The education of teachers is presently accomplished in a haphazard and fragmented manner. Students are generally required to take course and field experiences which are individually pertinent, but courses lack unification and are divorced from the realities of schools and children, and the field work all too often lacks the theoretical support and feedback necessary for the development of competent professionals. In order to unify and integrate the teacher preparation experience, (a) the development of attitudes, skills, and understanding needed by a professional teacher must stand as the goal of the entire program; (b) theory and practice should not be academically separate but integrated particularly in the realistic setting of schools, pupils, communities; (c) teacher developmental centers should become the locus of the major portion of a student's learning experience; (d) experts in all the relevant disciplines should be communally involved, operating as teams with a common student group for a significant length of time; (e) the critical field aspects of undergraduate programs should be pursued intensively, with a minimum of the equivalent of two semesters; and (f) the undergraduate and graduate programs leading to the two prevailing levels of teacher certification should be planned and operated as a whole, and experienced by the student as an integrated unit. (HMD)
Teacher Education, as with much of institutionalized education, follows a cookbook principle—predetermined measures of ingredients are added seriatim, and out of the mixture, baked in the oven of student or apprentice teaching, allegedly emerges a teacher. Unfortunately, the cake, or teacher that results, may or may not be properly baked, depending upon the quality of the final process of using or baking all the ingredients, but more crucially, unlike the cake, which gets eaten with its effects being hopefully transitory, from temporary well-being to indigestion, the teacher continues on and can be expected to change, develop, or deteriorate in his effects on his/her clientele for a professional lifetime. Thus the flour, sugar, spices, flavoring, shortening, which constitute the course and experience ingredients in the preliminary baking of a teacher never finally determine what the teacher will be and do five years, ten years, or twenty years hence. All we really base our stamp of approval on, through the attainment of a teaching certificate earned in a state approved program of certification, is the completion of a stated number of ingredients in the recipe—four measures of psychology, three of methods, three of foundations, four of student teaching, a generous helping of liberal arts—the proportion depending upon the cookbook (college) that is used. But we are fond of maintaining stoutly that the result is only a "beginning" cake (teacher), thereby
relieving ourselves of responsibility for what happens later. Then, if the beginner comes back to us for his mandatory graduate study to become finished (or finally certified) we add some more ingredients, usually on the outside, like icing which doesn't have to be baked in the crucible of experience, and the "finished" product results, soon to achieve tenure, which relieves it of becoming accountable for the possibility of becoming stale.

But teachers aren't like cake, or bread, you say, and it takes more to develop into a dynamic, growing, effective teacher, than to be exposed to pre-packaged learning units, master them temporarily, and then be considered completely formed, without more than passing regard to the continually changing circumstances and needs that beset any true professional engaged in guiding human development and behavior. Agreed, as any even moderately effective textbook on the principles of education will emphasize, but the agreement, sadly enough, is on principle and not sufficiently embodied in the prevailing process of formal teacher education. True, teacher education is thereby following and falling in line with some of the most damaging assumptions underlying much of higher education, particularly the largely unliberal liberal arts. What is an educated man we ask? By looking at the requirements for a B.A., the mark of a student who allegedly is preparing for life and not a living (as outrageous a canard on the motivations of the young people of today as can be imagined), the prevailing cookbook recipe becomes apparent—so many measures of literature, composition, social sciences, natural sciences, foreign languages, physical education, and among the lingering
old-fashioned, a dollop or two of the classics, and an "educated" batter emerges, not even baked in the oven of unifying experience as in education for the professions, inadequate as that may be.

Common to this institutional fragmentation into discrete courses, which are taught as entities in themselves largely because the professors are specialists who have made a career of and been rewarded for their competence in depth of their specialty, is the assumption that the student will make the connections, integrate the parts into usable wholes, apply them in the day-to-day conduct of his profession, and emerge, largely unaided, except by his own genius, as a complete professional.

No assumption rests on more treacherous foundations.

Whatever evaluative research has been done on the effectiveness of teacher education programs, quantitatively impressive but most frequently based on retrospective testimony sought from its recent graduates, generally favors those elements like student teaching and other guided field experiences far above the much maligned "education" courses which are almost universally condemned as being irrelevant to the daily demands of teaching. Others, numerically fewer, ascribe a much more significant influence, good or bad, to the advice of colleagues, sympathetic teachers for the most part, and to a significantly lesser extent school supervisors, than the remembered preparatory course work and experience in the formal teacher education program. The weight of this voluminous evidence, though much of it is admittedly intuitive and based on testimony and hardly "scientific" in the accepted sense, gives programs for the preparation of beginning teachers generally low ratings, at least in eyes of those who survived
them and those who were faced with the consequences of their first attempts at being beginning teachers, particularly in inner-city urban school systems.

In rebuttal to the above, one must acknowledge the many largely government and foundation sponsored experimental ventures of the last two decades designed to improve and redesign teacher education, particularly for disadvantaged populations. Many of these were and are admirable in conception, far-sighted, highly professional, and even idealistic in the best sense. (The several colleges of City University of New York have made and continue to make many noteworthy contributions toward this experimentation toward needed change, at least three having received national recognition through prestigious awards.) But as one reads the mountains of reports and analyses of these efforts, one is struck by several disturbing characteristics which most, if not all, have in common:

1. Each of these programs, for the most part, involves significantly small numbers of students and professionals. It is probably true that all of them together in any given year fall short of equalling the output of beginning teachers produced by conventional programs of one large urban public teacher institution.

2. The overwhelming majority of these efforts require funds considerably beyond the prevailing support level of teacher education.

3. While such start-up funds for experimental and pilot ventures are eminently justified, and usually beyond the resources of institutions that must continue to carry on their regular programs, there is an inevitable exhaustion of the horn of plenty, and the expectation that the lessons learned carry over into the program.
of the university under funding un-supplemented by grant bounty all too often falls by the wayside for lack of support.

4. There is precious little evidence, at least to judge by the literature in teacher education, which has never suffered from a paper shortage, of a lasting institutionalized effect of these experimental projects. With some of the more recent, and on paper at least highly promising, it is too early to tell, but it must be admitted that on the whole the picture is bleak, and teacher education is far from achieving the revolutionary changes that so many of our leaders in the field have been demanding for so long.

Of course, there are many reasons for these fundamental shortcomings—the expectation to conform to restrictive academic conventions inappropriate to professional programs traditionally relegated to minority status in comprehensive institutions, certification and accreditation requirements often interpreted as restrictive and prescriptive (particularly by those who find comfort in the status quo and threat in change), financial restrictions (somehow good new ideas always seem to cost more), congenital lack of commonality in outlook, philosophy, responsibility, and appreciation of the need for coordination between schools and universities on teacher preparation, evaluation, and program development, (Universities: "We prepare teachers for schools as they should be." Schools: "We want teachers prepared to function in the schools as they are."). The list can be augmented almost indefinitely, but however they are stated, and however much truth they represent, reasons are not justifications, particularly if pressing needs for effective change outweigh the not-happily past emergency teacher
shortage which encouraged preparation in quantity in the shortest possible time span at the expense of quality attainable only after gradual maturation in training and correlated experience. We have, therefore, in the bulk of our efforts affecting the majority of our future and in-service teachers made do with piece-meal, fragmentary efforts, intimidated by the deadening weight of academic conventions which required teacher education to conform to patterns of higher education that grew historically out of largely non-professional needs (not that these themselves are fulfilled by present academic practices!), intimidated, as well, by a rewards system for training practitioners which tended, with few noteworthy exceptions, to judge them for advancement by standards often inappropriate to their professional function, leading to the assignment of the most crucial elements of teacher education—the guiding of developing teachers in realistic school situations—to junior, even part-time adjunct professionals, while those interested in advancement followed the familiar academic advancement path of meeting classes—as few as possible—in an academic environment divorced physically and psychologically from children and schools—and using the time thus saved to engage in the traditional activities like scholarly "research" and publication without which academic advancement is well-nigh impossible or moonlighting in other institutions for extra pay, or conducting other private professional ventures. One sometimes comes to the impression, extreme though it may well be, but nonetheless based on significant reality, that no first-hand knowledge of, and no continuing experience with schools, is looked upon less as a handicap, but incredibly even as a virtue by large segments of our
university-based teacher education profession, particularly among those of highest rank and influence.

This is not to say that individual courses cannot and are not at times extremely effective, that the professional guidance given to prospective and in-service teachers is not often extremely effective regardless of the academic standing of the supervisor and seminar leader. Nor can one fail to acknowledge the effectiveness of the many efforts, notably teacher education programs within City University, to relate university classroom discussion to correlated field experiences both in schools and in the community, by various combinations of direct experience, observations, participation, and such valuable vicarious adjunct experiences as observation of video-tape, film, and discussions with guest informants.

When such multi-experience programs are properly coordinated, so that what is seen, read, heard, and directly applied in some form of teaching, is brought together in influencing the professional growth of each student, they are meaningful. If, on the other hand, as tragically happens all too frequently, the experiences remain largely unrelated to what transpires in the college lecture or discussion, whatever student growth is achieved, minimal at best, is purely accidental. Such indispensable coordination can only be achieved if all the professionals involved plan, work, and constantly keep in communication with one another. In large institutions like at City University, where multiple course sections are the rule and not the exception, where several professors, teachers, and supervisors in the field will be dealing with many students in a variety of hopefully planned field experiences, the needed professional
coordination cannot be left to chance, it must be planned and carried out within habitual modes of communication. Therefore, the professional courses that within the programs of City University are becoming increasingly enriched by field experiences, can be experienced and learned from as coherent wholes, rather than disparate, fragmentary components, only if they are consciously planned and carried out as such, with all the required professional teamwork indispensable to their success.

Even more disastrous is the danger that the various sequential courses and experiences that make up a program, even though on paper they seem to follow a logical and graded pattern, rarely, in practice, operate as an integrated whole, unified within the experience of the student. As a result, duplication among content, field experiences unrelated to one another and finding acceptance more often as service to the school or agency with only accidental, unplanned outcomes in learning, the resentment by students of the greater proportion of time spent per credit than in conventional college courses, the toleration at best and the resentment at worst of needed cooperating professionals in schools and community agencies, but most of all the lack of realization of personal growth and competence as a professional teacher by the student become a constant, ever-present danger.

Again, the causes of such program malfunction are not difficult to find, although one would be hard put to defend them as being justified by circumstances. The great numbers of students and the large professional staffs needed to guide their learning in an urban system like that of City University is nothing less than staggering.
During the last two years the number of student teachers from CUNY averaged more than 3000 per semester. When one considers that at least a corresponding number of cooperating teachers will be actively involved with up to a thousand university professionals, one must conclude that the proper coordination of effort of as many as seven thousand students, cooperating teachers, and university personnel is indeed a formidable problem. The problem of size is further amplified when one considers that the student population preparing for teaching is by far the largest single professional interest group within the senior units of the university, varying from a low of 30% to a high of over 50%. Inevitably, wedded as we are to academic conventions, this all too often results in a student being known marginally and fractionally by many professors, and most likely lastingly known by none. Similarly, because of the large professional staff required—Departments or Schools of Education within City University are usually among if not the largest professional group within the senior units of CUNY—it is rare for any professor to have the opportunity of knowing any of his students really well, and if he does, rarely for more than one semester.

Compounded by the problem of size, but not necessarily its product, is the growing tendency of large Departments or Schools of Education to separate into smaller units along traditionally "disciplinary" lines—"Foundations," "Curriculum and Teaching," "Special Education," etc. While such separations may have political advantages in a college in which Personnel and Budget Committees are organized along senatorial lines—"Classics (Rhode Island) has the
same number of votes as English (California)—they further exacerbate the already existing difficulties of communication among professionals in politically separate but functionally related disciplines. (In addition, they increase the cost of administration, which faculties consider non-productive in any case.) Only in academia are the purveyors, users, and extenders of knowledge compartmentalized along lines that are usually vestigial remnants of another age. Certainly in that much maligned life outside of the musty shelter of ivy, organizations much more often follow needs and are project- and problem-oriented, requiring the working together of professionals with different but functionally complementary backgrounds of skills who stay together for the duration of the need or the project, and subsequently disperse into other affinities of necessity. Only in a University can the specialist in human development and learning function largely unchallenged in separation from the specialist in teaching methodology, or the specialist in social foundations of education and the specialist in school administration find little reason to collaborate professionally, as indeed the political scientist and the historian will battle to the death over jurisdiction over a course on the American Presidency.

Whether the result of design or tolerated circumstances, one of the primary reasons for the fragmentation in the student's development and self-realization as a professional is this preoccupation of his mentors with their own specialized interests with its resultant tendency not to appreciate the necessity of communication and cooperative planning and collaboration with his colleagues in
matters that affect directly the development of the students they share. A sequential teacher education program should not be the sum but the product of its parts, with each element not added to but integrated into the whole. While the organization of the contributing professionals into political rather than product- and project-oriented units will not necessarily by itself prevent the development and conduct of such a unified program, it will certainly make it more difficult to realize.

It is pertinent to note that by far the most honored and successful of the many experimental programs in teacher education nationwide and indeed within City University in the last decade required the working together of inter-disciplinary teams of professors, teachers, and resource persons with relatively small groupings of students, thus achieving a communal unity and coherence that is almost completely lacking in the fragmented piling-up of discrete courses and experiences under the equally fragmented leadership of non-communicating professionals each committed to his own small portion without planned reference to or direct coordination with the contribution of his colleagues that characterizes the "programs" passed through by the great majority of teacher education students in the large urban university.

However, these dangers of fragmentation, lack of cohesion, and integration within the experienced professional development of each future teacher in programs leading to a beginning teacher's certificate pale into relative insignificance when one notes the almost universal separation of pre-service education from first level graduate in-service "culmination" training leading to permanent
certification, and of both to the continuing need for further development of the career teacher.

It is generally recognized, and supported by many studies, that the first years of a teacher's service are crucial in the teacher's development, and indeed in his remaining in the profession, far more crucial, it is maintained, than the pre-service training. Yet City University, with consistently more than half of the new appointments in the New York City public schools products of its own teacher education programs,* does no follow-up of any consequence designed to assist the beginning teachers in the area they require assistance most, IN THEIR DAY BY DAY PERFORMANCE IN THEIR SCHOOLS, PARTICULARLY IN THE CLASSROOMS. Yet if there is any rationale at all underlying the five-year training requirement leading toward permanent certification it is the necessity for a coordinated continuum of training that will build teacher competence gradually through planned, coordinated, graded experience and integrated study with the help and supervision of professionals. Teacher education at CUNY, as with most other comparable institutions, has preferred instead to follow the academic tradition of non-professional higher education—a separation of undergraduate and graduate programs with little cohesive interrelationship, no sense of an orderly continuum, and certainly no experience by the student that one not just follows,

* Of the 50,753 teachers employed by the New York City public schools between 1961 and 1967, 26,851 received their baccalaureate degrees from a CUNY college. Although more recent statistics are not readily available, there is no reason to doubt that the proportion has not at least been maintained in subsequent years.
but is built upon the other. This separation is compounded by the fact that the accreditation standards applied to the CUNY senior units, geared to the academic traditions of the liberal arts (which are as badly out of countenance with modern realities as they are for professional education) encourage, even require, separation between graduate and undergraduate in faculties, control, standards (ostensibly higher for graduate, but in the experience of many students actually lower), faculty load, and a whole host of additional caste distinctions which have their best counterpart in the distinctions between first-class and economy class in air travel except that at least in travel both classes reach the same destination at the same time.

The problem, therefore, is two-fold: 1. Providing a continuum of graded and coordinated learning experiences embracing both pre-service and the first, crucial in-service years of the developing teacher, and 2. Including in the years of in-service development coinciding in time with graduate study, emphasis on guided growth in the teacher's performance as a professional in the position he or she holds, as part of the beginning teacher's graduate study.

There are problems, of course. In the first, what of the student who comes to graduate study in one institution from undergraduate study in another? At the present, unfortunately, it doesn't seem to make much difference educationally, and geographic and other considerations of convenience determine the student's choice. However, if there were programmatic features of graduate study which made it professionally desirable for the student to continue training in a
program that was coordinated and grew organically out of his undergraduate experience in content, experience, and professional personnel, many more students, particularly the great majority of CUNY teacher education graduates who accept appointments within the New York Metropolitan area, would choose to continue in the program whose first phase they completed as undergraduates. For those who for a variety of many reasons choose to enter a graduate program not part of their original professional training experience, their plight would be no worse than it is now for substantially all teacher education graduate students. In fact, it might even be far better if the graduate program chosen is closely related to their own present professional development and provides assistance in the practicalities of their service as beginning teachers, correlated with further development in their cognitive, conceptual, and affective development as maturing professionals.

In sum, then, with respect to graduate study geared to permanent certification and the development of the beginning teacher to an acceptable level of professional development, two conditions would seem to be of paramount importance—1. The organization and programming of the total teacher education sequence as a continuing process of graded and interrelated study integrated within the students' growth in knowledge, power, and that exceedingly complex of competencies required of a teacher guiding learners, and providing practical and realistic opportunities for observation, participation, and guided teaching activities culminating in recognized, full-fledged professional practice, and 2. Provision for an unbroken continuum of study in each teacher education institution, disregarding
the traditional distinctions and experiential gaps between what is traditionally considered undergraduate and graduate, even if it means, and hopefully it will, that professional programs be allowed to divest themselves of the inappropriate academic trappings of the dominant non-professional majority.

The life of a critic is far easier than that of a playwright. To judge is simpler than to create. To decry what is comes more naturally than to suggest and help to build toward what should be. Satirists and night club comedians glory in the former and are honored, a Socrates tried the latter and had to drink the hemlock, and a Jesus was crucified. Having neither the wit to successfully commit the former, nor the fortitude, nor indeed the inspiration and self-abnegation, to invite the latter, this writer will endeavor to steer a course safely in-between, by making certain suggestions, some of which are already within the programs of City University, though at most on a small scale, and some in germinal tentative form, and which may (the emphasis will have to be on the level of possibility rather than certainty) upon further study be within the human and financial resources of City University and the schools it serves in its teacher education programs. It should also be emphasized that contrary to the rigid precepts of much doctrinaire educational theology, there are and had better be many paths to attain heaven, while the specific paths or forms may differ, there should and can be agreement on the basic virtues to be attained.

One of the most useful features of the competency or performance based teacher education movement, verbiage-ridden to the point of incomprehensibility though it may be, is its emphasis on professional
objectivities and accountability for their attainment. The most promising of these program attempts endeavor to determine the competencies needed by the teacher at various stages in the developmental project—the beginning teacher provisionally licensed, the experienced teacher permanently licensed, and the teacher in-service needing additional assistance as conditions change or seeking training toward specialties like guidance and school counseling, administration, etc. In other words, you determine the results desired, behavioral, cognitive, attitudinal, etc., at several stages of development, and design the programs accordingly. Less promising, to this writer at least, are the attempts to define courses and experiences that already exist in terms of their objectives in the development of specific competencies, and improve each of them accordingly, most often in either content or organization into contractual "modules" (whatever became of the unit?) or both. Whatever means are used, however, the unity of any program of teacher education can not be achieved unless it is goal-centered and unless these goals—all centered about the effectiveness of the teacher as a competent professional—pervade the entire program, are committed to by the professional staff, and above all are experienced and appreciated as such by those who are the direct beneficiaries, the teacher education students. Furthermore this process of designing toward professional goals must be a continuing process, not one that is engaged in once for each program and then laid aside until the next round or until certification and accreditation imperatives decree its necessity. Conditions in schools, the communities they serve, the nature of the future and present professional population, to mention
but a few key factors are in a constant process of change and
development necessitating corresponding adaptations in programs. In
addition, the experience and appraisal of those engaged in the
program itself, and in particular the professional performance of
those who are its products, provide a continuing basis for change.
(The current literature in teacher education obscures the meaning
of this process by naming it "feedback loops." Therefore, built
into a unified goal-centered program is a continuing process of
evaluation by all those engaged in it, and the necessary flexibility
to enable the indicated adaptations and accommodations to be made.
No course, no experience designed for learning can be allowed the
luxury of justification by its own existence alone in a professional
program. It must be judged in the final analysis by the degree and
the quality of its influence on the growth of the developing
professional. In addition, it must be recognized and accepted as an
underlying characteristic principle of the learning-to-teach process,
that the development of competencies is a cumulative and integrative
process rather than the addition of discrete one-time guided study
and experiences. One does not learn teaching competencies exclusively
by taking a course in "methods" (sorry! "intervention strategies")
but a continuing, hopefully upward mobile process of development that
cannot be encompassed in a single course, or a series of discrete
courses comprising a fraction of one's professional program.

A major stumbling block is the inability or more accurately
the unwillingness of professionals to agree on how teaching ability
is to be measured. The ominous present danger is that with this drive
toward accountability only those competencies that are readily
(or "objectively") measurable will be given precedence in any competency-based program, while those qualities that are less readily measurable in quantitative terms are neglected. Broudy of Illinois has repeatedly made the point that the most critical qualities of a teacher, he calls them philetics, "love, or securing rapport with pupils", are not precisely measurable. In fact, it has become fashionable for certain segments in the teacher education profession to protest with a great display of virtue that it is impossible to agree on the qualities that make a good teacher, and therefore judgment is impossible. If that is so, one wonders what we have been doing all these many years, and so I am afraid are the public and its elected representatives beginning to wonder. The trouble is that we are wedded too strongly to either a narrowly defined objective measurement concept which attempts either to apply "objective" statistically bound methods to that most complex of phenomena--human behavior and interaction--and thereby demeans and constricts the art that is at the core of teaching to the level of the technician, or by recognizing the complexity of the problem, throws up its hands and takes refuge in the escape that since teaching cannot wholly be described in objective terms, it is immeasurable, and therefore all critical judgment is suspended and everyone gets tenure. Either route is fatal in its consequences, for judgments must be made. In any case, objective measurement is applicable to only a limited extent, that is, where it can be applied, but judgment can be compounded of many measures, objective, impressionistic, yes even non-rational feelings. It often comes as a shock to realize that student judgment of teachers hits the mark
so overwhelmingly whenever it is sought. Somehow, the good teacher always manages to get identified as such, as does the routine journeyman, and the one who is miscast in the profession. We should not, therefore, be inhibited in developing goal and competency oriented programs of teacher education by the difficulty of measuring attainment, nor, worse still, confine our program to developing those competencies which can conveniently be measured "objectively."

The final report of the Higher Education Task Force on Improvement and Reform in American Education (HETFIRE), Obligation for Reform, chaired by Dean Denemark of the College of Education at the University of Kentucky, and just published by the American Association of Colleges of Teacher Education, recommends in the strongest terms that central to programs of teacher education should be the establishment of Personnel Development Centers. While it skirts the issue of stating what the locale of such centers should be, it does imply strongly in its requirement that these centers would be the place where children, future teachers, university professors, school personnel, should work together toward achieving common outcomes, that the schools themselves would most often be the logical and inevitable locale. The task force further suggests that these centers have their own budgets, boards of control that would include representation from the university, the professors, the school personnel, the students, the community, and the applicable government agencies, and would provide a "teacher training that is a continuous process beginning at the time an individual decides to become a teacher and continuing until he retires from the profession."
The colleges of the City University who have programs in teacher education have long engaged schools in almost every conceivable form of collaboration, though considerably short of the proposals advanced by HETFIRE. This collaboration runs the gamut of direct and exclusive affiliation of the "campus schools" variety—the Hunter College Elementary and High School, and the Early Childhood Centers of Queens and Brooklyn Colleges—to the casual use of schools for class and individual visits and student teaching without any direct involvement in the program or conduct of the schools themselves. In between there have been and continue to be various intermediate college-school involvements, particularly at the semi-formal "affiliated schools" level, in which college and school personnel have developed continuing professional relationships in the interests of developing competent beginning teachers. In such arrangements, the opportunities for school-college collaboration are enhanced by the willingness of college personnel to spend time at the school not only for supervision of student teachers but to act as resource persons for school program development and to work actively with school personnel on joint program ventures, and by the willingness of school personnel at both teaching, administrative, and support levels, to welcome such collaboration. Such opportunities are inhibited to the degree that college personnel spend minimal time at the school, leaving the responsibility for working with future teachers on site largely to the teachers in the school with little effort at coordination and collaboration. (The recognition afforded cooperating teachers by giving them "clinical" or "adjunct" status and affording them the opportunity of taking graduate courses without tuition, is
no guarantee by itself of achieving desired collaboration. Indeed it may tend to have the opposite effect by encouraging some college personnel to feel less responsibility for being and working at the school.)

Each of the City University teacher education units have developed "affiliated" relationships with some schools, largely on the elementary and intermediate school level with varying degrees of success. Several have received grants to develop integrative experimental programs for teacher education that are centered in selected schools and that in several cases represent genuine cooperative program planning, not only for teacher education, but for the school program itself. All the units within City University are endeavoring to become more and more field based; one college is endeavoring to locate the bulk of its program in carefully selected schools, but typically its reliance on increased regular budget funds, only a fraction of which were granted, has materially reduced the scope of its initial plans. But in spite of the existence of these few special affiliated school-college programs, and in spite of the fact that no undergraduate teacher education student working toward certification can complete his program without direct involvement with schools and children and teachers in observation, consultative, and teaching experiences, the great bulk of these experiences for the great majority of the future teachers involved, not being part of a genuinely and actively collaborative effort on the part of school and college personnel working together except on an extremely casual, non-planned basis, fall far short of achieving even a fraction of their potential, if any at all. This is, of course, one major cause
of the fragmented, un-coordinated patchwork of training elements as experienced by such a large proportion of our teacher education students.

It is encouraging indeed to note that the new Board of Higher Education and the Central Board of Education in its recently adopted blueprint for increased collaboration between the public schools and the CUNY colleges, includes teacher education with the strong implication that efforts will be accelerated to establish greater and more intimate collaboration between selected schools and the colleges in establishing teacher education centers, under, hopefully, joint sponsorship and control.

When properly conceived, established, and conducted, such centers can well provide a strong unifying and integrative force in a student's development as a teacher. However, certain inescapable conditions must be met:

1. There must be coordination between the program of college study and the direct experiences of the student in the school setting—observing, serving, and working with children and teachers at the school. This means that the college professor must have direct and continuing knowledge of the school's program and the school personnel involved, the children served and the nature of the community in which they live and its cultural, social, and economic characteristics, and similarly, the school personnel should have direct and continuing knowledge of the college program of which the school is a part. This means, obviously, (and what a radical idea it still is to some), that the professors of educational psychology, of curriculum and teaching methodology, of human relations, of educational sociology, to name
but some that should be involved, should live some of their time at the school in contact with children, teachers, administrators, parents, and the community served. In this connection, a trend is developing within CUNY to actually hold college classes in Education in schools. However, this change of locale to school from college campus, unless it is actively used to facilitate application of theory in practice and the derivation of theory from practice, thereby facilitating the integrative development of the student, can have little effect on him except the discomfort of enduring seating not designed for him. In other words, if the school can truly become a laboratory directly serving the program, it can well become its major locale, if not, little can be gained.

2. For a teacher development school center to fulfill its function at all, the collaboration of school and college must extend to the mutual acceptance by each agency of the professional personnel involved. While this condition is becoming more and more recognized, it is rarely, very rarely fulfilled. But little is gained, and possibly much lost, without such mutual acceptance. It has been demonstrated time and again that the observation of bad or indifferent teaching at the school, and the supervision and course leadership of inept professors does more harm than if the student skipped them altogether. But even if it is not a question of quality, but a significant difference in concepts and methodology, little is gained if the college teaches the desirability of one way and the observed teacher practices another.
If such mutual acceptance is achieved, involving when necessary the assignment by both agencies of teachers, administrators, and professors acceptable to both in the conduct of the teacher education function of the school center, a true laboratory facility can result, with the possibility of creative college and school programming, and the recognition and fulfilment mutually of accepted objectives, using and developing the resources of the college, the school, and the community in concert.

3. Such close organizational and functional relationship should help to weaken the schools-as-they-are vs. the schools-as-they-should-be conflict that so often characterizes, often mistakenly, the opinions of school toward college and college toward school personnel. At the level of school practice, the culmination of teacher education, it should be possible under such an arrangement to bring the realities of the day-by-day imperatives and progressive theory and ideals into a working relationship, so that the tempering effect of one and the ennobling effect of the other can result in a viable product.

4. It seems to be clear from the experience gained by many experimental programs centered in such so-called "portal" schools for teacher development, that funds beyond those conventionally needed for traditional college and school programs are considered a necessity. The most successful of these efforts within City University benefited from the bounty of additional funding, whether from outside or internal sources or a combination of the two. One of the City University colleges proposing to convert its entire
teacher education program to a field-based organization, has made a study indicating the need for significant additional funding. Perhaps now is the time to make an objective analysis of teacher education funding needs at all levels, and for all program types. It should be recognized that this is no longer, fortunately perhaps, a matter of grantsmanship, or even exclusively of seeking additional funding above the present base, but should involve as well the possibility of redistribution of what is presently available and making better use of existing resources. This study should include both college and school funding.

The Denemark NETFIRE Commission Report, alluded to earlier, goes far beyond the recommendations above, particularly in the matter of policy control and program participation, to include not only the University, and the school personnel, but also the community, the certification agencies, the parents of the children, and the college students involved. In fact, the latest "thrust" in teacher education, even more recent than PBTE, is the call to bring teacher education away from the exclusive province of institutions of higher education, into a shared professional enterprise with active participation of those who are its product, certainly, but also the public at both governmental and citizen levels.*

From a philosophical point of view grounded in the ideal of

* Why is it that our professional literature is increasingly making use of vocabulary derived from the martial arts? Thus "thrust" once seemed more appropriate to fencing, "strategy" to the planning of military campaigns, and "intervention" to the methods of police in cutting riots.
participating democracy, such wide participation in publicly supported teacher education is difficult to fault. From a practical, operational point of view, as any one can attest who has tried, it is fraught with at least as many problems and frustrations as achievements, particularly in culturally and socially heterogeneous urban communities, and most particularly in the inner city. The experience of the TTT programs within City University and elsewhere that featured active community involvement can attest to the great difficulties of communication, the hostilities among groups with differing cultural backgrounds and aspirations, the lack of staying power and perseverance of many original participants, and the almost limitless time- and energy-consuming nature of such involvement by all concerned. To a lesser degree, but significant nevertheless, are the problems of wide professional participation—professors, teachers, students. Meanwhile, the business of teacher education must go on, and cannot wait upon the achievement of consensus at every step of the way. The exercise of participating democracy in an educational enterprise is not of and by itself necessarily a virtue, since the program should be judged by the kind of teachers it produces, not by the process and methodology of its controlling power structure. In any case, in this broadening of professional and lay involvement in teacher education, particularly in the operation of teacher development centers, constant vigilance must be exercised against power struggles, and the deadening weight of endlessly prolonged decision-making procedures and the piling up of yet another set of bureaucratic impediments. This is not to say
that involvement of professional and lay elements outside of the
university should not be attempted as a desirable goal. As a rule
of thumb, one might suggest that those directly involved—professors,
school personnel, and teacher education students—should be the first
target in seeking to expand their community of interest and function
into one of shared responsibility for decision-making. The parents,
the community and its leaders can become involved gradually as the
nature of their participation and their interest is explored in the
context of the educational objectives of the program. Much will
depend on the nature of the community, the school, and the college
and the experience and aspirations of each. Therefore, it would be
a mistake to seek a common pattern of organization and modes of
participation and responsibilities of the various contributing
elements for each center. In the last analysis, the final and
over-riding criterion is a pragmatic one—what works best.

Another problem contributing to the fragmentation of teacher
education is the inappropriateness of the traditional scheduling
practices at the college for a viable teacher education program.
It may be appropriate to schedule a course in history in 50 minute
segments meeting on three different days a week (although there are
many who have long doubted it), but it is certainly an impossibility
to wrestle all but a few elements in a teacher education program
into such restricted micro-molds. In this respect, teacher education
is far more comparable to laboratory and studio scheduling that
require large blocks of time and both extensive and intensive immersion
in the many variegated modes of study and development—observation,
workshop activities, teaching practice, consultation, demonstration, group discussion, etc. Particularly in the undergraduate program, when so much of a student's time and attention should be devoted to school experiences, the requirement that he take courses simultaneously outside of teacher education (during the favored-by-liberal-arts-professors' schedule during the morning or even in early afternoon hours, when the lower schools don't happen to be in session) makes for a situation that is certainly undesirable for the student and for his progress as a future teacher. In spite of all the compromises currently made (limiting the number of courses taken during student teaching, for example) there just is no other answer but the devoting of all the students' study time to specifically scheduled teacher education for some extended period during his undergraduate career. Many of the CUNY colleges have experimented with the professional semester, usually the last semester taken in college, but if the program for most of the students is to be largely field-based as is recommended above, an additional semester (not necessarily contiguous to the other) or some combination involving at least half-time commitments for two semesters prior to the full-time professional semester, would seem to be required, for both elementary and secondary levels. In any case, the scheduling of a largely field based, unitary program of teacher education must divorce itself from the dominant fragmented scheduling of the liberal arts.

Professional programs in teacher education are prime examples of the need for inter-disciplinary study, and the curricula of all
CUNY programs reflect that need. However, as was mentioned before, the necessary integration of this study in the future teacher's development is left largely to the student's own devices, since the system assumes that the whole (the teacher's competence in the classroom) is the sum of added-on courses. For example, if it is recognized that human relations skills are crucial to a teacher's function, the "subject" is "covered" in a psychology course, but under our present system, a psychologist rarely, if ever, monitors the student's growth in this crucial area in his preliminary teaching experience, or in fact ever after. (The so-called "competency-based" approach can lend itself, and indeed already has in some experimental programs, to the same fatal inadequacy.)

What is needed, therefore, is some way of assuring that the teacher-to-be is assured of assistance from as many of the experts as possible in the areas that contribute to development of the teaching function. The future teacher has been a student most of his life—the transformation from the role of student to the role of teacher is extremely complex and requires much more continuing assistance from a variety of expert sources than the occasional visit of a "methods" specialist, or the pragmatic trouble-shooting counsel of the teacher next door. Compounding the problem is the size of teacher education populations in the average senior institution of CUNY, and the all too frequently predominant feeling, particularly in the secondary education area, that preparation for teaching is something added on and slipped in here and there into the student's program after other educational and personal requirements are satisfied. The establishment of a full-time professional
semester or year for most of the students will assist in overcoming the latter, and has already been tried in CUNY with some success, but the former requires more drastic measures, particularly in professorial scheduling and practice. Many universities have recognized the growing de-humanization and de-personalization of programs registering large numbers of students. Of the most prevalent, and in experience the most promising development, has been the establishment of relatively small residence-based college units whose students formed a learning community with an interdisciplinary team of professionals who stayed with each group for a significant portion of their college experience. (Yale and Michigan are two of many prominent examples.) To be sure, the CUNY colleges are not residential, but in teacher education there exists in fact and in possibilities for the future a viable focus for such interdisciplinary learning communities—the teacher development school centers, to which could be assigned teams of professionals representing the major contributing disciplines and a to-be-determined number of students who would stay together in a mutually beneficial learning experience for the duration of the whole or at least a major portion of the students' professional development program.

Thus all the major aspects of teacher development would be built into a continuing, cumulative program combining group meetings, field experiences in the community, classroom observations, teachers' conferences, parents' meetings and consultations, tutoring children, classroom teaching, assistance in the many non-classroom school functions, etc., with the interdisciplinary team of professionals continually available for both formal and informal consultation,
discussion, and teaching. Thus, for example, the student's first attempts at teaching would have the benefit not only of the "methods" and "curriculum" expert, but the educational psychologist, the specialist in guidance, the educational sociologist, and of course the teachers and supervisors assigned to the team. There are problems, of course, in such a communal learning organization. First and foremost, the professional team must be a compatible team, each member of which is willing and able to plan and work cooperatively (as has been and is being done in so many experimental projects within and outside of City University), the question of how much professional time to be involved for each member of the team must be made subordinate to the desirability of the results to be achieved, ways must be found to bring the cost of such an operation within reasonable approximation of existing University resources (without, in the long pull, requiring temporary outside grants), which until it is proved otherwise, should be considered a viable probability, and similarly, the corresponding monetary and personnel investment of the school system, a necessary complement to university resources in the operation of teacher development centers, must be investigated and hopefully committed.

The first step in such a determination should be to investigate to what extent present resources devoted to professional teacher education can fulfill the new needs, through realignments, instructional economics, and more efficient instructional and administrative organization. If after such a study, additional funding may be found to be necessary, the request for additional regular support will rest on firm foundations.
Finally, there is the prevailing discontinuity between undergraduate and graduate teacher education programs and the lack of follow-up by the University on behalf of the beginning teacher in the first crucial years of teaching, a major cause of the fragmentation of the teacher's development as a professional. It is time that the entire program—pre-service and in-service—be conceived and conducted as a unified whole, and most important, that during the period of graduate study leading to permanent certification, the teacher's performance in the classroom continue to receive professional assistance under University auspices. This means that the new teachers continue to be visited in the classroom by the kind of inter-disciplinary teams of professionals who operated during the final stages of the students' pre-service program, and who will, as necessary, focus on the kind of problems the beginning teachers face. There is no reason why such performance-oriented assistance, buttressed by individual conferences, seminars, clinics, peer intervisiting, demonstrations, analysis of video-recordings of classroom sessions, should not be included in the credit-bearing activities of graduate study. It is equally essential that this performance-directed learning activity be completely divorced from the required appraisal visits and conferences conducted by school supervisors. There must be complete separation between administrative supervision and the developmental assistance offered by the University, even though, if properly exercised, the supervision of a principal or chairman should make for improved classroom skills. There remains, however, the undeniable fact, that in the former a position or possibilities of advancement may be at stake, which is not the case.
in the latter, focusing as it does exclusively on professional improvement.

This performance-oriented study, focusing on the teacher's needs for self-improvement in the classroom, and most particularly in relations with students, may encounter the objections of purists who object to giving graduate credit for such all too practical study. This is a political rather than an educational issue. (Remove politics from the University, and only learning will be left—a shattering possibility!) Since teaching has always been considered an art by philosophers through the ages, one often wonders why the defenders of the faith of Arts degrees consider it with such disdain. Even the artists and musicians have felt their opprobrium.

If a program in art and music and drama focuses "too much" on developing proficiency in the art itself, rather than studying about it, their students' eligibility for the B.A. and the M.A. is considered to be in question, and the B.F.A. and the M.F.A. had to be invented. In Education, we already have the B.S. in Ed., and the M.S. in Ed., and the M.A.T. (for those who start professional study after the baccalaureate), and we may, for political reasons, have to find refuge in such philosophically inappropriate concessions. In any case, the first obligation of a teacher education program is to be dedicated to the best possible development of superior professionals, and not to the upholding of out-moded, inappropriate, academic traditions. (Perhaps if we had kept the term "pedagogy," as old and respectable as any, as universities in most other nations have, we might have retained some of the surface respectability so endearing to the smothering ivy of academia.)
In sum, the following are some of the main suggestions offered to achieve greater unity and less fragmentation in CUNY teacher education programs:

1. The goal of a teacher education program, the development of a competent professional, should pervade the entire professionally oriented program of each student and be focused on the skills, attitudes, and understandings needed in professional practice.

2. Theory and practice should not be academically separate, but should be integrated within the students' developing experience, particularly in the realistic setting of the schools, the pupils, and the community served.

3. Teacher development centers, largely housed in schools, should become the locus of the major portion of a student's learning experience, and should be appropriately financed with university and school personnel, future teachers, parents, public officials, and other members of the community participating in their policy determination, and activities in ways yet to be explored, with no single pattern predominating, at least at the outset.

4. Experts in all the relevant disciplines should be communally involved in the program, not exclusively teaching discrete and separate courses, but operating as teams with a common student group for a significant length of time beyond the common academic course pattern, and all should be involved in evaluating and assisting the students' in their growth as practicing professionals. For example, a student should be observed in the classroom, either vicariously by videotape or "live," not just by the "methods" expert, but by the
psychologist, the sociologist, the "subject-matter" expert, etc. All the relevant professionals, therefore should be concerned with and helpful to the students' developing performance as a teacher.

5. The critical field and performance-based aspects of the undergraduate teacher development program should be pursued intensively, independent of traditional college scheduling, with a minimum of one full-time professional semester, plus either another full-time or two half-time semesters scheduled during school hours.

6. If organizational patterns inhibit team approach, they should be modified. Departments, as they exist within CUNY, are political rather than educational entities and can easily inhibit the establishment and conduct of interdisciplinary programs like those in teacher education. Other, more educationally effective organizations should be sought to achieve professional goals.

7. The undergraduate and graduate programs leading to the two prevailing levels of teacher certification should be planned and operated, and experienced by the student, as a unified whole, representing a continuum of study and growth in the student as a practicing professional.

8. The in-service graduate program should include interdisciplinary follow-up of the student's performance as a teacher, and this should be divorced from the administration supervision conducted by principals and chairmen of the schools. If the question of graduate credit for such follow-up becomes an issue, it may be necessary to seek the political solution of granting professional degrees only in teacher education. (B.A.P or M.A.P.—Bachelor and Master of Pedagogy?)
9. Proper financing of goal and performance based and field-centered programs should be carefully studied with first priority given to ascertaining the extent to which present resources—university and school system-derived—will suffice with proper redistribution, adjustment, and possible administrative and instructional economics balancing the necessarily increased outlay for new aspects. More resources may be needed, but the case for them must rest on solid foundations.

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