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The Maryvale Project; Using Clinical Teams to Improve Teacher Education.

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The State University of New York at Buffalo and the Maryvale School System cooperated in planning and developing an intensive one-year graduate teacher preparation program that provides the total sequence for certification. A clinical team (consisting of university coordinator, "in school" coordinator appointed by the school, and instructor assistant from the university staff plus cooperating teachers and others who assisted when their particular competencies were needed) was responsible for structuring and directing the learning activities at each teaching center (Maryvale school) where trainees were scheduled for four-hour daily blocks that included (1) a program of observation, practice, and student teaching developed in terms of individual student needs and (2) individual study and small-group activities for the analysis of classroom problems, individual teaching performance, and related theoretical concepts supporting educational practice. A concurrent two-hour professional seminar to relate student experiences to broad educational issues was also arranged so that teaching center personnel could participate. (Included is discussion of the general theoretical position undergirding the program and of conclusions and implications growing out of the attempts to unify the theoretical elements of professional education and to integrate the theory and practice elements.) (JS)

INTER-UNIVERSITY PROJECT ONE

PUBLICATION SERIES

THE MARYVALE PROJECT

Using Clinical Teams To Improve Teacher Education

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Introduction

How does one become a teacher? A competent teacher who challenges students and incites an interest in learning? What is it that determines the success which will result from a teacher's efforts? And most importantly, how can individuals be prepared most effectively for this important profession?

These are some of the questions that have plagued those interested in teacher education throughout its history. They are questions to which continued efforts must be addressed in order to ensure progress in the profession. Although it is unlikely that conclusive answers will ever be provided, it is imperative that constant analysis and investigation be directed to these issues and that innovations in current practice be undertaken and evaluated.

Consideration of problems involved in such questions and the need for radically new designs in teacher preparation which have promise for pointing new directions in the profession led to a unique program conducted by the School of Education, State University of New York at Buffalo, and the Maryvale School System, Cheektowaga, N. Y. This is a program encapsuling a multitude of unusual features, all of which are directed toward the effective preparation of teachers. Though these features will be discussed in detail later, a brief enumeration at this point will emphasize the magnitude of the innovative efforts that are woven into this unusually significant operation.

1. Public School - University Cooperative Efforts. This program was designed through the cooperative involvement of teachers and administrators in the Maryvale School System and teacher education officials of the State University of New York at Buffalo. All planning activities involved members of the school system as well as University faculty and the instructional processes were directed through the close cooperation of school and University participants.

2. Use of School, Community, and University Resources. Through the cooperative pattern of operation, it was possible to bring to bear upon the instructional experiences in the program, the total resources of the school system, the school community and the University. Descriptions of the variety of activities included will make apparent the tremendously broadened dimension to the preparation of teachers that this has afforded.

3. A Clinical Team Approach to the Instructional Process. The clinical team has been used effectively for improving the preparation of professional workers in many areas. In very few instances has it been applied to programs of teacher preparation however and in no other circumstance has the idea been incorporated into the pattern of operation that was in this case developed. Not only was the team itself uniquely constituted, but its commitment was expanded to embrace dimensions not usually included in the clinical teams' operative province.

4. Student-Faculty Planning. Student-teacher planning has long been a theoretically propounded procedure for effective instructional effort. However, few instructors find the time or have the inclination to explore its full potential or to apply the concept to its fullest. To attempt such practice in the context

of a unique operation involving a variety of unusual features, appeared complicated to say the least. To have it flow into a smoothly working pattern of operation broadened the scope of activity tremendously.

5. Unification of Theoretical Elements Basic to Teacher Preparation. Many attempts have been made to bring into a comprehensive focus of integrated construction, the various elements basic to an understanding of the teacher's function. In fact, the program of State University of New York at Buffalo has long reflected one of the most successful of these efforts and has served as the foundation upon which this program was constructed. Here again a new dimension was added as this integrated theoretical approach was oriented through actual experiences in the classroom activity.

6. Theory-Practice Coordination. One of the primary features of this project was the overwhelming success of efforts to coordinate the various aspects of the total teacher education experience -- especially the bringing together of elements commonly considered theoretical with those of a practical nature. This was done through "block scheduling" of experiences, through developing "theory" sessions in the school when these were called for, and, most importantly, through direct and concentrated attempts to develop theoretical emphases out of experiences with which the teacher preparation students were confronted in their actual instructional commitments. This was not an "on the job training" approach. It was rather an effort to use the practical experience of on-going instructional circumstances as the basis for the exploration of those theoretical elements foundational to effective instructional activity.

7. Flexible Programming of Instructional Elements. Clearly different from commonly accepted practice in institutional operation, the program of activity was designed with complete flexibility. Rather than class periods in ordinary University and Public School style, students were scheduled for a block of four hours daily in the cooperating center. Within that block of time, classroom experiences were scheduled as the basic ingredient around which were fashioned large group sessions, small group seminars, and independent study projects as the need arose. These patterns of operation were based upon the particular issues being considered, the nature of the resources available and the manner in which the work appeared most effectively pursued.

8. Use of Technology. Though not a major element in terms of operational emphasis, technological processes were capitalized upon where their contributions appeared especially constructive. A variety of processes were used, some of which provided extremely unique contributions to the total endeavor.

These, in brief description, are the major features of the Maryvale Project as it has evolved. As was suggested, they will be described in detail throughout this report though at this point they indicate the tremendous scope of this project as an innovative endeavor.

The Maryvale Project did not blossom, full blown out of nowhere. It was the result of a long process of maturation encompassing a rich background culminating in this most exciting and unusual operation. Since some of this background is necessary in order to catch the flavor and see the intent of this work, attention will be devoted to these matters in the following section.

THE MARYVALE PROJECT

Using Clinical Teams To Improve Teacher Education

BACKGROUND OF THE PROGRAM

Since its inception over thirty years ago, the Professional Unit in Education at State University of New York at Buffalo has been an operating example of an integrated organization of elements commonly offered as separate courses in teacher preparation programs. Materials relating to growth and development of individuals, psychology of learning, the history and development of the educational enterprise, philosophical orientation to ideologies supporting various types of educational effort, general considerations relating to instructional organization and procedure, and other aspects of common concern to all teachers are included in an integrated arrangement. Typically, the course has used a problem emphasis--through which attempts are made to develop instructional processes and procedures from problems and issues encountered in the actual practice of teaching. This is made possible by scheduling one student teaching experience in a concurrent sequence during the course of the period in which students are enrolled in the Professional Unit program.

In this way attempts have been made to bring into an integral and inter-active relationship the various elements of a professional preparation sequence. The various knowledge elements--individual behavior and learning, history and philosophy of education, instructional processes and procedures--are approached as they inevitably function in actual teaching situations, as finely woven strands of a total fabric of understanding. Further, all has been set in a realistic and functional orientation by close affinity to actual teaching circumstances. A consequent interactive relationship has been established in a theory-practice combination and the theoretical formulations have found fertile ground for application in the concurrent teaching circumstance, while the problems and issues emanating from actual classroom and laboratory activity provide the bases for exploration in the theoretical aspects of the program.

Though built upon a concept of close relationship among all elements involved, the Professional Unit in Education has encountered some distracting features. Perhaps the most disturbing in terms of the close working relationship required has been the physical separation of theoretical and practice elements. The theoretical emphasis have been structured and carried on in predominantly a campus setting while the practical experience has taken place in local public schools. A tendency for these two clusters of endeavor to separate and become difficult to coordinate is not surprising. Some of the integrative emphasis and focused endeavor has been lost as a consequence.

The Inter-University Project in Teacher Education. The Inter-University Project in Teacher Education has placed emphasis upon the development of Teaching Centers. As a result, several schools in the immediate vicinity of the campus have been used in a manner suggesting the tremendous possibility of closer constructive relationships between the university program of teacher education and the public school setting in which productive field experiences are organized. For some time an undergraduate program of independent study has

been functioning successfully in which university instructors and teaching center personnel work together in the organization and conduct of theory and practice elements of the professional sequence. This has enriched immeasurably both sets of elements, making the study of educational theory more real and consequential as it flows from the actual events of the classroom and laboratory. The practice elements have become richer and more productive as theoretical concepts broaden the meanings of events and concerns from actual classroom activity. And not to be discounted, for its implications are of major significance in professional growth, is the in-service development that comes from such intimate interaction of university personnel, school staffs, prospective teachers, and of course, the elementary and secondary school students in whose classrooms and laboratories much of the activity is taking place.

The potential of a broad-scale application of a close interacting relationship between Teaching Centers and the University was emphasized by participants in a conference of associates in Teacher Education held in the spring of 1964. Position papers prepared by Teaching Center personnel called for closer liaison between staff members in school situations and instructors in college courses. This, it was felt, could be developed most effectively by instituting a team teaching approach in both theory and practice elements -- that is, in Professional Unit activities and in student teaching experiences. Establishing this most effectively would require the use of Teaching Centers as the base for all elements of the work and a close working relationship between University and Teaching Center staffs in the planning and conduct of all phases of the work.*

The Independent Study Program in Teacher Education. An extremely successful program of independent study in connection with the Professional Unit in Education was developed over a period of three years and was stimulated by the Inter-University Project in Teacher Education.** This was a pattern of effort through which much of the groundwork was laid for the present project.

Briefly, the Inter-University Project in Teacher Education program which emphasized individualized study at every level. Selected college students were brought together as freshmen to study the problems of working with individual pupils and to become involved in an actual tutorial teaching-learning relationship in a local school setting. On the sophomore level, teacher preparation students studies small group learning activity while participating in local school situations as group leaders. In the junior year these selected students enrolled in a segment of the Professional Unit devoted to the study of school and community relationships and were placed in community activity leadership roles in order to study the concepts and practice the skills at first hand.

On the senior level the students were enrolled in a final segment of the Professional Unit in Education, the main theoretical emphasis of which centered around the teaching process. In conjunction with this each student was scheduled in student teaching for the practical phase of the work. It was in this phase that a major effort was made in independent study and in developing a close cooperative relationship with certain public school teaching centers.

During the second semester of the senior year program the selected students

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*This is described in detail in: Inter-University Project I, Focusing Teacher Preparation in Teaching Center Schools. Buffalo: State University of New York at Buffalo, 1965.

**A comprehensive report on these developments is available in Inter-University Project I, Individualizing Instruction in Teacher Education. Buffalo: State University of New York at Buffalo, 1966.

of the Inter-University Project were organized to develop a program of independent study in the theoretical areas usually encompassed in classwork at the University. In order to have this function effectively, a University staff member and a teacher from the teaching center worked as a team. Through their efforts, groups seminars and individual conferences were scheduled out of which a program of activity was established for each student. Individual programs of study were independently conceived and organized. Each student was required to select a major problem from his actual experience in the classroom and develop a program of study, analysis and eventual action directed toward solving the problem. The meetings were held in the school -- group seminars for reporting, discussing and exchanging ideas and individual conferences for analysis of progress and refinement of plans and techniques. Note of these activities spread in the school resulting in many others of the local school faculty and staff attending and participating in the meetings. University personnel were also called upon to participate whenever special assistance was required.

It was this sort of ground-laying circumstances that led to the present project oriented in the actual public school setting. The work which had ensured securing the cooperation of local school staffs and faculty for the independent study efforts served well to prepare the way for more all-inclusive efforts. The experience in holding theory oriented seminar meetings and individual conferences at the teaching center paved the way for scheduling the total theory-practice endeavor in the school system. The staff team of a university instructor and a local teacher served as a basis for expanding into a clinical team. And, perhaps most importantly, the efforts to "ground" theoretical considerations in practical, every day teaching problems through independent study projects demonstrated conclusively that the public school classroom circumstance can be made the best laboratory of learning activity through which the concepts necessary for effective teaching can be learned.

A GENERAL THEORETICAL POSITION*

Innovations for programs for preparing teachers must be grounded in the realities of professional work. They must, however, not be circumscribed by present practice for the challenges of the future demand a breadth of view and a sensitivity to a changing cultural climate which could not be fostered through a cloistered experience in patterns as they exist. This seeming paradox -- a need to root preparation experiences in the practical affairs of the moment and the implications that a changing universe express for inculcation of new ideas and practices in teaching -- provides not an insurmountable complication. Rather it presents the matrix out of which inspired programs can and must evolve.

An effort was made to organize a program which is based upon these factors in the SUNYAB-Maryvale Project. Its primary purpose was to focus preparation activities in teaching center schools using the classroom laboratories in which apprentices are participating as the main crucible out of which learning experiences were constructed. A discussion of this approach would appear warranted in light of the tremendous implications suggested for the preparation of effective teachers.

Purpose of a Program of Preparation. Fundamentally there is little question about the major purpose of a program of preparation for teachers. Its fundamental aim is to provide the experiences which will insure competent professionals in the classrooms of our culture. There are differences of opinion however concerning the interpretation of "competence" and the means by which a program can best insure it in those being prepared for professional service.

Perhaps the greatest handicap in designing teacher education programs is the force of tradition which lays like a heavy hand over professional activity. This is particularly difficult to overcome as plans emerge for new approaches, yet by prudent planning, innovations can be introduced which result in impacts of great significance.

One of the major obstacles flowing out of traditional practices is the tendency to view PREPARATION in a constricted and restricted sense. Students are expected to spend a considerable period of time in an isolated environment being prepared for their service in the professional arena. College and university programs have tended to become shut off from the affairs of practical and on-going activity in the schools for which they are preparing individuals. True, many contacts remain, but these are commonly of an artificial and cursory nature.

Accompanying such a thesis has been the conviction that preparation for professional service is actually a process of transmitting to the novice the knowledge

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*Material in the following section has been adopted from Focusing Teacher Preparation in Teaching Center Schools and has been included here at some length in order to provide the extremely significant basic theoretical position from which efforts in this project have emanated.

which is assumed to be necessary. When it is demonstrated that the required facts and information (knowledge) have been acquired--through accumulation of the required course-credits, passing the necessary examinations or other means of demonstrating the possession of knowledge --the individual is projected into professional activity. There are two apparent fallacies underlying such processes. First it is assumed that knowledge can be transmitted directly from the highly sophisticated professional in the field to a novice in a fashion which brings pregnant meanings and an understanding to the recipient. Tragically, this assumption has not appeared warranted as results of the process are evaluated, yet the practice is carried over into the recipient's behavior in a fashion that dictates his own teaching practice when he enters professional endeavor.

Secondly, it is assumed that apparent control of facts and information (knowledge) demonstrated through the transmittal process in a college or university setting, is a guarantee that behaviors will result that are consistant with what is required. There is a great accumulation of evidence suggesting that acquisition of facts and information, particularly through the sterile process of transmission so often characteristic of classroom endeavor, cannot be effectively integrated into behavioral competency in actual situations. Thus, much of what is set up for educational purposes is really artificial and superficial in terms of accruing results.

Typically these assumptions are reflected in patterns of preparation which have become solidified in structure and characteristically similar throughout the nation. There is almost universally a general education or liberal arts component which is considered basic to all preparation and which is justified in terms of a need for an understanding of modern life and the cultural and ideational features which all men must comprehend. Here the tragedy is heightened by virtue of the fact that understandings of the sort projected are imperative and the total resources of the society must be brought to bear on an education which will produce them. It is the process that is faulty, an evidence of unwarranted assumptions at its base.

A second component of a total teacher preparation program is the provision for adequate specialization in a teaching area. Here again the assumptions that knowledge can be transmitted directly from a teacher to a student and that such knowledge can be meaningful in a behavioral context, have wrought havoc for teacher preparation. Nor is it any less true that knowledge and understanding in a teaching area is necessary than is the case for an adequate general education. The real crux of contention is that enlightenment cannot be assured through proccesses dominated by traditional assumptions and the practices which are functions of them.

In a like fashion the third component, professional education, has been misunderstood and striven for awkwardly. Emphasis has been upon distilling the appropriate "knowledge" from the various supporting disciplines--psychology, philosophy, sociology, history and anthropology as primary examples--and the attempt to transmit the essential elements to those preparing for teaching. The contention again is not that these are unproductive areas for learning essential materials in respect to teaching but, rather, it is suggested that the processes emanating from commitment to unfounded presuppositions, has rendered the experiences practically useless for developing necessary understandings.

There is almost universally included a practice component in teacher education programs, yet these too have resulted in little that is meaningful and applicatory in preparing competent teachers. This is because the practical experience is conceived and organized as an opportunity to put into "practice" what has been learned in the isolated elements comprising the other components. Unfortunately the ineffectiveness of pursuits in these other elements affords little with which one can go confidently to a practical situation and the isolation of the components from each other magnifies the

innate uselessness of endeavors standing alone. Thus practice teaching has become an artificial accouterment to the teacher preparation program--an appendage where conformity to currently-operating institutional policies and procedures is the primary mark of success.

Commitment to the fundamental purpose of teacher preparation thus suggests a redefinition and restructuring of modern programs. It requires an acceptance of theoretical formulations consistant with modern knowledge and an inclination to organize experience in reference to these. It would be well to discuss some appropriate positions and the implications of these for program designs.

The Process of Education. An initial step in attempting a modern interpretation of educational theory and practice is to develop a concept of the process with which we are involved. Most importantly is the need to understand education AS A PROCESS and not as an end. Traditionally educational theory has been colored by the concept that education is an end product. Individuals become educated in the sense that they achieve or acquire some structured or some finite quantity of something. Schools and colleges are thus places where this is accomplished--where the individual is filled with what he is expected to acquire or where he has been directed to the desired end and is "educated." Commencement addresses emphasizing that the graduate is just beginning his true education notwithstanding, actual practice in schools and colleges has been built upon a concern for having the student achieve or acquire knowledge, habits and skills, moral principles or other resources provided through the instructional procedure.

Modern knowledge would suggest that it is the process rather than any preconceived ends that must be emphasized. Educational institutions are designed by a society to offer an enriched environment in which the process of learning can take place. Education itself is a continuous process of interaction in which an individual responds or reacts in various ways to elements involved in the situation. It is an active involvement, rather than a passive transmission and acquisition process. Too, the primary ends and goals of education are of a process nature, rather than discrete entities. Education's primary function is to provide for the development of an attitude and an approach with which the individual can continue through life to solve the problems which he faces and apply the results of these solutions to new situations in which he becomes involved.

As a process, education must be accepted as a continuous process of growth rather than as preparation for something which will eventually take place. This puts emphasis upon the vital character of each experience for what it is and what it can contribute to the development going on at the moment, rather than its implications as a preparatory step to something later. Emphasis upon preparation had led to common practices aimed at insuring a reservoir of facts and ideas instilled as a foundation for future experiences. Such facts and ideas--"knowledge" they were called--were for the most part irrelevant and useless items, for they could be fitted into no organized, integrated constructions which were meaningful interpretations of situations with which the learner was intimately involved. There is, as a result, the tendency to accept the acquisition of subject matter as the primary end of instructional efforts with the view that its accumulation will render the individual competent to apply it to future circumstances.

Little motive for learning can result from such attempts. The future is a nebulous, uncertain concept to learners which provides little impetus for learning that which is being presented. Artificial and external processes of motivation must be used to insure an acceptance of the endeavor and an application of energies to it. Instructors find it extremely difficult to direct learning activities toward future goals when it is evident that a future can never be preinterpreted in a way which will provide a concrete and explicit basis upon which a specific preparation can be provided.

There is no intention to deprecate the influence of a concept of the future as a guiding force in the educational process. What is being suggested is that preparation for a future cannot be the primary aim of educational endeavor; particularly if the whole emphasis of instruction is upon acquisition of information or habits and skills to serve as adequate preparation for future circumstances. The primary aim must be to provide experiences which have meaning in and of themselves, meaning which is translatable within the context of life at the present, meaning which will afford an individual an opportunity to engage in continuously significant activities. This is saying that education is a part of life's normal sequence of experiences to be construed as a natural, continuous adaptation to the situations in which individuals are involved. Deliberate education -- that is, schools and colleges providing enriched atmosphere for this purpose -- must be as much a part of the normal ordinary life of a learner as any other aspect of his experiences if it is to provide the contributions desired by his total development. In this way the future becomes significant and intelligible for it is a part of a continuous stream of events and a reflection of all that has taken place. There is no preparation for future eventualities except that which is inherent in an adequate interpretation, understanding, and consequent adaptation to the problems and concerns of present circumstances which go to make up the life experience of an individual.

Accepting education as a continuous process of growth also implies that it is seen as an interaction of a whole individual in a total environment. The above discussion is pointed toward an interpretation of the environment as a total, comprehensive and continuous sequence of activity. Aspects of it cannot be separated out -- either the time sequences of past, present and future or the cross-sections involving school and other aspects of life. But equally important is the fact that the individual cannot be separated into segments for learning purposes. Education must be considered a process involving the totality of an organism not just a mind, or a set of faculties, or a set of mechanical relationships to be trained and exercised. A teacher is an educational guide to a process in which a total individual is involved, including a physical structure, a function for organizing the structure in all of its internal and external relationships to be sure; but also including an experiential context which contributes backgrounds, attitudes, interests, concerns and many other factors which make up the totality of which the learner is comprised. To put it negatively again, there are no mental faculties, no habit patterns, nor is there an entity describable as a "mind" which can be isolated and "taught to" with any degree of success. Modern interpretations leave little doubt as to the need to accept the total individual as the learning entity in any teaching situation.

This all suggests that it is imperative that education be considered a process. It is essentially a process of interaction between an individual and his environment. This is a process that is taking place naturally in all life's experiences the quality of which is dependent upon the individual and the environmental circumstances. In primitive societies little is done to structure deliberately or direct for particular purposes the nature of this process. In modern complex societies, however, an attempt is made to provide deliberately designed situations in which particular events can take place directed toward specific goals. This is what we call deliberate education -- a system of schools and colleges for the education of children and youth.

However, these deliberate attempts to provide structured experiences have become misdirected by the application of unsubstantiable theoretical formulations. Education is seen as a product, as an end, rather than as a continuous experimental process. It has been approached as a preparation for something, rather than as a part of a continously expanding sequence. It has been designed for training the mind, the set of faculties, or the set of ingrained habit patterns, rather than as a continuous interaction of a total individual and a total environment. A modern interpretation can best be supplied

in succinct, yet all-embracing, terms by Dewey's classic technical definition of education: "It is that reorganization or reconstruction of experience, which adds to the meaning of experience, and which increases ability to direct the course of subsequent experience."*

Preparation as a Unified, Integrated, and Focused Endeavor. Viewing education as a continuous process of reorganizing experience suggests that reorientation of programs of teacher preparation be undertaken to provide the integration and unification of components in a fashion that insures a meaningful interpretation of the activity and the directing of it toward goals and purposes with which learners are concerned. Only as the program becomes successful in these respects can it contribute effectively to the advancement of the students eventual competency.

General education experiences, to contribute in a meaningful way, must consist of more than a series of unrelated and sequestered courses. The nature of cultural forces affecting the lives of individuals in complex societies, cannot be comprehended except as all of the elements of which they are composed can be interpreted as parts of an organic whole. History, sociology, science, psychology and the many other areas of academic endeavor have manifold contributions to make to an understanding of man's place in the universe and to the destiny to which he may aspire. However, it is difficult to see these related contributions when each discipline is explored as a separate and discrete entity and any reforming of ideas into integral and unified conceptions is left to the meandering chance endeavor of individual students. Though a complete reorganization of all school experience is beyond the dreams of even the most enthusiastic reconstructionist, some value can be realized by providing a focus around which the diverse ideas and concepts can be organized into meaningful relationships by the student. In teacher preparation it is possible that the professional role toward which one aspires could function effectively in this respect.

Critics of professional orientation within a general education program would suggest that such approaches destroy the inherent value of the disciplines as "liberalizing" forces in the conceptionalization process. The contention is that general or liberal education differs from vocational or professional education to the extent that the focus or direction is absent from the process. It is debatable if this assertion could stand a test of analysis, for it is apparent that learning is possible only as focus and/or direction function is the process. The more unification of focus around which effort can be oriented, and the more there is direction toward which the intellectual inclinations can be channeled, the more productive will the experience become. Howard Munford Jones expresses it most clearly when he writes "Perhaps the most persistant illusion of those concerned for liberal education is that it has nothing to do with vocational or professional training and is contaminated by that training." He then goes on to say, "Except in the artificial world of the college, the human being does not automatically switch from two years of one sort of training, to two years of a dramatically opposed sort and at the same time bring to bear upon his new training the well-meant, but unfocused, education of the first two years."**

The almost exclusive emphasis of the Maryvale Project is upon professionally oriented activity with the major theme being actual teaching. Students are

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*John Dewey, Democracy and Education, New York: The MacMillan Co., 1926, pp. 89-90.

**Howard Munford Jones, Education and World Tragedy, Cambridge: Harvard Press, 1946, p. 91. Ibid, p. 92.

scheduled in student teaching situations with courses in the professional sequence being structured to capitalize upon the experience in these practical settings for means of analyzing the foundational material applicable to better understanding and functioning in actual teaching situations.

It is apparent that such a design provides inherent, integrating features for the many and diverse activities included in a teacher preparation sequence. From the accompanying professional phases at each level the student is involved in situations from which his needs, interests, and concerns as a professional worker serve as a basis for learning. Encouragement to explore the principles upon which professional endeavor is based, flows from this personal set, rather than being induced by artificial means through assignments unrelated to professional endeavor. The importance of sujectmatter disciplines is evident only as one sees the need for knowledge and understanding of cultural forces and ideas that impinge upon a teaching-learning setting. Thus, general education, specialized field, and professional courses have meaning and can contribute to the total development of the individual.

Furthermore, the student has an opportunity to observe and gain an understanding of the behavioral competencies needed to function effectively as a professional worker. It is also possible to see the variety of contributions various subject areas can make to the development of necessary competencies and thus a new dimension of meaning can be added to the college experience.

Through these emphasis, teaching center schools become the laboratory settings for experiences around which a program of continuous and directed experience can be structured. Courses in the variety of subject matter areas become meaningful and function as true educational experiences as the ideas and concepts have application to the problems and issues students encounter within the crucible of activity that the school laboratory provides. Students can observe actual behaviors within the school context, analyze the components undergirding such behaviors, and can find in the supporting disciplines of a typical college program the facts and information necessary to understand the teacher's role in modern society and learn to function as an enlightened leader for the schools of the future.

THE ORGANIZATIONAL SCHEME

University-School System Participation. It was from such a background setting and theoretical framework that the Maryvale Project came into being. The most important feature of the organizational scheme was the extremely close pattern of relationship developed between a public school system and a university. A pattern of operation was not envisaged in which university officials directed the program of preparation with a public school system "standing by" to provide classrooms for practice teaching. Rather there was a sense of total commitment to the entire program of preparation through which prospective teachers were going. Further, this commitment was wholehearted on every side.

Public school staff members and faculty participated in the development of the overall plan. They participated in preliminary planning activities and in the development of the design which was eventually agreed upon. Public school participants also agreed to accept the responsibility for guiding and directing the classroom experience of the apprentice teacher and to participate in theory-oriented activity whenever it was possible to do so.

In addition, the school administration agreed to permit one teacher to act as the "in school" coordinator for project activity and to be considered as a member of the university faculty in this regard. Thus, the core of the instructional team of the program included a faculty member from the school itself.

It needs to be emphasized that these arrangements were all made in a spirit of full participation and sincere commitment on the part of all concerned. The involvement of public school personnel was secured not on the basis of subordinate responsibility for a total program of preparation, but rather in a manner suggesting full partnership in the endeavor. As a result a working relationship was established that transcends any previously arranged pattern of school-university cooperation. This has afforded the program a breadth of resources from both institutions that has never before been brought to bear upon a program for preparing teachers.

The Clinical Team. As the previous description implies, a staff team arrangement was developed for directing learning experiences in the project. Most importantly, it was the conviction of those concerned, that this clinical team be responsible for the total scope of the program. This was emphasized as a result of many recommendations for clinical team approach that embrace only the practical aspect (student-teaching) of teacher preparation experiences. Here the commitment was to an acceptance of the total program as a unified and integrated block of activity designed to prevent artificial separations between theory-oriented and practice-centered aspects. The clinical team was responsible for structuring all of the activities and was expected to assume leadership in the development of the total sequence.

Perhaps indicating THE CLINICAL TEAM is a bit misleading for there evolved several clinical teams as the activity ensued. In fact the specific team involved depended to a great extent upon the type of activity and the goals which were being sought. Actually three staff members were present in all of the procedures, but they served as the core group around which various other team members were organized. These three

included the university coordinator, the teacher representative, and an instructor assistant from the university staff.

Other members were added to this core as the situation warranted. The classroom supervising teacher became an integral part of the team when experiences were involved requiring assistance from that aspect. All members of the system's administrative staff participated at various times, as did other staff members when there was a need for the particular competency that they represented. At various times university staff members were added to the team -- again for specific purposes and in terms of the contributions which each could make to a particular effort.

Perhaps it should be mentioned that there was no overall "flooding" of instructional assistance in this project as this is assessed in terms of pupil-staff ratio. What resulted was a different arrangement of staff time and assistance all of which added up to no greater total commitment than is provided for regular programs of teacher education through the university. A complete analysis of staff commitment will be provided later in this report.

The Project Schedule. All students in the program were scheduled at the teaching center (Maryvale School System) for a four-hour daily block during the academic year. During this time a carefully constructed program of observation, participation, and student teaching was developed in terms of the individual needs of each student. During this time there was also arranged individual study and small group activity for the analysis of classroom problems, study of individual teaching performance and the expression of these into the analysis of theoretical concepts supporting educational practice. Flexibility was provided in group session scheduling and in individual conferences so that actual teaching endeavor was disturbed as little as possible. During the year the equivalent of one to one and one half hours per day were devoted to these activities.

A Concurrent Seminar in Professional Theory. All of the activities related to the program were theory grounded and continuously interwoven with theoretical connections. In addition, weekly seminar was instituted for special emphasis upon areas of theoretical consideration connected with educational matters. Actually the tremendous value of this arrangement was not anticipated as it was planned, even though there was great expectation for it.

The seminar was scheduled from 2:00-3:30 on Wednesday, the day for released time period for religious instruction in the school. Thus it was possible to utilize school personnel with a minimum of disruption to the school program. Broad issues of education were considered as the focus in these meetings with an attempt directed toward analyzing major significant issues through the broad lens of the total resources of the university and the teaching center. Meetings were scheduled at the teaching center or at the University depending on the availability of resources which could be brought to bear most constructively.

Again it must be emphasized that teaching center resources -- particularly teaching and service personnel, were made available during this period. As contributions of particular individuals or groups appeared useful, they were included in the seminar activities.

Admission to the Program. The Maryvale Project was organized as an innovation of the Graduate Professional Unit in Education. This is an intensive one year program of teacher preparation for graduates of accepted institutions and provides the total sequence for certification in the various teaching special specialties.

Students were admitted to the program on the basis of an analysis by a Faculty Committee on Admissions. All students were required to make formal application to the program and acceptance was dependent on the demonstration of high standing in academic work, as well as the ability to meet standards of personal

fitness, health, and other qualities associated with aptitude for teaching. After a comprehensive file was built for each applicant, assessment of the total qualifications was made in order to determine admissibility of candidates. A total of thirty-two candidates were accepted with twenty-five reporting for admission to the program.

A REVIEW OF PROGRAM ELEMENTS

The Orientation Phase. All students were required to report for faculty orientation at the beginning of the school term. Though this was in advance of the opening of the university semester, it was felt that these experiences were necessary for proper orientation into a school system and all students should be required to attend.

Four major aspects of the orientation process were emphasized. First, all students were expected to attend the opening session during which the chief school officer (The Supervising Principal in this system) welcomed the faculty and introduced all new staff members -- including the members of the project. Second, all students were required to attend scheduled building meetings which provide the necessary organization for the beginning of the school session. Third, each student was responsible for attending departmental meetings which were held in the particular area of teaching specialty. Finally, each student was put in contact with the classroom teacher under whose supervision the instructional activity was to be organized. The student was expected to go over the details of the teaching situation and prepare for the opening of school the following day.

In addition to these school orientation activities, the project participants were assembled during an unscheduled period for an introductory session in project activities. This session was devoted to the introduction of the staff team and participants and to a review of the major elements of the project scheme. The purposes of the project operation were emphasized and a sketch provided of the anticipated pattern of operation.

As a pre-test procedure to get a view of each student's orientation in relation to educational endeavor and as a device to lead into the first phase of the program, three assignments were given to be completed by the following day.

These were:

1. "Each of you has indicated a desire to enter the teaching profession. Undoubtedly you have given a great deal of thought to this decision. Write a description of the things that you hope to accomplish as a teacher. Do NOT explain why you decided to become a teacher, but rather describe your objectives as a teacher. To state the problem in a different way: What do you think a teacher in your area of interest ought to attempt to accomplish. Be specific.

2. "You are to attend Mr. Wilson's lecture on Wednesday morning. Observe very carefully what happens during that period. Try to learn as much as you can. Write a report of this observational experience including both a description of what happened and the conclusions, if any, which you drew from this session.

3. "Next week you will begin your teaching experience by working with some individual high school seniors on the skill of note-taking. Write a teaching plan, explaining in detail how you would go about teaching this particular skill. Also indicate why you would do the things which you have planned."

Introduction to Teaching. The staff team had planned a gradual introduction to classroom activity and the responsibility for instruction that flowed out of the activities of the orientation period and the assignments which were given to the group. This process was a two-pronged endeavor -- on one hand a carefully guided introduction to the teaching process

through controlled tutorial activity and on the other, a gradual introduction to actual classroom procedures under the guidance of the supervising teacher.

In the first endeavor, the total project group was scheduled to attend a large group lecture in American History. In this first class, as indicated from the assignment in the pre-test battery the fundamental emphasis was upon careful observation and description of what actually happened. These observations were written and submitted to the staff team and the staff analyses of them were used as discussion themes in group seminars the following day. Attempts were made to help the participants observe teaching circumstances with extreme care and to become alert to the purposes and goals of instruction as well as to the major features of the processes and procedures being used.

This was followed by attendance at further lecture sessions of this course and assignment to an individual tutoring role in teaching the skills of note-taking. Though this appears to be an insignificant skill area in which to become aware of teaching techniques several important factors lead to its selection. Perhaps most important was that most of the high school pupils in this particular course were having this first acquaintanceship with large group instruction. In this procedure, note-taking skill is essential. It is also a rather simple skill in which college students (the project participants) have some expertise and thus could feel somewhat confident in their first instructional role.

Each project participant was required to make out a lesson plan for the tutorial session. This was reviewed and criticized by a member of the staff team and an additional tutorial session scheduled. After the session each participant was required to submit a report analyzing the experience, using the knowledge gained from the observations of the lectures and the critiques that had been made of them. A second tutorial session was scheduled on succeeding days and the process repeated with each participant.

In the meantime each participant spent the remainder of the school day in the classroom to which he was assigned. Here the participant was to become acquainted with the student group, become acclimated to the classroom, and work with the supervising teacher to determine the role he was to play.

Concurrent with these two introductory programs, small group discussion seminars were scheduled. These were organized for two periods weekly with alternative group sessions provided. Thus it was possible to select a meeting time which would least disrupt the other patterns of activity. In these group sessions, the tutorial experience and the introductory activities of the classroom were discussed and an attempt was made to clarify any developing confusion.

Early Classroom Activity and Concurrent Study and Analysis. Introduction to classroom activity brought with it many questions and concerns which were voiced in group seminars. This, along with two assignments, lead into the next emphasis in group and individual study. Early in the second week of sessions the following assignment was made.

> "Begin compiling a cumulative observational record of a class with which you will be working during the course of the year. Clear with your supervising teacher as to which class would be most satisfactory. The purpose of this record is to help you become better acquainted with and to help you develop a deeper understanding of a group of students with which you will be working. Since this is a cumulative record you should be able to discern some patterns of behavior for both individuals and groups.
>
> Your report should include the following:
>
> 1. The conclusions which you have drawn relative to individual patterns of behavior and the evidence upon which these conclusions are based.
>
> 2. The conclusions which you have drawn relative to the makeup and behavior patterns of smaller groups within the larger class and the evidence upon which these conclusions are based.
>
> 3. The conclusions which you have drawn relative to the patterns of the entire class and the evidence for these conclusions."

In addition, participants were advised

to discuss thoroughly their role in the classroom with the supervising teacher and to try to arrange for some actual classroom teaching during the first week of October (their fifth week in the program). This would provide a common arrangement around which possible video taping schedules would be developed. It had been agreed that as many video tape segments as possible would be taken in order to get a record of an early teaching experience. In preparation for this formal instructional responsibility, this further assignment was made.

> "Submit a preliminary plan for your teaching assignment for the week of October 5th. In this plan, be sure to consider the points raised relative to your plans for the teaching of 'note-taking' and the matters dealt with in the group sessions on Monday and Tuesday of this week."

These two activities, coupled with experiences in actual classroom situations provided the take-off for group and individual study. The three small-group seminar sessions (about eight students in each, meeting twice weekly) established during the first week of operation, were made a permanent part of the weekly schedule. In these, discussion and analysis of pertinent material flowed from the problems and concerns of the actual classroom experience. In the early days these sessions centered around observation and interpretation of individual behavior and the preparation for formal instructional responsibility.

In relation to the first cluster of concerns, several general emphases were discussed. The need for being able to observe behavior in a clear and objective fashion was established. This was followed by analysis of individual behavior and the means of interpreting it as accurately as possible. Finally, the various ways of influencing pupil behavior was analyzed and suggestions were made for helping student teachers adapt to the role of instructional leader. The consequent implications for influencing the behavior of individuals in a classroom was also emphasized. As would be expected, the staff team acted as discussion leaders and resource persons for these sessions and many outside study projects were developed. There was also some participation from supervising teachers whose teaching schedule permitted them to be free at a particular seminar meeting time.

In connection with the emphasis on observing and interpreting student behavior, the weekly meeting of the concurrent professional seminar was devoted to an analysis of the services of the Guidance Department of the school system. The staff of the program outlined its functions and described the services it provides for the teacher and indicated how there could be provided to the teacher a large volume of facts and information which could be helpful in observing, interpreting and understanding pupil behavior. They also discussed the role the teacher could play in making guidance more effective in the school system. As a part of the discussion, the guidance staff reviewed the information available in pupils records and showed how this material could be put to effective use by the teacher. There was also a general discussion of the standardized testing program of the school system and of the value of this material to the teacher.

In terms of the second emphasis, there was some natural apprehension about the approaching role as actual instructional leader in the classroom. Preliminary plans which were submitted indicated a need for considerable work in planning and organizing instructional activity. So in terms of these obviously imperative needs several avenues of exploration were followed.

First, there was considerable study of teaching goals and purposes. As the teaching plans were being analyzed, it became evident that a clear and appropriate interpretation of the lesson's goals would be basic to any teaching. This, of course, required some analysis of general educational goals and purposes, though the main thrust of such a study was postponed because of its complexity and depth. However, enough was done relative to general goals and purposes to put the

immediate lesson's goals in a total perspective.

This led naturally into analysis of various lesson contents and to the need to be certain that material being covered is directing pupils learning toward established goals. Naturally there was much discussion, study, and analysis of this theme. Most of the participants had never concerned themselves with the interpretation of subject-matter as the means of achieving selected educational goals, but rather had assumed that the end was in acquiring the subject-matter itself.

At this point there occurred a need to look at the processes and procedures which an instructor must plan for in order to direct the learning process toward established goals. Here again, the "single-track" inclinations of novice teachers were extremely apparent. Little did they appear to recognize the tremendous resources that are available for organizing instruction through a multitude of processes and procedures. Consequently, considerable time was spent on individual study and analysis and group discussion of instructional processes and procedures. As a supplement to this study, a total group session of the weekly professional seminar was devoted to a laboratory in the use of instructional aids, organized and directed by the audio-visual coordinator for the school system.

This latter activity served as a convenient bridge to work on instructional resources. In this segment, an effort was made to acquaint the members of the group with the variety of teaching resources available for instructional activities. All the resources of the school, the community, the neighboring institutions were explored for possible contributions to any subject area and on any school level.

A final area of analysis in respect to instructional planning and procedures was an attempt to look at lesson evaluation. This was done to point up the need for continuous evaluation of lesson efforts in terms of the established goals. It was stressed, that evaluation is not external to or separate from the instructional process, but an inherent component of all planning and instructional activity.

Evaluation and Testing. The work on evaluation as an integral part of planning and instruction along with the fact that in many classrooms the student-teachers were being asked to develop and administer quizzes and unit tests, directed attention to the need for organized study about theories of evaluation and testing. To initiate this, the instructors developed a short quiz for the project group. This included items covering materials dealt with in the previous weeks and exemplified a variety of test types. In typical quiz style, the test was administered without previous mention and was directed in normal testing fashion. However, after it was completed, rather than being corrected and grades assigned, the instrument was used in an attempt to analyze the elements of evaluation. These included the goals and purposes of instruction, the criteria upon which evaluation was to be based, the instruments and processes used, and the manner in which the results were to be applied. Needless to say, this provided a very effective "send off" into the study of evaluation generally.

Each participant was asked to do an intensive analysis of a quiz that had been or was being used in the classroom. This analysis was to be done in terms of the aforementioned elements of proper evaluation procedure. In addition, suggestions were made as to directions and resources for study and evaluation and everyone was encouraged to become knowledgeable in this area.

Several weeks of discussion and study ensued with the evaluation theme. The four major elements of the evaluation process were analyzed in some depth. In the meantime, test examples and analysis, which participants had prepared, were appraised carefully by the staff team and an individual conference with each student was scheduled to discuss the work. These conferences were opportune not only for the discussion of the particular assignment, but also for initiating an

evaluative analysis of the total experience to that point. In other words, while studying the evaluation process, some practical, personal activities were included which employed the theoretical constructs in an individual analysis.

In addition various types of testing processes were analyzed. These included skill tests, knowledge tests, standardized tests, tests of understanding and devices for assessing attitudes. Each of these aspects was carefully considered with the major emphasis being upon the contribution that the device or instrument could be expected to make to the process of learning.

A Group Analysis of the Term Activity. As work was progressing in the study of evaluation theory the semester was coming to a close. The staff-team, in constant interaction with the student group through individual conferences and small group sessions, decided that a group analysis of the term's experience would be the most effective culminating experience. This would be another way of encouraging the use of the evaluative processes which had been considered and would also encourage a self-analysis and self-assessment process on the part of each student.

To set the stage for the procedure, the following assignment was designed: Develop a summary and analysis of 621 experience. This assignment was directed toward two major emphases:

1. Review and analysis of course experiences to this point.
   What objectives or goals does it appear we've been working toward?
   What materials and subject matter have been covered?
   What instructional processes have been used?
   What instructional resources have been made available?
   A critical analysis of each of the above.

2. Proposals for evaluation patterns that could be useful at this point.
   Formal processes.
   Informal processes.
   Use of already completed projects (materials in the files, etc.) others.

With the preliminary work as a base a three-stage operation covering the last two weeks of the semester was organized. In the first stage the scheduled small group sessions were conducted without a staff member in attendence. This was done to ensure careful and complete examination of the experience and to preclude the possibility of hesitancy in assessing the work. Each group provided a record of its deliberations which was duplicated and distributed to all participants. A second stage involved further group discussion sessions on the topic with clinical team members participating. Again, records were kept, duplicated, and distributed to all members of the project group. The final stage was devoted to a culminating small group session, again with no staff members present. This was intended as a final review of the group's summary report and as an attempt to agree upon proposals for further evaluative processes to be adopted.

From these sessions there evolved a comprehensive review of the semester's work, not only in terms of materials covered, but also in terms of processes used. This served as the basis upon which further experience could be structured and in the true sense of the word provided an EVALUATION of the efforts to date.

Video-Taping and Analysis. Even as these varied activities were appearing to fill the program almost beyond the limits, another dimension was being added by the use of video-taping in some of the classrooms. As has been indicated, attempts were made to get the project participants into actual teaching responsibility as early in the semester as possible and also to video-tape some of these early experiences for analysis of teaching performance.

The video-tape segments were used in two ways. First, they were used by the individual student teacher to analyze his own teaching performance and to try to find ways of improving his efforts as a result of seeing and critically analyzing himself. In most cases, members of the clinical team were able to sit in on these analysis sessions and to assist in the review. Unfortunately, the lack of playback

equipment in the teaching center confined the use of these segments to the university campus, preventing a more complete involvement of the total clinical team.

A second use made of the video-tape segments was perhaps of greater value. Those involved in the tape segments were asked if they would permit the use of them for group analysis of teaching performance and, since there was no reluctance, segments providing the most useful elements for analysis were selected and viewed by the total project group. An observational analysis instrument, which had been prepared and validated for medical teaching as well as for classroom instructional efforts, was used by each student. From this, a very valuable learning experience resulted which helped members of the group to direct their observations of teaching performance more adequately and to analyze teaching-learning situations with greater competence. Emphasis was not upon a criticism of individual performances, but rather upon an attempt to observe carefully, analyze critically, and develop more appropriate teaching patterns as a result of this experience. This appeared to be an extremely valuable use of an excellent technological device.

The Concurrent Professional Seminar. As has been indicated at various points, the concurrent professional seminar was scheduled weekly for a two and one half hour period. In the early stages of the project this period was used to add breadth to an element of work in which the group was involved. However, as the term progressed there appeared to be areas of study not directly related to the main theme around which daily activity was structured, but which still needed to be included in the program of activities. Thus, the professional seminar session moved in directions seemingly supplementary to the central effort rather than being confined to matters inherently involved with small group work and individual study activities. Perhaps a general review of the semester's program in this seminar will be indicative of the activities provided.

1. Discussion of Instructional Processes

   Since all of the participants were, at this point, engaged in classroom activity, it was felt that a review of the variety of instructional processes would be profitable. The session was devoted to an analysis of the many procedures through which instructional goals can be reached. Discussed were large-group instruction (lecture), small-group procedures (committees, panels, large groups), project procedures, recitation, textbook-centered teaching, laboratory techniques and the many other processes which teachers use at various times. Though no attempt was made to go into depth in each of these areas of instructional procedure, it was felt that the summary of approaches was necessary at this point to introduce the participants to the teaching process.

2. The Assistant Principal of the High School

   Early in the semester the assistant principal of the high school discussed with the group some of the matters with which beginning teachers need to be concerned. He went over the school's policies on discipline, corporal punishment, marking, and some of legal matters about which the teacher needs to be concerned.

3. Guidance Staff

   As was mentioned earlier, the staff of the guidance department discussed the role it plays in the total school program. Most importantly in terms of the work being done in other phases of the project, they emphasized the way they could assist the classroom teacher in understanding pupils and in interpreting student behavior. They also renewed the standardized testing program of the school system and indicated the information that could be provided from the student's total record.

4. A staff teaching team and the film "And No Bells Ring."

   Several students were assigned to staff members who were working in a team-teaching relationship and all members of the project group had engaged in the first segment of work which was conducted in a large-group, small-group social studies course organization. As a result, many questions and concerns had arisen about these innovations in instructional procedures. The two features of this session seemed to fit together quite well in describing such endeavors. The film depicted a total school situation organized in the flexible programming fashion and the elements involved in this arrangement -- block scheduling; team-teaching; large-group, small-group and independent study organization, and other ideas inherent in these approaches. Two members of the faculty who operate as a team-teaching staff in American History, then described their activity and how a teacher must operate when working on a team basis.

5. Instructional resources laboratory

The coordinator of audio-visual aids directed a session designed to inform the group about available instructional resources in the system, their proper use and operation. Each aid was discussed and its proper use indicated followed by a period of actual work with the machines by members of the group. Each student had an opportunity to learn to operate each piece of equipment and to experiment with the variety of uses to which each could be put.

6. Placement Officer

Each year students preparing for teaching are given the opportunity to learn about job placement and the processes involved in becoming registered with the University Placements Officer. This was accomplished in one of the group sessions, with the responsibility for directing the program taken by the Educational Placements Officers of the University. He discussed job prospects, various ways of making contact with hiring officers and the services offered by the University.

7. The Maryvale Educational System

An interest on the part of the project group in the purposes, structure, and operation of the total school system led to three sessions devoted to this topic. Since they were somewhat similar in format and treatment they can be summarized together.

A principal from each level--high school--junior high school and elementary school--appeared at successive sessions to discuss his specific level of school endeavor. Each tried to describe the commitment of the level which he represented, the overall organization of the program, and any unique features of the particular school for which he was responsible.

8. A "Staged" Placements Interview

Though it may not appear educationally significant, concern about job interviews was nevertheless strong among members of the project group. Thus a "Staged" interview was arranged in which the Supervising Principal of the system interviewed a selected member of the class as though he were a job candidate. The Supervising Principal went through the normal procedure, then discussed with the group the reasons for conducting the conference as he did. He explained what he expected or anticipated in response to his inquiries and gave many valuable suggestions on how to conduct oneself in interview situations.

Special Mid-Year Activities. A hope had been entertained throughout the semester that time could be found for some intensive participation by each project member in levels of school endeavor other than the one engaged in. It was believed that every teacher should have some personal contact with what goes on in earlier as well as later educational effort. However, the program became so filled that scheduling such activities appeared almost beyond possibility.

The mid-year break in the university schedule provided the possibility however. This is a time when final semester examinations are scheduled, followed by several days set aside for second semester registration. Since no formal examinations were contemplated in the project program and since the staff teams had made arrangements for easy registration for the succeeding semester, the time afforded by the break was made available for constructive use.

Each student in the project group was advised to schedule the equivalent of three half-days in classrooms on levels other than the one to which he was assigned for teaching. This made it possible for every participant to get some experience in all levels of school endeavor and to become acquainted with the total scope of school activity from elementary through the last year of high school.

Mid-Year Planning Processes. As a result of the summary sessions with which the first semester's activity was culminated, it was felt that some organized planning endeavors would need to be scheduled so as to develop the most appropriate approaches to ensuing work. From the summary activities engaged in there was a fairly clear view of the work completed and from this had come several suggestions as to important areas of effort in which some attention was necessary. In addition, the special activities which were scheduled during the mid-year break also contributed to the assessment of what had been accomplished and what areas of endeavor needed emphasis. In this regard, the observations of various levels of school activity were particularly significant for from these experiences the project participants became aware of the need to understand more adequately the total educational

enterprise.

Three small group seminar discussions and one large group session were devoted to the analysis of topics and areas of work to be undertaken through the course of the second semester. Several areas of emphasis were suggested as imperative. These included growth and development of children and youth, adolescent problems and the school, concepts of learning, and general analysis of matters relative to learning theory and processes of instruction. It was decided to embark upon the study of growth and development processes initially since it appeared that this work would necessarily serve as a basis for the analysis of the other topics.

It should be mentioned that as a part of the planning endeavors there was also a beginning step taken in the process of developing independent study projects. Throughout the first semester there had been the intention on the part of the project coordinators to introduce independent study activities into the program. However, the press of other activities prevented any deliberate effort in that direction and it was decided not to permit this aspect of work to be ignored during the second semester. Thus, one of the coordinators accepted responsibility for setting up individual conferences with each participant, the primary purpose of which was to initiate plans for an independent study project with each of the students. This aspect of the program will be described in detail in a later segment of this report.

The Study of Behavior. As has been indicated, the project participants had decided through the comprehensive summary processes and the planning activities of the previous several sessions, that a rather intensive study of behavior would be necessary in order to assist in the analysis of classroom problems and in the organization and direction of learning activities. This study of behavior, it was contended, would need to include an analysis of the basic concepts of growth and development as well or some emphasis upon the behavioral expectations at various levels. In order to accomplish these ends an organized design was developed and individual responsibilities assigned in a scheduled sequence. This part of the work flowed through the following pattern.

1. Basic concepts of growth and development. In an effort to develop a basic approach to the study of behavior, considerable time was spent in attempting to analyze general concepts through which growth and development could be interpreted. Several generalizations were agreed upon as necessary for proper behavioral study. First and perhaps foremost is the concept of individuality. Each person must be viewed as a unique and individual entity, at any moment being the product of all of his previous experiences and inclined in directions fostered by the unique combination of features which he represents. Behavior can be interpreted adequately only as it is understood as reflecting AN INDIVIDUAL at a particular moment in his existence.

   In addition it was recognized that an individual in all of his unique conformations represents a complex of developing processes all of which are interwoven and interrelated. This concept was considered particularly important in terms of behavioral study related to school activities, since it is common to compartmentalize aspects, of the person for the sake of educational effort. Too often the schools emphasis is upon attempts to foster learning activity directed exclusively toward mental or intellectual growth with little reference or regard for development as an integral part of a total functioning organism. The study group concluded that the study of behavior would need to be built upon an acceptance of the individual as a unique, comprehensively functioning organism effected at every moment by predispositions reflecting his own individuality. This must be the starting point in any analysis of behavior.

   A second general concept which appeared basic to behavior study was the continuous nature of the growth and development process. Viewing behavior adequately requires an acceptance of the fact that growth and development processes are constantly going on and that individuals must be seen as organisms "in process." Behavior reflected at any moment is the outgrowth of what has gone before and provides a basis for what will happen in subsequent activity. Thus a student in any educational situation is not astatic entity, but rather an organism flowing in an experiencial stream. From this basic concept it was concluded that to understand individuals on any level, some knowledge of what had gone on before is necessary as well as some inkling of what the experiences of the moment may lead to. In other words, appropriate study of behavior must encompass the full range of individual experience from early life to later periods when the person

is beyond the range of elementary and secondary school activity.

A third concept which appeared important as a focus through which behavioral study should be accomplished was that of behavioral expectations at various levels of development. Though it was apparent that individuals are unique and each must be interpreted as a unique complex of interacting features, there are in every cultural setting certain characteristic expectations which can be anticipated. Knowing these can assist a teacher in assessing what is taking place and can serve as a basis upon which learning opportunities can be structured with promise for success. Thus, a knowledge of some of the major growth and development characteristics at various levels can serve as an important ingredient in the analysis or interpretation of classroom behavior.

As an amplification of this concept it is apparent that certain needs flow out of the nature of the growing and developing process and these provide the "energy source" for behavioral reflections. Understanding the needs complex and some of the "developmental tasks" which are inherent in these need complex structures is necessary for proper guidance of the behavioral sequence of learning situations.

With these basic concepts as a backdrop for interpretation, the study of behavior at various levels of development was undertaken.

2. Infancy. To view the total range of development and particularly to understand some of the roots from which much of later behavior stems, review was undertaken of the major bench-marks in growth from conception through infancy. It was kept in mind that this was not an attempt to analyze in any comprehensive fashion the nature of growth processes or developmental sequences at this level. Rather it was an attempt to provide a general frame of reference from which the study of later developmental levels could be undertaken. Again this was the result of the assumption that behavior at any point reflects all that the individual has "gone through" and, consequently, attempts to understand individuals on any level must be enlightened by a view of the total developmental sequence.

   In the study of infancy, major growth patterns were discussed and developmental sequences were deliniated. In addition, characteristic behavioral patterns were studied, particularly those which provide roots for later behavioral inclinations. One of the important generalizations developed from this study, was the nature of the impact of early experiences upon personality conformations of a lasting nature.

3. Childhood. Here again, the primary intent was to effect that understanding of behavioral processes and developmental sequences which would provide the frame of reference through which later levels of development could be viewed. On the other hand, participants whose teaching level was in the elementary school made this their major area of emphasis in behavioral study.

4. Puberty. Since many physical, physiological and organic changes take place in a somewhat traumatic manner during the pre-puberty and puberty developmental phases, considerable emphasis was placed upon this study. However, the attempt was not to be analytical in the strict academic sense but rather to find ways of becoming aware of the changes taking place in individuals and of understanding the implications of these changes as these were reflected in the behavior of students. Since many of the project participants were working in junior high school, there was daily contact with students on this level and a "feeding into" the discussions of a great deal of information from the actual teaching circumstance.

5. Adolescence. For those participants preparing to teach in junior and senior high school, the study of adolescence appeared to be of greatest concern. Since it is a period of such great impact upon the developing personality it was considered appropriate to spend a sizeable period of time on the analysis of this level of growth and development.

   Basically the thrust was in a similar direction to that emphasized in the study of other levels. There was an attempt to assess the variety of growth and development changes taking place and to understand the impact of these upon the developing individual. Again, behavioral characteristics which appear on this level were illucidated and deviations from common patterns analyzed. There was also an attempt made to see the influence of developmental patterns on adolescent behavior and to trace this onward as it might affect consequent personality framework.

   An additional increment of study was undertaken which had to do with adolescent problems and the school. It had become increasingly apparent as the adolescent phase of development was studied that the incongruences between behavioral inclinations and the expectations of the school were extremely critical during this period of growth. Thus it was decided that particular emphasis should be placed on an analysis of major problem areas evident during the adolescent development phase. An effort would then be made to assess these in respect to the nature of the school and the expectations enveloping the individual in his educational environment.

6. Summary of growth and development. The final phase of growth and development study flowed from the analysis of adolescent problems and the school. This attempt to assess the school circumstance as it eveloped the growing

organism initiated consideration of general principles which emanated from the study of the total scope of growth processes and developmental characteristics.

From this it appeared clear to project participants that knowledge and understanding of behavior is essential to good teaching. Participants recognized that all behavior reflections have some causes which must be understood. They knew that to "treat" behavior without reference to what is causing it, is to treat an effect rather than a cause. Finally they recognized that treating effects will seldomly do anything about the basic predisposition out of which the behavior has come and thus serves only to camouflage the actual problem.

Since education is really a process of directing or guiding behavior, it is essential that the teacher know how to structure situations so that behavioral "causes" are treated effectively. This is the only way in which behavioral sequences can be influenced and in which consequent learning can result. To understand individuals is to arm oneself with the necessary facility to influence the course of behavior so that learning will take place.

Learning. To understand behavior and to interpret experienced processes of students is the essential starting point for the director of learning first time used activity. However, there is another ingredient which must be added or there can be no direction, sequence, or organization to the instructional process. This ingredient in the learning theory from which the instructor works.

Attempts to understand behavior and to learn to direct its course served quite appropriately to lead into a study of learning theories. Assuming that learning is a process of behaving or experiencing, the nature of the guiding process instituted by the teacher will reflect a basic position as to learning theory. Thus, an effort was made to investigate the various theoretical positions and to assess them relative to the concepts that had so far been developed during the year. Basically the intention was to have each project participant analyze his theoretical position relative to learning concepts and to evolve as carefully as possible a well-constructed theoretical position. Here again, the extremely close integration of "practice" and "theory" elements served an excellent purpose, for the whole process of analyzing basic concepts and developing an organized theoretical position was enhanced by the constant interaction of "practice" and "theory" activities.

In addition to learning theory as a set of constructs, attention was devoted to the role of motivation in learning, to the use of rewards or reinforcements and to other elements of importance in the development of an effective approach to directing learning activities.

The Concurrent Professional Seminar (Con't). As was the case for most of the first semester, the concurrent professional seminar was organized around topics which appeared to have promise for supplying supplementary experiences to broaden and deepen the participant's understanding of education. The scope of this effort is evident from a review of these sessions.

1. Administrative details involving the teacher. One of the early emphases in the sequence was an attempt to familiarize the participants with the many details which are supplementary to the actual teaching responsibility. The assistant principal of the high school led the discussion and served as a resource person. Topics covered included keeping class registers, developing plan books, working with the administration in discipline, study hall and detention hall duty, and some of the major legal issues with which a teacher must be concerned.

2. The Cooperative Board and Supervisory District Instructional Resources Center. The Maryvale School System is a part of a supervisory district in which many innovations are being applied. An important complex of these is related to the Cooperative Board and of particular interest to teachers, the Institutional Resources Center provided by the supervisory district. A session was held at the Harkness Center, the site of these developments, where the curriculum specialist of the Center conducted an extremely profitable session. Included in the discussion was a description of the Supervisory District and the Cooperative Board and a presentation of the multitude of aids to teaching that are available through the Institutional Resources Center. In addition, each participant was given an opportunity to work with instructional aids in the Center and was able to scan the reservoir of available teaching materials.

3. Reading Problems in the Junior & Senior High School. A special meeting for all secondary teachers had been scheduled by the administration to hear a specialist in reading from the

State Education Department. Since problems of reading were of concern to all participants and since these are some of the most crucial elements with which a secondary teacher has to deal, it was felt that the project group should attend the session. The discussion included an enumeration of the kinds of secondary reading problems, some of the causes of reading difficulty on this level, and some suggestions for amelioration of difficulties which secondary students have with reading and reading comprehension.

4. Team Teaching in High School Social Studies. Team teaching activities being used in the social studies department had been mentioned briefly during the Fall in connection with a review of the film "And No Bells Ring". However, staff members who were conducting the activity had just started this project and, at that point, had very little to report. In addition, they were engaged in a careful analysis of the process at it evolved and of the out-come in terms of learning activity. The results of However, staff members who were conducting the activity had just started this project and, at that point, had very little to report. In addition, they were engaged in a careful analysis of the process as it evolved and of the out-comes in terms of learning activity. The results of such analysis would naturally not be of any consequence at the time. Thus, intensive study was impossible under these circumstances and further attention was postponed until more experience had been accumulated. The topic was discussed again in the spring and the two instructors reviewed their project for the group. This was followed by a discussion of the goals and purposes of team teaching, of the processes related to this endeavor and of the skills and predispositions which a teacher must have in order to work successfully in any kind of team effort.

5. The Supervisory District in Educational Administration. The previous discussion of the Supervisory District and the Cooperative Board had been quite cursory because of the desire to concentrate on the instructional resources available for teachers. Thus a session was scheduled with the superintendent of the supervisory district to delve in some depth into the administrative structure of education with particular emphasis upon the scope of responsibility and the role of the district superintendent.

   As this particular district has one of the most effective cooperative boards, considerable emphasis was devoted to this element in the total educational structure. All of the services of the office of the district superintendent were discussed and the cooperative enterprises in which local school districts participate under the superintendent's auspices were enumerated. In addition, considerable attention was given to the role of the cooperative board in encouraging broadened educational opportunity through vocational and technical educational programs supplementing the offerings of individual school districts.

6. The Role of the Lay Board Member in Education. In an attempt to understand the nature of local participation in the development of public education programs, a member of the board of education was invited to discuss his interpretation of his role in school affairs. This was one of the most productive sessions of the series for the Board member stated in clear and concise terms the responsibility of the public for education, the role of lay representatives, the function of a board of education and the manner in which this lay board operates in relation to school administrators and teachers.

7. Teachers and Professional Organizations. A teacher must participate in the broader professional community if he is to call himself a member of the educational profession. The rights and obligations attached to professional activity is thus an extremely important aspect of teaching or other educational service. In order to provide the most effective analysis of this aspect of the teacher's responsibility, the Assistant Executive Director of the New York State Teachers Association was called upon to describe the Association's program, its goals, and its importance to the profession.

8. The Union Movement and Education. In the discussion of professional activity represented by the Teachers Association program, great interest was aroused in contrasting professional associations with the union movement. Consequently, it was considered important that a similiar investigation be made of union activities.

   An official of the American Federation of Teachers was obtained to discuss the union movement and its relevance to teaching. As in the former session, attention was given to the program which the union provides, its goals for teachers and other educational workers, and how union participation can contribute to the advancement of education.

9. Student Grouping for Instructional Purposes. Discussion had taken place at various times in seminars as well as in general sessions on the problem of grouping students for effective instruction. Since numerous patterns were in use throughout the school system, a representative panel of teachers was selected to discuss their grouping arrangements. Teachers were obtained from each level of the school program and from a variety of subject areas. Thus, many different ways of grouping students could be seen and the use of grouping procedures on different levels was apparent.

10. Summary of the Concurrent Professional Seminar. The Professional Seminar meetings were discontinued as the year was drawing to a

close to permit a period of concentrated teaching in the classroom after which some special culminating activities were planned. In a final meeting, an attempt was made to review the many aspects of school activity that had been considered during the year. Such a recapitulation served to emphasize the breadth and depth of experience that had been encompassed.

Practically every aspect of school endeavor had been touched upon from the internal workings of a particular school situation to major professional issues with which all prosepctive teachers ought to be concerned. Included also had been a variety of specific topics that the participants had felt a need to explore in depth. Leadership for these topics was provided by specialists of particular note. In addition, several field trips to unusual educational enterprises served to extend the participants' knowledge of the total educational environment.

Independent Study Activities. The primary aims of the program were to promote interest in issues of concern to teaching and to develop independent study approaches to the analysis of these concerns and to the solutions to common problems which face the practicing teacher. The multitude of activities engulfing participants during initial stages of the project forced too little attention to be focused upon this part of the program. Thus, in a mid-year assessment of activity, considerable attention was given to the means of emphasizing independent projects for all of the participants.

Since this project had grown out of a program of cooperative endeavor which included efforts to promote the individualization of instruction in theory aspects of teacher preparation, the coordinators had considerable familiarity with this practice.* Thus it was a matter of applying concepts of previous experience to the nature of the project with which they were involved. To ensure the proper emphasis to this part of the work, one of the coordinators accepted independent study activity as his major responsibility for the remainder of the year.

Each student was asked to select a problem for intensive study from the teaching situation in which he was involved. This problem could be of any nature as long as it involved some aspect of the actual teaching circumstance. Two fundamental criteria to be considered were that the study project grow from the teaching circumstance and that it be capable of being "tried out" in a classroom or laboratory situation. Each participant was expected to schedule an initial individual conference with the coordinator early in the second semester to agree on a topic and a plan of study. Thereafter each participant was expected to schedule conferences for progress reports every two weeks.

The independent study projects varied from the study of an individual "problem" pupil on one hand to an attempt to develop a unique approach to the presentation of highly specialized subject-matter to non-academically inclined pupils on the other. In each case the results of the study were "tried out" in the actual teaching-learning setting so that the project became more than a mere academic exercise.

The study was written up in each case and submitted as a "research paper." These papers served as one of the elements upon which the final oral conference was based. Such conferences were scheduled with each student at the end of the project activity. Since there was tremendous scope to the study project in which participants engaged and since they represented an integral part of the total work of the program it was considered important to provide considerations of the nature of this activity in any final report. Thus each participant was asked to develop a short abstract showing the purpose of the study, how it had been conducted, and what results accrued from the project.

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*This is reported in detail in the monograph Individualization of Instruction in Teacher Education 4 U. P. - SUNYAB.

Culminating Activities. In order to bring the project to a close with organized concluding experiences, several special activities were arranged. These included an attempt to see and understand something about school programs which are different from the one in which the project was developed. This was attempted through organized observations in central city schools of Buffalo. It was felt important also that project participants have some direct experience with community activities in other than the suburban setting of the school district in which they had worked intensively. An introduction to the disadvantaged community was provided through a directed visit to such a community center. In addition it was considered important that some effort be made to summarize the theoretical concepts with which participants had been dealing all year and put these into a frame of reference directed toward prospects for the future. This was attempted through a series of "discussion-presentations" in the final two weeks of the year. A brief review of these culminating elements may prove helpful in putting the activities of the project in proper perspective.

1. Visitations to Central City Schools. Arrangements were made to spend a day at the Woodlawn Junior High School and a day at East High School in the City of Buffalo. Though these were mere introductions to the setting, to the problems, and to the pattern of school programs in these institutions, they served to acquaint the participants with other than the lower middle class suburban education with which they had been involved for the year. Perhaps these were more than introductions for the nature of the visits and the manner in which the group was programed, made them intensive studies in urban education even though the time spent was infinitesimally small -- particulary in relation to the nature of the problems involved.

   In the junior high school, the administrators, guidance personnel, and selected teachers talked with the project group about the school, the community and the major problems of education in an inner city community. After this introduction, the project group divided into small teams and, under the leadership of a school official, were guided through school to observe its program elements. After the observations, a general discussion period was held in which school officials answered questions and discussed in detail those issues about which the participants had questions.

   At East High School a coffee hour and introduction to the school initiated the day's program. After this each project participant was scheduled to classes throughout the day. At the close of the school session, the project group met with school officials for a review of the day's activities and for a discussion of any aspect of the school program in which interests had developed through classroom visits.

2. A Community Study. Though it was recognized that it is impossible to grasp the magnitude of community problems through a single visit, it was considered important to get a view of a community other than Maryvale. Through the efforts of the Friendship House, an intensive study visit to the "slum" area of the City of Lackawanna was arranged.

   The program consisted of an orientation session in which the participants were given an overall view of the community and some of its fundamental problems. After this session, the group was directed through a tour of selected blighted areas. At each point of visitation, the community worker described the nature of the situation and discussed -- usually in response to queries -- the basic problems which the community must be helped to solve.

3. Theory summary sessions. A series of summary sessions was scheduled to bring together and put into a composite picture the work of the year. It seemed important that the participants be urged to think in terms of an organized theory of teaching, that they consider some of the fundamental problems which education as a profession is facing at the moment, and that there be some attempt to predict some of the possibilities of the future into which the profession is inevitably moving.

   In developing a theory of education an attempt was made to bring together the multitude of themes around which work had centered during the year and build these into a systematic view of education. As a part of the focus upon this systematic view, major theoretical orientations current in education were assessed. It was hoped that the participants would come to some rather clear theoretical bench marks which could serve as their basis for interpreting educational endeavors.

   In a similar fashion, the theoretical formulations being considered were used to assess some of the current problems and issues that educational workers must face. Here it was hoped that some sensitivity to fundamental theoretical positions would help in the assessment of problem circumstances and in the process of analyzing and solving problems which are encountered.

   It is evident that there is no way of seeing into the future through any lens that affords a valid view. However, it is always necessary for a professional worker to be sensitive to the trends

which carry implications for future development. Thus, an attempt was made to survey a variety of the tendencies apparent today which may serve to forecast directions in which professional affairs may go. Such forecasting elements as economic, social, political, and international changes were viewed for predictive implications and some suggestions provided for the "stance" educators should take in the cultural revolution that is encompassing modern man.

4. Final Oral Conference. A final assessment of the development of each of the project participants was attempted through an oral conference scheduled with the two coordinators. The purpose of the conference was to look through the pattern of activities of the year into the growth and development of each individual.

The conferences usually took a two-pronged approach. The individual study project was discussed in considerable depth (a final written report had been previously submitted) and a general discussion of educational concerns was conducted. In these sessions every effort was made to review the major elements with which the group had been concerned during the year.

Conclusions and Implications

Project Goals in Retrospect. The primary function of this project was to demonstrate that the cooperative efforts of a university and a public school system could develop a program of teacher preparation truly unique in character. Such an enterprise could bring to bear upon the program of preparation of prospective teachers the multitude of resources which these entities represent and through the reflection of such efforts upon a program, provide sets of experiences for prospective teachers that would dwarf present institutional efforts in terms of magnitude, intensity of effort, and breadth of experience which could be provided.

It was also envisioned that such a program could put into practice many of the innovative features of instruction being proposed for good educational endeavor. Such practices as team-teaching, clinical team activity, pupil teacher planning, individualized instruction and others would, of necessity, be an integral part of such a program. Rather than these features being treated in their theoretical framework in a university class, they would become the actual operating processes by which activities were organized and structured in the program of preparation itself.

Perhaps most importantly the program was developed to demonstrate the need for, and method of attaining an integration of theory and practice elements. The theoretical framework in which the project was organized stressed that, there should be no separation of the "theory" oriented elements of a program from those of a more "practical" nature. The need for an interacting mutuality is evident to many who survey with sensitivity the nature of preparation programs. "Theory," as abstraction and separated from the setting in which it is operative, is sterile and difficult to comprehend. "Practice," in isolation from the deliberate efforts to build the foundations upon which it rests, is blind action in a meaningless milieu.

The project was designed to incorporate the major emphases of a teacher preparation sequence into an all-embracing, interacting composite of elements. It was expected that theoretical analyses would flow from problems encountered in the actual context of teaching and would form the FOUNDATION for appropriate teaching activity. In like fashion concepts developed in theoretical exploration would feed into the teaching process thus enriching the teaching-learning context out of which further problems for exploration could be expected to flow. Either part of this complex of interactive processes is insufficient without the other. It was to these goals that the project was directed.

The Overall Program. Departures were made from a variety of common patterns in the organization of teacher

education activities. Some of these departures were simply extensions of patterns prevalent at the university. Others were innovative efforts developed through cooperative activity encouraged in the Four University Teacher Education Project. Still others were quite novel and resulted from the exploration of the possibilities inherent in such a program design.

As has been indicated, the university has long provided a comprehensive, integrated offering in theoretical elements to teacher preparation in a professional unit in education. The extension of this through independent study had been done in the Four University Project, extension into the theory-practice correlation of the Maryvale Project was a natural evolution. The idea of concurrent scheduling of theory elements (the professional unit in education) and the practical experiences in the schools (student teaching) also was a natural development.

However, block scheduling in the school situation, clinical team approach to organization of instruction, and on-the-spot integration of theory-practice features were new increments in the design of a teacher education program. Also new was the all-embracing effort of school and university cooperation in the responsibility for, and conduct of, the total program of preparation of these prospective teachers.

Some Apparent Outcomes

1. Theory-Practice Integration. The experience in this project left no doubt that a program can be designed which will enhance theory-practice integration. There was also considerable evidence that such a pattern enhances greatly the value of other aspects of the program. There is, as anticipated, a continual "feeding in" of theory into actual teaching. In turn, there is enrichment of theory as this becomes based upon actual activity in classroom situations.

2. Unification of Theoretical Elements Basic to Teacher Preparation. The success with which the participants handled all aspects of their experience in this program was indicative of the value of a unification of the theoretical elements. History of education, philosophy of education, psychology of education are not sets of isolated subject matter to be memorized until an examination has been successfully endured. They become interwoven sets of a theoretical fabric which gives meaning to the circumstances in which actual teaching-learning experiences are conducted. When these are unified as a part of the aforementioned theory-practice integration a new realm of prospective knowledge is opened up for the student.

3. Public School-University Cooperative Effort and the Use of Resources Encompassed in Both Sets of Institutions. The project demonstrated quite conclusively that, where there is an intent to cooperate and an attitude of sincere interest in the preparation of outstanding teachers on the part of all concerned, a truly cooperative effort can be developed. In fact, the experience was an extremely constructive one and contributed to the professional development of university and school system participants through the continual interaction promoted by the program design.

   A further consequence was the evident broadening of experiences for all concerned as the resources of the school system as well as those of the university were made available. The variety of school system personnel who participated in instructional processes of the program, the use of technological resources of the system, and the opportunity to have experiences in the cooperative boards' instructional materials center are representative of the opportunities provided by the system. The use of video-taping in the study of teaching performances and the inclusion of other staff members from the university indicate the manner in which the college can supply additional resources to a program of preparation. The potential of each of the cooperating entities, then, was brought to bear upon a teacher preparation endeavor.

4. The Clinical-Team and Student-Teacher Planning As Essential Features in an Instructional Process. The value of a team approach was also demonstrated in this project. That contributions can be made to preservice education by a variety of individuals is an established axiom of little question. That the potential of these contributions can be magnified immeasurably by "team" operation is not so overwhelmingly accepted. In the operation of the Maryvale project it was evident that the resultant contributions from the interaction of team members was of a magnitude quite beyond that of the separate individuals. The potential of "team" activity is not confined to A team, but rather can be developed through a pattern of a variety of "teams" encompassing many individuals in a university and a public school system.

   In addition, the team approach appeared to encourage a more flexible and intensive student-faculty processes enveloping not only the planning phases of the operation by the actual

conduct of the instructional program as well. Constant teacher-student interaction appeared to be a natural consequence of the structure of the operation and resulted in learning beyond that associated with the normal course of events in teacher preparation.

5. Flexible Programing of Instructional Elements. Though professional literature is replete with reference to flexible programing as a necessary accouterment to good instruction, college and university programs in teacher preparation are almost exclusively woven around stable and fixed class arrangements. This project is a demonstration of the feasibility of flexible program patterns and of the actual workability of these when properly designed. To say that large-group, small-group, and independent study arrangements are possible in instructional programs and then develop the teacher preparation program on the traditional fixed schedule basis, is to provide no real acquaintenship with such practices for the prosepective teacher. To say as well, that program elements in schools should be woven around larger subject themes and developed in terms of needs and interests of students, yet continue the teacher preparation program in the typical isolated-coursework format is to produce teachers who can never be expected to introduce innovative features in classrooms.

6. Inservice Development of Faculty and Staff. Though it had not been foreseen that a major outcome of the project would be the inservice development of faculty and staff, it was apparent that the stimulation resulting from the program caused considerable professional development. The interaction of teachers, student teachers, university faculty, and others could not help but contribute to the professional improvement of all.

   In addition, the presence of a university faculty member among the staff improved the nature of relationships between the institutions. Teachers constantly called upon the university representative for assistance and, in turn, contributed immeasurably to the reputation of the university. Many unusual class activities resulted from this relationship, not only for the project-participants, but also for the public school pupils whose teachers were stimulated.

Some Suggestions for Future Programs. The Maryvale Project has demonstrated that it is possible for a university and a public school system to cooperate in the development of a program of teacher education of unusual scope and dimension. That theoretical aspects of the preparation of a teacher can best be done on a university campus and the practice elements structured in an effective way in a school system, is demonstrably untrue. Where these dimensions of student activity are developed in an integrated fashion and organized as a composite endeavor, the benefits to the prospective teacher are overwhelmingly increased.

Several aspects of the program could have been improved by measures which are now apparent. These can be seen, now that the program has been completed and the experience of this project used to improve future adaptations of this concept. A few notes on several of these may prove helpful for future efforts.

1. Teaching load adjustments for coordinating team. It was apparent as the year went on that the activity load for staff coordinators was unrealistic in relation to what was called for by the program. The multitudinous responsibilities can engulf an instructional staff as a result. The extremely close contact anticipated between coordinators and supervising teachers was not possible. Classroom visitations, conferences with classroom teachers, conferences with project participants and many other important features of a close working relationship had to be held to a minimum. This did an injustice to the program and resulted in failure to exploit many of the natural opportunities of a program design such as the project represented.

   In similar future projects, proper staff time should be allocated to the program. A school system representative on the coordinating team should be allocated at least half-time for project purposes. This would provide the necessary flexibility to meet with administrators, classroom teachers, project participants, and with the members of the coordinating team. In a similar manner, the university representative should have this as the primary assignment of his instructional load with little, if any, other assigned responsibilities. He could then participate in the various activities of the program as these relate to the school system, while in addition he could coordinate the university aspects of the program.

   It must be emphasized that this does not anticipate a heavier staff commitment in terms of student-teacher involvement. Rather it calls for a reorganization of the responsibilities in terms of program. In fact, there is less faculty resources involved in the total experience for project participants when over-all considerations are analyzed. Instead of a large number of university staff members involved as student-teaching supervisors, theory section instructors, coordinators of field services, and many more, all of these functions are combined into the role of the coordinating team, other contributions can be expected from others on the school faculty and staff.

2. Involvement of "methods" aspect of preparation program. Perhaps the major deficiency of the project as it unfolded was the inability to integrate into the composite endeavor the theory work in methods that is usually provided through the University. There was also an inability to use, in the ongoing program, the staff-resources represented by the specialists in "methods" in various teaching areas. Scheduling problems and staff loads were responsible for the latter and somewhat for the former, though little thought had been given in the preplanning stages to the inclusion of this extremely important increment.

   This suggests that the theoretical components of teaching methodology, which is a part of the program of every teaching area, be amalgamated into the total theoretical dimension of the in-school work. In addition, there should be some provision for specialists in teaching methodology to participate in the scheme of activity as it is programmed.

3. More adequate use of technology. Though considerable use was made of video-tape in analysis of teaching performance, the full potential of educational technology was in no way realized. In fact, it was impossible to take full advantage of the video-taping for there were no play back facilities in the school system which could be used conveniently by student-teachers, supervising teachers, and project coordinators in team analysis of the performance.

   Future efforts should attempt to make use of the full range of technological resources and should develop more effective approaches to the use of available facilities.

4. Greater Involvement of school system personnel. In spite of the fact that teachers, administrators, and school staff members contributed immeasurably to the program, the full range of potential was in no way realized. Some design should be developed that would provide for continued involvement of teachers and administrators in theory activities, for this is an extremely inportant resource when dealing with educational issues. It is recognized that staff-load and scheduling problems are handicaps in the full utilization of personnel. However, there should be continued effort to surmount administrative problems to bring a maximum effort to the teacher preparation program.

   Many staff and related school people could also be added to the teaching coterie. The school psychologist, the school social worker, and the medical officer, whose contributions could be especially significant, should be included in the program. In this way the prospective teacher would expand his knowledge of the theoretical foundations from which he must work. Even as importantly, he can be helped to realize the wide variety of resources upon which the teacher has to draw in conducting educational endeavors.

5. Greater emphasis upon independent study efforts. The extensive experience with independent study activities not only in this project, but in previous areas* has demonstrated the value of this approach in teacher preparation. It appears folly to assume that individuals learn ONLY--or that they learn BEST--when under the direct control of an instructor. Unusual learning potential is available through well-planned, intelligently-directed and deliberately-structured independent-study activity.

   Successful efforts to encourage the development of an independent study project structured around actual instructional problems during the second semester illustrated how effective this program can be. That it should be made a more significant increment of the total program is evident. Therefore, it is strongly recommended that future efforts in teaching centers include considerable emphasis on individualized instructional procedures for participants.

Final Remarks. The magnitude of the Maryvale Project is difficult to assess and the contribution that will result cannot be estimated at the present time. However, it is apparent that this has been a demonstration of unusual importance and that there was embodied in the project elements of extreme significance to teacher education.

It should be pointed out that there was no outside support for this endeavor. What was done resulted from the commitment of professional workers to a task that required attention. University officials, school-system officials and staff, teachers, and project students all contributed toward the success of the venture.

The fact that project goals were accomplished without outside support only makes the program more significant, for

*Reported in full in the Individualized Instruction Report.

it demonstrates conclusively that a university and a school system can conduct cooperative innovative ventures where there is a desire and an interest in doing so. There is also exhibited in this project a pattern of operation that can be adopted under any circumstance for there is expected in the effort nothing beyond what can be contributed by professional workers of good faith and an interest in the improvement of education.

It must also be emphasized that this program was conducted with no greater investment of staff time and institutional resources (i.e., FORMAL allocations -- actually the time and effort invested was of an extremely high order) than is ordinarily given to "regular" teacher education processes. Rejection of this as a means of preparing effective teachers cannot be justified on the grounds of the "extras" that it requires. Thus the format could be introduced into any school system and college relationship, should there be an inclination to attempt such an operation and should there be the cooperative attitude and sincere devotion to professional improvement that undergirded this project.

Finally, it would appear that there was demonstrated in this program an approach that could be considered as a prototype for a university organization of teacher education activities. Instead of the multitudinous isolated, discrete and, in a great part, meaningless, sets of courses and other teacher education experiences, an institution could organize cooperatively designed programs in selected public school teaching centers. With 25-30 students organized in activities similar to those in this project, and with the cooperative clinical team approach as developed at Maryvale, a total student body in teacher preparation could be put in highly charged educational circumstances. As many of these centers as would be necessary to accommodate the student body involved could be set up and the resultant staff demands would be not unduly great. The educational value would dwarf any that is offered by commonly accepted patterns in existance at this time.

Cooperating Administration & Faculty

Project Coordinators

John C. Wilson
Charles R. Fall

Maryvale School System

Samuel R. Bennett
Supervising Principal
James G. Dixon
Assistant Supervising Principal

Maryvale High School

Stewart Davis - Principal
George Gardner - Assistant Principal
Joan Blake - Social Studies
Doris Endres - Science
Ruth Hedden - Social Studies
Patrick J. Kane - Social Studies
David G. Male - Social Studies
Elizabeth O'Neil - English
Floyd D. Price - Science
Robert C. Sauter - Social Studies
Edward Szemraj - English

Maryvale Junior High School

James H. Lins - Principal
Helen Kennedy - Assistant Principal
Kathryn Baxter - Social Studies
Raymond Healy - Social Studies
Benjamin G. Huber - Social Studies
Richard Kelsey - Science
William Little - Art
Joseph McMahon - Social Studies

U-Crest Elementary School

James Mancuso - Principal
Joan Kuhn - Assistant Principal
Rita Bogdan - 1st Grade
Judith Chirnoff - 5th Grade
Charles W. Knight - 5th Grade
Carmelo F. Parisi - 5th Grade
Cynthia Pryor - 2nd Grade
Katherine Waltz - 2nd Grade

Cleveland Hill High School

Walter J. Heffley - Supervising Principal
John W. Doran - High School Principal
Richard Guyette - Science
Albert Mirand - Social Studies

East High School - Buffalo

Robert Rentz - Principal
Gerald Hare - Assistant Principal
James Harmon - Assistant Principal
Leonard T. Antos - Business

Frontier Central High School

Wilber Morganfeld - Principal
Michael J. Zalenski - Spanish

North Tonawanda Junior High School

Maurice Friot - Superintendent
George Laury - Principal
Walter Sohal - Business Education