and management and so there arose the tradition of the self-made industrial tycoon who began life in humble circumstances.

Social and industrial change following World War II gradually altered attitudes toward work and training. Workers became assertive against the controls of entrepreneurs and managers. Modern industries and communications demanded sophisticated management. As the technology advanced, management became complex and a variety of schemes for management were developed. In recent times, governments introduced economic policies aimed at full employment. In some industries,
particularly the in the highly technical areas, employers had to actively recruit staff and encourage new entrants to develop skills by effective training. The training programs also had the general support of labor unions. Professional societies also took an interest in the standards required of their members.

In summary, the apprenticeship flourished under the medieval guild which had exclusive control. As the system declined during the industrial revolution of the 18th century, both France and England repealed earlier legislation which required apprenticeship training in certain fields. However, the legislation was reintroduced and strengthened as the craft guilds reacted to the immediate admission to all trades.

Interestingly, even the universities accepted the principle of individual training with its master's degrees. Religious orders insisted on novitiate training for newcomers. Medicine applied the guild system to the surgeon, who also performed the function of barber and was regarded as a craftsman with less prestige than the physician. Lawyers served apprenticeships by working in close association with a master of the profession.

As the technical professions grew, new training systems that incorporated the apprenticeship emerged. Special professional schools were organized and in France each profession had its own school, e.g., the School of Mines, the School of Roads and Bridges, the National School of Agriculture and the National School of Administration. The armed services established their
respective professional school (War College) for the training of officers.

After World War II, the situation changed with considerable variation among countries. In most cases there was some combination of government, schools, trade unions or professional societies, and industries to supply training to workers with specific trade skills. There appeared to be much more emphasis on the educational portion of the training. Some apprenticeship programs began as early as 14 or 16 years of age in vocational training programs. Another version was the government subsidized vocational programs set up by private companies or association of companies.

With the rapid advance in technology and the growing complexity of business and industry, management training has become accepted as a necessity in both the public and private sectors. The Harvard Graduate School of Business Administration and other advanced management programs for senior executives were well accepted in the post World War II period. Now there are international schools to train personnel for multi-national corporations.

Perhaps the most intractable problem associated with this type of management training has been its evaluation. Its actual costs may be calculated in terms of expenses of its administration and the salary costs of the trainers and trainees while they are in training. But the quality and ultimate success
can be determined only by a value judgement on a long term basis. Some skills can be quickly measured as outcomes but other fields are more difficult to measure. Supervision, management, and administrative tasks depend on the personal capacity as much as they do on knowledge and experience. Knowledge can be imparted and experience acquired; the guided development of personality is more difficult. The impact of training opportunities offered to a senior executive during his career cannot be mathematically assessed.

The rapid and continuous advance of technology introduces another very important factor into training models. No longer is it possible to think of training as something that is completed. In addition to training, we need some new conceptualizations of how we can equip ourselves to deal with change.

In education, the student practice teaching program was a form of the apprenticeship. Later, state certification requirements for some type of practical administrator training were added. There was an implicit assumption that there is a special skill, art, or craft that can be learned through an apprenticeship with a master practitioner. Further, the profession has a vested interest in maintaining the level of skill of the practitioners and limiting the admission of new recruits to the field through the control of numbers and training. However, in education, as with the general apprenticeship, the guild or profession does not control all
aspects of the apprenticeship and so it has become a mixed "bag" of shared responsibilities where accountability is difficult to assess. This problem is compounded because the nature of the activity of teaching and administration is difficult to evaluate because the tasks depend upon the personal capacity as much as they do on knowledge and experience.

Legal Education

While schools of law are of comparatively recent origin, the ancient Romans had schools of rhetoric that provided useful training to someone planning a career as an advocate. In the third century BC, the chief of the priestly officials gave public legal instruction and a class of nonpriests (jurisprudentes) who acted as legal consultants grew up. A student in addition to reading the few books that were available, might attach himself to a particular jurisprudens and learn law by attending consultations and by discussing points with his master. Over the centuries, a body of legal literature developed and some jurisprudentes set themselves up as regular law teachers.

In medieval universities of Europe, canon law and Roman law were studied but not local law or the customary legal system. On the continent, the transition to the study of national law was facilitated because most modern systems of law grew mostly from Roman law. In England, on the other hand, law known as common law was indigenous. Education in common law was provided by the Inns of Court, societies of lawyers who instructed through
readings and practical exercises. In the late 16th century, students came to rely on printed books and there was virtually no organized system of education until the apprenticeship for solicitors was established in 1729. Sir William Blackstone lectured at Oxford in the 1700's but the university teaching of common law did not develop significantly until the middle of the 19th century. The Council of Legal Education for barristers was established in 1852. In the United States, systematic legal education began with the founding of the Harvard Law School in 1817.

The aims of legal education are multiple and there has been a persistent dilemma in and among institutions regarding what to teach. Advocates have emphasized the legal concepts and institutions, the technical concepts expressed in legal words, the processes of making law, settling disputes, and regulating the legal profession, the structure of government, the organization of courts, industrial arbitration agencies, and providing legal aid and advice to those too poor to pay. Legal history, codified law is emphasized in some countries while common (case law) is important in countries based upon the English system. Another aim of legal education is the teaching of law in its social, economic, political, and scientific context. This idea is more advanced in the United States than in countries where law is the first degree.
The graduating law student is not expected to have studied the whole body of substantive law. He is expected to be familiar with the general principles of the main branches of law, i.e., constitutional law, contracts, torts, property, and penal law. Less basic are commercial, marriage, and public international law. "The aim is not that the student should remember 'the law' but that he should understand the basic concepts and become sufficiently familiar with a law library to carry out the necessary research on any legal problem that may come his way (Sheridan)."

The extent to which legal education aims to teach method and procedure varies from place to place. It is likely that legal content is always stressed but not always the methods of using the knowledge in the various roles, such as legal advisor, advocate, draftsman, or judge. Methods are usually discussed more in the United States than in countries where the professional examinations are largely divorced from academic study. Subjects such as legal ethics and professional standards are imparted by professional societies and personal experience rather than through formal instruction. However, in countries where the qualification to practice is based upon academic work, courses such as legal ethics would be a formal graduate course.

Methods of teaching differ according to national lines and the nature of the legal system. In England and Wales, a barrister (an advocate and consultant) may not practice at all.
without having undergone a six months' pupillage in chambers and may not practice independently until he has been a pupil for a year. To qualify as a solicitor (general legal advisor), the individual must serve as an articled clerk for two or four years depending on whether he is a university graduate or not. In contrast, in the United States, qualification to practice usually requires a law degrees and passing the state bar examination.

The various methods of teaching, i.e., lecture, tutorials, seminars, case-book method, moot court, and practical experiences are constantly debated. There is a diversity of careers open to students of law and the "shrinking of the world" through communications and travel systems have opened up new careers and subjects.

The qualifications to practice still differ greatly between the common law countries and the civil law countries. Other differences are the level of studies, i.e., is the study of law a first degree or a higher degree. In the United States, the renaming of the degrees to Doctor of Jurisprudence has been followed with the initiation of para-legal career opportunities.

There are a couple of points that appear to be pertinent to the consideration of intern experiences within the preparation program. First, the aim of legal education is not to teach prospective lawyers all that they need to know. If they are able to grasp the general principles and become sufficiently familiar with a law library to carry out the necessary research, the
person can be admitted to practice. However in some countries there is a formal system of required practical experience in a pupillage. This varies with the vocational aim of the individual. One possibility is that in the US, this might happen in the larger firms where one serves his apprenticeship before becoming a partner of the firm. The relative emphasis on practical training or internship appeared to be related to the control of the qualifications to practice by the professional field or some body representing the field. However, that point may not hold in countries such as France, West Germany, and Japan which require additional professional training of two to two and a half years after completion of the law degree and passing the exam. That professional training generally deals with both theory and practice and can take place in settings related to the career aspirations of the candidate.

Perhaps the most telling part of the review of legal education was the statement, "The aim is not that the student should remember the law but that he should understand the basic concepts and become sufficiently familiar with a law library to carry out the necessary research on any legal problem that may come his way." That suggests a career in which the law library becomes a support mechanism for the practicing attorney. Does the field of Educational Administration have an analogous support mechanism in educational administration? My initial impression is that the professional library in educational administration is
very limited in comparison to law and further, it probably borders on advocacy literature in contrast to research-based information the administrator would use in making decisions.

Medical Education

Medical education moved from the observation and reasoning approach while caring for the sick, as exemplified by Hippocrates in the fifth century BC to the establishment of institutions where sick people were collected so more comparable observations might be made. Medical education consisted on primarily apprenticeships in hospitals set up by Islam and Christian groups. With the rise of the universities in the 10th to 12th centuries, the teachers of medicine were enticed into university professorships and medical education became more lecture about the theories of disease, philosophical speculation and rhetoric rather than dealing with actual sick people. The connection to the University did serve to give the physicians dignity and prestige among their educated peers in Law and Theology. In the 17th and 18th centuries, the value of hospital training and the hands-on experience was again reasserted. In this country, the first medical departments were opened in 1765 and 1777 at the College and Academy of Philadelphia and Kings College later to become Columbia. During the 19th century, the advancement of science, both in teaching and research, impacted on the nature of training in medicine. In 1900 there were 150 medical schools, mostly proprietary, in this country. The common pattern of
education was two years of study in which the 4-6 months of study was followed by apprenticeships. In 1893 Johns Hopkins Medical School restricted admissions to graduates having one year of natural science and the School affiliated itself with a hospital created for teaching and research.

In 1910, Abraham Flexner's report Medical Education in the United States and Canada helped eliminate many inferior medical schools and there was considerable infusion of resources into improving laboratories, hospitals, and training staffs. The thoroughness with which theoretical and scientific knowledge were fused with what experience teaches in the practical responsibility of taking care of human beings became a distinctive feature of medical education. The clinical teacher was established with an immediate and absolute responsibility. Abraham Flexner insisted that medical education is a form of education and not a mysterious process of professional initiation or apprenticeship. By the mid 1970's there were 100 four year medical colleges in the 50 states and one college in each of the territories. Approximately half of them were private. The usual preparation pattern was four years in the medical college followed by an internship and then residency training, the length of which was determined by the area of specialization. There were state board and /or national board exams at the completion of the internship and American board exams after the residency. As medical science became more specialized the nature of the
training has become an issue. The suggestion for two types of schools, one to train teachers and research scientists and another to train practitioners of medicine is similar to discussions in educational administration programs. There are several pedagogical points to be noted regarding medical education.

1. Medical schools tend to limit enrollments. The ratio of teaching staff to students in some schools were as high as 1 to 1 or 1 to 2. In contrast some universities in Europe may have a ratio of 1 to 20 or even 100.

2. The undergraduate preparation is two years of basic medical sciences and two years of clinical sciences followed by the internships and residency.

3. The clinical professor is intended to be full-time with some opportunity for private patients at the University hospital office. The intent of full time has been to place the professor's capacities and strength entirely to the service of his students and the patients entrusted to his care as a teacher and investigator.

3. Courses in medical science commonly followed a formula of three hours of lecture and six to nine hours of laboratory work. Instruction in clinical work diminishes the use of formal lectures in favor of experience with and attendance on patients.

4. In the United States, the fifth or intern year was of special value and importance, though it was not usually
controlled by the medical school and it ordinarily followed the award of the M.D. The intern usually lived in an approved hospital and in any case devoted full-time to the work of the hospital. This is usually followed by a residency training period of specialization of two to five years.

5. The clinicopathological conference is a distinctive feature of medical education in North America. As a public exercise, a clinician comments upon the record of a case of fatal illness in a patient he has not seen and discusses from this record the probable cause and nature of the illness. The pathological anatomist who examined the organs of the deceased then reports upon the actual findings. The lessons are vivid, and the effect upon the fullness and accuracy of hospital records has been excellent.

6. There are issues regarding the reform of credentialing of doctors including compulsory continuing education, periodic licensure, and recertification.

In general, the quality of medical education is supervised by councils appointed by the profession as a whole. The licensure to practice medicine is controlled by boards of licensure in each of the states. It would appear that the medical profession exercises considerably more control over their field than does educational administration professional organizations.

Trends and Issues in Medical Education
The traditional two plus two pattern has been modified in some programs to introduce students to patients in their first year. Other colleges have attempted to combine college and medical school into a six year program. Others have experimented with making it possible for applicants without university degrees to apply for M.D. programs.

Some of these changes reflect an anomaly that faces the medical field. The number of doctors to provide primary care has decreased from 108 physicians per 100,000 people in 1931 to 91 per 100,000 in 1957 to 83 per 100,000 in 1971. At the same time, the number of interns and residents has increased from 7,000 in 1930 to 51,000 in 1972. There were twenty five new teaching hospitals constructed since 1955. The explanation of this phenomenon lies in the increased specialization of the field.

Thus, the issue of too much emphasis on research and teaching and not enough attention to what students are learning including the personal qualities of intellectual curiosity and compassion is constantly discussed. Therefore, some institutions have the adopted the objective of graduating students who would, throughout their working life, be able to solve problems and learn effectively on their own. This is based on the fact that it is becoming more obvious that the knowledge base has to be renewed continually and applied to a variety of problems, some of which could not even be foreseen (Spaulding, 1982 in Salami, 1983).
Salami concluded after his review of emerging trends that the major shift was for "more emphasis on the clinical aspects of medicine, together with the exposure of students to more electives, aimed at broadening their horizon (165)." The pendulum appears to be swinging toward the type of care individual patients receive but not without decreasing the need for use of the vast knowledge that research is making available.

In one sense, the problem of preparing a professional, be it in law, medicine, or education, is the problem of what needs to be known to begin practice and then how is the continuing education of the practitioner going to be ensured. The amount of knowledge has exploded and we are still learning how to operate in the Information Age.

Reflections

This next section will share reflections regarding administrator preparation programs that occurred to the writer as descriptions of the education and training in law and medicine were reviewed.

1. First, the assumption of analogous relationship between professions needs to questioned. In simple terms, lawyers provide services to clients needing their services with the help of a support system of clerks, library, etc. The environment of the services would be in the courts, the business world, or governmental agencies. Doctors provide services to patients who need of their services with the help of support systems of
technicians, nurses, pharmacies, etc. in their offices, clinics, or hospitals. The educational administrator doesn't provide direct services to parents or students although both of them have been called clients of the school. In comparing the medical doctor with the administrator, who is the "patient" of the administrator? I find it somewhat easier to think of the teacher as being analogous to the doctor or lawyer in that they deal directly with the students as "client" or "patient." That perspective raises many other questions regarding the structure and nature of schooling which I won't go into here. Suffice to say, there are some problems when we try to create the analogous relationship between educational administration and law and education.

2. Educational Administration needs to be critically examined as to whether it is a craft or it is profession based upon a body of theoretical perspectives and experiences to carry out an educative function. If one accepts the craft notion, then the apprenticeship model is most appropriate. In that scenario, the practitioners could assume much greater responsibility for the control of admissions and the content of the apprenticeship. If one adopts the profession perspective, the implications for preparation programs include a more precise definition of the knowledge base needed, a greatly expanded research program to provide for the knowledge needs of practitioners and the improvement of the educational process. Actually, this conflict
between the craft and profession ideas rears its head in the issue of the relationship of professors to the practicing administrators. On one hand, professors need to "publish or perish" but on the other hand they are expected to "close to the field."

3. The issue of whether preparation programs train or educate prospective administrators is proposed as a discussion point. In an effort to clarify preparation program aims, it might be conceivable that educational administration programs get out of training and focus on the academic education of prospective administrators and insist that the schools and/or the\ professional associations assume responsibility for the training of administrators. This could result in a clarification of what the knowledge base is that the program purports to impart to candidates. Accountability could be advanced. Then, the skills and attitudes would be provided during the apprenticeship without the usual conflict between what was preached at the university in comparison to way it is done in practice. This would move the professional groups a step closer to greater self-control because they would have their own gate, i.e., the admission to and completion of the apprenticeship.

4. An alternative to the University limiting its role to education of prospective candidates for apprenticeships is that Universities establish true clinical professorships. Such professorships would have to be practicing administrators who
hold legitimate accountable positions with the University who are able to integrate theory and practice in the development of clinical skills of administrative apprentices. This idea would probably require a new kind of collaboration and joint ownership and accountability among universities, school systems, and professional associations. There is much to be done in developing a new perspective on collaboration if schools, universities, state departments, and professional associations are to jointly contribute to the development of administrators.

5. The role and obligation of school districts for the development and improvement of administrative practices needs to be critically reviewed. Traditionally, school systems have done precious little beyond trying to improve their selection procedures and providing orientation programs. Systems need to adopt the position of continually reassessing their administrative practices and the development of alternative practices that respond to the emerging social and cultural contexts. Institutions need a means of renewal or they will become obsolete and detrimental to the human condition. That responsibility has to be assumed by the leaders in the system, including the community. The implications of this position is that school systems would want, indeed insist, that they take responsibility for the development and training of administrative candidates.
There are additional perspectives to be considered, issues to be raised, and ideas deserving dialogue. Much discussion needs to occur before we go blindly down the path of restoring a model of internship or practicum which everyone agrees is necessary but no one appears ready to devote the required intellectual, material, and temporal resources to make it work.

"Lessons" to be learned

Before leaving this review, it is appropriate to try to list some ideas that may have been learned from looking at these other models and that should be considered in the conceptualization of administrator preparation programs.

1. All professions face the problem of preparing practitioners for immediate application of their skills while at the same time instilling a sense that learning is going to have to continue throughout one's work-life. This is part of being a professional.

2. Apprenticeship training was the original preparation model existing even before the printing press and before the university. Law and medicine have waffled on the practical-theoretical argument. There are some lessons to be learned from their experience and it is not as simple as saying "have more internships."

3. Medical education improved when the notion of a required body of knowledge was accepted and standards were applied to
assure that graduates of medical colleges had the requisite knowledge.

3. There is a distinction to be made between clinical education or training and field-based learning. The clinical model implies that there are performance skills that are being learned and practiced. My suspicion is that most administrator preparation programs are lacking a clear delineation of the clinical skills to be learned and demonstrated. Field-based learning could but need not be clinical in mode. For example, gathering information regarding administrative practices is not clinical performance even though it occurs in the field.

4. The preparation of lawyers and doctors is an extended process that includes some demonstration of an acquired knowledge base and, more so in medicine than law, a demonstration of performance under the direction of clinical professors who are also practitioners. This is then followed by internships not under the control of the university and then some kind of specialization. Educational Administration preparation programs bear little resemblance to that model.

5. There is a socialization process into the profession that takes place through the preparation programs. The example of this is the concept of “rounds” as used in medicine. Other places where this occurs is in the approved intern positions, preceptorships, and the use of group methods in clinical education.
6. The other professions appear to be much involved in the admission procedures, board examinations, and the setting of standards. There is some movement among administrator associations in the direction of taking interest in administrator development.

7. There is need for research on the education of administrators as well as research on effective administrative practices. The number of research reports on the medical education that tested certain assumptions or models was impressive. If dialogue regarding improving preparation programs is going to be more than sharing problems and advocating untested solutions, research in this area is essential.

Perhaps in the preparation for the 21st century, professors need to try to practice what we preach and be leaders of change so the educational institutions will have the leadership to improve the human condition.
Table 1

Number of references involving field based learning in five professional areas, 1966-78 (August)

<table>
<thead>
<tr>
<th>Professional area</th>
<th>No. of items Alone</th>
<th>No. of items With FBL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medical Education</td>
<td>4173</td>
<td>80*</td>
</tr>
<tr>
<td>Legal Education plus Lawyers</td>
<td>1612</td>
<td>17</td>
</tr>
<tr>
<td>Engineering Education plus Engineers</td>
<td>3250</td>
<td>23</td>
</tr>
<tr>
<td>Nursing Education plus Nurses</td>
<td>1423</td>
<td>11</td>
</tr>
<tr>
<td>Architectural Education plus Architects</td>
<td>191</td>
<td>0</td>
</tr>
<tr>
<td>or Architecture</td>
<td>1203</td>
<td>3*</td>
</tr>
</tbody>
</table>

* = total of 142 references

Field based learning or training includes internships
Bibliography


Dareth, John C., Gallagher, Karen, and Balmores, Nestor. (1987) Annotated Bibliography on the Use of Field Experience to Train Educational Leaders. Project paper of UCEA Center on Field Relations in Educational Administration Training Programs. Cincinnati and Columbus, OH.


