DOCUMENT RESUME

ED 043 598 SP 004 288

AUTHOR Farrer, Kenneth; Guest, Elizabeth
TITLE A Cooperative Instructional Service Program for Improving Educational Personnel to Teach Special Education Students in the Regular Classroom. Director's Final Report.
INSTITUTION Utah State Univ., Logan. Coll. of Education.
SPONS AGENCY Office of Education (DHEW), Washington, D.C.
PUB DATE Jun 70
GRANT OEG-0-9-547047-3579-725
NOTE 111p.

EDRS PRICE EDRS Price MF-$0.50 HC-$5.65
DESCRIPTORS Child Development, Classroom Observation Techniques, Diagnostic Teaching, Educationally Disadvantaged, *Handicapped Students, *Inservice Teacher Education, Laboratory Schools, Practicums, *Regular Class Placement, *Special Education, *Teacher Aides, Teacher Attitudes, Team Teaching

ABSTRACT

In its first year, this program trained 18 experienced teachers and 36 teacher aides. The program was devised to meet the needs of teachers in areas where handicapped and educationally disadvantaged children are placed in regular classrooms. It was also intended to train adults from disadvantaged groups as teacher aides, thus making use of their special ability to relate to disadvantaged children. The training program involved seminars on the intellectual and emotional development of children, methods of observing and recording behavior, methods of interpreting observation records for evaluation and curriculum planning, use of educational media, and team teaching and planning. An equally important part of the program was practical experience as a member of a team in the laboratory school. Extensive evaluation of the program indicated that participants improved their knowledge of and attitudes toward special education, and their students made significant gains in achievement. Other important evaluation findings were that special students can be educated in regular classrooms if a ratio of 1 to 5 is not exceeded and if enthusiatic and dedicated educational personnel are utilized. (An appendix contains some of the evaluation instruments used, data tables, and lists of staff and participants.) (RT)

DIRECTOR'S FINAL REPORT

Project # OEG-0-9-547047-3579-725

"A Cooperative Instructional Services Program for Improving Educational Personnel to Teach Special Education Students in the Regular Classroom."

July 1, 1969 to June 30, 1970

Kenneth Farrer: Head Elementary and Secondary Education
Director

Elizabeth Guest: Project Director for Administration and Curriculum Coordination

Utah State University

Logan, Utah 84321

CONTENTS

I. INTRODUCTION

The following final report is constructed as a short critical overview in the format suggested by the EPDA Handbook for Directors. The addendum which follows is used extensively to amplify significant aspects of the project.

A. The Major Goals were:

1. The training of prospective teachers and the retraining of experienced teachers to assist handicapped children and educationally impoverished children to reach a high level of learning potential in the regular classroom.

   Need: Many rural schools have no provisions for children with special education needs; therefore they are housed within the regular classroom and taught by teachers who do not have the understanding or the training for dealing effectively with them.

2. The training of auxiliary educational aides to function with specified responsibilities as a member of the educational team in the regular classroom where the student membership includes children with handicaps.

   Need: In the rural areas there is often a population of culturally different and/or economically disadvantaged people who have the desire and ability to be of assistance in the education of children, but opportunities for adequate training are usually not available to them because of impediments within the structure of the social and/or educational system. Children in the areas from which these personnel come could greatly benefit from the individual attention which these people could provide in various roles under the direction of a teacher.

3. The use of the team approach as a positive force for the development of skills and understandings of human relationships requisite to effective participation on a team enterprise with division of labor and limits of autonomy identified for each participating member.

   Need: Teachers have traditionally been trained to function without considering the skills requisite to working in teams. In order to effectively use aides and draw on other resources necessary in promoting learning (especially the learning of handicapped children), teachers must be assisted in the development of skills required for team work. Likewise, aides must acquire the skill of playing different roles within the team as various situations may require. Opportunities for team interaction and training for both teachers and aides currently occurs primarily on the job where consultation and alternatives are very limited.

4. The effecting of change in the teacher education program in equipping candidates for a teaching credential in grades kindergarten through nine to know, to be aware and to be sensitive about the handicapping conditions to learning.

Need: The acceptance of the needs listed above indicates a need for the revision of teacher education programs. The potential of various methods of observation, study and practicum participation in classrooms to provide realism and relevance in learning is a resource which is largely untapped and should be more fully investigated for use in preparation of people seeking positions in educational professions. If EPDA projects are to have a significant impact, the results of these endeavors must reflect as an integral part of educational institutions. Only in this way can any long range effectiveness in meeting the needs listed above be obtained.

B. The Supporting Goals were:

1. To demonstrate competency in understanding the knowledge related to educating handicapped children by performance in the practicum of diagnostic and prescriptive procedures.

2. To demonstrate competency in unifying the principles of curriculum development for children with an extended range of individual differences as those principles relate to both regular and special education.

3. To demonstrate competency to relate the major representative ideas of at least two disciplines of knowledge for children with a wide range of variability.

4. To demonstrate competency to help all children develop greater capacity to extend the use of higher level mental processes.

5. To demonstrate competency in helping each child build and maintain mental and emotional stability in his interaction with children of wide behavioral patterns.

6. To demonstrate the concept of division of labor with compassion for the autonomy of each participant.

7. To demonstrate growth in the use of language structures which facilitate greater interaction.

8. To demonstrate by constructing materials of instruction the concept of a diversified method of teaching.

These supporting goals were viewed as avenues through which the major goals were to be met. They are suggestive of the type of content and process which would be necessary in providing trainees with experiences conducive to significant learnings in preparation for educational professions. Delineations of curriculum tailored to the fulfillment of these supporting goals can be found in the addendum.

II. OPERATION OF THE PROGRAM

1. Planning

The genesis of the project was in the quest of USU professors for opportunities to make innovations in teacher education.

The possibility for having money available for innovation was made known to Dean Ballam through Dr. Alder and Dr. Cazier when they met with Dr. Brownfword, who was on campus to evaluate the teacher fellowship programs. He suggested to them that opportunities were available through EPDA. Dean Ballam passed the information to Dr. Farrer, who then gained support for the idea of a project from the Departments of Elementary and Secondary Education, Special Education, Psychology and the Edith Bowen staff.

A group of four -- Dean Ballam, Dean of the College of Education; Dr. Farrer, Head of the Departments of Elementary and Secondary Education; Phyllis Publicover, representing Special Education; and Professor Helen Tanner, representing the Edith Bowen School -- met in Chicago with U.S. Office of Education personnel for briefings on the procedure of developing the proposal and submitting it for funding.

Several agencies assisted the writers in drafting the preliminary proposal and committed their respective units as sources for reinforcement, dissemination and leadership-administrative assistance. These agencies were (1) Utah Education Association (TEPS Commission for Training of Educational Aides); (2) the Utah State Divisions of the State Board of Education (Division of Special Educational Services Division of Research and Innovation, Division of Teacher Education, Division of Elementary Education; (3) the offices of the superintendents of Schools - Thomas Abplanalp of Duchesne, C. Robert Sundwall of Moab and Ashel Evans of Uintah, from which and to which the stipend recipients would leave and re-enter the rural classrooms as teachers and para-professional teacher aides.

Consultation with the agencies listed above was essential in order to have assurances of project continuity at various stages of goal attainment. Questions which later arose (to be discussed below) would have been difficult to resolve had these initial commitments not been made by the superintendents. The early involvement of University and State agencies also demonstrated its importance toward the latter part of the project year as considerations for alterations in the teacher education program were made, and as arrangements for the refunding of the project were underway.

2. Staff (See Appendix A for a list of staff involved and the roles which they played.)

Dr. Kenneth C. Farrer assumed general leadership of the proposal development and was mainly responsible for writing and editing the project proposal. He continued throughout the project to act as liason between USU and the U.S. Office of Education.

After the project was funded and as a summer in-service training workshop began, new full-time project staff members were hired to work with the university staff. They were: Elizabeth Guest from Los Angeles County, California, as director for the project. She came with a rich background of experience in special and regular education. Bruce Arneklev accepted the position of research director and his talents and counseling were also utilized extensively. Tom Taylor, with his skills in construction and knowledge of the laboratory school facilities, was transferred from his previous position as a laboratory school instructor to the position of audio-visual specialist. Gay Blanchard was employed to serve as a very personable and competent secretary to the project. Lionel Brady arrived in September to serve as a liason between the project and the department of special education.

The five week summer work shop was very short for accomplishing all the tasks at hand in preparation for project operation. Some of the most important tasks were: (1) becoming articulate in what the specific project goals were and how they were to be implemented and assessed; (2) preparing for the integration of handicapped children into classes that had been segregated; (3) planning the program of experiences that would be provided for the trainees. The greatest concern by the greatest number was quite naturally to explore the eventualities of what was to happen in the classroom with variant types of children. This served as a reference point for the summer as well as a major portion of the year. Educationally, for all those who were directly involved, this was an excellent learning experience. However, it did raise many questions in the university community about what the true scope of the project was. The exploratory nature of the project also served to confound communication problems. Two weeks of time devoted exclusively to the crystallization of fewer fundamental objectives and the establishment of better communication channels (although in many ways antithetical to project philosophy - see Philosophical Context in the Addendum) may have reduced some of the frustration which occurred in the context of the many intervening factors that were continually in progress.

Many university personnel contributed time and talents to the summer work shop. Other consultants were called in from off-campus to share insights which they had gained through encounters in situations similar to those in which the project was to grow. Dr. Ken Lyons from the University of California at Davis served as a catalyst for two days in exploring the eventualities of different types of interpersonal relationships. Clifford Lefever from the Roy High School explored some of the important considerations in team relationships. These and many other excellent contributions were made by resource personnel from various points of view. But before the staff felt fully prepared, time for planning had passed and a very complex project was underway.

3. Trainees (see Appendix B for names and addresses)

Eighteen experienced teachers and thirty-six educational aides were to be selected from the participating school districts. The recruitment and selection of participating teachers and aides was left entirely in the hands of the school district superintendents. They had been involved in the planning of the project and were exposed to the purpose and objectives of the program. Inasmuch as was possible they were to select aides from educationally disadvantaged and ethnically different populations residing in their school districts.

Degree of success in getting the types of personnel desired was related to specific superintendents and their particular situations. Some had difficulty recruiting sufficient teachers and were therefore unable to fulfill the quota expected from them. Some also did not have sufficient funds to hire the quota of aides at the completion of their training. These vacancies had to be filled by recruiting at the university site. This permitted the recruiting of a wider variety of ethnic representation.

As a result of our first year's experience in the project, the following conclusions were arrived at with respect to recruitment and selection of participating teachers and aides:

a. Superintendents, after reading major goal #1, often mistook the phrase "retraining of experienced teachers" literally and selected some of their less successful teachers as project trainees.

b. School districts did not select as many aides from the educationally disadvantaged group or from different cultural or ethnic groups as was desired.

c. Teachers and aides selected were not screened on the basis of physical and emotional fitness. As a result some had difficulty in adjusting to the rigorous demands in time and energy which the project required from those serving as team members.

The following criteria for selection of teachers and aides were given to superintendents as a guide in the selection of participants for the coming year:

a. That all teachers and aides are employable and the district will employ them in a position for which they received training while participants in the 18-week practicum and seminar.

b. That all teachers and aides who become participants in the project are willing to return to the school district from which they came and be employed in a position for which they were trained.

c. That all teachers and aides selected be screened and be free from ethnic or racial bias.

d. Wherever possible teachers and aides selected for the project come from the educationally disadvantaged or culturally deprived groups.

e. That all project personnel be in good health. A physical examination is to be required.

f. That the teachers selected for re-training be fully certified and have had successful years of teaching experiences and possess potential leadership

g. That the teacher have sufficient years before retirement age to utilize to the advantage of the school district the experiences for training which he had in the project

4. Orientation

A substantial amount of time elapsed between initial planning with the superintendents of the participating districts and the arrival of the trainees which they had selected. When the trainees did arrive it became apparent that they and the superintendents were not fully aware of the commitments involved in meeting project goals. The superintendents were asked to visit the project site, and a visit was made to two of the districts to insure compliance with project intent. These efforts assisted in providing security for the trainees and they became more aware of the roles they would play through project involvement. The assistance of trainees was enlisted in presenting orientation programs in their home areas to the personnel with whom they would be working on completion of training, and to the trainees who would replace them. These trainee-directed orientation programs provided excellent training, clarification of trainee roles and publicity which was instrumental in increasing interest among candidates for training during subsequent training periods.

Because of the critical role which administrators would play in the ultimate success of the project, other efforts were made to insure that they would support the trainees in the roles for which they were trained. Principals of schools in which trainees were working were invited to the training site and given opportunities to see their people in action in the laboratory school. This was the initial exposure for several of these principals to the project and its objectives. A follow-up (see Appendix C) meeting with the principals and superintendents in each district shortly after the trainees had returned, upon completion of their laboratory school training, proved to be most profitable in the enhancement of relations between the project and personnel in the districts. Through these meetings communication channels for later follow-through visits were opened and more efficient utilization of trainee potential was insured.

5. Program Operation

The laboratory school staff and project staff first met informally with the trainees to get acquainted and explore individual interests and concerns. This format was in keeping with the educational atmosphere which was sought throughout the training period.

Administratively an attempt was made to operate as a microcosm of democracy. One realization of this occurred when representatives were selected from the various groups (trainees, laboratory school staff, project staff, interdepartmental groups, parent group) to assist in policy making and curriculum planning.

Interaction of team members served to bring out personality variables, recognition of which is most essential in effective human relations and mental health. Frictions caused by contrast in personalities and philosophies were accepted as challenges. Consultation and conferences for staff and trainees were crucial in turning them into opportunities for growth and learning, rather than overlooking them until someone had to be relocated or dismissed for not being able to "fit the mold." This was very time-consuming, but promoted some of the most important learnings.

Teams within each classroom (see Addendum, "On-Site Development" for make-up and operation of teams) were the focal point in bringing together seminar theories about children and practicum living with children. The development and utilization of a Strategy Sheet (see Appendix E) enhanced this process. This sheet allowed teachers and aides to bring into focus relevant aspects of a particular situation with a child in a manner which holds potential for making educational procedure more scientific. It was used extensively in the staffing of children and provided a concise record of what had been tried, what the results were and what activities were most appropriate for the future.

Involvement of representatives from other departments in the University was an integral part of the project (see Addendum, "Curriculum" section). Utilization of the realism provided by the laboratory school setting served to enhance learning opportunities. Immediate application of principles presented in the seminars to situations in the practicum was a true test of their applicability. More importantly the laboratory setting offered stimuli to promote questing by trainees for university resources who could answer specific concerns.

Visits to and from the counties (as was noted above under orientation) were very informative to the project and laboratory school staff. They served as a feedback link which enabled university staff to more fully appreciate conditions which trainees would have to work under in rural areas. Curriculum could then be adopted which would insure that trainees would be more effectively utilized when they left the laboratory school. Likewise visitations from interested parties in the counties to the project setting were welcome and proved to be very educational (e.g. visitation by representatives of the Ute Indian tribe indicated potential resource personnel in the rural areas and provided diverse points of view).

Attempts were also made to personally involve others who might have an interest in the project and its outcomes. This included personnel from the State Board of Education, who were particularly interested in (1) the roles which aides were playing and (2) the possibilities of integrating special education children into the regular classroom.

These visits were particularly important -- in the first case for promoting the receptiveness of professional associations to the legitimacy of various roles in which aides may function as members of educational teams, and secondly for the maintenance of financial assistance for special education students when they are no longer in special classes.

Maintenance of communication within and between the many levels of involvement - federal, state, county, university, college department, laboratory school, teams, etc. - was undoubtedly the most complex and challenging task which confronted the project. This task served to create the greatest learnings and advancements when successful, as well as the most frustrations when unsuccessful. The magnitude of the task demanded that personnel in all laboratory school and project staff positions be secure, enthusiastic, open-minded and dedicated. At least one full year of planning before involvement of trainees would have been most desirable in becoming adjusted to the many eventualities that occur when special education students are in the regular classroom. This would also have afforded the opportunity to collect research data before the confounding effect of trainee involvement occurred. It also would have given time for a project staff to develop realistic objectives for the trainees, so that expectations of staff and trainees would be consistently coincident.

The demands placed on a laboratory school staff in a one year transition into a project involving many levels of communication, special education students in the regular classroom, and teacher and aide trainees are too great for any setting which is less than ideal. This conclusion was substantiated in each of two conversations with project directors who have had similar programs for the past year.*

---

* At the end of the school year four projects were selected as most like this one from the summaries that were circulated of all EPDA projects involved with special education in the regular classroom. The directors of two of the projects could not be reached by phone after several attempts in one week's time during which they were known to be on their respective campuses. (This in itself may be significant.) The two directors who were contacted by phone volunteered the following remarks after responding to a semi-structured interview about the involvement of various types of children, curriculum and administrative procedures.

1. "Unless an integration process is very carfully thought out, and the supervisor and personnel carefully selected, and the follow-through very carefully handled, the project is doomed to failure. People must go in the project with an enthusiastic, optimistic attitude."

2. The second project director noted that he was very concerned about the selection and matching of students and teachers in order to make integration work well. The more severe the malady the more critical would be the matching. He also noted that his project was not being continued for the next year because he "...did not want to expend the kind of time and energy required from such a project without a break."

6. Evaluation

Tabulated results and a more complete explanation of the objective evaluation are reported in two parts in the addendum. The first of these presents psychometric data on trainees and some data on the performance of their students once they returned to the rural areas. This part focuses on questions of adequacy of training for teachers and aides. The second indicates the impact of the project on the university, the laboratory school and the children therein. This focuses upon the question of the feasibility of using a laboratory setting in training teachers and aides, and resultant impact of that situation on university teacher education programs.

Various tests were administered to trainees four times during each of the two training periods. Intelligence and I.Q. tests were administered to laboratory school children and children in the rural areas for instructional and evaluation purposes at mid-year and at the end of the year. Also the data from achievement tests, which have been given to laboratory school children for a number of years was drawn upon to assess the impact of the project on pupils in the laboratory school.

Questionnaires were used at the end of each training period as well as within each period when organizational questions arose. The results of these questionnaires (see Appendix F) were used to provide project staff with validation of the continuous feedback contributed by individual trainees when they came to the staff with various concerns, whether they were personal or had to do with their work in the school. An indication of the effectiveness of this method in getting feedback is illustrated by one trainee from a minority group when she responded to a questionnaire with the comment: "This is the first place the administration were not 'The Enemies'!" The team meetings in the classrooms on Wednesday afternoons where the team members were encouraged to discuss ideas, opinions and problems served as another avenue for evaluation and communication between trainees and staff. The fact that 53 of the 54 trainees who started in the program completed their training is also indicative of a favorable atmosphere for a heterogeneous group. (The one who did not complete was one of the most successful trainees while in the program, but had to drop out because of a chronic heart condition.)

Several visits were made to the rural areas where the trainees who completed their training in the first half of the year were employed. As noted above, many children were tested, but this data was primarily of value for instructional purposes rather than evaluation because of the diverse nature of the settings. The realism provided by these visits was most helpful in serving as cues to what amendments should be made in project curriculum in particular, and the university teacher education program in general. It also cast many implications on the type of administrative and political tasks which must be considered in attempting to make long range project goals more realizeable.

Test results generally indicate that objectives with trainees were met at the training site. Test results were inconclusive in the rural areas, but trainee responsiveness on visits was most encouraging. Test results and subjective data gathered with children at the project site are very encouraging from the standpoint of special education children after they have been integrated, and less conclusive but also encouraging from the standpoint of the more typical children.

Changes in the University teacher education program are just beginning, but signs such as commitments accepted in next year's project proposal are indicative that events are moving in the direction commensurate with the project's major goals.

See the Addendum for data used in formulating these remarks and further amplification of project effectiveness.

III CONCLUSIONS

The major impact of the project has been in placing a thesis into operation which initially drew applause and some skepticism, without raising a perceptable antithesis. The university community has remained silently attentive, and now appears willing to continue if not enlarge the humanistic venture which was launched with the project. The progress which has been made is the result of a good deal of foresight; and further progress will depend on continued thrusts based on the extension of commitments such as those which have been made in the proposal for the continuance of the project into the future.

The advances which will become operational within the college of education in the next three years, on the basis of the foundation laid by this project include: (1) provisions for earlier entry into education for para-professionals, (2) exposure to special education as an integral part of the regular teacher education, (3) exposure to laboratory experience early in professional preparation and (4) an extension of elementary education downward to include study beginning with four-year olds, as a part of the requirements for certification.

The implications that have arisen as a result of the venture underway at the USU laboratory school have been brought to the attention of participating school districts, professional associations and the State Department of Education. A successful summer workshop has just ended at the laboratory school in which many elementary school administrators were involved for orientation to future possibilities in early childhood education, and some of the possibilities for dealing with special education in the regular classroom. The State Board of Education has adopted an Early Childhood Education certification program.

The project will have no inter-state impact as the result of recommendations for replication (see Appendix G) presented to personnel in the superintendent's office of the Los Angeles County Schools by the director of the project, who has been on leave from a position in that office. They are making plans for the implementation of an educational program

which will draw heavily from the findings derived through this project. Their application in Project Number 0721 under ESEA Title 6 will serve to validate the practicality of what has been formulated through this project.

A major innovative contribution was made in the development of the "Strategy Sheet" (see Appendix E). This provides a practical method by which objective assessment can be used in the implementation and evaluation of curriculum for many specific situations.

The major strength demonstrated by the program to date has been the opportunity to retain special education youngsters in the regular classroom. This is very popular among parents, and achievements and self-concept gains among this group in the integrated setting appear very encouraging. The major weakness of the program is in the necessity of meeting the stringent requirements it poses for high quality personnel, planning and organization. These are absolutely necessary if the program is to be successful

The stability and enthusiasm of the laboratory school staff was undoubtedly the most important contributer to the success of the program. The laboratory setting, with the availability of many university resources was also of great importance in promoting project success. The long-range role in which aides will serve as para-professionals is a most critical factor in determining the success of that particular aspect of the project. The apparent beginning of a situation where a surplus of credentialed teachers are available may serve to increase the concerns which some teachers already have that aides will be playing roles which directly or indirectly reduce the need for as many teachers.

If trends which have been established and/or accelerated by the project continue, teachers will no longer serve as dispensers of knowledge or as autonomous classroom supervisors. They will become managers of the learning environment for children by coordinating the activities of aides, consultants and other resources. In this environment para-professionals with varying levels of sophistication will find opportunities to perform valuable services in classrooms.

The opportunity to relate seminar and practicum experiences within the laboratory school setting was of unique significance in promoting a new format which lent relevance to their presentations. This contributed greatly to the learnings of trainees. However, possibilities for utilizing these learnings and new roles in their rural areas raises other concerns. Without follow-through visits by project and laboratory school staff, the appreciation that was gained for the long range needs of education in the state would not have been obtained. By making these visits, more realism could be injected into the project, and administrative and political groundwork could be initiated which would insure a greater likelihood of long range project goal attainment.

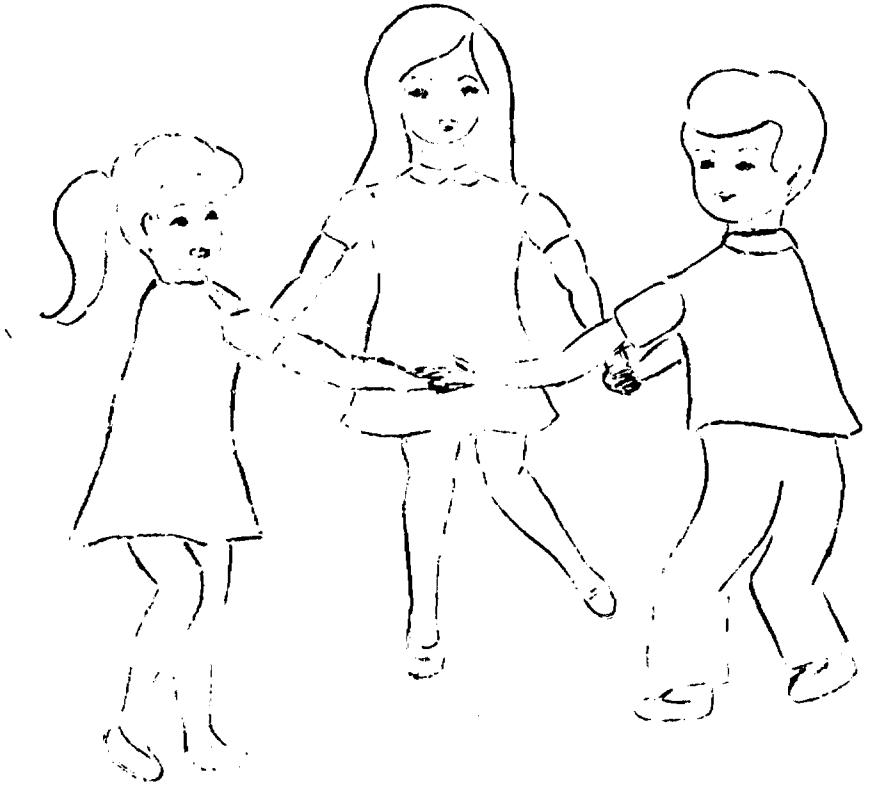
As was noted in the beginning of these concluding remarks, a legitimate base has been established within the University Community for further exploration and extension. Teachers and aides have been trained to work in the regular classroom with variant children, but more importantly, participants have gained a greater appreciation and comprehension of the dimensions of the complex process which is entailed in educational change. Fortunately, because of funding for three subsequent years further action can now be taken which is likely to have a durable impact on policies and procedures which will affect education for the future.

ADDENDUM

TO

DIRECTOR'S FINAL REPORT

TEACH PROJECT



Utah State University
Logan, Utah 84321
EPDA # OEG-0-9-547047-3579-725

ADDENDUM INDEX

FOREWARD

Humanizing education is a lofty goal. It involves change. And although the essence of education, to justify itself, must be learning, growing, changing, the educators themselves are often reluctant to include this ingredient in their own practice. While recognizing and advocating the value of the affective domain as a pre-requisite in individual growth, they still function primarily on the cognitive level. Perhaps one reason for this is that in the pursuit of objectivity, feelings, emotions, thoughts, commitments and other intangibles (however vital to the human being) are slighted as valid considerations because they are seldom accurately measured. And educators are often afraid to step into this unknown realm without precedent in methodology which will substantiate their exploration.

So it was a unique experience when the newly-funded EPDA Project at Utah State University dared an experiment in humanizing education by example. Dr. Kenneth C. Farrer, Elementary and Secondary Education Department Head, when he wrote the project, envisioned it as a thrust toward progressive change in his department. His foresight brought together a unique group of people through whom its goals might be brought to fruition.

Miss Elizabeth Guest, a wise and dedicated educator, was brought from Los Angeles County to serve as project director. She shared her rare talents as organizer, teacher, counsellor, friend, with participants in the project for its initial year in a pilot experiment emphasizing the affective domain.

Another forward-looking humanizer, Mr. Bruce L. Arneklev, was brought in to serve as Research Director. He made the challenge of gathering statistics interesting and meaningful because of his own high "intangible motives."

These people were most directly responsible for the morale of the project participants. They attempted to live a microcosm of the human relations which they hoped would be practiced by all participants. They sincerely cared about others and valued each one as an important individual. That each one felt comfortable, secure and loved was the end which met their own need.

The setting to which they came made such an approach possible. Arthur Jackson, principal of the laboratory school where the project came to life, and his entire staff of teachers were enthusiastic about and dedicated to exploring in the affective domain. They were the ones who shouldered the greatest challenge of the project - managing the learning environment in the meeting place of variant children, individualized curriculum, trainees with various personalities and abilities, parents, university colleagues and many other factors. Their stalwart efforts provided the warp and much of the woof for weaving a successful project. The humanistic philosophy with which they entered the project was put to a stringent test in implementing efforts to reach project goals.

Together, working as a team, these people pioneered YEAR ONE of the EPDA Project at Utah State University.

PHILOSOPHICAL CONTEXT

On my way out of my home today my seven-year old son asked, "What do you do at work?" I replied that in my role as research director I was looking for ways by which I could help people to learn. He thought for a moment and then replied, "Oh, you help the teachers to learn,
so they can help us to learn,
so we can help the kids to learn."

This statement ignored my position as a learner (probably because I was a dad, and dads are suppose to know everything), but it sums up the point of view taken by the project. That is that everyone in an educational environment is a learner, and that no one in that environment has a monopoly on the role of teacher.

This point of view extended quite naturally out of a philosophy that had been published by the laboratory school before the idea of the project was conceived. This philosophy stated:

"We are convinced that:

Children should be taught to learn and work and play as good Americans.
Children should contribute their share of the world's work, and not be recipients of privileges only.

Every child is an individual and matures at his own rate.
Every child should be challenged, but not expected to reach goals beyond his capability.
The physical, social, mental and emotional growth of a child are inter-related.
No child should be discouraged through comparison with another.

Parents, teachers and children should plan a flexible school program to adjust to a changing community.
Teachers and parents should be aware that the school is only one of many social groups that contribute to the development of the child.
Teachers, parents and children should be honest and courteous with each other.

Learning is most effective through first-hand experiences, but vicarious experiences are important too.
Children should become particularly competent in the skills of arithmetic, reading, writing, spelling, speaking and listening.
Children should understand and enjoy the cultures of the world through music, art, science and the social studies.
Children should share knowledge gracefully and appreciate the contributions of others.
Children should learn to accept constructive criticism and to organize their time and effort in an effective way."

Enlargement of the laboratory school point of view was necessary to more adequately encompass the many facets that became an integral part of the school when adaptations were made to accommodate the project. An attempt was made to communicate some of these added concerns through the acronym TEACH:

T eachers planning and working in the regular classroom.
E lementary Certification program improvements.
A ides working in a team in the regular classroom.
C hildren living and learning together in the regular classroom.
H umanizing education for children with variant learning behaviors.

The letters T E A C H served to stress the major project goals. With these goals the laboratory school had to extend its frame of reference from primarily children and student teachers to more fully include federal officials, state board of education officials, school administrators from throughout the state, professional association representatives, university professors from other departments, experienced teachers as trainees, paraprofessionals as trainees, and lastly but most importantly, handicapped children who were now in the regular classrooms. All of these factors and the confounding effects of their inter-action were often unappreciated by those who were involved on only an incidental basis. Nonetheless this was the scope of concern in which the project and laboratory school found itself.

The framing of a revised philosophy has not as yet been published in any form, but its presence is very prevalent in the actions of staff members and in other activities which have occured. (The last element of T E A C H - Humanizing - appeared as the dominant theme of an elementary school principals work shop sponsored at the laboratory school, and the ASCD yearbook for 1970 on humanizing education is to be used as a reference point in the in-service training of project staff participants for next year.)

This point of view quite logically focuses on the individual - to accept him where he is and recognize his interests as the starting point for any meaningful learning. It applies to the university professor as well as it does to the handicapped child in kindergarten. Each has his limitations and excellences. Each is capable of learning from and/or teaching the other.

We have often recognized that teachers are the ones who usually retain the most from their instruction, but we have seldom used this piece of insight in designing curriculum and/or educational facilities. Habit, developed from the way we were taught and the role we have become accustomed to playing, has served to impede the adaptation of practices which recognize how interaction promotes learning for all involved. [illegible] in the process of learning to use this new approach to education is that it is not something that can be acquired out of a textbook or by being told. It must be practiced not preached. For this reason the laboratory setting was essential in promoting change. The basis of the curriculum was for each individual to learn by doing.

The attempt to implant a microcosm in the laboratory school for this type of learning was in many ways a revolution. The trend in the educational establishment has been to promote the idea that the knowledgable individual is the most qualified to teach because he has information to disseminate which students will "need." In this way needs become institutionalized and the process of education becomes indoctrination rather than learning. To reverse this trend a new awareness must be made of the fact that those with less "education" are often the most learned. Those who have lived most closely to human need and have recognized it as a fundamental fact of life can be very sensitive about human needs as an inroad for meaningfulness. Often in our sophistication we overlook these fundamentals and end up with irrelevance. The acquisition of irrelevant knowledge can certainly not be learning, but only indoctrination, and indoctrination is certainly not humanistic.

The purpose of this point of view is not to disclaim the importance of technology or the importance of knowledge and its explosive pervasiveness. Rather it is to place knowledge and technology in their rightful place as means to ends rather than as ends in themselves; th ends being to capitalize on the leaner's needs as motivation for meaningful activities and help him discover and release his own creative potential, rather than treating his needs as irrelevancies which must be repressed while attempting to meet the teacher's needs. Amendments in higher education could serve to remedy some of the most glaring discrepancies in this regard. One of the most common endeavors required for success in college is the "psyching out of professors" to see what they require for the assignment of grades. This contributes to study and theme writing to reinforce the professor, and results in the attainment of high grades for conformance rather than in creative excellence.

Focus for the project became centered on efforts to humanize education. This was viewed as the most desirable way to promote learnings in teachers as well as in those with whom they would interact. From this Elizabeth Guest drew the acronym HEPP, Humanizing Education thru People in Process, to indicate the theme for the curriculum. She served as a model in the direction of that endeavor. Others on the staff sought to emulate the ideal of teaching by example, but as learners we will have to practice more if our students are to learn from what we do rather than by our admonitions. The reflection which they cast for us will be an accurate indication of how well we have learned.

ON-SITE DEVELOPMENT

The Edith Bowen Laboratory School, located on the university campus as part of the Department of Elementary Education, was the site chosen for implementation of the project. It appeared to be ideal from both physical and philosophical standpoints.

Organization of the Laboratory School

The school is built in the shape of a U. Its facilities include:

An instructional media center (2,306 square feet, with the possibility of an addition of 640 square feet) which contains one of the finest children's libraries in the western states. Its facilities include about 10,000 books, a "treasure chest" containing authentic artifacts from countries of the world, equipment such as film strip projectors, record players, television sets, overhead projectors, moving picture projectors, opaque projectors, bioscope, maps, globes, tape recorders, listening sets, etc. and a variety of software to be used with this equipment.

An auditorium which seats 185 children and is equipped with risers, a stage, an organ and piano and television monitors.

A multipurpose room (1,640 square feet) which is used for the lunch room as well as for physical education activities.

A science room equipped with materials necessary for rich science experiences.

Office space for the administrative staff (including a health room).

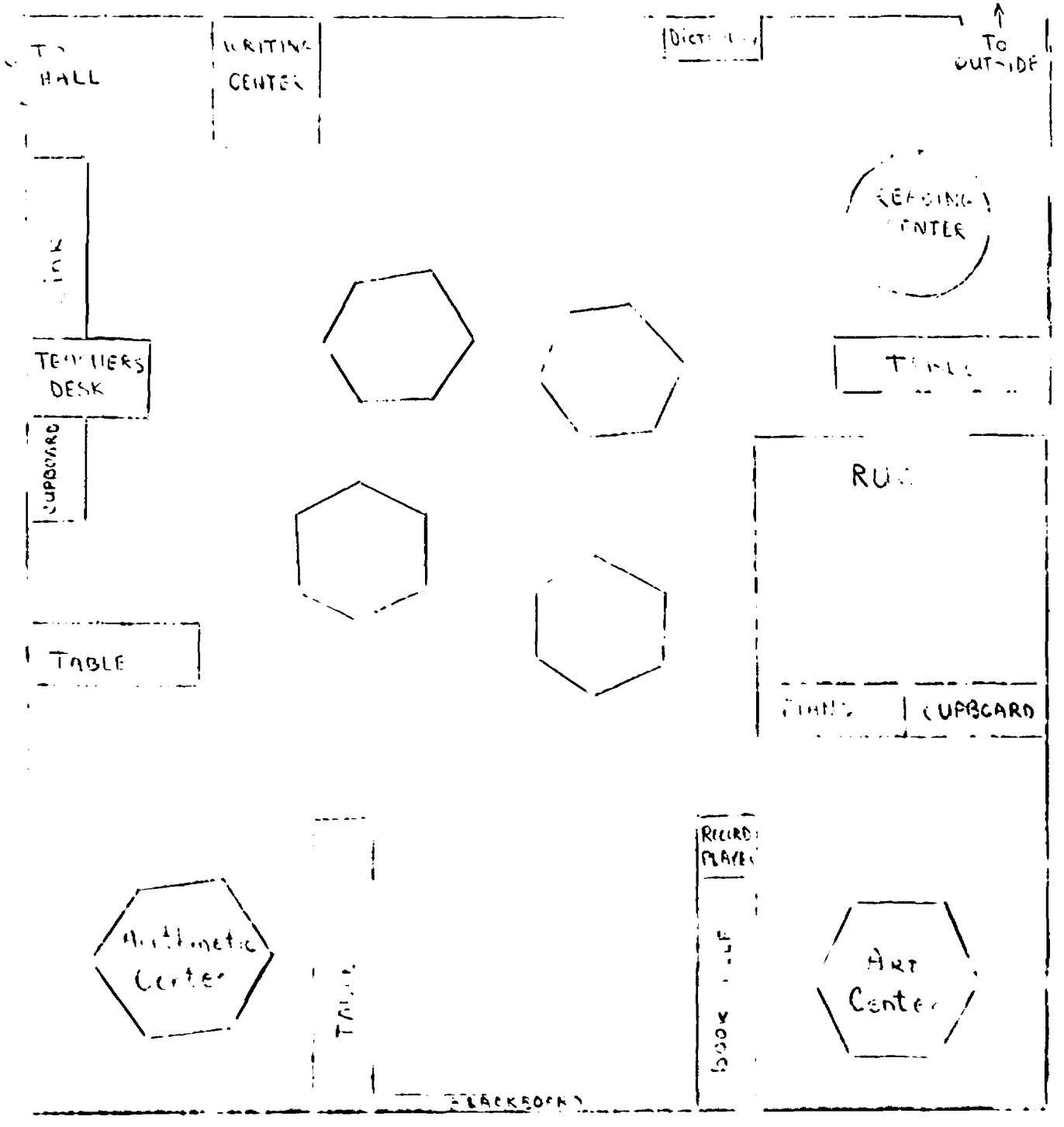
Faculty room.

Eleven classrooms. These classrooms average about 36 feet by 50 feet. Nine of the classrooms have outside doors, and all of them have teachers' offices. Kindergarten and first grade have observation rooms and lavatories.

When the project began there were two sessions of kindergarten and one class each of first through sixth grade, plus one first-second combination and one third-fourth combination and two sessions of hard-of-hearing classes. This made a total of ten classrooms occupied by children. One large lecture room was used for the project seminar.

Furniture in the rooms is movable and was arranged to suit the needs of the children in each classroom. A playhouse, science corner, music area, art center, math corner, reading center, listening and viewing table, manipulative area, workbench, pet area, experimental center, creative writing table, "I want to be alone" screened area, "think factory," economics center, construction area, one-to-one tutorial arrangement, etc. were utilized where it was felt they could enhance a classroom situation.

These centers were organized so that the hyperactive child could be screened from too many stimuli, the physically handicapped child could receive special help, the mentally retarded child could gain success experiences and the accelerated child could find challenges. If a new need occured or a better arrangement was envisioned, the classroom was changed accordingly.



FIRST GRADE ROOM

Classroom enrollment varied from four in the hard-of-hearing classes to twenty-seven in regular classrooms. The school age hard-of-hearing children were integrated into regular classrooms for half of each day. Two classes of emotionally disturbed children were absorbed into regular classrooms in the school The enrollment of two-hundred-fifty included thirteen children from the two classes mentioned and twelve children who had been accepted by an admissions committee for emotionally disturbed children, making a total of 25 emotionally disturbed children. There were four children in the school who had been identified as educable mentally retarded. Children were enrolled through special admissions from Logan City, Cache County and Box Elder County School Districts.

There were twenty-three children from foreign countries representing the following thirteen nations: Ghana, England, Japan, Bolivia, Peru, Canada, Korea, India, Argentina, Thailand, Australia, Taiwan and South Africa. These children received special help from the classroom teachers in acquiring competency in English. Other children with speech problems were given training from speech therapists.

Administrative organization in the laboratory school was conducive to implementation of the project endeavor. For several years the school had maintained classes for the disadvantaged (mentally retarded, emotionally disturbed and hard-of-hearing) and had a policy of phasing them in to the regular classroom when progress permitted. Student teaching had been the major teacher-education activity carried on in the laboratory school. Integration of these two aspects, as suggested in the proposal, occurred quite naturally. The master teachers at the laboratory school had had freedom to explore and had been encouraged to do so. Individualizing instruction to fit the needs of the child, and helping children develop positive self-concepts had been part of their program. They had consistently attempted to induct the best available educational theory into their practice.

The fact that some professors from other departments were accustomed to working with the lab school professors was another facilitating aspect. Involvement of the Special Education department was vital, since their program would be subject to the most change. The project would necessitate their giving up successful special education classes at the laboratory school in order to experiment with other options that might be made available to handicapped children. Generally they were willing to do this.

Formulation of Policy

The existing laboratory school staff was augmented at the beginning of the project (July 1969) to include Elizabeth Guest as project director, Bruce Arnekley as research director and a project secretary. Two additional experienced teachers who would serve as full time substitute teachers during the second half of the project year while regular teachers were making follow-through visits, joined with project staff and laboratory school staff during the last week of July as a summer workshop began. This five-week workshop was held to more fully orient the people who were

at the hub of the project to its objectives, and to provide opportunities for them to become familiar with some of the events which would be forthcoming. USU personnel (from the departments of Audiology and Speech, Special Education, Elementary and Secondary Education), State Department of Education personnel, representatives of minority groups, and visiting consultants provided a broad perspective of ideas and experience from which staff could draw. While this did not provide depth, it served as an orientation to the resources which could be used when the project was underway.

Early in the fall of 1969 a committee was selected to develop, interpret and adopt policy. This committee was composed of the project director, the research idrector, the school principal, one aide and one teacher from the trainee group and a representative from the Edith Bowen faculty. The parent group was asked to send a representative to enhance community involvement. This group was called the "Advisory Council" and met once a week to discuss problems of the represented groups. They functioned as a policy clarifying and recommending group, the ideas being then returned to the various groups in the project.

A Curriculum Planning Group was organized with similar representation but for the purpose of planning curriculum for the seminar which would satisfy and clarify goals of the project. Lionel Brady, Special Education liason, was a key figure in this group and contributed much in co-ordinate cooperation from his department. Edith Shaw was selected to represent the Elementary Education Department. The second semester Mrs. Shaw was replaced by Dr. Farrer, and because policy was often set in the meetings which he attended, as well as for more economical use of time, the two groups (Advisory Council and Curriculum Planning Group) were consolidated and became a general guiding committee for the total project.

The educational processes envisioned in the project were concerned with variant* learning abilities and backgrounds of children and adults. Each person regardless of situation in life, was respected and accepted as a human being with something valuable to offer. That they were grouped <u>together</u> in the learning situation was the heart of the project. In the interplay of the total group, communication toward understanding could occur. It was hoped that this would lead to such valuing of one another that those on a higher level would reach down and lift others, who in turn would repeat the process, and that those at lower levels would stimulate those at higher levels to excel.

From the beginning the project was centered around the individual, whether child or adult. Each individual was made to feel that he or she was of some worth, and was helped to grow by being accepted in this way. The example was set by the directors and was followed through by those involved in the project as their own "variant" abilities would allow.

---

* "Variant" was a term coined by laboratory school and project staff to refer to all children or adults on a continuum from the most handicapped through normal to the most fortunate.

As school opened in September the laboratory school staff received a complement of nine full-time aides who were hired locally to provide continuity and reinforcement in the classrooms for the children. This support was necessary because of the integration of handicapped children, and the requirements for trainees to be out of the classrooms during the afternoon seminars. The trainees (experienced teachers and aides) for the project came from three Utah counties which were known to have limited special education opportunities and were also known to have populations containing a significant percentage of culturally, economically and socially disadvantaged families. Two of these counties were concerned with children from the Ute Indian culture. Due to necessity, the disadvantaged children were already integrated into the regular classrooms there, but teachers generally had little training in preparation for these conditions.

One week after school had begun for the children, these trainees arrived at the site of the project where they were oriented to the purposes of the project, the school and the community. During the first day an attempt was made to answer their questions and further describe their roles in the project. Following this orientation, the project participants were invited to an informal social activity where teams were assigned, and an opportunity given for team members to become acquainted with one another.

Team Organization and Operation

The team in each classroom became responsible for the learning environment of the CHILDREN. Each team was normally composed of five people:

1. A lab school master teacher
2. A full-time aide
3. A certified teacher from a rural area

4-5. Two aides from a rural area.

These people worked together in the classroom during the morning. In the afternoon classroom instruction was handled by 1 and 2 while 3-4-5 attended the seminar. As project training lasted only 18 weeks in the lab school setting, a whole new group of trainees came in at the half year to fill slots 3-4-5.

In addition to these people, one staff member from the Elementary Education Department and one staff member from the Special Education Department were assigned to work with each team. Other consultants were called in as they were needed. The principal of the laboratory school, the school counselor and the director and research director of the project were always available for consultation. Special services, i.e., physical education, fine arts, audio-visual aids, etc., were also available to the various teams in helping plan children's curriculum.

These teams observed, collected and interpreted data, prescribed, implemented and evaluated instruction for children with variant learning abilities.

Time for team planning was considered essential. Children were dismissed on Wednesday afternoons at 2:00 p.m. to provide time for a two-hour team planning session. Teams also met each day after school to provide for continuous and/or emergency planning. Several things were done in these meetings:

(1) Planning to relate seminar-practicum experiences.

Each week master teachers were made aware of the material to be covered in the seminars, and they attempted to translate the theory taught there into practice by implementing it wherever possible in an actual situation.

Instructional procedures, methods and materials particularly effective with children with variant learning abilities, according to the theories of Cruickshank, Prescott, Forstig, Kephart, Piaget, Hewett, Flanders, Taba, Rogers, Brown and Bellugi, Stryker, Van Allen and Martin were drawn from in team planning to diagnose and prescribe for the individual needs of children. The following were kept in mind:

The increasing of understandings about cognitive growth of children through interaction with children.
The encouragement of positive attitudes toward children with variant learning abilities.
The providing of an atmosphere in which the child's self-concept could be enhanced.
Observing and recording behavior of children.
Analyzing in classroom teams behaviors of children in terms of the seminar learnings.

(2) Assigning responsibilities to team members.

In the team planning sessions assignments and responsibilities were delegated to the members of the team. All team members assisted in planning daily programs. The rural teacher assisted in putting daily lesson plans into action. The aides assisted the teachers in directed specific tasks. The team leadership role was assumed by the laboratory teacher, but often accepted by the certified teacher when the occasion warranted. Consideration was given to the various needs, desires and abilities of the trainees with regard to duties and assignments in the classroom. Each person's unique contributions were valued and accepted.

(3) Staffing of children.

The basic purpose or concern for children in the project was to meet the individual needs of each child. This was handled through evaluation and staffing of the children. The exact procedure varied to meet the individual needs of the child as determined by the concerns of members of the team. A general procedure for the team included the following items:

1. Awareness
   Team members became aware of a variant behavior: social, emotional, physical or academic.

2. Data Collection
   Data were collected by members of the team through observation, anecdotal records, accumulative records, medical records, parent reports, social workers, records after the fact, home-visits, etc. (all available information pertinent to the child).

3. Consultation
   The members of the team obtained additional help from consultants who were specialists in various disciplines, i.e., specialized testing, consultation with a medical doctor, etc.

4. Prescription
   The information gathered was evaluated in terms of the new seminar learnings. Pertinent materials were used to identify and verify the concern.

   One method used was the TEACH Strategy Sheet (see Appendix E) to guide the members of the team in identifying, diagnosing and structuring a prescription for changing a particular child's behavior. Medication prescribed by a doctor, speech therapy, remedial help in reading, one-to-one tutoring and play therapy are some examples of other methods used.

5. Implementation
   Application of the method planned, for the purpose of changing the behavior of a particular child.

6. Evaluation
   When a strategy had been used, evaluation followed to determine whether to continue the procedure or use a new prescription, dependent upon the success or failure of the original prescription.

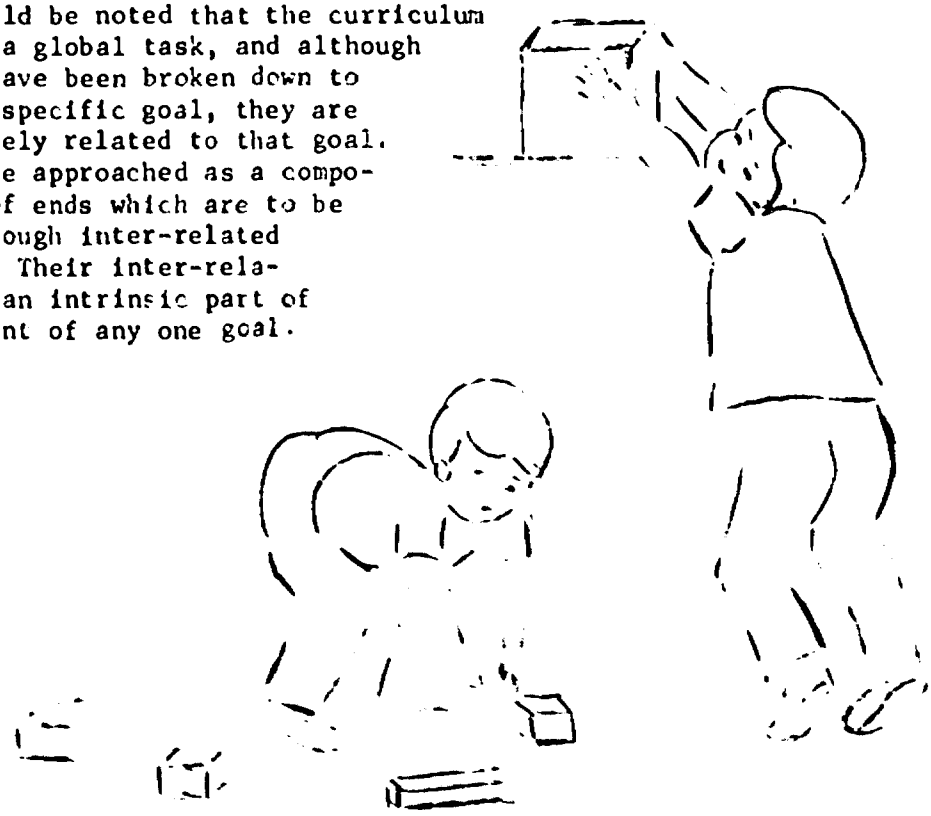
The operation of the project required that people with diverse philosophies, personalities and skills work together. The success of any one of the major project endeavors (meeting the needs of variant children in the regular classroom, training teachers and aides, changing a university teacher education program, etc.) was a direct result of the ability of these various people to work together with enthusiasm. Fortunately, this type of an educational climate was in existence for the initiation of the project. The many facets of the project and their interaction provided a stringent challenge to the personnel involved for the maintenance of that desirable climate. Their dedication to this end was noteworthy.

CURRICULUM DESIGN

The following curriculum evolved in response to participant needs and project objectives. The supporting goals of the project provided a framework for the types of experiences which would be needed if the major goals were to be attained. Needs of trainees and availability of resources at particular times determined the order in which and the extent to which various events occurred. The material presented is a sampling of the types of content and process which were provided and/or utilized as opportunities for participant learnings. It is important to note that the events which occurred are not necessarily appropriate for another time and/or place. (In fact the second semester curriculum was quite different from the first, because it involved different people.) The point of view taken was that the content and process should be responsive to each situation. The major theme was to view learning as an event which occurs because people are in process. It is tailored to stress relevance and an interdisciplinary approach. With this in mind it is hoped the philosophy can be the guiding principle and the content only media to be utilized by people in process.

In planning for the curriculum the project director chose from the supporting goals those words which stood out as the most important indicators of what activities should occur in the seminar. In the summary which follows those words are underlined in the respective goals, as they are stated in a prefix to the activities which were introduced to meet that particular goal. Following each goal will be found the questions which the director posed as she worked out a frame of reference for the curriculum.

It should be noted that the curriculum was seen as a global task, and although activities have been broken down to relate to a specific goal, they are not exclusively related to that goal. The goals are approached as a composite group of ends which are to be attained through inter-related activities. Their inter-relationship is an intrinsic part of the attainment of any one goal.



Supporting Goal No. 1 - To demonstrate competency in understanding the knowledge related to educating handicapped children by performance in the practicum of diagnostic and prescriptive procedures.
Question: How do you find out what a child's needs are?

CONTENT AND PROCESS	RESOURCE
In keeping with project philosophy that we can only grow from where we are, attempts were first made to assess where trainees were starting from. Knowledge tests revealed specific needs in many areas. The first basic need was felt to be knowledge concerning normal mental, emotional and physical growth. Trainees helped develop a scope and sequence chart, using ideas from their shared knowledge and experience supplemented with professionally developed charts (Harighurst Developmental Tasks and Jenkins Scope and Sequence). Normal children of various ages were brought into the seminar room, where they performed skills and tasks commensurate with their grade level. As they became aware of normal behavior at certain ages, trainees observed and accepted such behavior in practicum experience. They then more easily recognized children whose behavior and/or development was abnormal, and felt the need to gain knowledge which would enable them to cope with these exceptionalities. This became the central focus for further seminar study, as exceptionalities were studied in greater depth.	Bruce Arneklev Research Director Lionel Brady Spec. Ed. Liason Elizabeth Guest Director
The Cruickshank frame of reference for studying the psychology and education of exceptional children, as well as classic references concerning exceptionalities, were introduced through lectures, films, etc. and were then discussed by trainees in large and small groups. They began to identify, from their own practicum observations, specific children who appeared to fit in certain categories.	Elizabeth Guest Director
Administrators then saw the need to acquaint trainees with more accurate methods of observing and recording overt behavior of exceptional children. The Prescott model (See Appendix D) was used. Each team of trainees was asked to choose a particular handicapped child from their classroom to study; with the aides observing and recording overt behavior and the teachers making an in-depth case study. After sufficient data had been collected, the teams, under the direction of the master teachers, made hypotheses, diagnoses and prescriptions for the individual child. A Strategy Sheet (See Appendix E) was developed, use of which indicated the process to be implemented in working with each case.	Jean Pugmire Elem. Ed. Bruce Arneklev Research Director

CONTENT AND PROCESS	RESOURCE
Use of resources was an integral part of the Strategy Sheet. Some seminar instruction on how to discover and use resources enabled teams in practicum team sessions to utilize the particular resources that might be needed.	Lionel Brady Spec. Ed. Liason
In order to avoid "labeling" a child and also to enhance possibilities for him to reach higher potentials, "Staffing" of children was introduced. This was discussed and demonstrated in the seminar and was then practiced as needed with particular children. It involved bringing in specialists from several different areas (determined from hypotheses made following case studies) to observe the same child and make recommendations appropriate to their specialized fields in relation to the other fields represented. This process not only benefited the child, but demonstrated a microcosm of inter-disciplinary cooperation between college departments and/or home-community resources.	Elizabeth Guest Director
Know-how about specific exceptionalities became an obvious need in order that strategies could be carried out in an effective manner, and so mistakes (because of ignorance) could be avoided as much as possible.	
Many resource people were brought into the seminar to discuss highlights of particular exceptionalities. It should be pointed out that in the available time each discipline had to be condensed to the most important considerations. However, as a trainee became involved with a particular child he often did more in-depth study in order to be able to fill that child's needs.	
Some special seminar discussions included:	
Writing behavioral objectives.	Lionel Brady Spec. Ed. Liason
How to administer tests to assess pupil abilities.	Marvin Fifield Spec. Ed.
Problems of health-handicapped children.	Dwayne Peterson Spec. Ed.
Merits and management of operant conditioning.	Devoe Rickert Spec. Ed.
Practical use of contingency management.	Kenneth Morgan Spec. Ed. IMC
Working with emotionally disturbed children using the Hewett model as a frame of reference	Phyllis Publicover Spec. Ed.
Purposes, uses and demonstration of special education instructional media.	Jo Anne Gilles State Dept. Spec. Ed.
Speech and audio problems in relation to the teacher's role in the classroom.	Jay Jensen Tom Clark Jackie Littledyke Communicative Disorde

CONTENT AND PROCESS	RESOURCE
S. Englemann's technique for bridging of the affective and cognitive domains. (A learning approach in which children were emotionally involved.)	Alan Hofmeister Spec. Ed.
How to use task analysis in math, spelling, language and handwriting to find patterns of errors in a child's work.	Alan Hofmeister Spec. Ed.
The power of positive reinforcement as related to the "self-fulfilling prophecy," (we become what our associates expect us to become.)	Ross Allen Second. Ed.

As a result of these seminar learnings team members were able to utilize in practicum experience with children appropriate methods and/or activities from the following:

I. Diagnosis

A. Observing behavior and gathering data through:

1. Anecdotal records
2. Case studies
3. Counting
4. Coding of audio-visual tapes
5. Parent conferences
6. Home visits
7. Role playing
8. Show and tell
9. Interests
10. Team sessions

II. Testing

A. Sociogram
B. Physical

1. Eye tests

a. Snellen
b. Telebinocular

2. Ear tests

a. Tick of a watch

3. Weight measure
4. Perceptual Motor
5. Physical fitness

C. Standardized Tests (achievement)
D. Teacher-made Tests
E. Attitudinal Tests (self-evaluation)

CONTENT AND PROCESS	RESOURCE

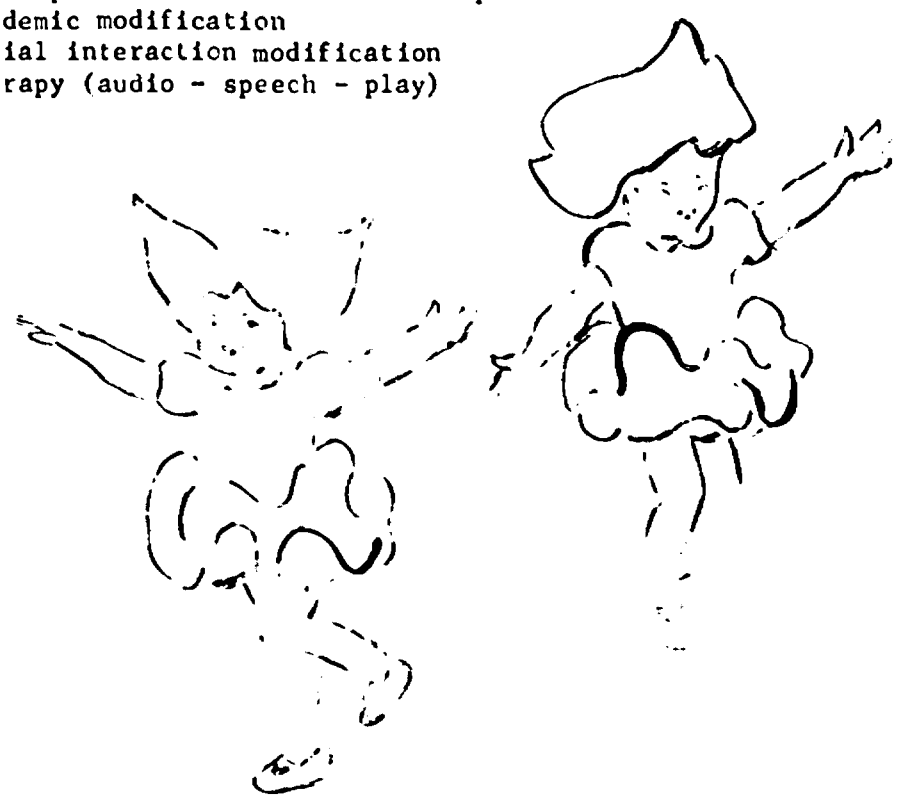
F. Draw-a-man
G. Creative writing evaluation (most, least, best, greatest, i.e. saddest day, what kind of parent will you be, most exciting moment, nicest smell I know, etc.)

III. Staffing of Children (see addendum on "Site Development" for amplification)

A. Recognize variant behavior
B. Gather data about individual & group by various means
C. Consult with appropriate specialists
D. Utilize the Strategy Sheet as a guide to prescription.
E. Implement the suggestions recorded on the Strategy Sheet.
F. Evaluate during and at the end of the implementation process.
G. Recycle or revise the program.

When the task of prescribing was reached, individuals required specific programs. Some programs utilized in the practicum were:

1. Task Analysis
2. Operant Conditioning
3. Contingency Management
4. Individualization
5. Physical Therapy
6. Language Development (Oral and Phonetic Approaches)
7. Isolation
8. Development of visual or audio impairment.
9. Academic modification
10. Social interaction modification
11. Therapy (audio - speech - play)

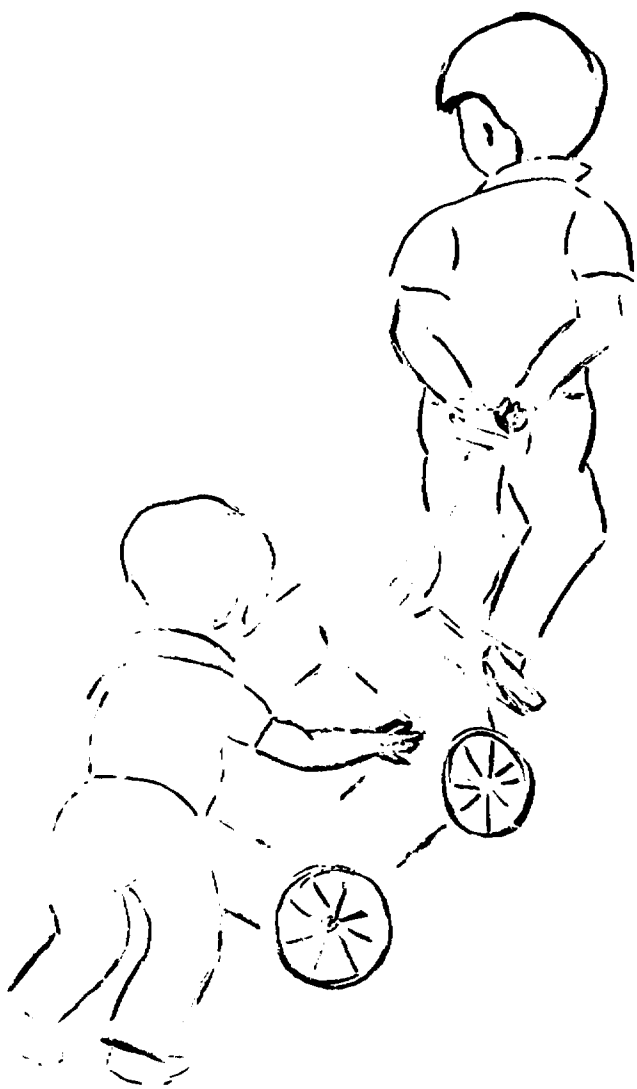


Supporting Goal No. 2 - To demonstrate competency in unifying the principles of curriculum development for children with an extended range of individual differences as those principles relate to both regular and special education.
Question: What content will be taught?

CONTENT	RESOURCE
With acceptance and respect for all contributions, trainees were encouraged to grow and achieve according to their own individual abilities. Soon after their arrival they were asked to write down what they wished to get out of the project. The wishes were reviewed, and efforts were made in both the seminar and the classroom to bring them to fruition. Following are some examples of wishes listed by trainees:	Elizabeth Guest Project Director
Teachers: 1. To be capable of handling individual differences in the classroom. 2. To learn to organize a classroom so that it will function so I will have time to work with special problem children. 3. To be able to carry back and convey to other teachers in our district the desire to help these special education problems.	
Aides: 1. Learn to work with a team and have it work successfully. 2. Gain more understanding of children and their problems. 3. Help the child to accept and cope with his own problems.	
Through a democratic representation of all group members desires and needs were taken into consideration in the selection of content and resource personnel. Curriculum evolved around the needs of the trainees. Content was used to serve a purpose rather than being merely factual. Emphasis was on process as well as content.	
The schedule was adjusted in order that trainees could use their initiative and assume the responsibility for seeking resources who would provide information for particular individual needs and interests.	Administrators
Discussing the gregarious nature of children, it was discovered that most learning takes place during social interactions of children. Thus it was concluded that it would be advantageous to include within academic situations many opportunities for verbal communication. (All individuals have this basic need. Therefore trainees were encouraged to participate in any form in which they felt comfortable.)	

CONTENT AND PROCESS	RESOURCE
Tests on self concept, knowledge of special education children and attitudes were given. Test results were shared with trainees on an individual basis, so they could become more fully aware of themselves.	Bruce Arneklev Research Director
Study periods were given in order for the trainees to do extra reading, consult with University resources, work on handbooks or on assignments given in the seminar of classrooms.	
The administrators of the project were aware of the many tensions inherent in its implementation. Seminar curriculum was arranged to include tension-relieving experiences. Folk dancing was introduced, and later at the request of some trainees, creative dancing. Aides who had particular talents in this area were used as resource teachers in dance -- again using a microcosm to demonstrate project philosophy of valuing individual uniqueness. The Edith Bowen School curriculum included instruction for children on simple instruments (ukulele, harmonica, recorder). At the suggestion of trainees this program was encompassed in seminar training. Group singing, music appreciation, manipulative arts, etc. were encouraged. Some seminar time was given to planning and creating instructional media.	Gay Blanchard Creative DAnce Instr. Frances Williams Andrea Blanchard Aides (Trainees) Helen Tanner Derilys Hill Ivan Pedersen Master Teachers
With adults as well as children these therapeutic activities were considered to be a necessary part of the curriculum. Trainees were better able to use all of the above methods with children in the practicum after they had <u>felt</u> the release of tensions in themselves and <u>experienced</u> this humanistic approach.	
Practicum objectives in relation to this goal were:	
To attempt to give the child a sense of direction and purpose by assuring him of <u>your faith in him</u> as as individual, and encourage him to make his own commitment to education as a means of developing his potential.	
To give children opportunities to function in a truly democratic society where they have rights and responsibilities; and help them understand their obligation to respect the rights of others.	
To emphasize the importance of cooperative curriculum development. Involve in the planning all who will be affected by the outcomes, and accept all contributions as worthy of consideration.	

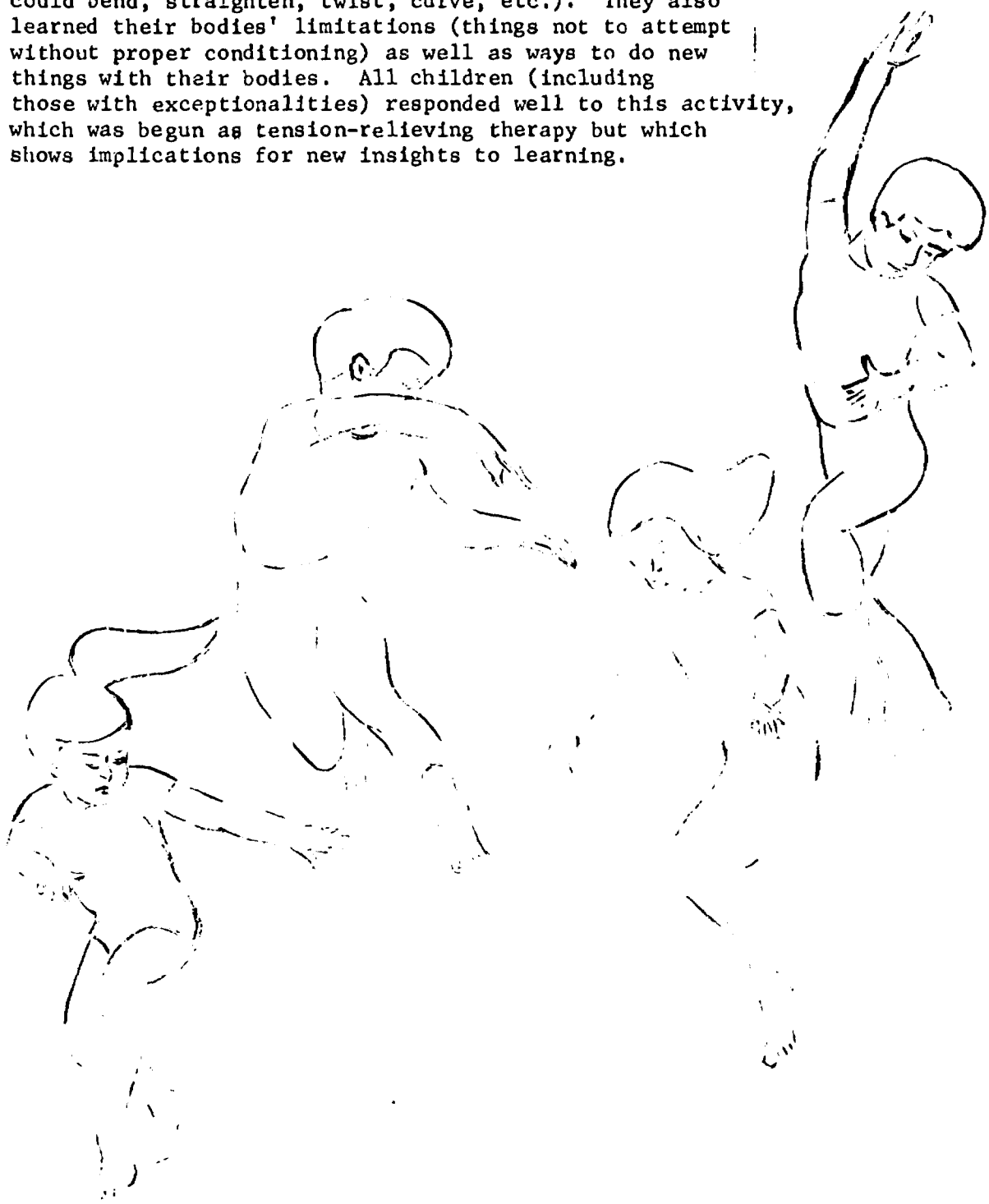
CONTENT AND PROCESS	RESOURCE
To apply what is known about child growth and development and the nature and conditions of learning. To apply knowledge of the nature of each curriculum area, the structure of its subject matter and the different ways in which its structure may be approached by children in school. To rely upon research for information regarding persistent problems and as a way of investigating the soundness of innovations. To evaluate continuously, extending it throughout all parts of curriculum planning and implementation.	



Supporting Goal No. 3 - To demonstrate competency to relate the major representative ideas of at least two disciplines of knowledge for children with a wide range of variability.
Question: What content will be interrelated?

CONTENT AND PROCESS	RESOURCE
Some seminar time was devoted to discussion of possible ways to relate disciplines thru teaching children to live qualitatively. The social sciences proved to be especially amenable to this approach.	
Practicum experience in one classromm demonstrated a social studies unit on Utah history which included nearly all disciplines taught during that time. Arithmetic was found necessary when a "country store" became part of the classroom scene. Pioneer stories and poems evolved, bringing spelling and writing to the fore. Research entailed reading. Arts and crafts were included as manipulative materials were used in construction of log cabins, etc. Old-time dances involved the physical education discipline. Culmination of this unit was a chuck-wagon breakfast, prepared and served by costumed class members.	Mr. Petersen Master Teacher
Ways to relate disciplines thru linguistics was the concern of some seminar time. The assumption underlying this approach was, "What the child can think he can say; what he can say can be written; what can be written can be read." Trainees in several classes helped to use this approach in which the disciplines of reading, writing, spelling and art were related. A child talked about something which interested him. The teacher (or aide) wrote down what the child said. She read it back to the child. Soon he was able to read it to her. He became excited about learning to write (and spell) it himself and to illustrate it with a picture. A similar approach was very effective in helping a kindergarten child from Korea learn to speak English, using photographs of herself as motivation.	Kenneth Farrer Head, El. & Sec. Ed
An exciting experience in relating art forms evolved when one class wrote original Haiku-type poems to illustrate their own finger paintings. The creative dance teacher saw these displayed on the wall and used some of them as motivation for improvisational dances with that class. A college student was invited to come and improvise piano music for the several moods set by the children's creative work.	Helen Tanner Master Teacher Patricia Lang U.S.U. Student

CONTENT AND PROCESS	RESOURCE
Creative dance proved to be an area through which many disciplines could be related. Basic rhythms taught basic arithmetic. Poems and stories were "acted out" in dance. Dances from different cultures were shared. Children became more aware of and involved with many aspects of nature - horse chestnuts with prickery and smooth parts; spiraling sea shells; falling snow flakes or leaves or balls; how food coloring moves in a goblet of water, etc. Children became aware of their own bodies and discovered how they could move (which parts could bend, straighten, twist, curve, etc.). They also learned their bodies' limitations (things not to attempt without proper conditioning) as well as ways to do new things with their bodies. All children (including those with exceptionalities) responded well to this activity, which was begun as tension-relieving therapy but which shows implications for new insights to learning.	Gay Blanchard Dance Teacher Andrea Blanchard Trainee Aide



Supporting Goal No. 4 - To demonstrate competency to help all children develop greater capacity to extend the use of higher mental processes. Question: How can a child be helped and stimulated to think?

CONTENT AND PROCESS	RESOURCE
Jean Piaget's stages of intellectual development were introduced to the trainees. Children were brought from the classrooms to demonstrate the appearance of different types of intellectual activity at progressive ages.	Bruce Arneklev Research Director
Trainees in the seminar were exposed to ideas concerning higher mental processes and were instructed in methods of using them in the classroom. Seven levels of higher mental processes were discussed, the lowest step being memory and the highest step evaluation.	Ross Allen Second. Ed.
In the practicum the process of problem solving became an on-going experience for children. One classroom of children became concerned about "whether certain things were alive," and were led through the scientific method of thinking. During a brainstorming session the children pooled together all the information about living things that they possessed. This data came from any source their background provided. Through evaluation the information was sifted - fact from opinion, hypothesis from fact. Recognizing the need for more research, the children began to look for more truths about living things which would support or reject their hypotheses. This method of searching went on until curiosity was satisfied.	Helen Tanner Master Teacher
To meet individual needs of all children, the individualized reading method was introduced. This method encouraged children to make decisions as to what they wanted to read, allowed children to pursue interests, develop individuality and set their own goals with regards to rate of speed and level of comprehension.	Gail Johnson Elem. Ed.
In order to extend the use of higher mental processes some of the following activities were used by teachers and aides: a. Ask more questions. b. Vary the type of questions. c. Use open-end questions such as: Why do YOU think _____? or How do YOU think _____? d. Ask questions beyond the immediate question. e. Initiate simplified debates. f. Stimulate and substantiate ideas. g. Implement the discovery process. h. Use the scientific approach to problem solving. i. Help the child to conceptualize beyond self and the immediate group to see the value of helping someone else. j. Encourage the individual to utilize a concept, process, etc. beyond the immediate situation.	

Supporting Goal No. 5 - To demonstrate competency in helping each child build and maintain mental and emotional stability in his interaction with children of wide behavioral patterns.

Question: How can a strong self be built? How does one develop positive relations with others?

CONTENT AND PROCESS	RESOURCE
Learnings relating to this goal were an on-going process evolving from the microcosm example set in the project, not only in the seminar but in the practicum and in extra-curricular time. Group processes were used in which involvement of all concerned encouraged unity in decision making and problem solving. Representative committees planned periodic social activities, at which all participants could become better acquainted.	Administrative Staff Edith Bowen Staff & Trainees
Trainees were provided an opportunity to become acquainted with Erik Erickson's stages of emotional development.	Bruce Arneklev Research Director
Individual guidance and counselling was provided for trainees whenever needed. In some cases in-depth guidance and therapy were made available.	Mark Latham Counselor Roland Bergeson Psychology Dept.
On several occasions special resources were invited to the seminar to discuss minority group cultures. Since many of the trainees would be returning to the field to work with Indian children in their classrooms, contacts were made with the Tribal Council, and Indian leaders came to assist trainees in understanding how to cope with Indian children's needs. The State Department of Education also brought a group representing five different cultures and they shared their insights with the trainees.	Juanite Groves & Ronnie, Jay, Milo Ute Indians Norma Denver Head Start Dorothy Zimmerman Miss Trihole Rosemary Brantley Margie Archeletta Samuel Mecra Human Relations Comm.
Tension-relieving activities - singing, dancing, jogging, playing instuments - were a regular part of seminar offerings. Trainees were encouraged to help each other. This example of valuing individuals carried over to the practicum in situations with children.	
A major concern of integrating exceptional children into a regular classroom is how the children will treat each other. The tendency is for normal children to tease or pick on the "different" ones. The strategy used to overcome this problem was again, to involve the children concerned. When "teasers" were made aware of another child's problems (this was done in group-counselling sessions) and their suggestions were enlisted as to how they felt he could be helped, they usually became his defenders and friends. This was a growing experience for all children.	

CONTENT AND PROCESS	RESOURCE

When they were confronted with a mutual social problem the children were allowed to discover causes and effects of their problem and to pursue solutions which they themselves decided would solve their conflicts. Children were then given the freedom to act on their plans with support from the teaching team.

Children were also given the opportunity to develop leadership and followship in class activities such as social studies units. Teachers and aides remained in the background as guides and resources. Responsibility was given to the children to plan, delegate specific activities to be carried out, decide what areas of study were to be included, what writing or art productions were to be done and what type presentation was to be made to the total group as a culminating activity.

To help children maintain mental and emotional stability in their interaction with children of wide behavioral patterns, guidelines for trainees were:

1. Recognize each child's personal worth.
2. Insure that the child experiences success every day.
3. Help the group to involve the child so he isn't an isolate.
4. Set tasks that are appropriate for the child's ability but progressively challenging.
5. Select tasks that have meaning and value to the child.
6. Set up opportunities which are short range and within immediate achievement, rather than too long range and beyond visible achievement.
7. Help each individual child to develop a strong self concept.
8. Show empathy for others.
9. Help each child to know and accept his own strength and weaknesses.
10. Be aware of and accept the reality that individuals are different in many ways, yet also similar.
11. Involve children in activities geared to help their handicapped peers experience success.

Supporting Goal No. 6 - To demonstrate the concept of division of labor with compassion for the autonomy of each participant.
Question: How can respect for the individual be developed? How can aides relate positively to the teacher and children?

CONTENT AND PROCESS	RESOURCE
Trainees were involved in a discussion under professional leadership involving problems of communication, role definitions and function within the school setting. They were encouraged to express themselves without fear of rejection from administration or fellow trainees. Frankness and honesty were respected. Aspects contributing to a successful relationship were found to be: 1. Freedom to express one's self without coercion or threat. 2. Sharing of knowledges, beliefs and ideas. 3. Group dynamics. 4. Humanistic approach to one another. Team members were encouraged to recognize, appreciate and use knowledges, talents and/or skills possessed by one another. Each was encouraged to accept responsibility in line with his abilities. Guidelines for participants in this area were: 1. Recognize the uniqueness of each individual team member. 2. Recognize a task which needs to be accomplished and the contributions which each can make (both cognitive and affective). 3. Show willingness to let others do that which has been assigned or agreed upon. 4. Establish a degree of freedom according to the capacity of the person. 5. Clarify the limits of the activity and the degree of freedom. 6. Show adaptability by responding immediately to changing or emergency situations and planning approaches to fit the need. 7. Involve, when appropriate, other resource personnel from areas such as special education, counseling and guidance, elementary education, home and community, in planning and implementing activities which meet the needs of the individual child.	James Nelson Secondary Ed.

Supporting Goal No. 7 - To demonstrate growth in the use of language structures which facilitate greater interaction.
Question: How can children develop adequate communication?

CONTENT AND PROCESS	RESOURCE
Seminar instruction explained how language develops and the meanings of structure and usage. As trainees became acquainted with the oral-linguistic approach to grammar they were able to accept children's patterns of speech as regional, community or home habits and/or dialects, which were appropriate in certain settings. Oral methods of changing speech patterns were taught, as it was decided that some changes were desirable in order to prevent individuals from being ostracized in other societies and situations.	Kenneth Farrer Head, El. & Sec. Ed.
The Peabody Kit and the Van Allen approach to language arts were demonstrated.	Merline Ballard Patricia Fox Instructors
To facilitate growth in the use of language structures for greater interaction, trainees attempted to: 1. Accept the child's cultural language struction for the present. 2. Record the child's actual speaking. 3. Examine the child's cultural language structure in terms of standard English. 4. Select the areas of contrast that need to be bridged. 5. Develop experiences that will enable the child to learn standard English in a natural way through listening, speaking, written composition, reading, handwriting and spelling. 6. Base these experiences on what the child knows, and move to new and more sophisticated language structures. 7. Progressively develop and use the following in communication: a. physical expressions b. single or simple word expressions c. enlarged vocabulary which is meaningful d. a more sophisticated language structure 8. Use all senses for exploration and the development of concepts.	
An excellent resource for facilitating communication was the library and media center. Many classes had story-time in the library and became acquainted with fine story-telling techniques. These classes were conducted by the librarian, who also assisted children and trainees in other library skills such as card filing, finding reference books, selecting materials for reports and using other media.	Ruth Rice Librarian

Supporting Goal No. 8 - To demonstrate by constructing materials of instruction the concept of a diversified method of teaching.
Question: How can adequate instructional materials be obtained?

CONTENT AND PROCESS	RESOURCE
Many materials and equipment were exhibited and demonstrated which would facilitate learning for a child having special kinds of problems.	Jo Anne Gilles State Dept. of Sp. Ed.
Hardware equipment (tape recorders, overhead projectors, record players, head sets, etc.) was demonstrated and trainees were required to become familiar with its operation.	Thomas Taylor Instr. Media Edith Bowen Staff
Trainees selected media which they wanted to use, bought materials, and under the direction of the media specialist constructed particular teaching aides.	
They were encouraged to create and construct media which would facilitate greater interest in learning from the child's point of view. This involved needs, interests and desires of the individual child. Examples: (1) when teaching concepts of counting by twos or fives, etc. construct a game which requires score-keeping by twos or fives. (2) A child having difficulty with the words "was" and "saw" can often straighten them out quickly when the ability to differentiate between them is a requirement of moving among known and unknown words on a game board.	
Trainees also learned to select media tasks within reach of a child's present mental capacity, and to use instructional material to examine the abilities, inabilities, likes and dislikes of a child.	

RESEARCH AND EVALUATION

Several tools have been developed, adapted and adopted for use in formative and summative evaluation. Data gathered by way of these tools serves as an objective indication of project effectiveness, as well as to raise many questions for research scrutiny. The tools and the data collected therefrom will be considered in terms of two major categories.

The first of these is the impact which the project had upon trainees (Trainee Responsiveness). This is assessed directly with them through psychometric tools, and through more subjective observations by trainees in their impressions of how effective the project was in meeting its goals. (Appendix F) An attempt is then made to validate these criterion in terms of the impact which trainees had upon children in naturalistic settings where they were placed for a practical utilization of their training.

The second category is the implications which the project holds for the training setting (Institutional Responsiveness). More succinctly this focuses on the practicality of using a laboratory setting in the training of personnel to work with special education children in the regular classroom. It focuses on how all children function in a setting where handicapped children have been integrated after segregation, as well as the responsiveness of the educational community to revision of curriculum policies which are in concert with the needs of society.

A. Trainee Responsiveness

Monitoring of project progression was initiated at the beginning of a summer work shop prior to trainee involvement. At that time attempts were made to tailor tools to fit project goals. Initial organization and emphasis indicated that the project would be oriented primarily to affective considerations. To assess in this domain (1) Semantic Differentials were constructed to measure attitudes toward the themes of the major project goals. Inasmuch as individualization had been a part of the laboratory school philosophy, a measure of (2) Student-Centeredness was also developed. The (3) Minnesota Teacher Attitude Inventory was also selected as an appropriate published test in the affective domain. Items provided by the department of special education were used in the construction of a (4) Knowledge Test for assessment in the cognitive domain. This test focused on comprehension of concepts and procedures which are of importance in special education Later (after the first group of trainees had arrived) a decision was made to focus on self-concept as an over-riding criterion in terms of which to evaluate project effectiveness. The (5) Tennessee Self Concept Scale was selected as the tool for assessing the construct of self concept. Each of these instruments and the results therefrom will be discussed in the order listed above.

Semantic Differentials

Semantic differentials were developed (see Appendix J) on the basis of research by Fishbein, Raven and Osgood[1]. Research by Fishbein has demonstrated that there are two assessable dimensions of attitude: a "probability" -- cognitive or rational/denotative dimension, and an "evaluative" -- affective or emotional/connotative dimension. The cognitive dimension of the themes of the four major project goals were rated on the polar descriptive terms: feasible-unfeasible, possible-impossible, probable-improbable and likely-unlikely. The affective dimension of the themes of the four major project goals were rated on the polar descriptive terms: beneficial-harmful, wise-foolish, good-bad and valuable-worthless. The cognitive dimension is viewed more as what could be done, while the affective dimension is viewed as what should be done. Taken together they are indicative of the general enthusiasm which an individual holds for a concept or situation - in this case, the themes of the major project goals.

Identification and assessment of the cognitive and affective dimensions of attitude have demonstrated utility in serving as partial predictors of behavior in the situations rated. Thus, promotion of positive attitudes in regard to the major goals of the project was accepted as an appropriate criterion for both formative and summative evaluation. Test results (pre and post) are presented in TABLE I for each group of trainees, a control group, the laboratory school master teachers and a very small sample of special education professors who were involved in the project.

A note should be made in studying TABLE I that the highest possible score for the test is 44. The control group was a group of teachers employed in the same community in which the training occured. They are used in equasion only for the second group of teacher trainees, to control for the confounding effects of pre-test sensitization and history. (The decline in the mean control group cognitive scores toward teacher aides reflects the concern which at least one control teacher acquired between pre and post tests about "aides taking away teacher's jobs.")

Asterisks on the table indicate:

* Difference between pre and post test is significant at less than .05 level. (Differences would have occured less than once in twenty times by chance.)

** Differences between pre and post test is significant at less than .01 level. (Differences would have occured less than once in one hundred times by chance.)

*** Change in the score between pre and post test in the second trainee group is significantly different at the .05 level from the change between pre and post test within the control group.

---

[1] Fishbein, M. and Raven, B.H., the AB Scales: An Operational Definition of Belief and Attitude, Human Relations, 1962, 15 pp. 35-44.
Osgood, C.E., Suci, G.J. & Tannenbaum, P.H., The Measurement of Meaning, University of Illinois Press, Urbana, Illinois, 1957.

TABLE I

ATTITUDES TOWARD THE THEMES OF THE MAJOR PROJECT GOALS

(Group Average)

By Group		1 Educating Exceptional Children in the Regular Classroom		2 Team Teaching		3 Teacher Aides		4 Change In Methods Of Education	
		Affect.	Cognit.	Affect.	Cognit.	Affect.	Cognit.	Affect.	Cognit.
1st Trainees (Sept-Jan)									
Teachers (N = 7)	Pre	39.3	38.2	36.3	38.2	42.2	41.3	35.2	39.1
	Post	39.3	40.3	39.4	38.4	41.7	39.0	36.6	39.9
Aides (N = 13)	Pre	36.1	40.4	40.4	40.4	41.6	41.3	40.5	41.5
	Post	39.3	39.3	42.0	42.1	42.7	41.3	42.9	42.6
2nd Trainees (Jan-May)									
Teachers (N = 8)	Pre	42.5	39.4**	39.4	40.5	43.0	41.5	38.0**	41.6
	Post	42.5	42.1**	40.9	42.5	43.4	43.4	42.0**	43.9
Aides (N = 18)	Pre	37.2	36.9	40.9	39.9	41.2	40.5	39.6	41.4
	Post	40.9	41.0	40.2	40.4	43.0	42.9	42.7	42.8
Control Group (Jan-May)									
Teachers (N = 14)	Pre	30.5	29.4	36.1	36.7	38.2	25.4	36.3	37.1
	Post	28.7	29.8	34.4	34.7	38.4	32.9	37.9	38.3
Laboratory School Master Teachers (N = 9) (July-May)	Pre	39.3	38.4	37.0	36.0*	40.0	35.0**	41.9	35.9**
	Post	41.2	41.9	41.0	41.0	43.2	42.9	42.6	43.0
Special Education Professors (Sept) (N = 4)	Pre	25.1	31.2	31.2	36.9	34.8	36.1	32.1	38.9
	Post Tests not Available								

Observation of Table I indicates that attitudes toward the themes of the major project goals were relatively stable. Although four different mean scores were obtained for each trainee group, (the instruments were administered four times during each training period for use in monitoring at approximately monthly intervals) only the pre and post scores are presented because of very little variation among scores. A most crucial consideration in the interpretation of this table is that the highest score attainable is 44. For this reason alone there was little likelihood of achieving statistically significant gains. Many teachers did in fact attain the highest possible score on the initial test; therefore they could not possibly register gains. When a mean score gain for the group did occur, there was almost invariably a corollary decrease in standard deviation, to indicate declining variability caused by closure with the test ceiling. A high correlation between scores in the affective and cognitive dimensions in conjunction with consistently high scores made that distinction less necessary; therefore the term "enthusiasm" is used to discuss the two domains as one.

The occurrence of such high scores is indicative of a very high level of enthusiasm, which was generally shared by participants in the project. This enthusiasm is discernable in Table I when pre-test scores of participants are compared with pre-test scores of the control group. A more dramatic contrast in support of this conclusion is indicated by the markedly less positive scores attained by members of the Department of Special Education, who undoubtedly have a different frame of reference.

The most noteworthy aspect of these semantic differential scores (in the light of the degree to which they are positive) is not in the relatively few increases among participants, but rather in the extent to which they remained positive. Compensation for regression effects alone may have lowered them. Yet participants' enthusiasm for the major project goals remained high. The laboratory school teachers who were under the pressures of change even showed considerably more enthusiasm after the first year in the project. A follow-up sample showed that the first group of trainees who had spent four months utilizing their training in naturalistic settings had also maintained their enthusiasm.

Conversation with directors of other EPDA Projects have reflected a need for this type of enthusiasm in the maintenance of a successful program. The nature of participants in this project in this regard must be noted in the interpretation of any of the results that follow. Generalization from or application of the findings here-in to a population which has less enthusiasm may be injudicious

Student Centeredness

A second instrument (See Appendix K) was developed as a criterion measure on the basis of a model initiated by Axelrod from the University of California at Berkely. Axelrod's instrument, as presented at the national American Education Research Association (AERA) convention in 1969, was designed to differentiate four instructional types: the content-centered faculty member, the instructor-centered faculty member, the intellect-centered faculty member and the student-centered faculty member. Items from this inventory were adapted to a self-report form, which was scored to indicate the degree to which the trainees focused on the student as a whole, rather than the first three elements of Axelrod's instructional types.

This is selected as an appropriate criterion from a standpoint of a philosophy that views each child as a unique human being who must be personally involved in the learning situation. This point of view seems especially appropriate in the case of the handicapped child, who has generally met failure in the more traditional modes of education.

The student centeredness instrument was administered four times during the course of each group's training at the laboratory school. The mean scores attained by each group for each testing are listed in TABLE II, along with a breakdown of scores for the sub-groups (teachers and aides) on Test 1 and Test 4.

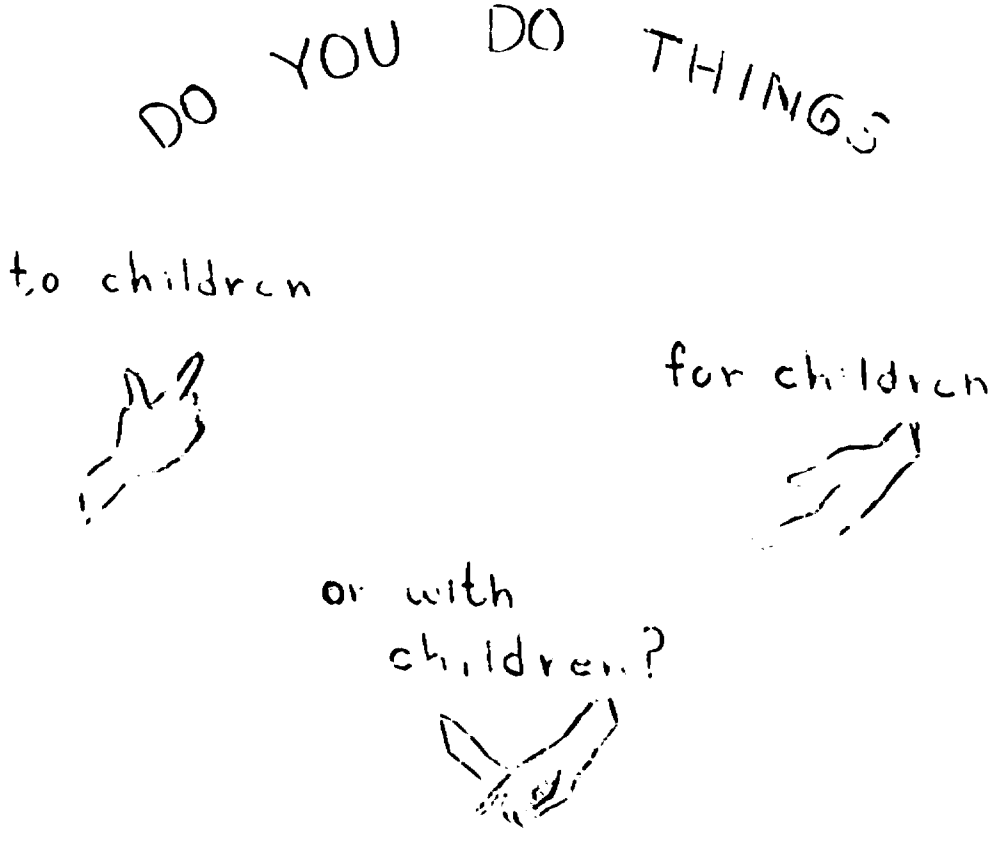


TABLE II

STUDENT CENTEREDNESS

1st Group of Trainees (Sept-Jan)

Teachers and Aides
(N = 20)

		Mean Score		Standard Deviation
	Test 1	9.55		1.96
t = 3.63	Test 2	10.15	t .94	1.73
p < .01	Test 3	10.45	n.s.	1.54
	Test 4	11.00		1.69

Teachers (N = 7)		Aides (N = 13)	
	Mean Score		Mean Score
t = .03 n.s.	Pre Test 9.0	t = 7.43 p < .01	Pre Test 9.0
	Post Test 11.0		Post Test 10.2
	Gain = 2.0		Gain = 1.2

2nd Group of Trainees (Jan-May)

Teachers and Aides
(N = 36)

		Mean Score	Standard Deviation
	Test 1	10.46	2.12
t = 1.32	Test 2	10.69	1.69
n.s.	Test 3	10.81	1.41
	Test 4	11.00	1.55

Teachers (N = 8)		Aides (N = 18)	
	Mean Score		Mean Score
t = .03 n.s.	Pre Test 11.75	t = 1.36 n.s.	Pre Test 9.89
	Post Test 11.63		Post Test 10.72
	Loss = .12		Gain = .83

P <.01 = The probability is less than one in one hundred that this difference would have occurred by chance.

n.s. = The difference between the scores indicated is not significant.

In the first group of trainees the difference between the mean score on Test 1 and Test 4 is statistically significant at less than .01 level for the total group. However, the difference between any two consecutive tests does not reach significance at the .05 level, as evidenced by a t of .94 for the difference between the two consecutive tests which have the greatest mean difference. A breakdown by sub-groups (teachers and aides) indicates that teachers had the greatest gain, but this gain did not reach statistical significance, while the aides had a smaller gain which was statistically significant. This can be explained by the smaller number of cases involved in the teacher group and by the fact that one teacher showed a regression, while every aide showed progression.

The second group of participants started with relatively higher scores than the first group, and did not attain as much gain. Again the ceiling of the test became an impediment to achieving a significant gain. The fact that the highest possible score (13) on the test was being achieved by more people on progressive testing is indicated by the decreasing standard deviations in both groups of trainees.

The gain in student certeredness on the part of the first group of trainees is believed to be a function of the great emphasis placed on individualizing instruction to the whole child, with emphasis on the motivational and affective needs of children, especially handicapped children. The lack of a comparable gain on the part of the second group of trainees is of course partially accounted for by the low ceiling on the test. Another debilitating influence on the second group may have been the greater emphasis placed on getting "the project" refunded, rather than on individuals. The shift of emphasis was to assure that trainees were capable of articulating project goals for L.T.I. personnel. However, the lack of range on the test is probably the factor which contributed most to the lack of significant gain.

Minnesota Teacher Attitude Inventory (MTAI)

The MTAI is a published inventory which was empirically derived to measure an individual's ability to maintain "harmonious relations" in the classroom as evidenced by (1) ability to win the affection of pupils, (2) fondness for and understanding of children, (3) ability to maintain a desirable form of discipline The inventory has been subjected to careful scrutiny. The earliest evidence is concisely stated in the Handbook of Research on Teaching edited by N.L. Gage in 1963. One study be Della Piana and Gage[2] indicated that teachers who scored high on the MTAI were better liked by pupils who have affective values. The increasing awareness of the importance of affective values in education, especially special education, warrants its consideration as a criterion indice. A more recent study reported by Justis[3] gives further credence to this consideration in calling the MTAI ... "the first reliable measure of general teaching ability (based on pupil performance in two different subject fields)."

---

[2] Della Piana, G.M. and Gage, N.L., Pupils Values and the Validity of the Minnesota Teacher Attitude Inventory, Journal Educational Psychology 1955

[3] Justis, T.R., A Reliable Measure of Teacher Effectiveness, Educational Leadership/Research Supplement. Vol. 3 Oct 1969 #1 pp. 54

The MTAI was administered at approximately monthly intervals during the training of each group at the Edith Bowen Laboratory School. TABLE III indicates the mean scores for each group at each testing, and mean scores for teachers and aides within each group on the first and last test, to reflect gains made while in the laboratory school phase of training.

TABLE III

THE MINNESOTA TEACHER ATTITUDE INVENTORY
AS AN INDICATOR OF ENHANCED ATTITUDES

1st Group of Trainees (Sept-Jan)
Teachers and Aides
(N = 20)

	Mean Score		Standard Deviation
Test 1	32.15		24.16
t = 4.56, p < .01 — Test 2	40.25	t=1.68; n.s.	32.08
Test 3	50.20	t=3.10; p<.01	34.63
Test 4	58.35	t=2.62; p<.05	37.79

Teachers (N = 7)		Aides (N = 13)	
	Mean Score		Mean Score
t = 1.49, n.s. — Pre Test	47.7	t = 6.75, p < .01 — Pre Test	23.8
Post Test	73.4	Post Test	51.0
Gain =	25.7	Gain =	27.2

2nd Group of Trainees (Jan-May)
Teachers and Aides
(N = 26)

	Mean Score		Standard Deviation
Test 1	37.23		24.96
t = 1.02, p < .01 — Test 2	51.73	t=3.36; p<.01	29.76
Test 3	68.04	t=1.68; n.s.	29.44
Test 4	73.62	t=1.65; n.s.	21.22

Teachers (N = 8)		Aides (N = 18)	
	Mean Score		Mean Score
t = 5.31, p < .01 — Pre Test	54.3	t = 8.61, p < .01 — Pre Test	29.6
Post Test	86.9	Post Test	67.7
Gain =	32.6	Gain =	38.1

Control Group
Teachers
(N = 14)

t = .01, n.s. — Pre Test	42.5	F = 12.20, p < .01
Post Test	38.6	
Loss =	3.9	

The mean gain between Test 1 and Test 4 for the first group of trainees is statistically significant at less than the .01 level. Mean gains attained between monthly monitoring tests are relatively consistent and approach or reach significance (t .95 = 1.73). Variability within the teacher group is the primary reason for change in t levels of significance obtained. The impact of this variability becomes most apparent when the first group of trainees is divided into sub-groups (teachers and aides). The teacher sub-group did not attain a level of change which reached statistical significance because the scores of one teacher consistently declined. This increased the variation in that sub-group to an extent that made the group gains non-significant even though the mean gain for the sub-group was comparable to the statistically significant gain within the aide sub-group.

The mean gain between Test 1 and Test 4 for the second group of trainees is also statistically significant at less than the .01 level. Mean gains attained between monthly monitoring tests tend to decline as training progressed. The decreasing rate of gain would suggest the approach of a plateau in magnitude of scores attainable under the training conditions which prevailed during the second half of the project year. A break-down into sub-groups (teachers and aides) indicates that the two groups gained comparable amounts.

Scores attained by a control group of teachers who were employed in the community with a comparable group of students (excluding special education students) indicates that the teacher trainees score gains are not a function of history* or pre-test sensitization. However this does not rule out the influence of spurious events in the university academic environment from which the control group was more isolated. Literature which summarizes studies on the MTAI indicates that academic training does enhance scores on that inventory. Allowing for this is crucial in evaluating any measured gains. The gains in this project tend to be of such magnitude and consistency that causal implications are strong. (Only three of forty-six in the trainee group showed lower post-test scores than pre-test scores.)

The reason for the mean score gain in this study can best be explained in terms of the responsibility which was given to each trainee in making his own decisions about the elements of study which he chose to pursue. Substantiation for this hypothesis is offered by the fact that all three of the individuals who received lower scores on Test 4 than on Test 1 had been identified as participants who were least active in the project. Two of the three were rated at the bottom of the teacher and aide groups respectively in regard to the degree to which they were perceived as capable of "being effective in educating handicapped children in the regular classroom." Other individuals with lower score gains tended to take less responsibility for taking [illegible] in project activities than those with higher scores.

---

* [illegible] occurring during the course of training not under the control of trainees but which serve to confound results.

[4] Johnston, D.P., The Relationship of Self-supervision to Change in Selected Attitudes and Behaviors of Secondary School Teachers, Educational Leadership/Research Supplement. Oct. 1969, Vol. 3 #1, pp. 49.

Special Education Knowledge Test

A test was constructed with the cooperation of the Department of Special Education to assess the entry level for each participant in his knowledge of concepts and methods important to special education. This test was also used as a post-test to assess knowledge gained through training at Edith Bowen Laboratory School. Pre and post test scores are listed by sub-groups (teachers and aides) for each group of trainees in TABLE IV.

TABLE IV

KNOWLEDGE TEST

1st Group of Trainees (Sept-Jan)

	Teachers (N = 7)		Aides (N = 13)	
	Mean Score		Mean Score	
t = 2.36	Pre Test	33.0	t = 2.72 Pre Test	26.5
p < .05	Post Test	36.7	p < .01 Post Test	30.0
	Gain =	3.7		Gain = 3.5

2nd Group of Trainees (Jan-May)

	Teachers (N = 8)		Aides (N = 18)	
	Mean Score		Mean Score	
t = 2.11	Pre Test	31.3	t = 4.78 Pre Test	27.6
p < .05	Post Test	33.6	p < .01 Post Test	31.3
	Gain =	2.3		Gain = 3.7

Trainee knowledge gains are comparable for all sub-groups within the two trainee groups. It is of note that the second group of teachers gained somewhat less even though greater effort was expended to provide a separate "higher level" program for them than for the aides. However these differences are inconclusive because no effort was made to specifically teach each item on the test as is often done in regular college courses.

It is hypothesized that the knowledge gained through this project will be retained much longer and have far greater utility than that gained through a programmed sequence. This should be true because the learners felt needs are emphasized rather than the instructor's felt needs. (This presupposes that the learner will learn more and retain it longer if he is permitted to pursue his own goals in an appropriately structured learning environment.)

Tennessee Self-Concept Scale (TSCS)

The construct of self concept, as a relatively stable phenomenon in people, was selected as an appropriate foundation upon which to develop educational prowess of each trainee, whether that person was an aide or a teacher. Self theory indicates that the individual's concept of himself is highly influencial in behavior and is directly related to one's state of mental health. The pressures and uncertainties in education, and especially special education, make the enhancement of self conceptual structure a germane consideration in the training of educational personnel.

Selection and interpretation of tools which purportedly measure this construct becomes a task that warrants a great deal of study. The theory is quite useful for conjecture, but its assessment in terms of a score can be misleading when individuals within heterogeneous groups are to be compared. Coopersmith[5] notes that self esteem is a function of successes, ideals, aspirations and defenses. Each of these factors and possibly others should be considered in the interpretation of a self concept score.

The TSCS[6] is an empirically derived tool which has undergone some scrutiny. The several scales which it depicts on each profile appear to hold promise for exploration in the construct of self concept. This is particularly true of the clinical and research form. The decision to use this tool was made after the first group of trainees had arrived, and consequently it was not available for pre-testing them. The pre and post test scores for the second group of trainees are noted in TABLE V.

This table indicates that both sub-groups (teachers and aides) within the second group gained a comparable amount in raw score points. These pre test raw scores fall close to the mean of the normal group on which the TSCS was standardized. The post test scores are approximately one standard deviation higher. This gain in score takes on additional meaning in the light of correlative changes in self criticism scores. As was noted earlier, the degree of openness or the lack of defensiveness manifested by the test taker may have a strong influence on how the individual rates himself on a self concept scale. This tendency for an inverse relationship was very prevalent among educational aides. That is, if the person is defensive, the self concept scores tend to be artificially inflated. The scores below indicate that the second group of trainees tended to become less defensive and still achieved significantly higher self concept scores.

---

[5] Coopersmith, S., The Antecedents of Self-Esteem, (San Francisco, W. H. Freeman and Company: 1967).

[6] Fitts, W.H., Manual for the Tennessee Self-Concept Scale, (Nashville, Tennessee, Counselor Recordings and Tests: 1965)

TABLE V

TENNESSEE SELF CONCEPT SCALE

2nd Group of Trainees (Jan-May)

Total Positive Self Concept Scores

	Teachers (N = 8)		Aides (N = 18)	
t = 2.25, p < .05	Pre Test	349.0	t = 4.07, p < .01 Pre Test	346.5
	Post Test	382.5	Post Test	375.6
	Gain =	33.5	Gain =	29.1

Self Criticism Score

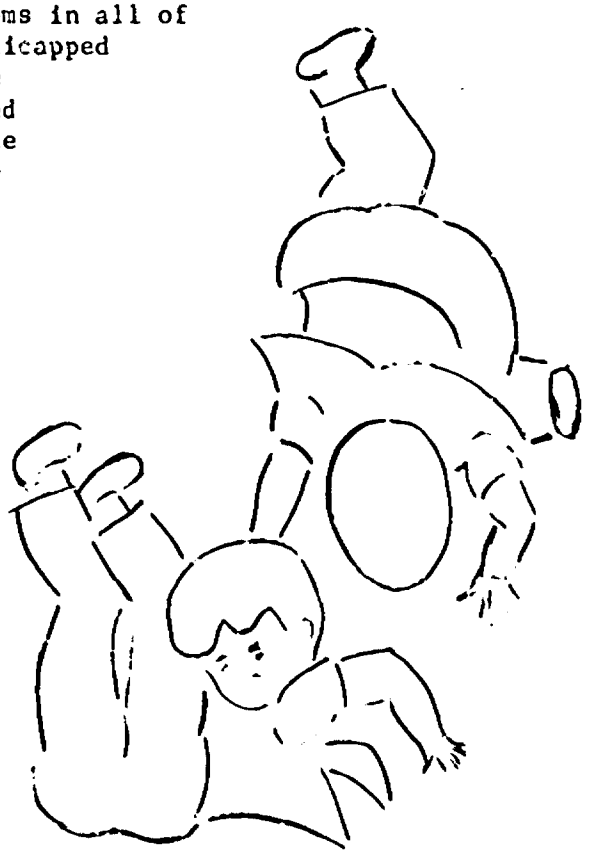
t = .29, n.s.	Pre Test	33.4	t = 4.01, p < .01 Pre Test	32.3
	Post Test	34.3	Post Test	36.7
	Gain =	.9	Gain =	4.4

Hasty conclusions about the validity of these meaasurements as symptoms of change in mental health to the degree that is indicated must be avoided. That much change would be unexpected from a short term experience and its impact on a theoretically stable aspect of personslity. Further studies of the TSCS will be continued into subsequent years to examine the validity of the implications raised by this highly significant gain in score.

Follow-thru With First Group of Trainees

The first major project goal specified the desire to "... assist handicapped children and educationally impoverished children to reach a higher level of learning potential in the regular classroom." The learning potential of children could be interpreted in a number of ways, but generally it must refer to the general aptitude of the child for significant learning. Level of intellectual functioning as assessed by I.Q. is one way of measuring this aptitude. Zigler[7] demonstrated that the level of I.Q. can be raised by enhancing the motivational component of measured I.Q. in culturally disadvantaged children.

In order to evaluate the effectiveness of the project in preparing educational personnel to raise the learning potential of children, it was hypothesized that teams (one teacher and one aide working together) would enhance the I.Q. of those children with whom they work. Testing this hypothesis required the administration of the CTMM to all students in each classroom in the rural areas where teacher trainees were placed after completing their laboratory school training in January. No attempt was made to identify handicapped children, because they were an integral part of the classrooms in all of the rural areas. Separating the handicapped from the rest of the students for the purpose of a study would have required labeling and logistics which available resources would not allow. Also controlling for regression effects in what would be a truncated distribution was not possible. Therefore, a decision was made to assess the impact of project-trained personnel on all the students within the classroom. The combined results for all rural classrooms from this testing are presented by sex in TABLE VI.



[7] Zigler, E. and Butterfield, E.D., Motivational Aspects of Changes in I.Q. Test Performance of Culturally Deprived Nursery School Children, Child Development, March 1968 Vol. 39 #1, pp. 1-14

TABLE VI

INTELLECTUAL PROGRESS OF ALL PUPILS UNDER SUPERVISION
OF PROJECT TEACHER TRAINEES
AFTER THEIR PLACEMENT IN RURAL AREAS

	Sex[1]	Test[2]	Mean	Change	Standard Deviation	Correlation Between T_1 & T_2	t Value & Level of Significance
CTMM LANGUAGE I.Q.	M	1	99.4	+3.1	14.32	.83	2.98**
		2	102.5		15.46		
	F	1	100.1	+3.8	12.12	.83	4.47**
		2	103.9		12.00		
CTMM NON LANG. I.Q.	M	1	99.8	+3.9	13.72	.79	3.75**
		2	103.7		13.22		
	F	1	100.8	+6.3	15.47	.69	4.29**
		2	107.1		15.38		
CTMM TOTAL I.Q.	M	1	99.6	+4.0	14.17	.88	4.82**
		2	103.6		14.44		
	F	1	100.6	+5.2	14.33	.84	5.36**
		2	105.8		13.91		

[1] 71 Males
68 Females

[2] Test 1 was administered shortly after the teachers arrived in January. Test 2 was administered three months later at the end of the academic year.

** $P < .01$ (the probability is less than one in one hundred that this change occured by chance.)

The intellectual progress of pupils of trainees appears to be indicative of desirable change in that all gains were significant at less than the .01 level. The students did make significant gains between pre and post tests when maturation is controlled for in the computation of individual I.Q. scores. However inasmuch as it was impossible to have a matched control group for each of the six classes involved, the impact of pre test sensitization is undetermined. An analysis of variance run to compare the changes in this group to the changes in a control group which had somewhat different characteristics (including significantly higher I.Q.'s) indicated that only the non-language I.Q. gain for girls was significantly greater than would have happened by chance. In this unmatched control group the boys had done extremely well (see Appendix I) to an extent that the rural pupils did significantly less well in the non-language and total I.Q. areas.

Variations in score gains attained within the control group and each of six rural classrooms raise many questions about the confounding factors affecting pupil progress. One of the most apparent of these in the rural areas was the number and type of children in each classroom. Two teachers started with forty students in their classrooms, many of them in each class being disadvantaged. One of these classes was on the average a year below grade level. One teacher had only twenty relatively normal students, but he did not have assistance from a teacher aide. The above situations plus differences in curriculum, supportive resources, cultural milieu and the interaction of all these factors and more, make conclusions unreliable.

A second instrument used in the rural areas was the Piers-Harris Self-Concept Scale for Children. Self concept was selected as a further index of learning potential as well as to measure more specifically the aspect of mental health. Pre and post test results for the 4th and 5th grades in the rural areas are presented in TABLE VII.

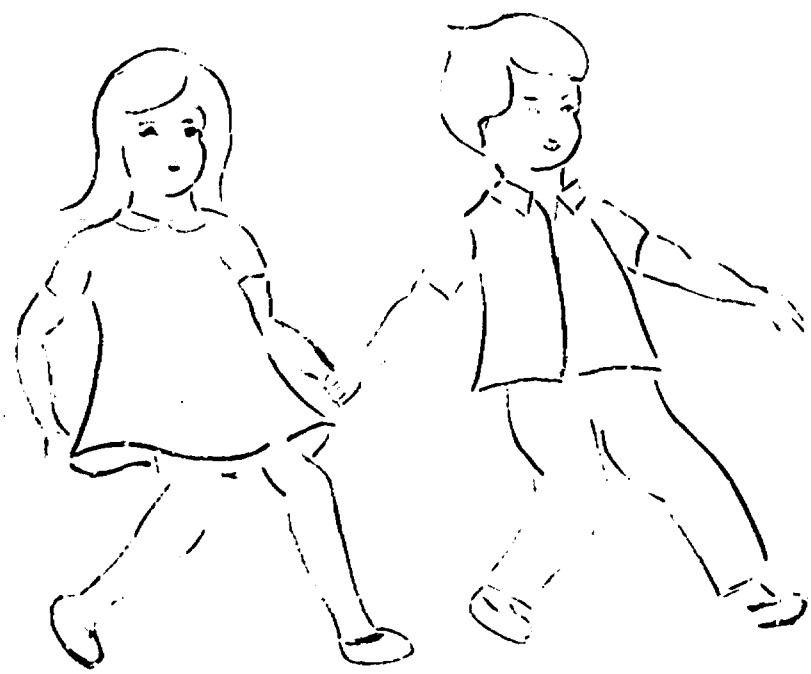


TABLE VII

SELF CONCEPT PROGRESS OF ALL 4TH & 5TH GRADE STUDENTS
UNDER THE SUPERVISION OF PROJECT TEACHER TRAINEES
AFTER PLACEMENT IN RURAL AREAS

	Sex[1]	Test[2]	Mean	Change	Standard Deviation	Correlation Between T_1 & T_2	t Value & Level of Significance
PIERS-HARRIS SELF-CONCEPT-SCALE	M	1	55.0	-1.3	13.05	.56	.51 n.s.
		2	53.7		15.12		
	F	1	55.4	+4.5	11.15	.80	3.10**
		2	58.9		14.28		

[1]34 Males
35 Females

[2]Test 1 was administered shortly after teacher's arrival in January
Test 2 was administered three months later at the end of the academic year.

n.s. = not significant

** $p < .01$ (The probability is less than one in one hundred that this change occured by chance.)

Self concept score changes like I.Q. score changes appear to hold some implications, but again when variations between classrooms are considered, consistencies in significance levels do not appear. Pre testing data did prove to be very useful in the identification of individual children's characteristics for planning educational programs. This practice may have served to produce interactive effects to further confound results, but use of these types of information were considered to be a very legitimate part of trainee preparation to work in heterogeneous groups.

Conclusion of research and evaluation of Trainee Preparation

Monitoring and evaluation of trainee progress in the laboratory setting provided psychometric data which reflected very positively on the project as it sought to reach specified goals. Attitudes and enthusiasm for the project remained very positive. Knowledge and self concept gains assessed were indicative of a worthwhile program.

The fact that all but one of the fifty-four trainees who started in the program completed their training indicates that human relations were good. (The one trainee who dropped out did so because of a chronic heart condition.)

The systematic attainment of data from rural areas was less complete than may have been desirable. Distances and variations in settings tended to make systematic collection of comparable data impossible.

Visitations to the rural areas were most rewarding for project staff in gaining appreciation for the various settings in which trainees had been placed. A high level of consensus among those who made these visitations indicates that the most qualified trainees were placed in the most challenging positions. Trainees have generally been given support by their respective administrations to make innovations on the basis of project training. Observation of these innovations on the basis of project results attained through project efforts.

B. Institutional Responsiveness

The initial question that arises in the evaluation of a project funded by the Education Professions Development Act is "what criterion are to be used?" The initial rational consideration would seem to require evaluation in terms of changes in trainees as a result of a proposed educative experience. Ultimately these changes in trainees should serve to somehow change the educative process for young children to bring about other desired results. These questions were considered in Part A. of this evaluation report.

The primary concern of this portion will center on the training institution and its many facets. It emphasizes the attitudes and the involvement of parents of children in the laboratory setting, the impact of the project on the children themselves (both normal and exceptional) and the larger question of how this university is being changed to meet the current and future needs of society.

Attitudes of Parents Toward the Project

Involvement of parents is becoming an increasingly important consideration in program evaluation. Recently David Cohen of Harvard wrote:

> "...in the cities -- particularly in the Negro community -- there is rising opposition to the view that achievement and good behavior are legitimate criteria for success. Instead, political legitimacy -- in the form of parent involvement or community control -- is advanced as a proper aim for school change programs."[8]

---

[8] Cohen, David K., Politics and Research: Evaluation of Social Action Programs in Education, Review of Education Research, April 1970, Vol. 40 #2, pp. 232.

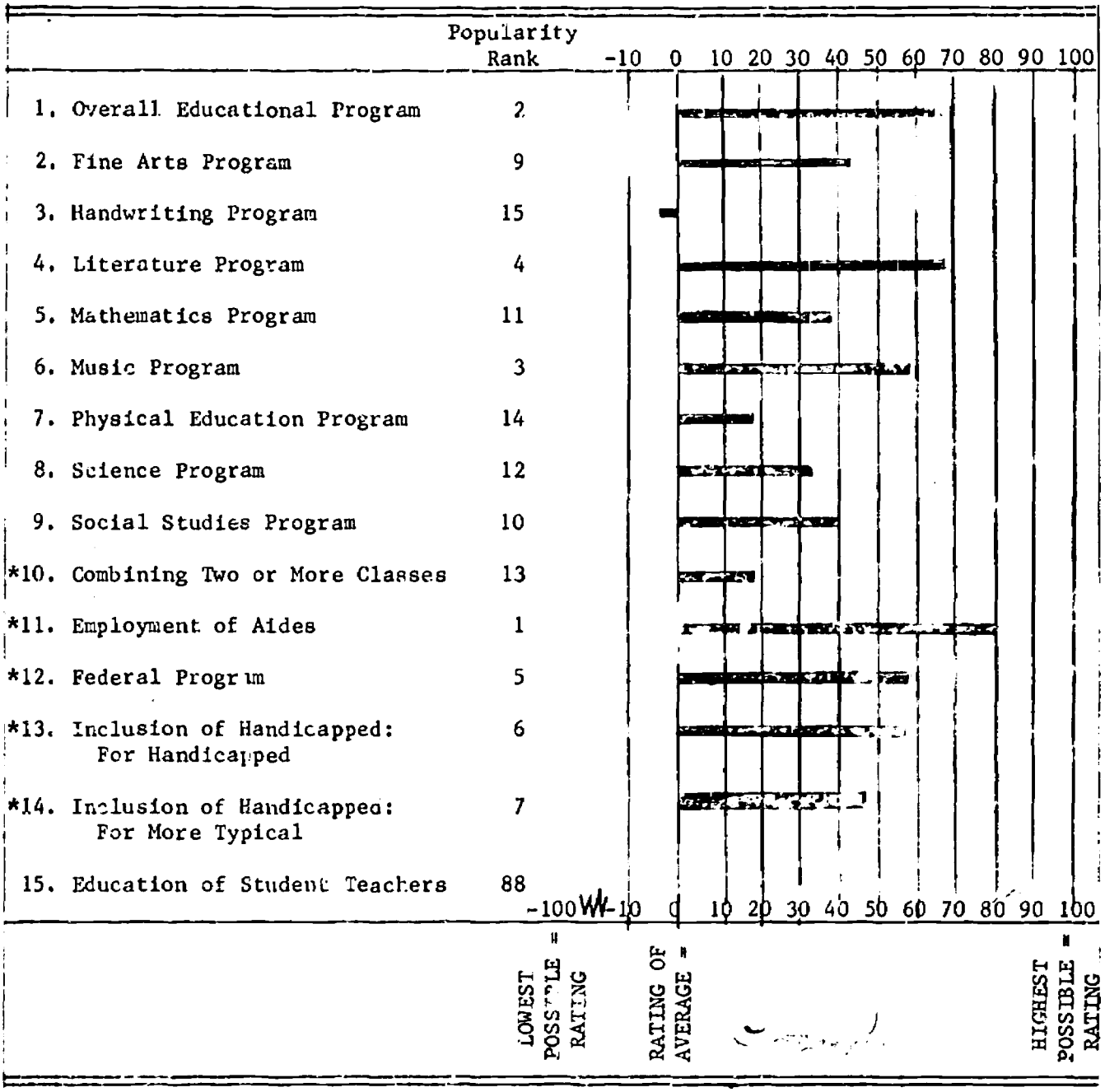
The laboratory school had initiated a trend toward parental involvement which was hopefully accelerated by project involvement. Orientation meetings for parents were an integral part of school policy, and more importantly individual parents had been involved in parent-teacher conferences for every child. This was done in place of giving grades to indicate student progress. Continuation of these and other efforts on the part of the laboratory school staff have served to maintain strong parental support for school activities. TABLE VIII is presented as an indicator of the general parental support enjoyed by the school. This table was tabulated from a greater than sixty percent response to a questionnaire which was to be returned anonomously by parents. (The relative enthusiasm which parents showed for the employemnt of aides is especially noteworthy.)

Evidence of project staff concern for maintaining this parental support was indicated in project operation by the invitation extended to "Parents for Progress"* leaders to attend administrative council meetings, which were held for the formulation of policy at the beginning of the project. Representatives of this group were also involved in the site visit made by the Leadership Training Institute (L.T.I.) The involvement of concerned parents in these various ways has served to maintain community rapport.

* "Parents for Progress" is the name taken by parents of pupils at the laboratory school when they withdrew from the national PTA Organization.

TABLE VIII

POPULARITY OF VARIOUS ASPECTS OF THE LABORATORY SCHOOL PROGRAM
AS RATED BY PUPIL PARENTS ON A LIKERT TYPE SCALE
WHERE A SCORE OF "0" WOULD INDICATE A MEDIOCRE RATING
(OCTOBER 1969)



* These items are directly related to the EPDA Program

Progress of Laboratory School Children

The integration of children from learning adjustment classes (classes for the emotionally disturbed) into the regular classroom raised questions about the adequacy of the integrated setting in meeting their educational needs. This question can legitimately be raised for any child in any program, but unfortunately little reliable comparative data is available for programs involving special education students. As Reynolds notes, technical and research problems have contributed to a lack of conclusive results in efforts to evaluate various programs.[9]

The inadequacy of virtually all standardized instruments for "exceptional" students makes normative comparisons either impossible or questionable. (Special Education students by definition should not perform in a comparable fashion on normed instruments.) This makes an idiographic approach the most tenable, but overall summaries on the basis of varying individual assessment criterion are at best very questionable. Even in view of these shortcomings, attempts must be made to focus on the adequacy of outcomes. To this end TABLE IX was constructed using all of the students in the fourth grade at the laboratory school who had previously been in learning adjustment classes.

TABLE IX

PROGRESS OF FOURTH GRADE STUDENTS FROM LEARNING ADJUSTMENT CLASSROOMS WHO ARE NOW INTEGRATED INTO THE REGULAR CLASSROOM

	(Metropolitan Grade Equivalent Achievement Placement Scores)*															
	WORD KNOWLEDGE				READING				SPELLING#				ARITHMETIC		AVERAGE	
CHILD	1967	1968	1969	1970	1967	1968	1969	1970	1968	1969	1970		1967	1968	1969	1970
1	2.1	1.9	2.3	2.3	1.2	1.6	1.7	2.4	1.9	2.7	2.9		2.8	3.4	3.2	3.5
2			2.2	2.7			2.4	2.8		2.1	2.2				2.8	3.1
3			2.9	3.4			2.0	3.2		1.7	4.0				2.8	3.9
4			2.7	4.0		2.0	2.7	2.8		3.1	3.6			2.0	3.4	3.7
5	1.6	1.8	2.4	3.1	1.6	2.1	2.7	3.8	1.9	2.6	4.6		2.2	3.5	3.9	5.2
6	1.4	1.4	1.3	2.8	1.2	1.8	1.8	3.4	1.0	1.8	2.4		1.7	2.0	2.9	2.9
7			2.7	2.7			1.6	3.4		3.1	3.1			2.4	3.1	3.6
$\bar{X}$ Grade Equiv.			2.36	3.00			2.13	3.11		2.44	3.26			3.16	3.16	3.67
$\bar{X}$ Grade Equivalent Gain			+.64				+.98			+.70					+.51	
Significance of Gain			t = 2.91 p < .05				t = 4.19 p < .05			t = 2.44 p < .05					t + 6.14 p < .01	

* 1. Achievement tests were administered at academic grade level +.7.
2. Scores were not available in blank areas.

\# Spelling is not a part of first grade Metropolitan Achievement Tests; therefore, no scores are available in 1967.

[9] Reynolds, M.C.,Special Education : Encyclopedia of Educational Research, 4th edition edited by Ebel, R.L., London: The MacMillan Company, 1969, pp. 1254-1261.

This particular group was selected because it was the only class which had more than two people who had comparable achievement test scores in the school years 1968-1969 and 1969-1970.* This reason in itself makes the group non-representative. But it does provide scores for all individuals in the group which is relatively homogeneous by chronological age. The gains made by these students are somewhat short of a full year's gain, but the over-all gain is viewed as being very encouraging. This is especially so when an observation of the scores or lack thereof for previous years is observed on the same table. (The lack of scores in many cases points out the inappropriateness of the tests in assessing the progress of youngsters who are over a year below grade level on the average.) Further evidence for being satisfied with achievement score gains is found in the relatively low language I.Q. scores attained by these same seven individuals.

TABLE X shows mid-year and end year I.Q. as measured under close supervision on the California Test of Mental Maturity. (Students with these relatively lower I.Q.'s might not be expected to gain as much as the norm on achievement tests.)

TABLE X

PROGRESS OF FOURTH GRADE STUDENTS FROM LEARNING ADJUSTMENT CLASSROOMS WHO ARE NOW INTEGRATED INTO THE REGULAR CLASSROOM

	PIERS HARRIS SELF CONCEPT RAW SCORE		MID YEAR AND END YEAR CTMM I.Q.					
			LANGUAGE		NON LANGUAGE		TOTAL	
CHILD	T-1	T-2	T-1	T-2	T-1	T-2	T-1	T-2
1	45	49	080	081	114	109	094	093
2	52	57	078	086	086	076	078	078
3	72	70	093	103	102	117	096	111
4	51	47	086	084	111	115	096	098
5	53	71	096	103	119	109	108	106
6	50	65	068	078	085	084	071	078
7	66	65	091	082	109	117	098	097
$\bar{X}$ SC	55.6	60.6	$\bar{X}$ IQ 84.6	88.1	103.7	103.9	91.6	94.4
X GAIN	+5.0 t = 1.55 n.s.		+3.5 t = 1.32 n.s.		-.2 n.s.		+2.8 t = 1.22 n.s.	

T-1 Administered in January
T-2 Administered three months after T-1

* A reading and arithmetic achievement score is required for all special education students, but the lack of comparability between scores given to different individuals in classes not considered here was noteworthy.

TABLE X shows that the children who were integrated from learning adjustment classes were approximately one standard deviation below the test norm average in language I.Q., and approximately at the norm average in non-language I.Q. If these two subsections (language and non-language measures) are accepted as valid, it would indicate that certain types of curriculum would be most appropriate for students from learning adjustment classes. The data presented are consistent with other findings that emotionally disturbed children can deal more effectively with concrete than abstract verbal meanings. If the curriculum were tailored to maximize satisfaction and/or achievement for these youngsters, such things as physical education, dance and field trips would be most appropriate.

TABLE XI indicates that the language facility of children from learning adjustment classes in grades other than grade four was also more handicapped than non-language facility. This pattern of handicap was most apparent in the scores of boys, but also present among the scores of girls.

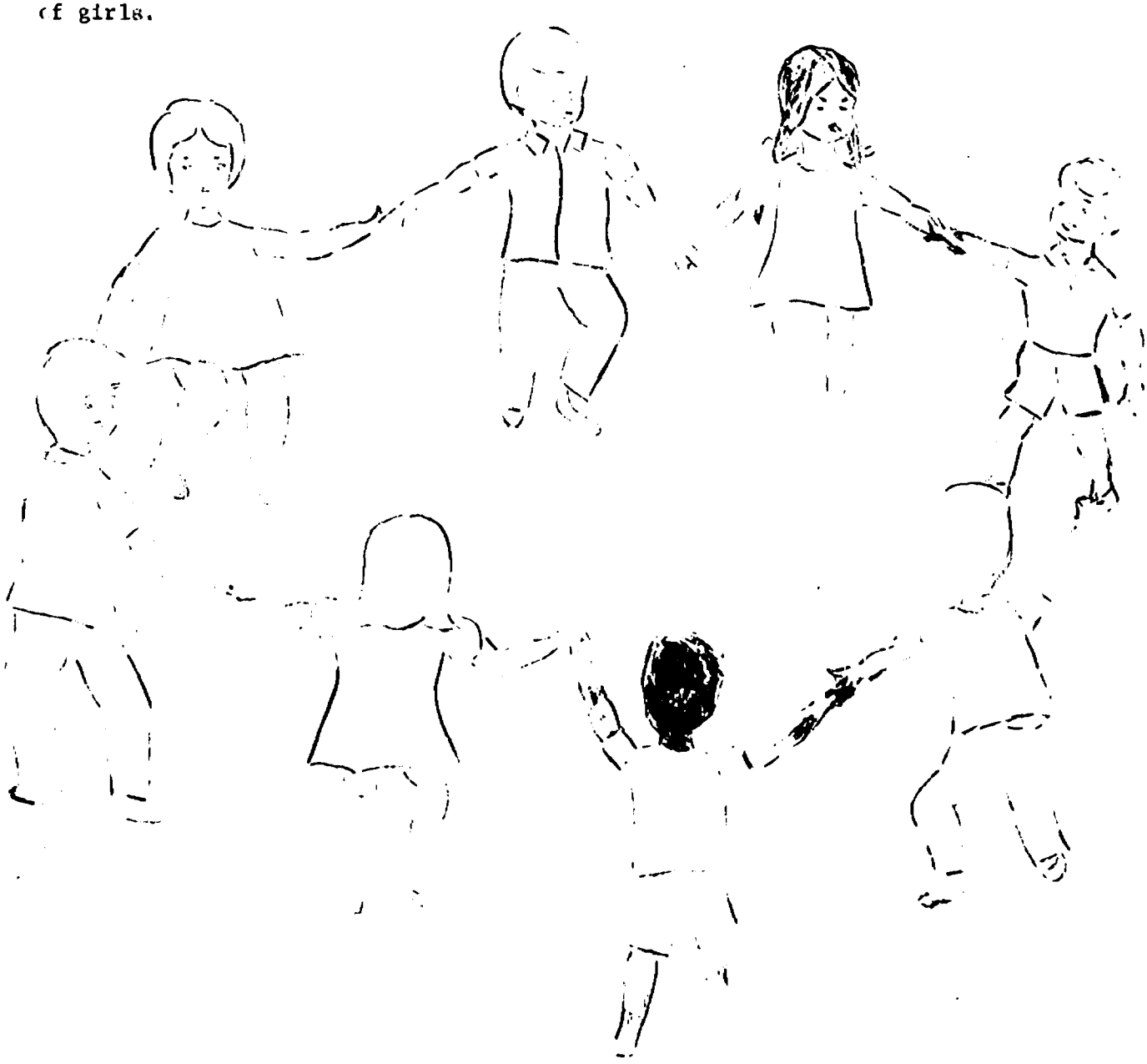


TABLE XI

PROGRESS OF SPECIAL EDUCATION CHILDREN (GRADES 3-6)
AFTER INTEGRATION INTO THE REGULAR CLASSROOM
ON SELF CONCEPT AND I.Q. MEASURES

Assessed Domain	Sex[1]	Test[2]	Mean	Change	Standard Deviation	Correlation Between T_1 & T_2	F*	t**
SELF CONCEPT	M	1	52.3	+9.1	9.01	.39	4.72[3] p<.05	3.39 p<.01
		2	61.4		7.67			
	F	1	48.2	+1.5	23.17	.87	.66 n.s.	.37 n.s.
		2	49.7		16.32			
CTMM LANGUAGE I.Q.	M	1	86.5	+3.5	16.91	.81	.26 n.s.	1.20 n.s.
		2	90.0		15.47			
	F	1	95.8	+4.3	15.11	.66	.30 n.s.	.97 n.s.
CTMM NON LANGUAGE I.Q.	M	1	95.8	+4.0	20.07	.86	1.63 n.s.	1.35 n.s.
		2	99.8		17.10			
	F	1	99.6	+6.7	10.79	.71	2.56 n.s.	2.39 p<.05
		2	106.3		11.25			
CTMM TOTAL I.Q.	M	1	89.0	+5.7	18.57	.91	.41 n.s.	2.54 p<.05
		2	94.7		15.97			
	F	1	96.9	+6.8	12.96	.73	3.23 n.s.	2.14 p<.05
		2	103.7		13.02			

[1] 12 Males - 9 Females:

[2] Test 1 was administered in January
Test 2 was administered three months after Test 1

[3] Control group change between Test 1 & 2 was +2.6

* Significance of change within this group as compared to a control group.
**Significance of the development between T_1 & T_2 within this group.

Male 1 tail t .95 = 1.80	Male F .95 (1/41 df) = 4.08
Male 1 tail t .99 = 2.90	Male f .99 (1/41 df) = 7.31
Female 1 tail t .95 = 1.86	Female F .95 (1/38 df) = 4.10
Female 1 tail t .99 = 2.72	Female F .99 (1/38 df) = 7.37

Table XI indicates that the self concept scores of males were enhanced significantly more than scores of a control group, while the self concept of females was raised but not to a statistically significant degree. (The reason for the gain of one being significant and not the other is unclear.) It is important to note that the control group (see Appendix I) is made up of more typical fifth grade students from another school and is therefore not completely comparable. The control group is used to assess the extent to which pre-test sensitization and history play a role in the enhancement of scores on Test 2 over that of Test 1. Whether these two factors operated in the same way in the control group and the students from the learning adjustment classes is left to the reader as an open question. It is well to note that the publisher of the Piers-Harris Self-Concept Scale advises the user to refer to a control group, because test scores on the second testing are often higher than the first regardless of the treatment which intervened.

I.Q. progress for the children who had been integrated from learning adjustment classes (see TABLES X & XI) was generally higher on the end of year test. This apparent progress again, however, was not statistically significant in comparison to the control group gains.

An over-view of psychometric data indicates that the progress of students from learning adjustment classes who are now integrated would lead one to believe that they are doing quite well in the integrated classroom where teacher and aide training is occuring. Scores tend to be higher rather than lower in achievement and I.Q., and Self Concept appears to have been raised, especially for the males. The fact that the rate of absenteeism on pre and post test days, or that the rate of tests thrown out as unscorable, was no higher among integrated learning adjustment students than other students also indicates that they were functioning in a desirable fashion. These more objective findings tend to collaborate with subjective impressions from laboratory school teachers in general, especially for grades 3 through 6. This does not say that there are not exceptions. Data on individual students and rational analysis would certainly indicate that the feasibility of meeting the needs of a particular child (handicapped or more typical) in the regular classroom is dependent upon the teacher's characteristics and the characteristics of the school environment, as well as the child's characteristics. The Cascade system as presented in Appendix H is certainly appropriate in some circumstances.

Responsiveness of More Typical Children When Integrated with Handicapped

The data presented above indicates that those handicapped children who were integrated at the laboratory school appear to have done quite well in the regular classroom with all the distractions which the project has provided. The next logical question then arises as, "How well did the more typical student do in the project setting?"

A review of achievement scores attained by students in the past four years at the laboratory school was made. A composite grade equivalent achievement score is presented by grade and by year in TABLE XII. It is important to note that this table does not include those students who have been in or were diagnosed as students for learning adjustment classes. Nor does it include all other students in each class. Rather it includes all regular students who had achievement score records at the laboratory school for the last four years, or as in the case of first, second and third grades, since they entered graded school.

This allows a person to view the previous year's achievement on any particular class and be assured that the same students are represented in each year. It does however make average figures unrepresentative to the extent that the transient population (those that moved in or out during that period) are not represented. In this same regard, grade one for the current year is made up of all students (other than learning adjustment) who are in the school. Likewise the number represented in grade two is somewhat higher than subsequent grades because in order to be included they would have had to have been at the laboratory school for only two years, while higher grades have been at the laboratory school for longer periods. It is for this reason that only grades four through six (in 1969-70) are included in the average grade equivalent gain indicated at the lower right hand side of TABLE XII.

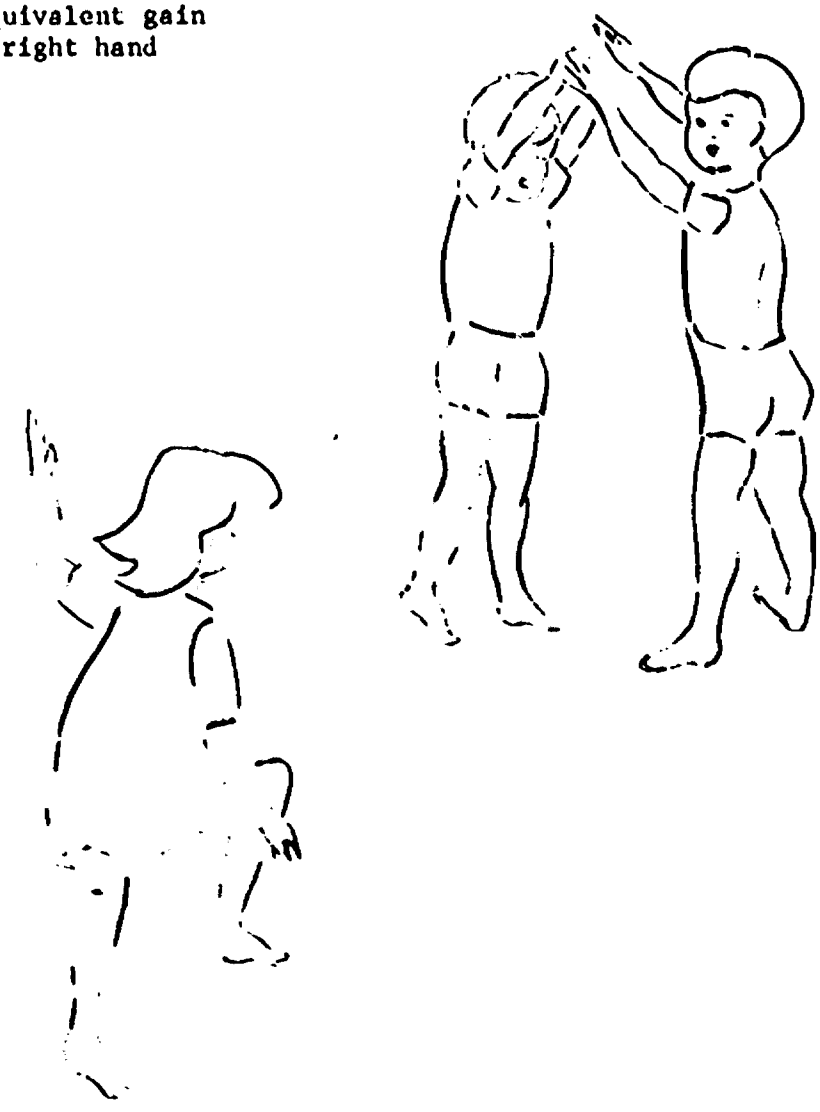
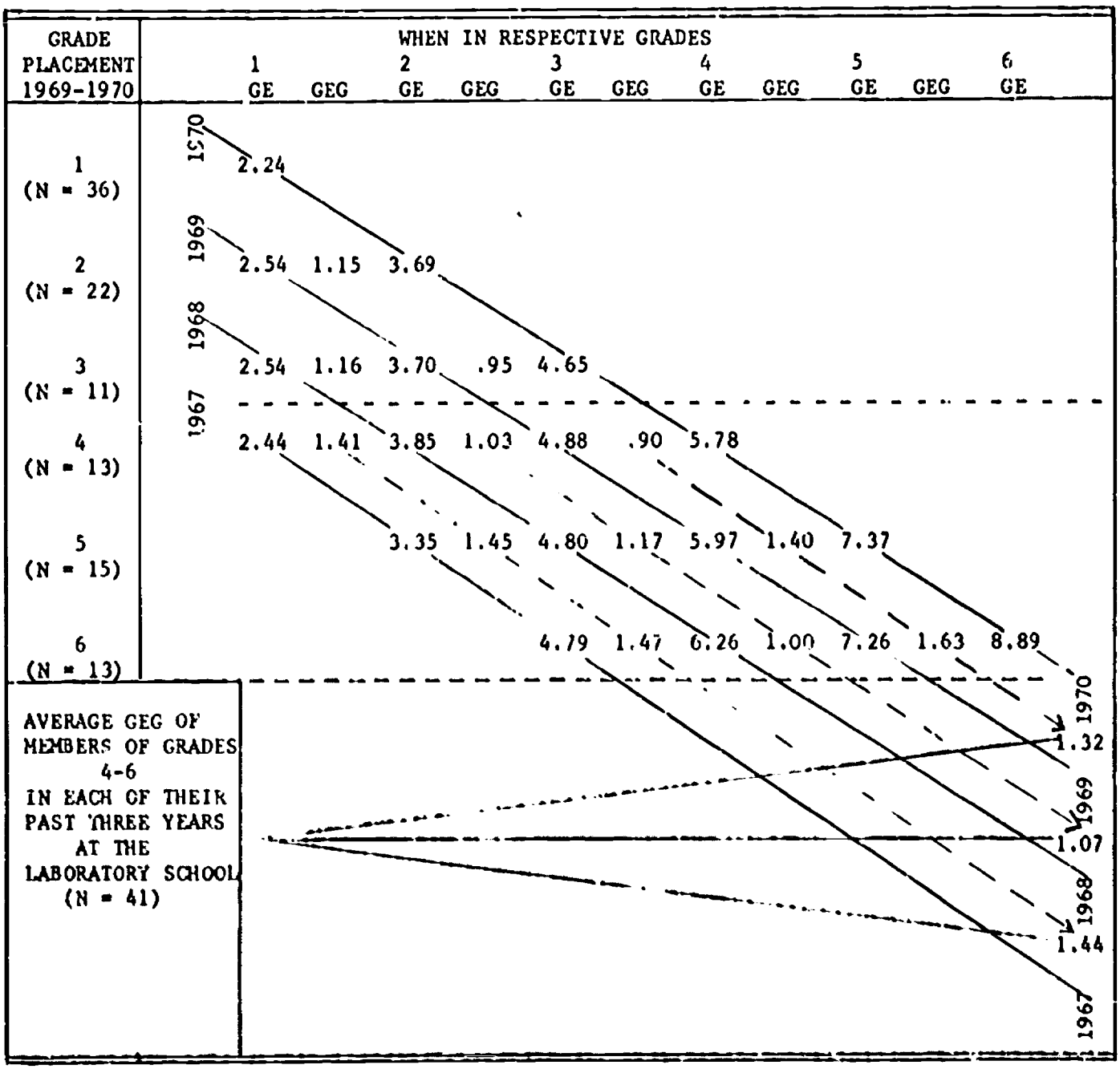


TABLE III

COMPOSITE (READING, WORD KNOWLEDGE & ARITHMETIC) ACHIEVEMENT
OF ALL REGULAR STUDENTS AT THE LABORATORY SCHOOL
(GRADE EQUIVALENT)* & (GRADE EQUIVALENT GAIN)
DURING RESPECTIVE YEARS

BY GRADE LEVEL AND YEAR (Diagonal)



* 1-Metropolitan Achievement Tests were administered at academic grade level +.7 years
2-Scores presented do not include scores of special education students who are now integrated.

According to average grade equivalent gain, the mean achievement (1.32) is somewhat greater this year than last year (1.07), but slightly less than two years ago (1.44). The means would of course vary slightly with the inclusion of lower grades, but that would make figures non-comparable because different populations would be involved.

It is noteworthy that various classes showed considerably different amounts of gai But it would be too simple to say that some classes gained almost twice as much as others. This is the initial reaction one might have, but a look at the breakdown to subject matter fields (which is available, but not published here) indicates that there is great variability within each class. These variations in level of achievement gain can be accounted for by a number of factors:

1. Number and type of handicapped children in a particular classroom.
2. Number and type of more typical children in a particular classroom.
3. Emotional and physical stability of trainees in a particular classroom.
4. Interests and abilities of trainees in a particular classroom.
5. Appropriateness of test used (validity) for measuring various gains sought in various classrooms.
6. Ceilings on achievement tests restricting the gains of some students.
7. The degree to which most children in the laboratory school are significantly above their grade level placement.
8. Various types of curriculum utilized in varying degrees in different classrooms.
9. Proficiency of different instructors in using various curriculum methods.
10. Commitment of different instructors to using various curriculum methods.
11. Distraction imposed by the project in requiring some instructors to be out of the classroom for various reasons (e.g. meetings and/or follow-thru visits).
12. The interaction of any or all of the factors listed above.

However, in spite of all these factors there are three tentative conclusions that can be reached, partially on the basis of data, but more completely in rational analysis. One is that a textbook approach appears to be completely inappropriate for the heterogeneity in each classroom. A textbook approach would serve to hold down the achievement of the more capable, while frustrating or overlooking the handicapped. An individualized approach with varied materials appears to be essential. This leads to the second conclusion. That is that the help of students from within and outside the classroom must be enlisted in the implementation of any individualized curriculum. (It would be physically impossible for a teacher to program for all the needs of all the students in a particular class.)

Those teachers who were most committed to and most skilled in non-textbook student involvement approaches appeared to achieve the greatest gains. The magnitude of their success was probably enhanced by a third factor. This is the maturity and the independence which their students were able to demonstrate. The more capable the teacher is at promoting and capitalizing on these assets, the more likely she is to cultivate high achievement gains in a heterogeneous setting.

TABLE XIII serves to further indicate some of the ambiguities that are inherent in test scores.

TABLE XIII

AVERAGE GRADE EQUIVALENT GAIN* IN ACHIEVEMENT (BY CONTENT AREA) OF CHILDREN IN THE LABORATORY SCHOOL DURING THEIR PAST THREE YEARS OF ATTENDANCE

	1967-1968 (N = 41)	1968-1969 (N = 41)	1969-1970 (N = 41)
Composite GEG From Table VI	1.44	1.07	1.32
Reading GEG	1.30	1.38	1.25
Word Knowledge GEG	1.63	1.25	1.69
Arithmetic GEG	1.40	.57**	1.01

* 1-A longitudinal picture of progress for the same students during the past three years on the Metropolitan Achievement Tests.
2-Does not include scores of special education students who are now integrated.

** This major variation in GEG is unexplained. A breakdown of each score is available by class and content area if anyone wishes to pursue the question further. Variations such as these serve to justify notes of caution in basing conclusions exclusively on standardized data.

These average grade equivalent gains represent the same individuals in grades four through six of this year as they progressed through three years of schooling. The variability within this table is again the most noteworthy attribute. The relative low (.57) gain in arithmetic during the 1968-69 school year is the most glaring inconsistency. Yet there was no apparent explanation for this decline. These average grade equivalent gains and inconsistencies therein over a period of years should (if nothing else) help us to keep from jumping to conclusions whenever we see whatever might appear to be a striking gain or loss in score, even if we hypothesized that gain or loss. The only conclusion that is tenable from these various findings is that there is a lot of room for speculation, but there is no sound basis for concluding that more typical students gained or lost achievement-wise as a result of the project.

Institutional Change

The fourth major goal of the project speaks of the desirability of changing the teacher education program to include preparation in special education as part of the requirements for obtaining a teaching credential. This goal is necessarily a long range goal in that institutional change must be a deliberate and planned endeavor if it is to promote enduring progressive effects. The year of innovation which the project permitted has certainly provided significant data for the purposes of making some carefully planned changes.

One of the most conclusive findings was that enthusiasm among personnel for innovative ventures is essential. A second finding is in terms of the resources which are necessary in the implementation of a program to integrate exceptional children into the regular classroom. These necessary resources can be specified in terms of curriculum materials and personnel. Curriculum materials must be varied to meet the needs of variant children. Materials must especially lend themselves to flexible approaches which do not impose intellectual limits or convergent solutions. Consultant personnel must be capable of providing technical contributions and therapeutic relationships. (The combination of these two factors within any particular consultant would be most desirable but unfortunately that combination is not always available.)

Given the availability of these resources in terms of materials and personnel, the true challenge of teacher preparation arises in the training of personnel to have the desire, the knowledge and the self-confidence necessary to use what is available. Many schools have a great deal of equipment which is available but never used by teachers for various reasons. The same neglect is very possible in the case of other resources which are so essential in working with handicapped children in the regular classroom.

A third finding indicated that administrative support had to be extended in terms of more than verbal encouragement. Administrative support must be exercised in terms of clearing barriers and suggesting alternatives. Genuine passive acceptance of teacher innovations is not enough. All of these findings speak to the question of how to help teachers to become more forceful.

The implementation of institutional change has been initiated within this University on the basis of some of these findings and other indications of what education for the future will require. Evidence for this is most evident in the proposal which has been submitted for the continuation of this project for the next three years. Many of these changes are focused on the concern that teachers do not use the resources which are available to them. One of the most important curriculum changes in meeting this end is the provision that teachers be exposed to "the real thing" in the laboratory setting at an early point in their educational training, to enhance relevance. This is to promote <u>doing with</u> students rather than <u>telling</u> them about the importance of various factors in the school environment.

A second change is the promotion of interdisciplinary approaches to the training of undergraduate teachers. The interdisciplinary emphasis will be reinforced in the future by combining methods courses from different subject-matter areas into an inter-related workshop. This is an effort to eliminate much of the fragmentation that occurs in education. By inter-relating the disciplines, subject matter can be more meaningful and consequently serve as a foundation for creation and innovation rather than regurgitation.

Another area for proposed change is in preparing prospective teachers to work with children of earlier ages. This includes laboratory experience in the diagnosis and treatment of handicapping conditions at the four-year old level of development for teachers who seek credentials in the area of early childhood education. (The Utah State Board of Education has adopted an Early Childhood Education Certificate program as of May 1970.) This emphasis on earlier intervention will hopefully serve to assist in focusing on prevention rather than on "remediation."

The proposed changes cited above cannot be attributed solely to outcomes of the first project year, but the implementation of them will be largely contingent on the foundation which has been laid by the first year of project involvement. Without the focus of the importance of realism in teacher education provided by the project, the suggesting of these proposed changes would not have been as creditable. With the project, proposed changes were tried in miniature for a resolution of the most important considerations. Now further innovation is possible and probable.

APPENDIX A

STAFF NAMES AND ROLES

A. EPDA Project Staff

Elizabeth Guest	Project Director
Bruce Arneklev	Research Director
Gay Blanchard	Secretary
Lionel Brady	Special Education Liason
Thomas Taylor	Instructional Media Specialist

B. Edith Bowen Laboratory School Staff

Arthur Jackson	Principal
Merline Ballard	Asst. Lab Teacher & Asst. to the Director
James Blair	Hard-of-Hearing Class Teacher
Joan Bowden	First Grade Teacher
Alice Chase	Sixth Grade Teacher
Elizabeth Erni	Maintenance
Patricia Fox	Asst. Lab Teacher & Asst. to the Director
Denzil Harris	Maintenance
Derilys Hill	3-4 Combination Teacher
Barbara Howell	Second Grade Teacher
Elaine Johnson	Secretary
Mark Latham	Counselor
Ivan Pedersen	Fourth Grade Teacher
Marjorie Rappleye	1-2 Combination Teacher
Ruth Rice	Librarian
Kathy Smith	Kindergarten Teacher
Helen Tanner	Fifth Grade Teacher
Eyre Turner	Third Grade Teacher

C. Resource Consultants from Department of Elementary & Secondary Education

Kenneth C. Farrer	Department Head (Linguistics)
Ross Allen	(Positive Reinforcement - Higher Mental Processes
Malcolm Allred	Team Consultant
Mary E. Carigan	Team Consultant
Gail Johnson	Team Consultant (Individualized Reading)
Jay Monson	Team Consultant
Morris Mower	Team Consultant
James Nelson	(Self-expression)
Dorothy Jean Pugmire	Team Consultant (Prescott Model)
Walter Saunders	(Team Consultant)
Edith Shaw	Team Consultant & Elem. Ed. Liason
Carol Singer	Team Consultant
Evelyn Wiggins	Team Consultant (Creative Writing)
Graduates Students	

D. Resource Consultants from Special Education Staff

Marvin Fifield	Department Head (Testing)
Carol R. Beasley	Team Consultant (Educable Mentally Retarded)
Francis Halstrom	(Gifted)
Alan Hofmeister	Team Consultant (Task Analysis - Englemann)
Joseph P. Kessler, M.D.	Medical Consultant
Brian Knowles	Team Consultant (Operant Conditioning)
Kenneth Morgan	Team Consultant (Contingency Management)
Jim Morley	(Operant Conditioning)
Christine Muller-Schwartz	(Clinical Psychology)
Dwayne Peterson	Team Consultant (Health-Handicapped)
Phyllis Publicover	Team Consultant (Emotionally Disturbed)
Robert Publicover	(Culturally Deprived)
DeVoe Rickert	Team Consultant (Operant Conditioning)
Graduate Students	

E. Other Utah State University Staff Resources

Oral Ballam	Dean, School of Education
Bruce Byland	Sociology Department
Fred Berg	Communicative Disorders
Lois Downs	Health, Physical Ed. & Recreation
Jack Foreman	Communicative Disorders
Jay Jensen	Communicative Disorders
George Lee	Navajo Graduate Student
Jackie Littledyke	Communicative Disorders
Graduate Students	

F. Superintendents

Thomas Abplanalp	Duchesne County
Bryce Draper	Cache County
Ashel Evans	Uintah County
Sherman Eyre	Logan City
John C. Haws	Box Elder County
C. Robert Sundwall	Grand County

G. State of Utah Resources

Margie Archuletta	Human Relations Committee
Rosemary Brantley	Human Relations Committee
Ben Bruce	Utah State Special Education Department
Jo Anne Gilles	Utah State Department of Special Education
Samuel Mecra	Human Relations Committee
Elwood Pace	Director of Special Education
Miss Trihole	Human Relations Committee
Don West	Head of State Crippled Children Committee
Dorothy Zimmerman	Human Relations Committee

H. Other Resources

Don Applegate	P.E. Consultant
Andrea Blanchard	Dance Instructor (trainee)
Gay Blanchard	Dance Instructor
Don Christensen	U.S. Office L.T.I. Site Visitor
Jason Cuch	Head Start Program Director - Fort Duchesne
Norma Denver	Ute Indian Consultant
Barbara Emmons	Head Start Teacher - Avalon
Mr. & Mrs. Groves	Ute Indian Representatives
Jay, Milo & Ronnie Groves	" " "
Ann Hanson	Frostig Program Consultant
Dr. Heller	U.S. Office of Education
James Hotchkiss	U.S. Office, L.T.I. Site Visitor
Clifford Lefevre	Team Teaching Consultant
June Lyman	Todd School Guidance Counselor
Kenneth Lyons	Human Relations Consultant
Stan McClellan	Distar Consultant
Gerald Mitchell	Principal, Todd School
Ed Moore	U.S. Office, L.T.I. Site Visitor
Dennis Mower	CAP Director, Roosevelt
Francis Williams	Dance Instructor (trainee)

I. Full-time Aides

Phyllis Broadbent	Sixth Grade
Ruth Casper	Kindergarten
Colleen Carlisle	1-2 Combination
Patricia Epps	3-4 Combination
Janice Johnson	Fourth Grade
Kathie Krebs	Fifth Grade
Lorraine Manwaring	Second Grade
Patricia A. Roseland	Third Grade
Mina Wood	First Grade

APPENDIX B

TRAINEES NAMES AND ADDRESSES

Follow-Through Locations for First Semester Personnel

Name	School Location For Follow-Through	Permanent Forwarding Address
(Teachers)		
Ahlborn, Margaret	Todd Elementary Roosevelt, Utah	Tridell, Utah
Ballard, Merline	Edith Bowen School Logan, Utah	1330 East 21 North Logan, Utah
Fox, Patricia	Edith Bowen School Logan, Utah	759 Hillcrest Logan, Utah
Lyman, Doris	Helen M. Knight Elementary Moab, Utah	462 Walker Moab, Utah
Perez, Patsy	Helen M. Knight Elementary Moab, Utah	14 H New University Apts. Logan, Utah
Pratt, Glenn	Whiterocks Elementary School Whiterocks, Utah	Neola, Utah
Reinkraut, Martin		220 West 2nd South Millville, Utah
Slusser, Dolores	Todd Elementary School Roosevelt, Utah	c/o F. W. Slusser 6944 Aldea Van Nuys, California
Stubbs, Larry	Southeast Elementary Moab, Utah	c/o Chester Stubbs P. O. Box 582 Parowan, Utah
(Aides)		
Abegglen, Lawella	Roosevelt Elementary Roosevelt, Utah	c/o Willis Abegglen Myton, Utah
Beavers, Eilen	Todd Elementary Roosevelt, Utah	Rt #2 Box 25 Roosevelt, Utah
Brooke, Jean	Todd Elementary Roosevelt, Utah	P. O. Box 423 Roosevelt, Utah
Brown, Kathey	Helen M. Knight Elementary Moab, Utah	504 Sundial Drive Moab, Utah

Name	School Location For Follow-Through	Permanent Forwarding Address
Checora, Jennie	Todd Elementary Roosevelt, Utah	P. O. Box 41 Whiterocks, Utah
Daniels, Revella	Elementary School Altamont, Utah	Altonah, Utah
Frost, Shirley	Union High School Roosevelt, Utah	Route 1 Box 163 Roosevelt, Utah
Gardner, Irene		P. O. Box 22 Whiterocks, Utah
Gardner, Trudy	Helen M. Knight Elementary Moab, Utah	c/o Oren Moor Moab, Utah
Garnett, Gearldean		6500 Ladson Street Pittsburgh, Pennsylvania
Gonzales, Irene		235 North 1st East #15 Logan, Utah
Jenkins, Barta	Todd Elementary Roosevelt, Utah	Route #2 Roosevelt, Utah
Lee, Kitty		20-I USU Apartments Logan, Utah
Stansfield, Lois	Duchesne School District Duchesne, Utah	Bridgeland, Utah
Stubbs, Becky	Helen M. Knight Elementary Moab, Utah	c/o Chester Stubbs P. O. Box 582 Parowan, Utah
Tarro, Jean	Southeast Elementary Moab, Utah	459 Moenkopi Moab, Utah
Walker, Janie	Southeast Elementary Moab, Utah	P. O. Box 146 Moab, Utah
West, Louise	Southeast Elementary Moab, Utah	6 Navajo Circle Moab, Utah

Follow-Through Locations for Second Semester Personnel

Name	School Location For Follow-Through	Permanent Forwarding Address
(Teachers)		
Beck, Jay	Southeast Elementary Moab, Utah	Monroe, Utah
Cook, Sarah	Roosevelt Elementary Roosevelt, Utah	Box 66 Rt. #2 Roosevelt, Utah
Darley, Mary	Altamont Elementary Altamont, Utah	Altamont, Utah
Goodrich, Loye	Todd Elementary Roosevelt, Utah	2943 South Orchard Drive Vernal, Utah
Reay, Robert	Todd Elementary Roosevelt, Utah	260 Ashley Drive Vernal, Utah
Root, Beryl*		
Stewart, Judy	Helen M. Knight School Moab, Utah	Box 1085 Moab, Utah
Thompson, Dorothy	Alameda Jr. High Pocatello, Idaho	
Thompson, Carl	Lincoln Elementary School Pocatello, Idaho	
(Aides)		
Alexander, Maxine	Southeast Elementary Moab, Utah	Box 1081 Moab, Utah
Allred, Paula	Roosevelt Elementary Roosevelt, Utah	Box 52 Gusher, Utah
Blanchard, Andrea		Rt. #1 Box 220 Logan, Utah
Brisbin, Jean		Rt. #1 Box 153 Roosevelt, Utah
Cloward, Glenda	Southeast Elementary Moab, Utah	19 LaSal Road Moab, Utah
Holyoak, atricia	Southeast Elementary Moab, Utah	La Sal Route Moab, Utah

* Did not complete project training due to ill health.

Name	School Location For Follow-Through	Permanent Forwarding Address
Hoopes, Toni	Todd Elementary Roosevelt, Utah	Whiterocks, Utah
Knight, Helen	Helen M. Knight School Moab, Utah	c/o Arthur Ray Knight Moab, Utah
Lott, Sherry		Box 305 Duchesne, Utah
Miles, Evelyn	Box 185 Altamont, Utah	Box 203 Altamont, Utah
Milton, Loretta		34-A Triads Logan, Utah
Nyberg, Della	Whiterocks, Utah	Lapoint, Utah
Sparks, Frankye	Helen M. Knight School Moab, Utah	208 Aspen Avenue Moab, Utah
Swisher, Mava	Helen M. Knight School Moab, Utah	155 West Center Moab, Utah
Veach, Nancy		344 East 7th North Logan, Utah
Ward, Gail	(Will be going to Alaska)	274 East 1st South Logan, Utah
Williams, Frances		2417 Linden Street Oakland, California
Yack, Thora	Todd Elementary Roosevelt, Utah	Box 222 Roosevelt, Utah

APPENDIX C

FOLLOW-THROUGH ACTIVITIES

After the first group of trainees had returned to their rural school assignments, periodic visits to the rural areas were made by the Edith Bowen School faculty, EPDA project staff and members of the departments of special education, elementary education and communicative disorders. The purposes of these visits were:

a. To provide reinforcement to the teachers and aides as they attempted to implement practices learned in the practicum and seminar.

b. To assist teachers in organizing their classrooms to more effectively meet the needs of all children in their classrooms.

c. To provide assistance in the diagnosis of handicapping conditions to learning.

d. To consult with the teachers and aides in formulating prescriptive measures to be followed.

e. To further orient the district and school administration, school faculties, and lay citizens to the purposes of the project and to solicit their cooperation.

f. To gather data for evaluation of the effectiveness of the eighteen-week practicum and seminar.

Initial Orientation

Initially a visit to each of the three participating school distircts was made by the principal of the laboratory school, the project research director and the Edith Bowen instructors who had served as team leaders to the teachers and aides from the school district. Three district visits or meetings were held: (1) with the district and local school administration, (2) with the school faculty to which the project participating teacher or aide was assigned and (3) with the participating teacher and aide in the classroom.

The district and local school administrators were once again informed of the objectives of the project and were acquainted with the type of activities their teachers and aides had participated in while they attended the eighteen-week practicum and seminar. The goals of the follow-through visits were reviewed and discussed and a plan for initiating visits by project personnel to the school district was adopted. (see attachment)

Local school faculty meetings were held where the visiting project personnel reviewed the purposes of the project, reviewed the purposes of future follow-through visits and gave assurance that the purpose of the visits was not to evaluate or criticize individual teachers or the school program.

Individual or group meetings were held with participating teachers and aides where the procedure adopted by school districts, administrators and project personnel for initiating requests for assistance was explained. Brief visits were made to each of the local project participant's classrooms by one of the visiting team and a conference was then held. A foundation for future visits was established.

Subsequent Visits

Based upon the requests for assistance, planned visits were made by members of the Edith Bowen faculty and other resource consultants. In these visits teachers and aides were assisted in the diagnosis of handicapping conditions to learning, implementation of teaching methods, organization of classrooms, staffing of individual children, planning for curriculum activities, team planning, utilization of selected materials and a wide variety of other activities as determined by the need of the individual teacher or aide.

Conclusions and Recommendations

As a result of the follow-through visits to the participating teachers and aides, the following conclusions were made:

a. Trainee teachers and aides from the local school districts demonstrated educational practices which revealed their understanding of children having wide variability in motivation and ability to learn.

b. Trainee teachers were attempting to determine the reason a child was experiencing learning difficulties and were prescribing measures to alleviate the problem.

c. A felt need existed among trainee teachers and aides for further contact with the Edith Bowen teacher to whom they were assigned. This contact was needed, if for nothing more than to receive assurance that they were doing well.

d. Visits to the school district were more productive when the request for the visit was made by the trainee teacher, aide or school and when the purpose of the visit was to help them in meeting their own needs.

e. To satisfy the requests for support or assistance faculty personnel from various departments of the university were needed.

f. District-wide or school-wide interest in the purposes of the project increased with each visit.

g. The participant request sheet which was established for requesting assistance needs to be supplemented with an additional request sheet which allows the teacher or aide to make the request directly without the school principal's approval.

As a result of the follow-through visits to the school districts, the following recommendations are made:

a. That in continuation of the project, follow-through visits be a major part of the program.

b. That a supplemental request form be adopted which will allow the participating teacher to make a direct request for assistance.

c. That all visits to the school district be announced to the school administrator, indicating the purpose of the visit.

d. That visits cover a full two-day period at the rural site to provide adequate time for teaming effectively. This includes awareness, data collection, consultation, prescription and implementation as amplified in addendum on team.

E.P.D.A. PROJECT "TEACH"

Edith Bowen Laboratory School

Utah State University

Logan, Utah

PARTICIPANT REQUEST SHEET

Name of Participant_____Position_____

School_____District_____Date_____

Nature of Assistance Desired:

Personnel Requested to Offer Assitance:

Materials or Equipment Needed for Visit:

Dates When Assistance Requested:

Choices: 1.

2.

Principal's Comments:

PRINCIPALS: Please return this form to Arthur D. Jackson when it is completed.

APPENDIX D

PRESCOTT'S MODEL FOR CHILD STUDY *
(Child Study Institute, University of Maryland, College Park, Maryland)

Basic Assumptions

1. All behavior is caused.
2. Causes of behavior are multiple and interrelated.
3. All human beings are unique.
4. A human being is an indivisible unit.
5. All human beings have the capacity and the desire to learn.
6. The democratic method of working with people is probably the best yet devised.
7. All human beings are valuable.

Steps in the Scientific Method

The Scientific Method	As Related to Child Study
1. Define the problem	1. Understand a child's behavior
2. Collect factual data	2. Tap six sources of information Record objectively
3. Seek and critically test possible explanations	3. Make multiple and tentative hypotheses on a single bit of behavior- Read record to support or negate hypotheses Identify recurring patterns of behavior Make multiple and tentative hypotheses on a recurring pattern of behavior - Support or negate hypotheses
4. Generalizations	4. Answer first four summary questions
5. Applications	5. Answer fifth summary question

Summary Questions

1. What has this child been working on or trying to do?
2. What has this child been up against?
3. What are this child's assets?
4. What has the school done to bring about this child's best development?
5. What could the school do to bring about this child's best development?

Framework for Analysis

Physical factors and Processes
Love relationships and related processes
Cultural background and socialization processes
Peer-group status and processes
Self-developmental factors and processes
Self-adjustive factors and processes

Sources of Information for Case Study

Cumulative record
Home visit
Life Space
Colleagues
Samples of work
Anecdotal record

* Prescott, Daniel A., 1957, The Child in the Educative Process, McGraw-Hill Book Co. Inc.

CASE STUDY

A teacher may become skillful in learning techniques that will help him better understand all children through the intensive study of one child; his background, his needs, his growth patterns, and his interpersonal relationship with his peers and with adults.

In order for collected data to be analyzed, it must be organized into some type of meaningful framework. The scientific or problem-solving method that is so familiar to scientist and teacher alike has proven to be a useful tool for the study of collected data. The steps used in the scientific method are listed below. (You may be familiar with some other wording. Feel free to use terms with which you are comfortable.)

ALWAYS IDENTIFY THE CHILD BY NUMBER OR PSEUDONYM IN ORDER TO PROTECT HIS IDENTITY. ALL INFORMATION ABOUT THE CHILD AND HIS FAMILY MUST BE REGARDED AS CONFIDENTIAL INFORMATION.

Define the Problem

What do we want to know about the child that we do not know at the present time?

Gather Data

Data may be gathered in numerous ways such as observation, informal conversations, anecdotal records, existing school records, sociometric devices, analysis of routine assignments and tests, autobiographies, home visits, interpretation of creative work and an investigation of the life space of the child. The life space of a child consists of his world and all the people in it.

Hypothesize

To hypothesize is to guess. On the basis of data collected, guesses or hunches are made as to the cause of the behavior.

Test the Hypotheses

The hypotheses are tested by finding data in the case study to substantiate or negate the hypotheses.

Gather Additional Data

This is essential to verify hypotheses, fill in gaps in information, and increase knowledge in specific areas.

Interpret Record

Formulating answers to the questions listed below will help the teacher interpret the data he has been collecting.

1. What developmental task was the child working on during the year?
2. What was he up against?
3. What assets did he have?
4. What did the school do to help him accomplish what he was working on? What did the school do to deal with what he was up against?
5. What can the school do in the future to facilitate his best development?

APPENDIX E

STRATEGY SHEETS

The Strategy Sheet which follows was developed by the Research Director with consultation and assistance from the laboratory school staff, as a result of the need to formulate systematic approaches for the implementation and evaluation of curriculum to meet the demands of particular situations.

Trainees in the seminar were taught how to write behavioral objectives and how to make case studies using the Prescott Model. They were given insights into many methods of working with handicapped children. When they were confronted in the practicum with the need to apply these learnings, the need to develop a methodology for their implementation became obvious. The project director remarked, "It was like preparing a sumptuous meal, decorating the house with flowers and setting a beautiful table with crystal and silver, but never sitting down to eat the banquet." The Strategy Sheet evolved as an attempt to "eat the banquet."

In using this sheet an attempt is made to focus on the needs of an individual child as observed by the teacher (and/or other team member) and to systematically consider the elements pertaining to this need and their ultimate resolution, in the sequence which would be most advantageous to the child. The sheet provides a logical stepping stone approach in the tailoring of individualized curriculum. Once a specified objective has been reached in terms of the "desired outcome" a new objective can be set. This process allows for the attainment of several desired outcomes for some individuals; while in less successful endeavors it provides a record of what has been tried, making the repetition of inappropriate procedures less likely.

Data drawn from case studies is used in the first section (Roman Numeral I) of the Strategy Sheet. This is where much of the systematic emphasis has traditionally been focused in educational endeavors. Unfortunately, attempts to be systematic beyond this point are usually slighted in other than behavioristic approaches. Behavioral objectives have gained some attention in attempting to extend beyond the case study approach, but have not met enthusiastic acceptance from those who must use the objectives. (Those who are selling behavioral objectives as a means to achieve accountability are the only ones who appear to be enthusiastic about them.)

The Strategy Sheet attempts to overcome some of the difficulty found in working with behavioral objectives by providing a format which can serve as a tool for the teachers. The development of the objective's desired outcome (Roman Numeral II) is placed in the context of the situation for which the solution is sought. The format is such that those elements closest to the concern will be utilized first, and that if possible the teacher is not involved beyond the planning and evaluation stages. (One of the most promising suggestions

made toward the end of the year was that the child, under supervision, be encouraged to take over the responsibility for designing, implementing and evaluating his own curriculum on the basis of the strategy sheet format.)

A major portion of the page (Roman Numeral III) is devoted to making the teacher aware of resources which are available for facilitating the desired outcome and for recording who will do what, when and where. A committment is then made by various people to put the plan into action. A date for evaluation is recorded (Roman Numeral IV) at which time the degree of success of the strategy is determined. Comments and recommendations are noted. Revision, re-implementation or moving on to other strategies then occurs.

In this way teaching becomes much more of a science. It provides educators with a foundation on which further artistic innovations can be made for progressive evolution in pedagogy.

STRATEGY SHEET

Date initiated_____ Date to be reviewed (On or Before)_____

I. SITUATION: A. Concern:_____

_____

_____

B. Anecdotal information: Strengths:_____

_____

Handicaps:_____

_____

C. Possible Causes:_____

_____

II. DESIRED OUTCOME: (And how outcome will be determined)_____

_____

_____

III. WHO* will do WHAT, WHEN and WHERE to bring about the desired outcome: (Implementation)

A. Internal Name(s)

The Learner(s) ( ) will_____

The Peer Group ( ) will_____

The Aide ( ) will_____

The Teacher ( ) will_____

B. External

The Counselor ( ) will_____

The Principal ( ) will_____

The Consultant ( ) will_____

The Family ( ) will_____

Other ( ) will_____

* Use only those resources which are necessary, but as many as may be useful.

IV. DATE OF EVALUATION_____

(Desired outcome achieved): Yes ( ) No ( ) Partially ( )_____
extent

COMMENTS & RECOMMENDATIONS_____

_____

Edith Bowen Form #1 2nd Edition (June 1970)

APPENDIX F

PROJECT EVALUATION QUESTIONNAIRE
(With percent of responses in each category and representative trainee comments)

Please check one response on the scales provided for each item.

I. FACILITIES:

A. Classrooms and instructional media for participant learning

1. Practicum:
Outstanding 52 Above Average 36 Average 12 Below Average -- Inadequate --

2. Seminar:
Outstanding 29 Above Average 55 Average 16 Below Average -- Inadequate --

Comments:
1. Outstanding teachers, seminars and library
2. Excellent variety of speakers
3. Theory was good, but impractical without five adults in the classroom.
4. Need more help with games, skills, etc.

B. Housing

1. Convenience:
Outstanding 19 Above Average 31 Average 45 Below Average 05 Inadequate --

2. Cost:
Outstanding 17 Above Average 21 Average 57 Below Average 29 Inadequate 02

3. Quality:
Outstanding 09 Above Average 18 Average 48 Below Average 20 Inadequate 05

Comments:
1. Convenient
2. The Doll House is inadequate for the rent paid.
3. The dorms were close but expensive and noisy.

C. Recreational Facilities
Outstanding 15 Above Average 23 Average 52 Below Average 08 Inadequate 02

Comments:
1. Music programs - dancing, ukulele - were especially good.
2. Recreation activities were very good in connection with the project but not very available away from the project.

D. Other (Used by only four of the 54 respondents)
Outstanding ___ Above Average ___ Average ___ Below Average ___ inadequate ___

Comments:
1. Cultural advantages - concerts and University programs were enjoyable.
2. Parking facilities are inadequate (It's too far to walk in bad weather)

II. PERSONNEL:

A. Availability:
Outstanding 69 Above Average 22 Average 09 Below Average -- Inadequate --

B. Congeniality:
Outstanding 61 Above Average 36 Average 03 Below Average -- Inadequate --

C. Knowledgeability:
Outstanding 69 Above Average 27 Average 04 Below Average -- Inadequate --

III. Project Goal Attainment: (Rate the project by the manner in which you feel it has met the following goals.)

A. The training of prospective teachers and the re-training of experienced teachers to assist handicapped children and educationally impoverished children to reach a higher level of learning potential in the regular classrooms.

1. Manner in which goal was met:
Outstanding 33 Above Average 54 Average 13 Below Average -- Inadequate --

2. What aspects of the project were especially valuable in meeting this goal?

a. Children - experience in the classroom.
b. Master teacher guidance and individual help.
c. Availability of resources - demonstrations and lectures.

3. How could improvements be made in meeting this goal?

a. More time in the classroom.
b. Extend practicum into the rural areas.
c. Have rural participants train in the same level of class in which they will be placed in the rural area.
d. More observation of trained personnel working with handicapped children.

B. The training of auxiliary educational aides to function with specified responsibilities as a member of the educational team in the regular classroom where the student membership includes children with handicaps.

1. Manner in which goal was met:
Outstanding 44 Above Average 44 Average 12 Below Average -- Inadequate --

2. What aspects of the project were especially valuable in meeting this goal?

a. Aide working with children.
b. Working on a one to one basis.
c. Allowance for sharing of responsibilities.
d. Team sessions.
e. Follow-through visits providing reinforcement for uses of aides in the roles for which they were trained.

3. How could improvements be made in meeting this goal?

   a. More guidance of aides by master teachers.
   b. More opportunities to observe varied relationships between teachers and aides in their team roles.
   c. More time to put knowledge into practice under supervision.

C. The use of the team approach as a positive force for the development of skills requisite to effective participation on a team enterprise with division of labor and limits of autonomy identified for each participating member.

1. Manner in which goal was met:
   Outstanding 45 Above Average 37 Average 16 Below Average 02 Inadequate --

2. What aspects of the project were especially valuable in meeting this goal?

   a. Staffing children - team sessions.
   b. Emphasizing individual strengths.
   c. Strategy sheets.
   d. Discussing problems and sharing ideas.
   e. Sharing of duties and dividing responsibilities.

3. How could improvements be made in meeting this goal?

   a. Use strategy sheets on all children.
   b. More discussion time for team planning.
   c. Help aides to be more expressive.

D. Learning to diagnose children's handicaps and what to do about them.

1. Manner in which goal was met:
   Outstanding 33 Above Average 59 Average 08 Below Average -- Inadequate --

2. What aspects of the project were especially valuable in meeting this goal?

   a. Prescott Model for case studies and anecdotal records.
   b. Resource people (especially Special Ed) working in seminars and classroom.
   c. Team sessions working with strategy sheets.
   d. Using various techniques and tests in diagnosis.

3. How could improvements be made in meeting this goal?

   a. Better use of strategy sheets.
   b. More opportunities to work with handicapped children like those in the rural areas.
   c. More classroom staffing
   d. Make more extensive use of the many resources available.

E. How curriculum is adaptable for children who have a wide range of individual differences.

1. Manner in which goal was met:
   Outstanding 30 Above Average 52 Average 28 Below Average -- Inadequate --

2. What aspects of the project were especially valuable in meeting this goal?

   a. Planning to meet the needs of individual children.
   b. The assignment of aides to work with individual children.
   c. Language arts program.
   d. Staffing.

3. How could improvements be made in meeting this goal?

   a. More time to follow through on programs.
   b. More time to work with children.
   c. More time for the programming of curriculum for individuals.

F. How to relate two or more subject areas in meaningful ways for children.

1. Manner in which goal was met:
   Outstanding 40 Above Average 44 Average 16 Below Average -- Inadequate --

2. What aspects of the project were especially valuable in meeting this goal?

   a. Practicum experience where subject matter was interrelated.
   b. Oral reports in social studies.
   c. Interest centers in the classroom.
   d. School wide programs in music and art.

3. How could improvements be made in meeting this goal?

   a. More involvement of children in the planning and setting up of goals.
   b. Explaining to children what is being accomplished.
   c. More experience-oriented curriculum.

G. How to help all children develop greater capacity to use higher mental processes than they have been using.

1. Manner in which goal was met:
   Outstanding 27 Above Average 61 Average 09 Below Average -- Inadequate --

2. What aspects of the project were especially valuable in meeting this goal?

   a. Group and individual discussion.
   b. Role playing
   c. Seminar practice in higher level questioning.
   d. Practice in using leading questions.

3. How could improvements be made in meeting this goal?

   a. Letting children use their own ideas for development.
   b. Letting children make decisions.
   c. Setting high goals, but not expecting as much from some children as others.

H. How to help each child build and maintain mental and emotional stability in his interaction with all other children.

1. Manner in which goal was met:
   Outstanding 30 Above Average 54 Average 16 Below Average -- Inadequate --

2. What aspects of the project were especially valuable in meeting this goal?

   a. Teamwork on problems.
   b. Integration of handicapped into the regular classroom.
   c. Stressing the affective domain in education.
   d. Promoting self-concept by positive reinforcement.
   e. Dancing, ukulele, as therapy for children and teachers.

3. How could improvements be made in meeting this goal?

   a. Let children be more a part of the planning.
   b. Lend help immediately as soon as need is perceived.
   c. More strategies for the development of good self-concept.
   d. Master teacher is too "spread out" by his responsibilities.

I. How to work as a team with other people, valuing and appreciating each other and encouraging one another to use full potentialities.

1. Manner in which goal was met:
   Outstanding 43 Above Average 35 Average 15 Below Average 07 Inadequate --

2. What aspects of the project were especially valuable in meeting this goal?

   a. Team sessions, open, to the point and frank.
   b. Utilization of ideas and talents of all who are involved.
   c. Sharing responsibilities
   d. Realizing that teaching is a team effort.

3. How could improvements be made in meeting this goal?

   a. Openmindedness, so feelings don't cause tunnel vision.
   b. Allow aides to use more of their ideas.
   c. More openness in communication.

J. How to talk to people and listen to people with greater understanding.

1. Manner in which goal was met:
   Outstanding 26 Above Average 53 Average 17 Below Average 02 Inadequate 02

2. What aspects of the project were especially valuable in meeting this goal?

   a. Working with different backgrounds.
   b. Oral-linguistic approach.
   c. Team sessions on an adult level.
   d. Variant children in the regular classroom.
   e. Encouragement to express feelings and talk over problems.

3. How could improvements be made in meeting this goal?

   a. Master teachers and permanent aides need more exposure to the seminar activities to assist in the communication between all team members.

b. More emphasis given to minority group problems.
c. The needs of children were considered, but more emphasis should be given to the needs of teachers and aides.

K. How to help other people learn through the use of varied approaches.

1. Manner in which goal was met:
Outstanding 38 Above Average 42 Average 20 Below Average -- Inadequate --

2. What aspects of the project were especially valuable in meeting this goal?

a. Equipment construction.
b. Instruction on media.
c. Exposure to canned materials available for instruction.
d. Sharing of ideas stressing individual differences.

3. How could improvements be made in meeting this goal?

a. More opportunity to use under supervision the techniques presented.
b. More time to visit other classrooms to see varied ways of using materials and sharing ideas.
c. More practice in the use of the kinesthetic approach.
d. Bringing more resource people into the classroom.

APPENDIX G

FINDINGS TO BE CONSIDERED WHEN REPLICATING THE USU EDITH BOWEN FEDERAL PROJECT AT LOGAN, UTAH

I. Administrative Organization

Children

Mildly handicapped children can be educated in a regular classroom. The ratio is one exceptional child to five normal children in a class population of not more than twenty-five.

Adults needed to work successfully with such an integrated class include one teacher and one aide. If a minority group is present in the one-fifth child population, it is an asset if the aide is from the same minority.

Teams

In a school of about 400 children, eight classroom teachers and their aides need the service of one principal, one counsellor and one curriculum supervisor. Other special services provided by the school district are necessary, such as curriculum services in music, art, science, physical education, instructional media, remedial assistance and added consultant services from special education.

Facilities

Classroom facilities would be the same as provided for any regular classroom. Provision needs to be made for a larger variety of instructional media to provide for particular individual learning styles of the five exceptional children.

Time

Length of children's day should be a minimum, because of the emotional strain of variant behavior of some exceptional children. The teacher and aide's daily planning time is crucial. They need a half hour before and after school in addition to a two-hour block for staffing each week.

Time spent in planning educational opportunities for the exceptional child is more important than time spent with the children. Effective planning is what can develop teaching into a science.

A team consisting of the teacher and aide, augmented by appropriate resources, can utilize a problem-solving approach to discovering and carrying out effective teaching and learning strategies for an integrated classroom. Inspiration, moral support, insight into cognitive, affective and psychomotor content and processes particularly useful in an integrated classroom are a continuous need for all involved in the educating process.

Time is an important factor. In the summer and spring the administrative leadership groups of several school districts can receive training by a county staff. Such experiences can provide enough insight to local school district personnel that they can begin to train their own teacher aide groups for integrated classrooms. During the school year local school personnel responsible for the pre and continuum in-service for their local teachers and aides need to have monthly meetings conducted by the county office to monitor district programs and to provide for continuous growth.

Calendar

The year's time line might look something like the following:

July - 1-2 weeks, County committee plan workshop for year's work.
3-4 weeks county workshops for local leadership groups, in designing and carrying out integrated educational programs in regular classrooms.

August - Local district workshops for teachers and aides who will teach integrated classrooms, with county consultants and appropriate outside resource people.

September - First week, small team session to design teaching plans.
Second week, integrated classrooms begin teaching normal and mildly handicapped children in the regular classrooms. Morning and afternoon daily team sessions to plan and monitor teaching and learning strategies. One day per week should include a two-hour afternoon planning and consultation session.
District leadership personnel meet monthly with county personnel to evaluate and extend training in leadership responsibility in local education of integrated calssrooms.
Third week, district leadership begin the bi-monthly inservice meetings first and third Wednesdays of each month.

Spring Vacation - County-wide two-day workshop for leadership groups to assess the year's work and plan for the next school year.

May and June - District and county cooperate in final evaluation and re-cycling for next year's work.

July - Second year one-week administrative leadership conference to train for second year's work in the integrated classroom.

II. Definition of Roles

Director

Criteria for selection of personnel to staff the county integrated classroom project needs to be carefully considered. Such qualities as past experience and positive attitude related to handicapped children are important, as well as local control in inservice training and willingness to take part in curriculum development work.

The director of the project should be an experienced administrator and expert in curriculum development, thoroughly trained in teacher inservice, regular and special education, and in supervision of teaching personnel. The contributions this person makes will constitute the integrative force of the experiences for participants, both in the county office and in the local school district. Because the total county and district project participants are in the process of change in becoming more sensitive to children's needs and how to plan and carry out teaching-learning strategies in a more scientific manner, proficiency to direct group processes is important. The director, with the assistance of the co-director and research coordinator, will direct and evaluate the project. This position might be a 3/4 time commitment.

Co-Director

The co-director should have similar qualities to those indicated for the director. He or she should be able to assist in co-planning activities and assume much of the writing and communication responsibilities and follow-through of projected plans. This might be a part-time responsibility.

Research Coordinator

The research coordinator criteria indicates the importance of this person being a public relations individual as well as a professionally trained and experienced evaluator. Monitoring data is available and useful only when there is a willing cooperative attitude on the part of the sources of the data. These sources are teachers, aides, children, parents, local district administrators, leadership personnel and county project team.

The research person will need to frequent district classrooms, team and staffing sessions, and inservice meetings, and assist in building and maintaining a positive climate in the project. He will assist the director and county planning team to design the evaluation framework of the project and select or develop appropriate evaluation instruments. Another important function is the responsibility to coordinate the local district gathering, summarizing and interpreting evaluation data. Continuous assessment is necessary to keep the project on its main focus and provide data for necessary changes.

Executive Secretary

This person should be proficient in secretarial skills, as well as have the ability to meet the public cordially. She will need to make decisions with regard to office matters, and have skills to accurately interpret minutes of meetings in a concise, understandable manner.

Criteria for School District Participation

Wherever possible the local administrative leadership group should provide and use a local curriculum development framework to be used in determining the local organizational pattern and functions of the integrated classroom project. This project should be an integral part of the district's total curriculum development design.

The local principal is an important reinforcing agent to the teacher-aide team. He or she determines to a great extent the positive function of the integrated classroom project. The principal should be an active member of leadership inservice training sessions.

The following criteria are suggested for teachers and aides who would be invited to participate in the project.

1. Good health - verified by a physical examination.

2. The teachers selected should be successful teachers, with potential for leadership in the school and community. It is hoped these people will be instrumental in sharing and spreading the added insight they gain through project participation.

3. All teachers and aides selected should be free from racial bias. It would be desirable to select people of different ethnic backgrounds if possible. It is important that the participants be able to work with other adults in a team effort as well as enjoying and being able to work with children.

4. That all teachers and aides selected will be considered employable by the district and will be employed by the district after their project training.

5. That all teachers and aides selected will be willing to continue in the district as employees.

6. Teachers and aides will receive scores between 2 and 4 on the "Fred Little" philosophical instrument.

Children selected for the integrated classrooms would be twenty children as normal as possible. A committee composed of a principal, a counsellor, a curriculum representative, a teacher representative and a special education representative need to be responsible for the selection of mildly handicapped children placed in the integrated classes.

II. Climate in the Project

The integrated classroom develops a different climate than that of either a normal or special education classroom. There is an emotional build-up that needs daily dissipation to maintain positive mental and emotional attitudes for all the children and adults in the project. Daily therapy is an integral part of the on-going program.

Humanities are an important phase of the therapy and should not be considered as a frill to be added when all other school tasks are completed. Within the humanities are included specified experiences in a variety of art media such as modeling, painting, singing, dramatizing, dancing, listening and reading good literature, films, film strips, tapes, radio and TV programs.

The aspect of a microcosm exists in the total project. The emotional climate has its ups and downs and needs direct consideration on all levels. This includes counselling and development of appropriately-timed group processes for all participants, children, teachers, aides, teams, local administration leadership personnel and the county project team.

IV. Curriculum Design

Focus of the curriculum design of the project is to educate teachers, aides and local district leadership personnel to observe objectively children's behavior and be able to withhold judgment until facts can be assembled through the use of the Prescott Model. This factual data enables the teacher-aide team to plan teaching-learning strategies for all children, particularly the exceptional ones.

The use of the Arneklev Strategy Sheet will assist teams to select local resources in carrying out appropriate learning opportunities for the exceptional children.

Positive team relationships are difficult to maintain and will need to be augmented by the regular assistance of a counsellor versed in individual counselling and group dynamics.

Throughout the project the philosophical base is the humanities approach to relating different roles and responsibilities among adults and children. Such a point of view encourages the recognition and use of talents of all people and a seeking, coping nature of learning.

Few lecture experiences will be provided. Most of the learning opportunities will enhance group process with emphasis on role playing after the Shaftel model. This role playing will encourage the development of insight into positive knowledge and attitude toward self and minority cultures, represented in the local school districts. The use of the linguistic approach to language arts based on oral expression with emphasis on dialect insight will be utilized.

Districts will be encouraged to develop their own teacher-aides guides for this program by keeping records of progress of the local program. This development would be directly related to the local curriculum development design.

V. Credit

Credit for participation in the project would be directly related to local district policies.

VI. Budget

If the project is funded it would be possible to include a rich variety of appropriate resources. Also one-half of the aides salaries could be paid from federal funds. Local leadership pay for released time for the inservice activities would be possible, such as $15 per day's inservice experience.

Districts could be provided with $100 per classroom unit for special supplies and equipment particularly designed for learning opportunities for exceptional children.

One quarter of the director's time would be paid by the county office for activities such as reviewing books and involvement in curriculum instruction staff meetings. Three fourths of the director's salary and the half-time employed assistant director's salary would come out of federal funds. The research coordinator would be paid a full-time salary from federal funds, as would the project executive secretary.

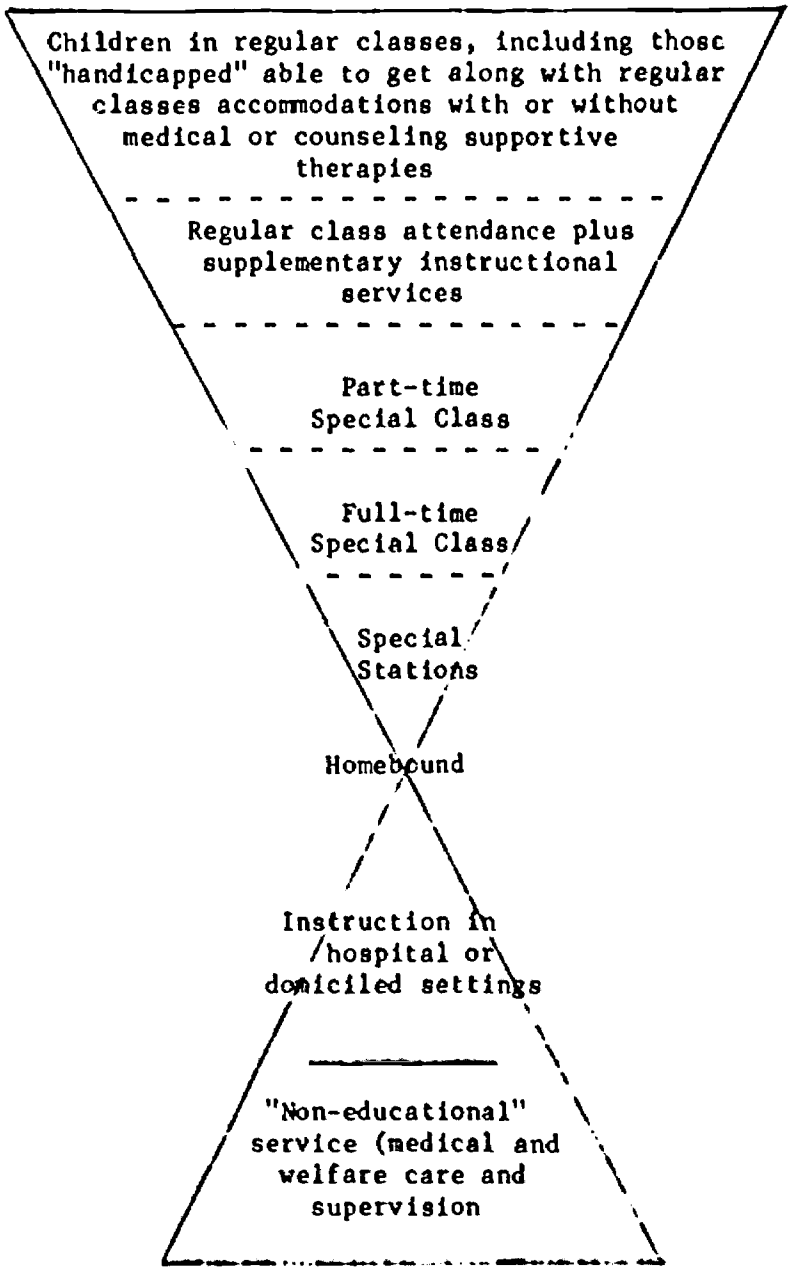
BUDGET

Director	_____
Assistant Director	_____
Research Coordinator	_____
Project Secretary	_____
Resource Personnel	_____
Inservice training funds for teachers, aides and local leaders up to $15 per day during workshop experiences	_____
Equipment & supplies for integrated classrooms up to $100 per classroom	_____
Books, research, communication and secretarial supplies	_____
Transportation for director, assistant director, research coordinator, secretary and resources for inservice meetings and work with local school districts, and necessary federal training and negotiating meetings	_____

APPENDIX H

THE CASCADE SYSTEM OF
SPECIAL EDUCATION SERVICE

-after Evelyn Deno



The tapered design is used in the chart to indicate the considerable difference in the numbers involved at the different levels and call attention to the fact that the system serves as a diagnostic filter. The most specialized facilities are likely to be needed by the fewest children on a long-term basis. This organization model can be applied to development of special education services for all types of disability.

APPENDIX I

PROGRESS OF CONTROL GROUP
ON SELF CONCEPT AND I.Q. MEASURES

Assessed Domain	Sex#	Test##	Mean	Change	Standard Deviation	Correlation Between T_1&T_2	t*
Piers-Harris Self-Concept	M	T-1 T-2	54.3 56.9	+2.6	12.19 12.97	.77	1.69 N.S.
	F	T-1 T-2	52.1 56.7	+4.6	15.26 15.40	.78	2.89 P<.01
CTMM Language IQ	M	T-1 T-2	114.7 119.4	+4.7	11.61 10.78	.88	4.73 P<.01
	F	T-1 T-2	115.2 117.6	+2.4	11.99 9.68	.73	1.88 P<.05
CTMM Non-language IQ	M	T-1 T-2	114.5 122.8	+8.3	15.03 13.26	.76	4.64 P<.01
	F	T-1 T-2	118.2 119.8	±1.6	11.75 12.52	.74	1.20 N.S.
CTMM Total IQ	M	T-1 T-2	115.2 122.3	+7.1	12.23 11.90	.89	6.96 P<.01
	F	T-1 T-2	117.2 119.7	+2.5	10.87 10.43	.86	2.83 P<.01

31 males - 41 females

T-1 was administered in January
T-2 was administered three months after T-2

* t value and significance of the difference between T_1 & T_2 with in this group.

APPENDIX J

Name_____ Date_____
Last First Middle

INSTRUCTIONS

The purpose of this exercise is to measure the meanings of certain situations or concepts to various people by having them evaluate it against a series of descriptive scales. In completing this exercise, please make your judgments on the basis of what the situation or concept means to you.

For example: In rating a situation or concept:

If you feel that it seems only slightly related to one end of the scale, (but is not really neutral), you should mark as follows:

pleasant ____:____:____:____:__X__:____:____:____:____:____:____ unpleasant

or

pleasant ____:____:____:____:____:____:__X__:____:____:____:____ unpleasant

If you feel that it is completely related to one end of the scale, you should mark as follows:

pleasant __X__:____:____:____:____:____:____:____:____:____:____ unpleasant

or

pleasant ____:____:____:____:____:____:____:____:____:____:__X__ unpleasant

The intermediate spaces (between the center and the ends of the scales) are to indicate the degree to which you feel the situation or concept differs from neutral. Mark the center space if you consider the situation or concept to be completely neutral, or it the scale is completely irrelevant or unrelated. The direction toward or away from neutral which you mark, of course, depends upon which of the two ends of the scale seem most characteristic of the thing you're judging.

On each page of this booklet you will find a different situation or concept to be judged and beneath it a set of scales. You are to rate each situation or concept on each of these scales in order.

IMPORTANT: (Place your check marks in the middle of spaces, not on the boundaries:

This Not This

____:____:__X__:____:____:____:____:____:____X____:____:____

Be sure you check every scale for every concept. DO NOT OMIT ANY.

Sometimes you may feel as though you've had the same item before on the test. This will not be the case, so do not look back and forth through the items. Do not try to remember how you checked similar items earlier in the test. Make each item a separate and independent judgment. Work at fairly high speed through this exercise. Do not worry or puzzle over individual items. It is your first impressions, the immediate "feelings" about the items, that we want. On the other hand, please do not be careless, because we want your true impressions.

This page was reproduced with four different headings to represent the themes of the major project goals:

Page 1. EDUCATING EXCEPTIONAL CHILDREN IN THE REGULAR CLASSROOM IS

Page 2. . . . . .TEAM TEACHING IS

Page 3. . . . . TEACHER AIDES ARE

Page 4. . . . . CHANGES IN METHODS OF EDUCATION ARE

Feasible	_____:_____:_____:_____:_____:_____:_____:_____:_____:_____:_____	Unfeasible
Harmful	_____:_____:_____:_____:_____:_____:_____:_____:_____:_____:_____	Beneficial
Successful	_____:_____:_____:_____:_____:_____:_____:_____:_____:_____:_____	Unsuccessful
Impossible	_____:_____:_____:_____:_____:_____:_____:_____:_____:_____:_____	Possible
Wise	_____:_____:_____:_____:_____:_____:_____:_____:_____:_____:_____	Foolish
Awkward	_____:_____:_____:_____:_____:_____:_____:_____:_____:_____:_____	Graceful
Potent	_____:_____:_____:_____:_____:_____:_____:_____:_____:_____:_____	Impotent
Active	_____:_____:_____:_____:_____:_____:_____:_____:_____:_____:_____	Passive
Bad	_____:_____:_____:_____:_____:_____:_____:_____:_____:_____:_____	Good
Interesting	_____:_____:_____:_____:_____:_____:_____:_____:_____:_____:_____	Boring
Probable	_____:_____:_____:_____:_____:_____:_____:_____:_____:_____:_____	Improbable
Pleasant	_____:_____:_____:_____:_____:_____:_____:_____:_____:_____:_____	Unpleasant
Unlikely	_____:_____:_____:_____:_____:_____:_____:_____:_____:_____:_____	Likely
Valuable	_____:_____:_____:_____:_____:_____:_____:_____:_____:_____:_____	Worthless

APPENDIX K

NAME_____ DATE_____

CHECK THE RESPONSE WHICH APPLIES TO YOU

1.	My image of the "ideal product" is the same for all students?	Yes ( ) No ( )
2.	My activities as an educator are primarily rational in nature, focused on concepts explanations, reasoning, and generalizing.	Yes ( ) No ( )
3.	Cooperative projects, involving two or more students, play a significant role in the activities of my students.	No ( ) Yes ( )
4.	I am particularly concerned with communication between each student and classmates.	No ( ) Yes ( )
5.	Lecturing plays a significant and continuous role in my behavior.	Yes ( ) No ( )
6.	I find group pressures to be useful in motivating individuals.	No ( ) Yes ( )
7.	I am satisfied with the testing/grading system.	Yes ( ) No ( )
8.	The hoped-for direction of change is the same for all of my students.	Yes ( ) No ( )
9.	Students in my class often initiate the activities during class.	No ( ) Yes ( )
10.	While teaching, I serve as an example for the learning process?	No ( ) Yes ( )
11.	My educational activity is directed mainly to the development of cognitive (rational) knowledge -- or gives significant attention to affective (emotional) growth.	Cognitive ( ) Both ( )
12.	Decisions on the organization of my classes are made completely by the teacher -- or give responsibility to students.	Instructor Alone (Students Included(
13.	The focus of my behavior is mainly on knowledge as <u>product</u>, or is also concerned with knowledge as <u>process</u>.	Product ( ) Both ( )

APPENDIX L

Letter of Welcome sent
to each Aide Trainee

Dear

May I take this opportunity to welcome you to Utah State University and to the Edith Bowen Federal Project as a teacher aide in the program. Your participation is vital to the success of our study. I hope that you will find that this experience during the first school semester will be helpful to you in your becoming employable in the schools of your residence area.

You should plan to be in Logan in time to be at the first meeting of the group at the Edith Bowen Laboratory School at 7:30 a.m. Monday, September 8. At that time I will explain the nature of the project and have you fill out the necessary federal forms for receiving your monthly wages. According to the agreement with the government, you will receive $75 per week as a stipend for 18 weeks of the project; in addition you will receive $15 per week for each dependent which you claim on your federal income tax form.

I have been informed by your superintendent that you desire to take advantage of Utah State University dormitory accommodations for board and room. We have planned for your housing and meals at the West High Rise Dormitory. I have enclosed a brochure for your information which identifies the rate you will pay per quarter for your room and meals. A $25 deposit fee is necessary on your room. We can arrange to take care of this from your first month's stipend. This deposit is returned to you at the conclusion of the project. If your plans have changed regarding housing accommodations, please contact me immediately.

Sincerely yours,

Arthur D. Jackson, Principal
Edith Bowen Laboratory School

Kenneth C. Farrer, Coordinator of
University and Government Project
and Head, Departments of Elementary
and Secondary Education

KCF:lb

Enc.

Letter of Welcome sent
to each Teacher Trainee

Dear Mrs.

May I take this opportunity to welcome you to Utah State University as a participant in the federal project at Edith Bowen Laboratory School. Your participation is vital to the success of our research work. I hope that you will find the experiences to be professionally stimulating.

We anticipate that you will arrive Sunday, September 7, in time to become established preliminary to the first day of the project which begins at 7:30 a.m. Monday, September 8. I shall meet with you at the Auditorium of the Edith Bowen Laboratory School on this campus at that time. I will have the necessary federal forms and agreements ready for explanation and your signature at that morning meeting. Your half-year annual salary for participation in the 18 weeks of the project will be $3750. It is assumed that your housing costs, meals, and other expenses will be paid from this amount. If you desire to receive University credit for your work in the afternoon seminars, this credit will also be paid by you to the Extension Division.

I have been informed by your superintendent that you have made your own arrangements for housing for the semester in which you will be with us on the project. If there have been any changes in your plans for housing, please notify me immediately. I shall look forward to meeting you on Monday, September 8.

Sincerely yours,

Arthur D. Jackson, Principal
Edith Bowen Laboratory School

Kenneth C. Farrer, Coordinator of
University and Government Project
and Head, Departments of Elementary
and Secondary Education

KCF:lb

APPENDIX M

Letter given to each Aide Trainee
at the Completion of Training

Dear

This letter conveys our endorsement and congratulations upon your satisfactory completion of a program of instruction provided through a grant from the United States Office of Education. This educational experience as an Instructional Aide at the Edith Bowen Laboratory School during the period from January 19, 1970 to May 22, 1970 has focused upon ways to assist the classroom teacher in working with children who have learning handicaps and who are placed for instruction in regular elementary classrooms. You have demonstrated your ability, as an adult being specially trained as a classroom teacher aide, to work as a member of a team of five adults in implementing in the morning classrooms those special education techniques presented in the seminar.

We hope that the experiences in the practicum and in the seminar have given you greater confidence to work successfully as an aide in your local classrooms, where children with handicapped conditions are in the same learning environment with those whose learning abilities are not impaired by handicapping conditions.

May we take this opportunity to wish you continued success and happiness.

Respectfully yours,

Elizabeth Guest, Director
E.P.D.A. Project

Arthur Jackson, Principal
Edith Bowen Laboratory School

Kenneth C. Farrer, Head
Departments of Elementary
and Secondary Education

KCF/gnb

Letter given to each Teacher Trainee
at the Completion of Training

Dear

This letter conveys our endorsement and congratulations upon your satisfactory completion of a program of instruction provided through a grant from the United States Office of Education. This educational experience at the Edith Bowen Laboratory School during the period from January 19, 1970 to May 22, 1970 has focused upon ways to assist you in gaining greater insights to work with children who have learning handicaps and who are placed for instruction in regular elementary classrooms. You have demonstrated your ability as a professional teacher to work as a member of a team of five adults in implementing in the morning classroom those special education techniques presented in the seminar.

We hope that the experiences in the practicum and in the seminar have given you greater confidence to work successfully as a teacher in your local classrooms, where children with handicapped conditions are in the same learning environment with those whose learning abilities are not impaired by handicapping conditions.

May we take this opportunity to wish you continued success and happiness.

Respectfully yours,

Elizabeth Guest, Director
E.P.D.A. Project

Arthur Jackson, Principal
Edith Bowen Laboratory School

Kenneth C. Farrer, Head
Departments of Elementary
and Secondary Education

KCF/gnb