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ABSTRACT

The report describes and evaluates George Washington University's Complementary Teacher Training Program during the 1971-74 period. It is explained that the demonstration program was designed to prepare undergraduate special education resource teachers to work directly with mainstreamed handicapped (including learning disabled and emotionally disturbed) elementary students and as consultants to school staff members. Cited are positive results of the training in such areas as self-esteem, interpersonal relationships, and professional information; and noted is the fact that most program graduates have secured employment as either complementary (22), special education (6), or elementary education (6) teachers. Extensive appendixes include information on the results of research evaluating the program, responses by teachers and principals to questionnaires about program and trainee effectiveness in their schools, a journal article describing the program, course outlines, and four bibliographies that list approximately 300 references. (LH)

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Complementary Teacher Training Program

Academic Year 1973-74  
Three Year Report - 1971-74

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## Introduction to the Third-Year Report

The Complementary Teacher Program was created by Dr. Rita Ives in 1970 as a programmatic response to the needs of special education resource teacher preparation at The George Washington University. The program was implemented in September, 1970 and a proposal was filed with the Bureau of Education for the Handicapped in November. The review of the proposal, observation of the training process and eventual funding of the Complementary Teacher Program in 1971-72 reflected the success of Dr. Ives original model.

The Complementary Teacher Program has now been funded for three years. During that time the program has been permitted to:

- actively recruit students to pursue a minor in Special Education Complementary Teaching at The George Washington University where formerly there was no precise special education program for undergraduates;
- recruit highly qualified staff for the purpose of both teaching in the program as well as pursue the three-year research design;
- initiate publication and dissemination of materials reflecting the philosophy and content of this innovative special education program;
- purchase materials for the purpose of quality instruction as well as for the purpose of devising new and better means for the instruction of special education resource personnel;
- and develop instruments of measurement in the service of this program content research and, later, for the purpose of program research in other special education programs as well.

These last three years have been tremendously exciting ones! They have seen continued refinement of the Complementary Teacher model though the philosophic premises undergirding the model remain the same. They have seen further refinement of the Complementary Teacher Training Program with the deletion of the content of one course and the substitution of another that better met the needs of the students. They have seen the active involvement of the university staff of the Complementary Teacher Program actively and enthusiastically involved in demonstration classes in public school classrooms of, first, the District of Columbia Public Schools and, later, the Public Schools of Prince George's County, Maryland. And, lastly but most importantly, they have seen the preparation of enthusiastic, creative special education Complementary Teachers to serve that child population in regular elementary school classrooms who could be maintained in their regular class with the special education service of a Complementary Teacher. In turn, graduates of the Complementary Teacher Program have continued to maintain close ties to the university, frequently serving as participants in numerous aspects of the training process, from panel participation to supervision of students. The students participating in the program have benefited, the graduates of the program have continued to grow and learn, and, most importantly, these teachers continue to reflect the philosophy of an activity-based resource program as one service to children with special needs -- the children have benefited. This view is shared by the number of area school systems who actively recruit graduates of this program, both in the metropolitan area and as far away as Florida and California. Graduates of the Complementary Teacher Program take with them an approach to learning that supports

children in mainstream education and it is significant that so many who have journeyed to states not having special education resource programs have implemented Complementary Teacher Programs. John Dewey stated that we learn by doing; the Complementary Teacher Program reflects this philosophy in its university training and the graduates continue to reflect this philosophy in their work with children.

It has been a most exciting and rewarding three years!!

## Progress Report

### 1. Major Activities and Accomplishments during this Period.

The 1973-74 academic year saw the increased involvement of the Complementary Teacher Program in the public schools of the metropolitan Washington area and the continued refinement of the training process. Most gratifying to the university staff was the continued acceptance of the model as a means of servicing the needs of children with special needs in public elementary schools and the increased involvement of the program graduates in the Complementary Teacher Training Program. After four years it is clear that the intent of the Complementary Teacher model has been realized: "a synthesis of the academic and practical training deemed essential in the production of competent, creative special education professionals."<sup>1</sup> The content of the program, while continuing to reflect the program intent, continues to evolve and adapt to meet the needs of particular groups of students. While the undergirding philosophy of the program is intact, the course readings, assignments and specific experiences continue to reflect that adaptation to the needs of the individual is truly individualization of programming, whether in an elementary school or in a university teacher preparation program. The year can best be summarized as one of continued redirection -- re-evaluation and re-emphasis of the content to better reflect the intent, i.e. providing direct supportive services to children who can be maintained in regular classes with the support of a special education Complementary Teacher.

<sup>1</sup> Ives, Rita, Complementary Teacher Program, BEH Report, 1971, pl 3.

Major accomplishments during the year included the refinement of the Complementary Teacher Program Achievement Test as an instrument of measurement of the program content, production of teaching materials utilizing videotapes for special teaching purposes, publication of a Handbook for Complementary Teachers, as well as specific plans to expand the training program to an additional elementary school at the request of the special education personnel of the Prince George's County Public Schools.

a. Refinement of the Training Model.

The Complementary Teacher Training Program continues to accomplish its stated intent -- the preparation of special education professionals to service children with special needs through the capacity of Complementary Teachers. The refinements mentioned throughout this report focus on improvements in teaching the content areas of the training process. Foremost among these during 1973-74 was the increased usage of video equipment. Originally used to enable students to see themselves in the role of teacher, as well as direct use with children, an additional usage developed as the teaching staff of the Complementary Teacher Program began preparing vignettes of child behaviors, purposefully edited in a video presentation for teaching purposes. Such efforts add substantially to the effectiveness of classroom teaching in a university setting and provide the tying together of theory and method for university-based classes that the demonstration classes taught in an elementary school do for the off-campus based classes. This increased usage of the video equipment continued to provide valuable

feedback to the student as to his presentation of self during a teaching activity and served to increase the development of the observational skills so essential to good teaching.

By far the most important refinement of the training process of the Complementary Teacher Program was the continued emphasis placed on the internship that is the culminating experience of the training program. Despite the exigencies of the gas shortage, most students were given the opportunity to run their own Complementary Teacher Program or direct a program with another student. No student chose to follow a traditional student teaching role! This enthusiasm for the experience for which they have so diligently prepared themselves is again another example of the continued refinement of the model and the response it engenders in students participating in the program.

One specific refinement of the training model will occur in Special Education 103 in the spring of 1975 as the direct result of the contribution of one of the program participants. The need has long been felt for students to actively visit operational models of the Complementary Teacher Program during the junior year but there has been no specific opportunity for such visits. Limited visitation occurred in Special Education 190, but that was neither the purpose nor the ideal place for such visits. In the spring of 1973, as students were being grouped for the purposes of their teaching units, provision was made so that each teacher would have the opportunity to visit at least one operational Complementary Teacher

model either before or after his specific teaching unit. Students reported that the visit significantly added to their understanding of the program model and urged that it be expanded. Therefore, the inclusion of visits to operational models is of priority importance in Special Education 103 during the coming year.

Lastly, one refinement of the training model that is further discussed in section c is the addition of an additional demonstration seminar at the Hyattsville Elementary School. This addition to the training process both meets the need of the training program, eliminates overburdening the J. Enos Ray School with too many students, and provides an additional training site for future Complementary Teachers.

b. Refinement and Evaluation of the Operational Model.

The refinement and evaluation of the operational model again followed the "on-the-spot" format of the previous year. The 1973-74 academic year saw eleven operating Complementary Teacher Programs in the metropolitan area. All of the programs were visited during the school year and the teaching faculty of the training program met with program graduates at their bi-monthly meetings during the school year. From all of these encounters emerged the continued sharing that is the heart of this training program: sharing of the teaching faculty of the new and better ways the university uses to prepare Complementary Teachers, a sharing from graduates of the program of their experiences in directing Complementary Teacher Programs. One of the results of this ongoing cooperation was the

continued refinement of the internship experience of the training process. Still another was the inclusion of program graduates as consultants to the training process and their subsequent participation in numerous aspects of the course experiences in seminar 101: Dimensions of the Complementary Teaching Role as well as providing additional experiences for students participating in the demonstration seminars. Lastly, the cooperative effort was visible in the work that resulted in the Handbook for Complementary Teachers. The Handbook was truly a product of the work of many people, university staff as well as students, but the continued interest and support of program graduates provided a focus to the overall effort.

Evaluation of the operational model focused on the questionnaire submitted to Complementary Teachers, principals and teachers served by the Complementary Teachers. The following areas reflect the focus of the questionnaire:

1. Descriptions of the operating model by principals and teachers.
2. Investigation of the extent to which the model met the special education needs of the school.
3. The type of children serviced in the program.
4. The type of children seen as best serviced in such a program.
5. Numerical data relative to number of children serviced daily, per group, directly, indirectly, number of teachers serviced directly and indirectly, number of classrooms serviced, etc., as well as the extent

to which the efforts of the Complementary Teacher were receptively received.

6. Would the children serviced in the program have been better serviced in a self-contained classroom?
7. Was there any change in the dynamics of the school attributed to the Complementary Teacher Model?

The analysis of the data was supportive of the 1972-73 research and again revealed the Complementary Teacher as an effective special education service in the eyes of the teachers and principals served by the Complementary Teacher. It was further evident that changes in children's behavior and academic levels were noted as a result of participation in the Complementary Teacher Program. It was also noted that teachers were also significantly influenced by the Complementary Teacher.

The product evaluation, 1972-74, provides a clear indication of the acceptance of the Complementary Teacher Program as a viable special education resource model in the metropolitan area. In addition, it has contributed to and guided the refinement of the operational model as well as the training process. However, as the number of graduates has increased and more operational models are available for evaluation, it has become evident that product evaluation must be further refined in order to provide a more conclusive answer to nature and quality of the product of the Complementary Teacher Program. Therefore, the 1973-74 year saw a detailed analysis of product evaluation with the intent of designing a more finite product evaluation of the Complementary Teacher Program for 1974-75.

c. More Total Integration of the Training Model Within a Public School System.

Since September, 1972, the staff and students of the Complementary Teacher Program have been totally involved with the staff and students of the J. Enos Ray Elementary School of the Prince George's County Schools. The alliance was designed to operate in the service of diverse but interrelated goals:

1. To train Complementary Teachers who act as special education schoolbased interventionists. (Accomplished in the bi-weekly demonstration seminars.)
2. To service indirectly other Ray children by offering consultant help to the school staff in the areas of diagnosis and programming.
3. To provide a demonstration site for resource teachers and other county personnel.

The actual format and operational model of the training program at the J. Enos Ray Elementary School has been thoroughly delineated in previous reports. What happened during 1973-74 was that the cooperative efforts of a county elementary school and a university training program served to provide a more thorough training program for special education resource teachers than in the past. To this end, the Complementary Teacher Program owes a debt to Mrs. Rogene Higgins and her staff at the J. Enos Ray Elementary School.

Because of this support over the last two years as well as the repeated desires of Mrs. Higgins and the special education supervisors in Prince George's County, the

training model will remain at the Ray School for the 1974-75 academic year. But, in response to the increased enrollment of the training program, requiring a larger school, and the needs of the special education administration in the county, desiring that a seminar be located in still another elementary school, the 1974-75 academic year will see an additional demonstration seminar operating from the Hyattsville Elementary School. This move serves to increase the effectiveness of the training process by offering the added dimension of more than one training site. In addition, it serves to substantiate the esteem in which both the training process and the product of the Complementary Teacher Program are held by this school system. And lastly, it provides an additional plus in the training process in that both Ray School and Hyattsville School will employ the services of graduates of the Complementary Teacher Program. The cooperation of the Prince George's County Schools has been rewarding and gratifying. The opportunity of preparing junior level college students in a dynamic schoolbased educational experience is altogether rare. It has been a marvelous relationship for the university, for the university students, for the county schools and the children who have participated in the demonstration classes and in the programs directed by students as a part of their internship. Truly, this has been one of the most rewarding aspects of the last three years. Further, it is hoped that this is just the beginning of a long and beneficial relationship between the training program and this and other school systems.

d. Operation of Complementary Teacher Programs.

The staff of the Complementary Teacher Program is indeed proud of the graduates of the program and is highly invested in maintaining contact with all the program's graduates. Graduates working in the metropolitan area have the opportunity to participate in the back-up resources of the program staff and the staff continues to visit these functioning Complementary Teachers. At present we have the following information regarding our program graduates:

22 Complementary Teachers

- 14 Prince George's County, Maryland
- 1 Baltimore County, Maryland
- 4 Prince William County, Virginia
- 1 Worcester, Massachusetts
- 2 Fairfax County, Virginia

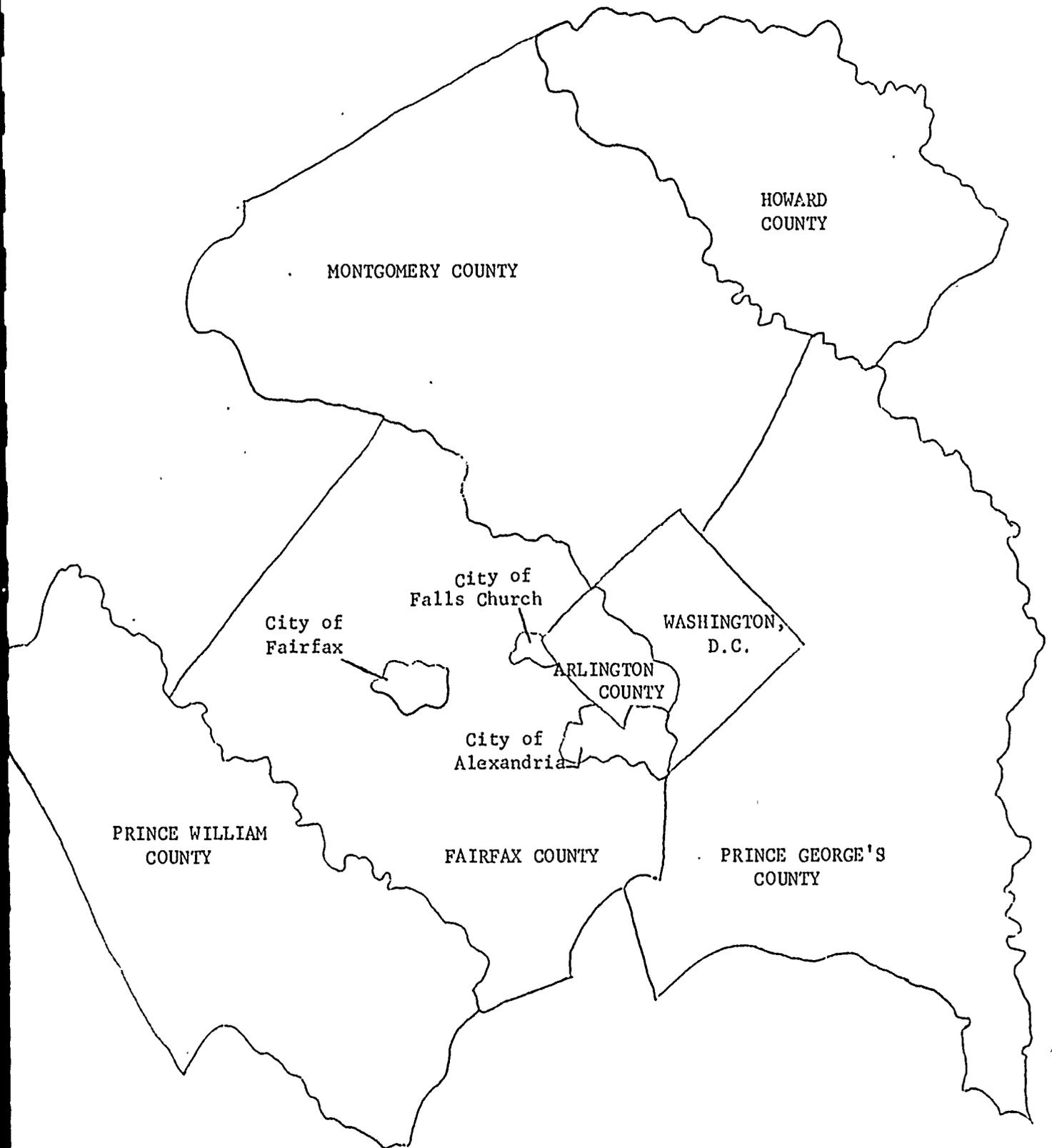
6 Special Education Teachers

3 Elementary Education Teachers

5 Graduate Students in Special Education

7 Job situations unknown at this time

We firmly believe that the record of the graduates of this program serves as testimony to the value of the Complementary Teacher model as a replicable and operational role of special education service that meets identifiable needs. This belief has been totally supported by the information obtained from principals and teachers of the eleven area graduates operating Complementary Teacher Programs in 1973-74. (See Appendix A for product evaluation reports.)



Maryland

Baltimore County - 1  
Prince George's County - 14

Virginia

Fairfax County - 2  
Prince William County - 4

2. Significant Findings and Events.

The 1973-74 academic year saw the continued refinement of both process evaluation and product evaluation. The design which guided the research efforts follows.

a. Process Evaluation.

The evaluation of the process by which Complementary Teachers receive their training follows the general design of the 1972-73 research. Refinements in the research design have permitted assessment of individuals participating in the Complementary Teacher Program in the areas of "Professionalism" and "Humanism" as in the previous design but with a substantially reduced time factor. The research continues to focus on the competencies delineated in the Complementary Teacher model. The following design provides inspection of these components:

Process Evaluation Design

Pre-Post Design

Pre-testing: September, 1973

Post-testing: April, 1974

Measurements of Humanism

Instrument

Intent

Tennessee Self-Concept Scale

To assess level of self-esteem

FIRO-B Scale

To assess dimensions of interpersonal relationships

Measurements of Professionalism

Professional Education Test,  
National Teachers Examination

Measurement of professional information

The Complementary Teacher Program  
Achievement Test

Measurement of students acquisition of the content of the Complementary Teacher Program

The Ives Psycho-Social Assessment  
Scale

Measurement of sensitivity to the psycho-dynamics of the classroom

Val-Ed Scale

Measurement of an individual's values as related to education

The majority thrust of the Complementary Teacher Program occurs during the junior year of the undergraduate program. The research focused on the training at the onset and termination of the junior year. This year saw the second group of seniors to complete the Complementary Teacher Program who also participated in the research design during the junior year. The research focused, therefore, on the onset of the program the junior year and the termination of the program at the end of the senior year with this group.

b. Subjects.

This study was composed of two experimental groups of full-time juniors and seniors majoring in Elementary Education and minoring in Special Education, i.e. Complementary Teacher Program. Two control groups, composed of students majoring in Elementary Education with no involvement in the Complementary Teacher Program were also involved, both a junior and senior group. The total number of students participating in this study was 76. The two experimental groups were composed of eighteen juniors and twenty-one seniors. All 76 participants were subject to the entrance requirements of the School of Education. These are (1) sixty credit hours equal to junior status necessary for entrance, (2) a quality point average of 2.25, and (3) a personal interview resulting in at least one recommendation from a faculty member. In addition, those participants in the experimental groups were subject to the additional requirements of the Complementary Teacher Program. All of the participants of the Complementary Teacher Program were involved in this study. The control groups were volunteers. The junior

comparison sample participated in a pre- and post-test design. The senior comparison sample participated in only one testing. The senior sample tested were all a part of the research for 1972-73 as juniors in the School of Education. Table 1, Appendix A, presents the age and sex of the experimental and comparison samples.

c. Instruments of Humanism

Measurements of Humanism

1. The Tennessee Self-Concept Scale was used to assess the level of self-esteem. The variable (P) reflects the individuals self-perception and overall level of self-esteem. The (V) score, variability, reflects the amount of inconsistency, a low score being indicative of low variability. The (D) variable, distribution, is interpreted as measuring certainty about the way in which one sees himself, a higher score indicating more definite and certain self-perceptions.<sup>1</sup>
2. FIRO-B is an abbreviation for Fundamental Interpersonal Relations Orientation-Behavior. It is a 54-item questionnaire which measures three fundamental dimensions of interpersonal relationships: inclusion, control and affection. Inclusion assesses the degree to which a person associates with others. Control measures the extent to which a person assumes responsibility, makes decisions, or dominates people. The affection score reflects the degree to which a person becomes emotionally involved with others. For each variable, two scores,

<sup>1</sup> William H. Fitts, Tennessee Self-Concept Manual, Counselor Recordings and Tests, Nashville, Tennessee, 1965, pp. 2-3.

symbolized by the letters "e" and "w", are obtained. The "e" score represents the person's expressed or manifest behavior. It is overt, observable behavior in the areas of inclusion, control and affection. The "w" scores represent his wanted behavior. They refer to what the person wants from other people in the areas of inclusion, control and affection. What he seeks in his interpersonal relationships is less directly observable, but it is valuable information in understanding and predicting his behavior.<sup>1</sup>

#### Measurements of Professionalism

3. The Professional Education Test of The National Teachers Examination was used as a measurement of professional information. The content of the Professional Education Test is organized around teaching roles. Specific areas include:

- a. Teacher as an agent of his own culture
- b. Planning and organization of instruction
- c. The classroom climate
- d. Learning and instruction medication
- e. Teacher measurement and evaluation of learning<sup>2</sup>

The concept of the test is based on the three content areas of general education, societal foundations of education, and teaching principles and practices.

4. The Complementary Teacher Program Achievement Test was used as a measure of student's acquisition of the pro-

<sup>1</sup> William Schutz, "FIRO-B Scale", Palo Alto, California: Consulting Psychologists Press, Inc., 1958.

<sup>2</sup> National Teachers Examination Bulletin of Information - 197071, Princeton, New Jersey, Educational Testing Service, 1970, p. 18.

gram content of the Complementary Teacher Program. The CTPAT is a refinement of the previously developed Ives Test and constitutes an alternate form of the Ives Test in a multiple-choice form. The CTPAT was designed to measure the same areas of the Complementary Teacher Program as the Ives Test but in a more precise and compact form. The test is a series of 100 multiple-choice items drawn from the ten content areas of the Complementary Teacher Program. The correct answers were determined by expert judges and the staff of the Complementary Teacher Program.<sup>1</sup>

5. The Ives Psycho-Social Assessment Scale was used as a measurement of sensitivity to the psycho-dynamics of the classroom. The Ives Scale consists of a behavioral description which the subject reads. He then completes a forced-choice scale in which he must apply the information found in the behavioral description to the items found on the scale. The scale consists of fifty items.<sup>2</sup>
6. Val-Ed (Educational Values) Scale was used as a measure of values regarding the "shoulds" of relationships in the school setting among child, teacher, administrator, and community. These relationships are measured in the areas of inclusion, control, and affection, and at the level of behavior and feelings.<sup>3</sup>

<sup>1</sup> Michael Castleberry, Ed.D., "The Complementary Teacher Program Achievement Test", Department of Special Education, The George Washington University, Washington, D.C.

<sup>2</sup> Rita Ives, Ed.D., "The Ives Psycho-Social Assessment Scale", Department of Special Education, The George Washington University, Washington, D.C.

<sup>3</sup> William Schutz, "Val-Ed Scale", Palo Alto, California: Consulting Psychologists Press, Inc., 1966.

d. Operational Hypotheses

The preceding information has presented:

1. The philosophical premise which framed our inquiries
2. The design of the study.
3. The instruments of measurement.
4. The subjects.

The operational hypotheses which logically follow are:

The experimental group, students participating in the Complementary Teacher Program, will evidence a significant increase over the control group on

1. Self-esteem as measured by the (P), (V) and (D) subtests of the Tennessee Self-Concept Scale.
2. Appropriate behaviors relating to interpersonal relationship as measured by the FIRO-B Scale.
3. Professional information as measured by the Professional Education Test of the National Teachers Examination, the Ives Psycho-Social Assessment Scale, the Complementary Teacher Program Achievement Test and the Val-Ed Scale.

e. Test Administration and Scoring

Pre-test administration to the junior experimental group was accomplished in group sessions on September 10 and 11.

<u>Date</u>	<u>Test</u>
September 10	Complementary Teacher Program Achievement Test Ives Psycho-Social Assessment Scale FIRO-B Scale
September 11	Professional Education Test - The National Teachers Examination Tennessee Self-Concept Scale Val-Ed Scale

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Post-testing of the junior experimental group followed the same pattern as the pre-test:

April 16 and April 18 were the dates for the test administration with the tests given in the same sequence as the pre-test:

The pre-test administration to the junior control group was accomplished mainly in individual test situations with some small group sessions. Due to a lower than usual enrollment in the regular elementary education program every effort was made by the Complementary Teacher Program staff to individualize scheduling re: test administration so as to preserve the Complementary Teacher Program experimental/control group research design. Testing for the control group was begun on September 17 with completion by November 20. Participants in the junior control group were pretested on the same tests as the junior experimental:

Complementary Teacher Program Achievement Test  
Ives Psychosocial Assessment Scale  
Firo-B Scale  
Professional Education Test - The National Teachers  
Examination  
Tennessee Self-Concept Scale  
Val-Ed Scale

The post-testing of the junior control followed the same pattern as the pre-test. Participants were tested again mainly on an individual basis with some small groups. Tests were administered between April 15 and May 11.

The senior experimental group was tested in group sessions on May 9 and May 16. The test battery included

the Tennessee Self-Concept and the Complementary Teacher Program Achievement Test. The Professional Education Test of the National Teachers Exam score was obtained from the records in The George Washington University School of Education.

The Complementary Teacher Program research design utilizing the same control sample for two years for comparison purposes was realized! A senior control sample with N=21 was tested on the same tests: The Tennessee Self-Concept and the Complementary Teacher Program Achievement Test. Their scores on the Professional Education Test of the National Teachers Exam were also obtained from The George Washington University School of Education. Tests were administered in both small group and individual sessions between April 17 and May 16.

The average time for the completion of the testing for the junior groups was five hours. The average time for the testing for the senior groups was one hour. All testing was supervised by the staff of the Complementary Teacher Program. The Professional Education Test of the National Teachers Exam was computed and scored by Educational Testing Service, Princeton, New Jersey; the Tennessee Self-Concept Scale by Counselor Recordings and Tests, Nashville, Tennessee. All other tests were administered utilizing sense-mark answer sheets and key-punched using the Optical Mark Page Reader designed by Optical Scanning Corporation which is located at The George Washington University School of Medicine. All research data was rechecked prior to the statistical analysis.

f. Methodology.

The research design for 1973-74 allowed for an inspection of the Complementary Teacher Program from a multitude of perspectives including both program and product evaluation. In summary four studies were inspected: (a) 1973-74 junior experimental/junior control pretest and posttest design, (b) 1973-74 senior experimental/senior control posttest scores, (c) 1972-74, a two year study of the same experimental and control populations, and (d) an analysis of the students' scores over the three year period which included Bureau of Education for the Handicapped funding for the undergraduate teacher training program in special education. Further investigations were employed to establish the validity and reliability of the instruments to measure the stated hypothesis and objectives of the Complementary Teacher Program.

g. Procedures.

Appropriate statistical procedures were applied to analyze the data utilizing the facilities of The George Washington University Computer Center.

In the 1973-74 research procedures, computer program GRADES<sup>1</sup>; designed by Mr. Charles Tack, Computer Systems Analyst, at The George Washington University, School of Medicine was adapted to score the CTPAT and the Ives Psycho-Social Assessment Scale. Computer Program TESTSC<sup>2</sup> was used for the item-analysis of the CTPAT and the Ives Scale.

<sup>1</sup> GRADES, a computer program documented and stored at The George Washington University Computer Center. See Appendix D for detailed description.

<sup>2</sup> TESTSC, a computer program documented and stored at The George Washington University Computer Center.

The Statistical Programs for the Social Sciences (SPSS) program COUNT<sup>1</sup> was used to tabulate the responses on the six variables of the FIRO-B Scale. Program COUNT was also used to summarize the responses on the six variables of the Val-Ed Scale. Pretest and posttest mean differences within the groups were determined using the SPSS t-TEST computer program.<sup>2</sup> Between group differences were computed using program ANOVA<sup>3</sup> which produces a t-statistic and probability level. SPSS program PEARSON CORR<sup>4</sup> was used for computing the pretest and posttest correlation coefficients of all the variables and their levels of significance. ANOVA was also used with the two-way analysis of variance option for inspecting (1) the two-year experimental/control design, and (2) the present junior experimental and junior control research. This option produces an F statistic and the probability level of the factors examined with additional information regarding factor interaction.

Another dimension investigated was the significance of the correlation of the rank-order ratings for the Senior Experimental population on over-all performance in the Complementary Teacher Program as evaluated by the Complementary Teacher Program Faculty with their post program scores on the CTPAT. Program PEARSON CORR was

<sup>1</sup> Norman Nie, Dale Bent and C. Hadlai Hall. Statistical Package for the Social Sciences (SPSS). COUNT New York: McGraw-Hill Book Company, 1970. Documented and stored at The George Washington University Computer Center.

<sup>2</sup> Ibid. See Appendix D for detailed description.

<sup>3</sup> ANOVA, a computer program documented and stored at The George Washington University Computer Center.

<sup>4</sup> Nie, Op. Cit.

used to measure the significance of the relationship of the two variables.

In analyzing the data over the three-year period the computer program ANOVA was used to test the significance of the difference between pre-program scores and post-program scores for the purpose of measuring the degree of attainment of total program objectives. This provided a perspective to further examine the similarities and differences of the three experimental groups. A two-way analysis of variance was also employed for both: (1) the experimental class of 1974 with the control class of 1974, and (2) the junior experimental class with the junior control population. The rationale for this statistical analysis was (1) to test the similarities of the groups, and (2) to inspect the interaction factor.

h. Results of Hypotheses Testing.

The data presented in this section is the results from the total score of the Ives Psycho-Social Assessment Scale; the Positive (P), Variability (V), and Distribution (D) score of the Tennessee Self-Concept Scale; the total score of the Professional Education Test of the National Teachers Examination; the total score of the Complementary Teacher Program Achievement Test; the FIRO-B Scale; and the Val-Ed Scale. The comparisons between the experimental and control groups on the above indicated variables were computed employing one-tailed t-tests for significance of differences between independent means. A t-test was used for determining the significance of the difference in the dependent means of the experimental group comparing the pretest mean with the posttest mean of each variable.

i. One Year Analysis.

Operational Hypothesis 1

The experimental samples, students participating within these margins in the Complementary Teacher Program, will evidence a significant increase over the control samples on the variables measuring self-esteem as measured by the (P), (V), and (D) subtests of the Tennessee Self-Concept Scale.

Humanism

1. Tennessee Self-Concept Scale

(a) Analysis of the data regarding the junior samples scores on the subtest of the Tennessee Self-Concept Scale measuring self-esteem (the P variable) indicates no statistical difference in the posttest comparison. However, an inspection of the beginning and ending year and standard deviations means reveals an interesting phenomenon. As measured by a t-test the junior control sample scored significantly higher on this variable on the pretest as t=1.73, significant at the .05 level. The junior experimental sample mean = 348.89 with junior control sample mean = 369.00. The posttest mean for the junior experimental sample = 365.61 with junior control sample = 358.88. The large standard deviation for the junior control sample (S.D. = 38.04) contributed to the statistical difference between means not being significant. For purposes of program evaluation it can be assumed that the Complementary Teacher Program contributed to the increase of the self-esteem scores of the experimental sample. Tables 5, 6, 7, Appendix A.

(b) An analysis of the variability score indicates growth in the desired direction for the junior experimental sample. The t-tests for differences between means indicated no statistical difference in the pre- or posttest. The junior experimental sample, however, evidenced a decreased variability score in the posttest, supportive of the research hypothesis, while the junior control sample's scores increased. Table 6, Appendix A.

(c) The distribution score which measures the certainty with which a person sees himself, a higher score indication of a more definite and certain self-perception, revealed the junior experimental sample as approaching a statistically significant difference when compared with the junior control sample. The pre-post pattern of an increase in the mean (115.28 to 127.611) for the junior experimental sample as a decrease (123.06 to 119.19) for the junior control sample was again noted. Table 5, Appendix A.

(d) An inspection of the Tennessee Self-Concept scores for the senior samples revealed no statistically significant differences as measured by t-tests between the independent means for each sample. The senior experimental sample demonstrated a higher score on the self-esteem (P) subtest and a lower score on the variability (V) subtest. The preceding information is supportive of the research hypothesis of the Complementary Teacher Program. Table 8, Appendix A.

## Operational Hypothesis 2

The experimental samples, students participating in the Complementary Teacher Program, will evidence significant growth toward appropriate levels on both the overt and covert dimensions of inclusion, control and affection as affecting interpersonal relationships as measured by the FIRO-B Scale. Table 9, Appendix A.

### 2. FIRO-B

The following score intervals and the interpretations served as the criterion for analyzing the FIRO-B data. For each area investigated separate hypothesis were developed. These were based on the desired behavioral expectations of the Complementary Teacher Program graduates. The scale for evaluating scores is as follows:

- 0-1 are extremely low scores; the behavior described will have a compulsive quality.
- 2-3 are low scores; the behavior mentioned for low scores will be noticeably characteristic of the person
- 4-5 are borderline scores; although not extreme, the person may reveal a tendency toward the behavior described for high or low scorers.
- 6-7 are high scores; the behavior will be noticeably characteristic of the person.
- 8-9 are extremely high scores; the behavior will have a compulsive quality to it.

### Inclusion Expressed.

A general hypothesis that the experimental sample would achieve higher scores than the control sample in the area of Inclusion Expressed as an indication of (1)

feeling comfortable in social settings and (2) a tendency to move toward people was tested.

An inspection of the data indicated that the experimental sample's pre-mean of 5.78 was higher than the control sample's pre-mean of 4.69. During the year of treatment the experimental sample mean decreased slightly (5.7/5.4) but was still within the borderline range. The control sample mean remained constant (4.6/4.6). The data is supportive of the hypothesis that the experimental sample will evidence a tendency towards more desirable behavior in this area of the scale.

#### Inclusion Wanted.

A general hypothesis that the experimental sample mean would be in the low-middle range and remain constant on the variable Inclusion Wanted as compared with the control sample mean.

The mean of the experimental sample and of the control sample both increased. While both were in the borderline range, this variable may be a reflection of the teacher-administrator-child cyclic interpersonal behaviors affected by a teaching environment.

#### Control Expressed.

A general hypothesis that the experimental sample mean would be higher than the control sample mean on the Control Expressed variable indicative of leadership characteristics was tested.

An inspection of the posttest scores: experimental sample (3.4) and control sample (2.2) supports the hypothesis. Although the scores for both groups are low there is a significant difference between the groups.

Control Wanted.

The general hypothesis that the experimental sample mean would be lower than the control sample on the Control Wanted variable which is an indication of one's dependency traits was tested.

The data indicates that the experimental sample posttest mean was slightly higher in the area of Control Wanted than the control. However, both groups were in the low range indicating noticeable characteristics of this desired behavior in teachers.

Affection Expressed.

A general hypothesis that the experimental sample mean would be higher than the control sample mean on the variable measuring Affection Expressed was tested.

The means of both samples were in the borderline range. Both samples increased in the appropriate direction showing growth toward being available to become emotionally involved with others.

Affection Wanted.

The general hypothesis that the experimental sample mean would be in the low to middle range and constant as compared with the control sample mean on this variable.

The results indicate that the experimental sample's mean was in the borderline range and constant from a pretest mean of 5.6 to 5.7 for the posttest mean. The control sample's mean increased from pretest 5.8 to posttest 6.6. This would seem to indicate a higher need on the part of the control sample to want others to initiate close intimate relationships with them. The

borderline range for the experimental sample seems to indicate a balanced tendency for initiating and establishing relationships with others.

The use of the FIRO-B scale is still in the investigative stage. A variety of ways for utilizing the information are at present being explored. Some of the areas under consideration are relating to the student internship placements, student team planning, research to help determine the type of students that enroll in the Complementary Teacher Program, and a typical profile of scores that coincide with other research results indicating successful performance in the program.

### Operational Hypothesis 3

The experimental samples, students participating in the Complementary Teacher Program, will evidence significant increase over the control samples on the variables measuring professional information as measured by the Professional Education Test, the Complementary Teacher Program Achievement Test, the Ives Scale and the Val-Ed Scale.

### Professionalism

#### 1. Professional Education Test

(a) The results of the various testings were first analyzed independently to examine the mean differences of both the junior experimental sample and the junior control sample. On the Professional Education Test of the National Teachers Examination a  $t$ -value of 1.98, significant at the .05 level, was yielded by a  $t$ -test for difference between the dependent means of the pre-

test and posttest for the junior experimental sample. The mean of the junior experimental sample increased from 60.78 to 66.28. The junior control sample increased from 54.38 to 61.25. A t-value of 1.54, significant at the .06 level, was obtained by a t-test applied to the posttest means of the junior samples. This supports the hypothesis and previous research findings regarding the professional knowledge attained in the Complementary Teacher Training Program. Table 10, Appendix A.

(b) The hypothesis testing for the Professional Education Test with the senior research samples using a t-test for the significance of the difference between independent means yielded  $t = 2.62$ , significant at the .01 level for the posttest comparison. This is supportive of previous research findings. Table 22, Appendix B.

## 2. Complementary Teacher Program Achievement Test

(a) The Complementary Teacher Program Achievement Test continued to demonstrate validity and reliability in assessing student acquisition of program content. A t-test yielded  $t = 6.50$ , significant at the .0001 level, in the posttest comparison of the junior samples. Table 7, Appendix A.

(b) An analysis of the senior samples revealed  $t = 19.74$ , highly significant at the .0001 level. Table 8, Appendix A.

(c) The research utilized the control samples for further investigations by comparing the junior sample's posttest mean with the senior sample posttest mean on the CTPAT. A t-test yielded  $t = 1.05$  which indicated no significant difference in the control samples. Table 12, Appendix A.

(d) A  $t$ -value of 5.59, significant at the .0001 level, was yielded by a  $t$ -test between the means of the junior experimental sample and senior experimental sample indicating the attainment of specific objectives in the second year of the training program. Table 13, Appendix A.

(e) Further, the posttest CTPAT scores for the combined junior samples yielded a Kuder-Richardson Formula 20 coefficient of .85. Table 11, Appendix A.

3. Ives Psycho-Social Assessment Scale

The Ives Psycho-Social Assessment Scale was used in the research design for the junior samples. The results were not significant and indicated further study was necessary to be able to interpret the scores as they related to the Complementary Teacher Program.

4. Val-Ed Scale

The Val-Ed Scale was used to investigate the following areas relating to values in education: School-Child Control, Teacher-Child Affection, Teacher-Community Inclusion, Administrator-Teacher Affection, Administrator-Community Inclusion, and Teacher-Child Control. The research hypothesis for the first five was stated as: "The experimental sample mean will be lower than the control sample mean on each variable."

An analysis of the data using a two-way analysis of variance allowed acceptance of only the variable relating to Administrator-Community Control. The means for each variable are provided in Table 14. The variable for Teacher-Child Control was hypothesized as the experimental sample yielding a higher mean than the

control sample. The experimental sample posttest mean of 2.2 as compared with the control sample mean of 3.2 supports acceptance of this hypothesis. Table 15, Appendix A.

Continued research and study is being directed towards an analysis of the Val-Ed instrument and the hypotheses as to the applicability to our program and research purpose. The individual scores were analyzed as a part of the in-depth study of each experimental sample student. Again, it needs to be presented that appropriate instruments for the evaluation of the instructional and behavioral objectives of the Complementary Teacher Program are still to be investigated. However, the development of specific tests, i.e., Ives Psycho-Social Assessment Scale, Ives Test of Teaching Arts and Skills and the Complementary Teacher Program Achievement Test demonstrate the desire and efforts of the staff to effectively evaluate its program, process and product.

### Correlations

Another factor investigated in this study was the relationship between instruments. It was hypothesized that a significant relationship would exist between the Professional Education Test of the National Teachers Examination and the Complementary Teacher Program Achievement Test.

(a) A Pearson product-moment correlation procedure yielded  $r = .513$ , significant at the .001 level for the combined experimental sample. Table 16, Appendix A.

(b) The senior experimental sample's CTPAT scores correlated with the NTE (Professional Education) subtest with  $r = .48$ , significant at the .01 level. Table 17, Appendix A.

(c) The combined junior and senior experimental sample's scores on the posttest (P) self-esteem variable correlated with the posttest NTE (Professional Education) subtest of the Tennessee Self-Concept Scale at the .01 level of significance and with the CTPAT at the .05 level of significance. This would be interpreted as the higher the level of self-esteem - the higher the score on the NTE or the CTPAT.

(d) The junior experimental sample correlation of the NTE with the CTPAT yielded .65, significant at the .002 level. The post (P) scores correlated with the post (V) scores with  $r = .79$  significant.

(e) As another investigation of the validity of the CTPAT as an indication of achievement in the Complementary Teacher Program the senior experimental sample's scores correlated with a rank order rating by the Complementary Teacher Program staff bases on over-all performance in the program. The Pearson product-moment procedure yielded  $r = .30$ . significant at the .001 level. (N= 21) Table 18 presents the correlations measuring (1) inter-rater reliability and (2) sum of ratings with CTPAT scores.

j. Three Year Analysis

The evaluative measurements that have been continued as a part of the research over the three year period of funding by the Bureau of Education for the Handicapped are the Professional Education Test of the National Teachers Examination and the Tennessee Self-Concept Scales. Data

collected during the three year period allowed for various statistical procedures including: t-tests, two-way analysis of variances, Pearson product-moment correlations, rank-order ratings, numerous tabulations and correlations. Table 24, Appendix B.

1. Professional Education Test

An analysis of the scores on the National Teacher Examination subtest, Professional Education, supports the hypothesis that the Complementary Teacher Program contributed significantly to the acquisition of cognitive skills and educational knowledge measured by this instrument. Data from t-tests for difference between dependent means of the pretest and the posttest indicate that participants in the program score statistically significantly higher. Table 22 presents statistical data from t-tests for the three experimental samples. The t-values are all significant at the .05 level of confidence or higher. Table 23 presents the percentile ranks for the experimental and control samples for the 1972-73/1973-74 research. The rankings clearly demonstrate the superior performance of the Complementary Teacher Program participants. The junior experimental sample were significantly higher on the NTE subtest as compared with the junior control sample as measured by a two-factor and of variance yielding  $F = 7.11$  for difference in groups, significant at .01 level and  $F = 8.14$  for difference in pre/post, significant at .005 level. Students having completed the two year program scored considerably higher than the comparison sample;

the junior experimental sample also demonstrated a high degree of knowledge and ability by their scores as compared to the junior control sample. A two-factor analysis of variance on the senior samples yielded  $F=15.03$  for determining significantly difference between samples on the NTE, this was significant at the .0002 level.

2. Tennessee Self-Concept Scale

The Tennessee Self-Concept Scales provide supportive data that the Complementary Teacher Training Program provides input, both cognitive and affective that: (1) increase and stabilize the participants' positive perceptions of self, (2) lessen the degree of variability about self, and (3) contribute to a positive presentation related to self-esteem. (a) The three experimental samples have all increased statistically significantly at the .05 or higher level of confidence on the Positive (P) variable. (b) The Variability (V) subtest indicated movement of the groups toward less variance about their positive self-concept. (c) Scores on the Distribution (D) variable increased significantly from pre-junior year to post-senior year. (d) The Pearson product-moment correlation procedure indicated a significant relationship between the subtests of the Tennessee and the performance on the NTE. (e) Additional data derived from inspecting the correlation coefficients of the CTPAT with the Tennessee Self-Concept variables and the NTE again support the use of this new test for measuring attainment of the Complementary Teacher Program objectives. Tables 25, 26, 27, Appendix B.

### Research Findings

The research findings have contributed to the continuous development and refinement of the Complementary Teacher Training Program. Future research will be focused on development of an instrument for product evaluation. This aspect will be in addition to continued program and process evaluation.

The survey reporting the employment status reflects the high marketability of the Complementary Teacher Program graduates. The acceptance of this resource model by a large number of school systems indirectly supports the research hypotheses that the graduates will demonstrate qualities of humanism and professionalism in a superior manner thus facilitating employment and application of knowledge and teaching arts and skills acquired during the training process.

#### k. Variation of Groups.

One factor which was considered to have possible ramifications as to the validity of the study was group variability. The constant factor affecting the samples employed in this study was the common exposure to the curriculum of regular elementary education (all samples) and the additional exposure to the content of the Complementary Teacher Program of the experimental samples. Students pursuing the program in elementary education are evaluated as to previous course work and quality point average. While it was felt that there was homogeneity among the groups participating in this study, the need to document the variability among the groups was established. Accordingly, Verbal and Math scores on the College Entrance Examination Board were obtained for the junior experimental and control samples.

t-tests were computed using library program ANOVA. Results of the analysis of data indicated that there was no statistically significant difference between the means of either variable. However, the t-test value for the math variable was approaching statistical significance at the .05 level of confidence. Higher math scores for the experimental group was also a finding of the 1972-73 research. This factor which is indicative of skill in problem solving and a general aptitude for good reasoning seems applicable to the experimental group. Whether this relationship is significant - acquired knowledge and skill in problem solving with success in an innovative resource intervention program - will continue to be explored in future research.

Still another indicator of the variability among the groups was the quality point index accumulated prior to the junior year. The t-test computed between the junior experimental and junior comparison groups was not significant.

The results of the testing for variation among groups is presented in Table 2, Appendix A. The additional research indicated that the variability of the samples was of less than significant nature. This conclusion was supportive of the ability of the Complementary Teacher Program Achievement Test to measure the impact of the Complementary Teacher Program on the part of the experimental samples.

3. Dissemination Activities.

Major efforts in this area during 1973-74 have been:

- a. Preparation and publication of Handbook for Complementary Teachers. The publication of the Handbook provides an opportunity to share information regarding every dimension of the Complementary Teacher role. It is intended for those unfamiliar with the Complementary Teacher model as well as for those who can use the attached materials and ideas to more effeciently operate a Complementary Teacher Program. The Handbook has been almost two years in planning and preparation and represents a major achievement of the 1973-74 year.
- b. Publication of an article "Complementary Teaching" by Mrs. Marsha Gregg, Mrs. Gregg worked in cooperation with Dr. Castleberry and Mrs. Sobel in this first published effort on the work of the training program and the Complementary Teacher model. (See Appendix C)
- c. Revision of the Complementary Teacher brochure for recruitment purposes.
- d. Visits to area community and junior colleges for recruitment purposes.
- e. Preparation for a panel role at the 1975 American Education Research Association Convention on process evaluations.
- f. Meetings and cooperative efforts with the Office of Admissions of the university and the admissions personnel of the School of Education to better acquaint them with the Complementary Teacher Program. The 1974 year saw the first

year in which students transferring specifically for training as undergraduate special education resource professionals became highly evident.

- g. Preliminary work on the publication of the results of the last three years research and the development of the program model -- publication scheduled for mid 1975.

#### 4. Data Collection.

The efforts and energies of the entire program staff have gone into data collection over the last three years. From the thorough and exhausting pre/post testing, of program participants, to the questionnaires submitted to graduates of the program and the personnel of their schools, program staff have been actively involved. This role is seen as being one that will be further increased as the product evaluation of the Complementary Teacher Program becomes more finite during the 1974-75 academic year. Data is summarized throughout this report and in Tables 3 a, b; 4 a-f, Appendix A.

#### 5. Staff Utilization.

The staff of the Complementary Teacher Program for 1973-74 added the energies and enthusiasm of Graduate Teaching Assistant and a Graduate Research Assistant to the two full-time university faculty members. In addition, the actual workload centering on the accumulation and compilation of process and product evaluation, coupled with the additional responsibilities of preparation of the Handbook, required that additional part-time staff be employed. Further, the cataloguing, ordering, and maintenance of the resource library became less

the responsibility of the research assistant than the responsibility of the program staff. While the specific duties of the 1973-74 academic year governed staff functioning, the maintenance and utilization of the resource component of the training program required further evaluation. Accordingly, for 1974-75, the Complementary Teacher Program will place all program materials in a Resource Library, with a full-time staff member assigned to monitor usage of the library materials. Accordingly, the Department of Special Education has allocated an exceptionally large room for this purpose, to be shared by the Complementary Teacher Program and the Special Education/Early Childhood Program. Ms. Jan Iskowitz will be resource librarian for the coming year. It is felt that these changes fulfill a need of this program and serve to facilitate program goals.

6. Activities Planned for Next Year.

The focus of the 1974-75 year in the Complementary Teacher Program will be on refined evaluation of the product of the training program and on the publication of results of the research and on the program model. Preliminary efforts are already underway in both areas and will continue throughout the academic year. Greater utilization will be made of the Handbook for Complementary Teachers in recruitment and program publicity efforts. Continued efforts in the production of permanent video materials for use in the training process will increase the effectiveness of the process by which Complementary Teachers are prepared. The process evaluation of the Complementary Teacher Program will be abridged and

refined, based on the results of three years of process research. The Complementary Teacher Program Achievement Test will be revised and reedited on the basis of item analysis results. The CTPAT is expected to provide the central focus of process evaluation for 1974-75 and refinement of the Ives Scale is expected to continue with specific emphasis on the use of the scale as an instrument predictive of student performance.

The intent and content of the Complementary Teacher Program will continue unchanged for 1974-75. The program will operate from two elementary schools instead of one and the staffing will reflect the direction of Dr. Edward Rouse, who will assume the role of Coordinator of the Complementary Teacher Program on 1 September 1974. Mrs. Marjorie Gazvoda, who has served as Graduate Research Assistant since 1972, has been employed by the University as Instructor in Special Education. Further, the Complementary Teacher Program is fortunate to have acquired the services of Mrs. Donna Hart as Graduate Teaching Assistant and Mrs. Amy Gerson as Graduate Research Assistant. Ms. Jan Iskowitz will function as Research Assistant in charge of the Resource Library. The addition of these individuals provides a staff with years of experience and commitment to resource teaching. It looks like still another good year for the Complementary Teacher Program.

APPENDIX A

1. One-Year Research Tables
  - a. Tables 1 - 21
2. Product Evaluation Report
  - a. Questionnaires
    - (1) Teachers
    - (2) Principals

COMPARISON OF THE SEX AND AGE OF THE  
EXPERIMENTAL AND COMPARISON SAMPLES.

GROUP	N	MEAN AGE	SEX DISTRIBUTION	
			MEN	WOMEN
<u>1972-1974</u>				
Senior Experimental	21	20.2857	4	17
Senior Control	21	19.381	0	21
<u>1973-1974</u>				
Junior Experimental	18	21.000	2	16
Junior Control	16	20.750	1	15

RESULTS OF INVESTIGATION OF THE VARIABILITY  
OF THE JUNIOR SAMPLES, 1973 - 74

Variable	Junior Samples	N	Mean	Standard Deviation	$t_0$	df
CEEB Verbal	Experimental	16	513.1250	76.0210	1.4336	28
	Control	14	468.7141	93.6263		
CEEB Math	Experimental	16	507.4375	80.6292	1.5090	28
	Control	14	449.0713	128.6727		
Quality Point Index	Experimental	18	2.8722	0.4336	0.4975	32
	Control	16	2.8062	0.3235		
Age	Experimental	18	21.0000	1.9097	0.4179	32
	Control	16	20.7500	1.5275		

\* Approaching significance

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RESULTS OF INVESTIGATION OF THE VARIABILITY  
OF THE JUNIOR SAMPLES, 1973 - 74

Samples	N	Mean	Standard Deviation	$t_0$	df	one-tailed	
						$t(.05)$	$P(t_0)$
ental	16	513.1250	76.0210	1.4336	28	1.70	.0814 *
	14	468.7141	93.6263				
ental	16	507.4375	80.6292	1.5090	28	1.70	.0712 *
	14	449.0713	128.6727				
ental	18	2.8722	0.4336	0.4975	32	1.70	.3111
	16	2.8062	0.3235				
ental	18	21.0000	1.9097	0.4179	32	1.70	.3394
	16	20.7500	1.5275				

significance

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PRODUCT EVALUATION RESPONSES

PRINCIPALS	BLADENSBURG	ROGERS HEIGHTS	SAMUEL F.B. MORSE	STEVENS FOREST
Describe Complementary Teacher operation in your school.	Our program is an on-going service for identifying and servicing the needs of the 4 - 6 graders. These services are in addition to the services provided in the regular classroom.	1. School based intervention program. 2. A skills program which is activity oriented. 3. Support the teacher by offering suggestions	Helps complement teacher instruction in the classroom.	The CTP has functions a supportive service students and teachers providing academic and social remediation.
Did CTP meet Sp. Ed. need of your school?	Yes. Many children at Blad. require special help. Our mainstreaming structure has effectively serviced their needs for several years.	Yes.	To an extent -- need to work into program more specific diagnostic techniques & emphasize the specific skills teaching.	Definitely yes!
Define service:	Children who need extra help are identified by the classroom teacher or other staff member. They meet with the C.T. and a program is developed	Meets with small groups on a daily basis; interest-oriented activity program.	Those listed above, but need to do more, much more. Provided program development for a few individual students (good). Provided activity based program (good), especially for boys but very time consuming.	Students received supportive help based on academic and social needs. Groups of students met after diagnosis and teacher assessment in scheduled instructional periods. A resource room setting.
Type of children serviced:	Cater to children with physical handicaps, social and emotional needs.	Children with learning problems or emotional problems causing them to have problems learning.	Those children with low achievement, but more potential than they were using. A few of the students were slow learners.	Students who exhibited learning difficulties who had experienced previous failure due to those difficulties.
Type best serviced:	It is difficult to distinguish a type of child. If C.T. is successful at establishing a personal relationship with child there is great opportunity for successfully meeting his/her needs.	Children with specific learning problems.		Children who need extra support in academic skills and who need closer guidance and supervision during the learning process.
Would the children be more adequately serviced in a self-contained classroom?	No! A self-contained program was used when I came. We switched to mainstreaming because we experienced problems.	No.	Some, yes.	No, the resource room approach seems a healthier approach.
No. children serviced daily:	23	28	18 - 24	25
Average no. per group:	5 - 6	5	3 - 5	5
No. of groups per day:	4	5	4 - 5	5
Total no. children serviced directly this year:	about 30	42	30	35
Total no. children serviced indirectly this year:	No figures kept, however C.T. acted as a consultant for many children	113	2 - 40 estimate	50

BLADENSBURG	ROGERS HEIGHTS	SAMUEL F.B. MORSE	STEVENS FOREST	WEST LAMHAM HILLS
Our program is an on-going service for identifying and servicing the needs of the 4 - 6 graders. These services are in addition to the services provided in the regular classroom.	1. School based intervention program. 2. A skills program which is activity oriented. 3. Support the teacher by offering suggestions	Helps complement teacher instruction in the classroom.	The CTP has functioned as a supportive service to students and teachers in providing academic and social remediation.	Our program is set up to work with children who have problems with academics as well as emotions. C.T. works with classroom teachers, supplements their program and does things to help children build self-confidence.
Yes. Many children at Blad. require special help. Our mainstreaming structure has effectively serviced their needs for several years.	Yes.	To an extent -- need to work into program more specific diagnostic techniques & emphasize the specific skills teaching.	Definitely yes!	Yes.
Children who need extra help are identified by the classroom teacher or other staff member. They meet with the C.T. and a program is developed	Meets with small groups on a daily basis; interest-orientated activity program.	Those listed above, but need to do more, much more. Provided program development for a few individual students (good). Provided activity based program (good), especially for boys but very time consuming.	Students received supportive help based on academic and social needs. Groups of students met after diagnosis and teacher assessment in scheduled instructional periods in a resource room setting.	Identify children's needs; develop skills children lack; develop self esteem; develop understanding of others; develop self control.
Cater to children with physical handicaps, social and emotional needs.	Children with learning problems or emotional problems causing them to have problems learning.	Those children with low achievement, but more potential than they were using. A few of the students were slow learners.	Students who exhibited learning difficulties and who had experienced previous failure due to those difficulties.	Children 2 or more grades below level; emotionally disturbed children; children who lack self confidence.
It is difficult to distinguish a type of child. If C.T. is successful at establishing a personal relationship with child there is great opportunity for successfully meeting his/her needs.	Children with specific learning problems.		Children who need extra support in academic skills and who need closer guidance and supervision during the learning process.	Children who have academic problems that cannot cope in class setting.
No! A self-contained program was used when I came. We switched to mainstreaming because we experienced problems.	No.	Some, yes.	No, the Resource room approach seems a healthier approach.	No.
23	28	18 - 24	25	35
5 - 6	5	3 - 5	5	6
4	5	4 - 5	5	4 or 5
about 30	42	30	35	40
No figures kept, however C. is a consultant for children	113	2 - 40 estimate	50	30

PRINCIPALS	BLADENBURG	ROGERS HEIGHTS	SAMUEL F.B. MORSE	STEVENS FOREST
Total number <u>teachers</u> serviced through <u>consultant services</u> of the Complementary Teacher:	9	19	7 - 10	21 This includes the entire staff.
Total number of classrooms serviced directly:	9	15	8	13
Has the C.T. co-ordinated activities with regular instructional program?	Yes! The C.T. always cooperates with classroom teachers in planning	Yes.	To some degree, but need to concentrate for our purpose on specific skills teaching more.	Definitely yes. One of the strengths has been the ability to communicate & interact with staff concerning students and their progress.
Were regular teachers receptive to C.T. efforts?	Yes! Our teachers respect C.T. & work with her.	Yes.	Overall, yes. Teachers have expressed desire for more skills teaching thru diagnostic work up and more feedback of what is taking place during child's instructional time with C.T.	Definitely yes. Teachers have sought the assistance of the C.T. and highly respected her viewpoint and recommendations.
Most successful feedback method:	C.T. seems to use an unstructured approach with teachers. She is relaxed and likes the staff. So she does communicate freely and receives teacher input with interest.	Conferences and discussions	Direct verbal contact.	Informal conferences which all staff members were willing to devote their time plus conferencing with parents.
Change in dynamics of school attributed to Complementary Teacher Model:	Our teachers have observed C.T.'s easy style and flexible approach w/ "kids". They have begun to use these skills.	Changes in attitudes by teachers concerning children with problems. More individualization by classroom teachers for children with learning problems.		There appears no attitude attached to students attending these classes. Teachers receptive attitude to suggestions & willingness to change & incorporate C.T.'s suggestions.
Comments:	The C.T. has learned much while at G.W.U. Keep inspiring prospective teachers.	Very well pleased with the program. No problems.		Keep training response. Complementary Teacher C.T. has been an asset to this staff and perform her responsibilities exceedingly well.

BLADENBURG	ROGERS HEIGHTS	SAMUEL F.B. MORSE	STEVENS FOREST	WEST LANHAM HILLS
	19	7 - 10	21 This includes the entire staff.	10
	15	8	13	15
Does the C.T. always cooperate with classroom teachers in planning?	Yes.	To some degree, but need to concentrate for our purpose on specific skills teaching more.	Definitely yes. One of the strengths has been the ability to communicate & interact with staff concerning students and their progress.	Yes.
Do our teachers respect the C.T. & work with her?	Yes.	Overall, yes. Teachers have expressed desire for more skills teaching thru diagnostic work ups and more feedback of what is taking place during child's instructional time with C.T.	Definitely yes. Teachers have sought the assistance of the C.T. and highly respected her viewpoint and recommendations.	Yes.
Does the C.T. seem to use an unstructured approach with teachers. She is relaxed and likes the staff. So she does communicate freely and receives teacher input with interest.	Conferences and discussions	Direct verbal contact.	Informal conferences which all staff members were willing to devote their time plus conferencing with parents.	Teacher discussion.
Do our teachers have observed C.T.'s easy style and flexible approach w/ "kids". They have begun to use these skills.	Changes in attitudes by teachers concerning children with problems. More individualization by classroom teachers for children with learning problems.		There appears no stigma attached to students attending these classes; teachers receptive attitude to suggestions & willingness to change & incorporate C.T.'s suggestions.	
Has the C.T. had much to learn while at C.W.U. Has she been inspiring prospective teachers.	Very well pleased with the program. No problems.		Keep training responsible Complementary Teachers. C.T. has been an asset to this staff and performed her responsibilities exceedingly well.	

TEACHER RESPONSES TO RESEARCH QUESTIONNAIRE

	Have you used the services of the CTP this year?	Did she work directly with your children?	How many?	Did she offer you suggestions & materials for children in your room not serviced directly by her program?	Do you see this as a needed special education vice in your school?	What kinds of needs are best serviced in a Complementary Teaching Program?	Would the children serviced by the CTP be more adequately serviced by a self-contained class?
<u>SCHOOL</u> <u>BELTSVILLE</u>							
Grade 1	yes	yes		yes	yes	Children exhibiting aggressive behavior.	no
Grade 2	yes	yes		yes	yes	Slow learners	no
Grade 2	yes	yes	2	yes	yes	Specific one-one instruction; social reinforcement; self-concept building	
Grade 3	yes	yes	1	no	yes	Children below grade level; hyperactive children; Children who need individual attention in small groups; children with learning disability	
Grade 3	yes	yes	3	no	yes	Children: with emotional problems which prevent them from learning; who are so far behind that they do not fit into the reg. classroom program; who are disruptive and can't work in a reg. classroom.	Yes & no. Some children who are so far below the class & have such negative attitudes might better be served in a self-contained classroom. They need a structured program all day, not just 1 hour a day.
Grade 3	yes	yes	7	no	yes	Children: working below grade level; with emotional problems; with learning disabilities.	No. They are in a self-contained classroom
Grade 4	yes	yes		yes	yes	Children who do not fit in the reg. classroom group. Children with special problems.	No - perhaps
Grade 5	yes	yes	2	no	yes	Emotional and scholastic difficulties.	Yes. I have some children who I feel would definitely profit from a self-contained special ed. type of class.
Grade 6	yes	yes	avg. 7	yes	yes		no
Librarian	yes	no		yes	yes		no
Resource Tchr.	yes	yes	5	no	yes	Acting-out kids with need for time-out, high-interest activities; withdrawn, passive kids who need attention of small groups; children with learning problems.	That depends on the child.
(No grade)	yes	yes		yes	yes	Children who have special learning difficulties; social, emotional, or cognitive.	Yes. A self-contained classroom would be more beneficial because such children do not adapt easily in a mobile situation.
Vice Principal	yes	yes			yes	Emotional instability; immaturity; inability to work up to grad. level	no



TEACHER RESPONSES TO RESEARCH QUESTIONNAIRE	Have you used the services of the CTP this year?	Did she work directly with your children?	How many?	Did she offer you suggestions & materials for children in your room not serviced directly by her program?	Do you see this as a needed special education vice in your school?	Children manifesting what kinds of needs are best serviced in a Complementary Teaching Program?	Would the children serviced by the CTP be more adequately serviced by a self-contained class?
SCHOOL CHLVERLY-TUXEDO Kindergarten	no	no		no	yes	Children who have a particular learning disability (math-reading). Kindergarten children who need extra help in learning early identification skills.	yes
Grade 1	yes	yes	3	yes	yes	Slow learners and children who are insecure about themselves	No. I felt the children from my class who attended the program benefited from it and because of it could function better in the regular class.
Grade 1	yes	yes	5	No, I did not request it.	yes	Hyperactive children; children either lacking in learning concepts or immature,	no
Grade 2	yes	yes	5	no	yes	Those who need individual help, academic, emotional or social which the classroom teacher of 30 is unable to provide	no
Grades 2 & 3	yes	yes	3	yes	yes	Children needing extra help in very basic concept skills and showing a special need for extra attention	Depends on how many self-contained classes were available & exactly what the function of the class was. The children I sent to Complementary Teacher do not need the services of a full-time program- the group time was adequate. They also see the Reading Specialist.
Grade 3	yes	yes		no	yes	Needs to control his emotions; strengthen self-concept; develop social skills; develop academic skills	no
Grade 4	yes	yes	3	no	no	Slow learners are best serviced in subject areas they're weak in.	yes
Grade 4	yes	yes	1	no	yes	Slow learners; pupils w/ emotional adjustment problems	no
Grade 5	yes	yes	3	yes	yes	Children needing individual attention & small group work	I think it depends on the child.
Grades 5 & 6	yes	yes		no	yes-could be helpful	Children working below grade level; children who can benefit from very small group work	no
Grade 6	yes	yes		no	yes	hyperactivity; slow-learners; those needing work with manipulative devices. Should also be classes of bright-children also.	no.

TEACHER RESPONSES TO RESEARCH QUESTIONNAIRE	Have you used the services of the CTP this year?	Did she work directly with your children?	How many?	Did she offer you suggestions & materials for children in your room not serviced directly by her program?	Do you see see this as a needed special education vice in your school?	Children manifesting what kinds of needs are best serviced in a Complementary Teaching Program?	Would the children serviced by the CTP be more adequately serviced by a self-contained class?
<u>SCHOOL</u> <u>CHILVERLY-TUXEDO</u> Kindergarten	no	no		no	yes	Children who have a particular learning disability (math-reading). Kindergarten children who need extra help in learning early identification skills.	yes
Grade 1	yes	yes	3	yes	yes	Slow learners and children who are insecure about themselves	No. I felt the children from my class who attended the program benefited from it and because of it could function better in the regular class.
Grade 1	yes	yes	5	No, I did not request it.	yes	Hyperactive children; children either lacking in learning concepts or immature,	no
Grade 2	yes	yes	5	no	yes	Those who need individual help, academic, emotional or social which the classroom teacher of 30 is unable to provide	no
Grades 2 & 3	yes	yes	3	yes	yes	Children needing extra help in very basic concept skills and showing a special need for extra attention	Depends on how many self-contained classes were available & exactly what the function of the class was. The children I sent to Complementary Teacher do not need the services of a full-time program- the group time was adequate. They also see the Reading Specialist.
Grade 3	yes	yes		no	yes	Needs to control his emotions; strengthen self-concept; develop social skills; develop academic skills	no
Grade 4	yes	yes	3	no	no	Slow learners are best serviced in subject areas they're weak in.	yes
Grade 4	yes	yes	1	no	yes	Slow learners; pupils w/ emotional adjustment problems	no
Grade 5	yes	yes	3	yes	yes	Children needing individual attention & small group work	I think it depends on the child.
Grades 5 & 6	yes	yes		no	yes-could be helpful	Children working below grade level; children who can benefit from very small group work	no
Grade 6	yes	yes		no	yes	hyperactivity; slow-learners; those needing work with manipulative devices. Should also be classes of bright-children also.	no

Table 4c

TEACHER RESPONSES TO RESEARCH QUESTIONNAIRE	Have you used the services of the CTP this year?	Did she work directly with your children?	How many?	Did she offer you suggestions & materials for children in your room not serviced directly by her program?	Do you see see this as a needed special education vice in your school?	Children manifesting what kinds of needs are best serviced in a Complementary Teaching Program?	Would the children serviced by the CTP be more adequately serviced by a self-contained class?
<u>SCHOOL</u> ROGERS HEIGHTS Kindergarten	yes	yes	6	yes	yes	Motor problems, perceptual problems; children exhibiting emotional problems which lead to difficulty in learning	Yes, in many cases
Grade 1	yes	yes	1		yes	Work with children on an individual basis	yes
Grade 1	yes	yes	2	yes	yes	Motor problems, perceptual problems	yes
Grade 1	yes	yes	1	yes	yes	Children who need individual attention and those who can profit best from a one to one relationship	no
Grade 1	yes	yes	1	no	yes	Children from homes providing little or few background experiences/ children who need individual help	Yes, if class sizes were smaller these children could be helped more effectively
Grade 2	yes	yes	1	no	yes	Slow learners/child with perceptual or motor skill problems/ child who needs individual attention/ child who has behavioral problems	No, they need the much smaller ratio of student to teacher/ more constant personal support and encouragement by the adult/constant & immediate feedback of their performance adequacies
Grade 2	yes	yes	1	no	yes	Specific learning disabilities/peer-interaction deficiencies/negative self-concept/inadequate social-emotional development	
Grade 3	yes	yes	2	no	yes	Reading and math disabilities/perceptual problems	no
Grade 3	yes	yes	1	no	yes	Individual attention/ small groups	no
Grade 4	yes	yes	1	yes	yes	Children who have not fully adjusted to remaining in a self-contained classroom all day	No, not in any case
Grade 4	yes	yes	1	yes	yes	Children manifesting emotional difficulties/ learning disabilities/ the immature learner	no
Grade 4	yes	yes			yes	Children who have difficulty relating to their peers/children who need to have certain skills reinforced	no
Grade 5	yes	yes	1	no	yes	Children with specific learning problems who cannot function satisfactorily in a large group or class because of discipline problems or the need for extra help	No, certain children are better served by a C.T. who is able to function at least part time in a regular classroom where the problems are not too severe. Others are better serviced by a self-contained classroom. The facility is best determined by the needs of the child.

Table 4d

TEACHER RESPONSES TO RESEARCH QUESTIONNAIRE	Have you used the services of the CTP this year?	Did she work directly with your children?	How many?	Did she offer you suggestions & materials for children in your room not serviced directly by her program?	Do you see as a needed special education vice in your school?	Children manifesting what kinds of needs are best serviced in a Complementary Teaching Program?	Would the children serviced by the CTP be more adequately serviced by a self-contained class?
<u>SCHOOL</u> <u>NO. OF</u> <u>INVENTS</u> Grade 5	yes	yes		no	yes	Children who do not work satisfactorily in a regular classroom situation	
Grade 5-6	yes	yes	4	no	yes	Children who need more individual assistance than the regular classroom teacher has the time or ability to give. Children needing review work to the point where the rest of the class would be held back	yes
Grade 6	yes	yes		no	yes	Those children with emotional and social problems/those with learning disabilities that feel threatened by large class situations	yes

Table 4 e

TEACHER RESPONSES TO RESEARCH QUESTIONNAIRE	Have you used the services of the CTP this year?	Did she work directly with your children?	How many?	Did she offer you suggestions & materials for children in your room not serviced directly by her program?	Do you see this as a needed special education service in your school?	Children manifesting what kinds of needs are best serviced in a Complementary Teaching Program?	Would the children serviced by the CTP be more adequately serviced by a self-contained class?
SCHOOL SARTEL MORSE No grade	yes	yes	several	no	yes	Remedial reading & math Language development, oral & written communication.	I feel this depends greatly on the individual child.
No grade	yes	yes	4	yes	yes	Need to work on 1 to 1 basis or close to it, highly structured schedule	yes
No grade	yes	yes	2	yes	yes	Slow learner	no
Grade 2	yes	yes	1	no	yes	Remedial students needing special reinforcement of subjects and needing special help to strengthen self-concept.	no
Grade 3	yes	yes	1	no	yes	Children w/reading needs.	yes
Grades 4 & 5	yes	yes	1	yes	yes	I feel students who are suffering from minor learning difficulties are best helped by these services. Especially those students who are emotional because of a bad home life; they need that added attention.	no
Grade 5	yes	yes	2	yes	yes	Those children that need a lot of individual help. Also some children have a handicap & this program has been a tremendous benefit to them	yes
Grade 5	yes	yes		no	yes	Severe reading probl., social problems w/ learning disabilities Mainstreaming - those students w/ less severe but significant learning disabilities.	Yes, two programs are needed--a self-contained for those students who absolutely cannot function in an open-space class and mainstream.
Grade 6	yes	yes	12	yes	yes	L.D. children who need special testing and methods for achievement. Also children who need remediation in specific skills gaps.	No, definitely. Individual attention time too high. Planning skills time consuming.
Grade 6	yes	yes	10	yes	yes	Special learning probl. Auditory & visual discrimination; those who need one-on-one; less distraction.	yes

Table 4 f

TEACHER RESPONSES TO RESEARCH QUESTIONNAIRE	Have you used the services of the CTP this year?	Did she work directly with your children?	How many?	Did she offer you suggestions & materials for children in your room not serviced directly by her program?	Do you see see this as a needed special education vice in your school?	Children manifesting what kinds of needs are best serviced in a Complementary Teaching Program?	Would the children serviced by the CTP be more adequately serviced by a self-contained class?
SCHOOL STEVENS FOREST Grade 1	yes	yes		yes	yes	Children who need much help in their academic skills and motor skills	yes
Grade 1	yes	yes	1	no	yes	Contained situation rather than open space hyperactive children w/ learning disabilities.	yes
Grade 1	yes	yes	1 - tested several	yes	yes	Need for attention during class time - children who have ability but have problems applying themselves to the task; both fast & slow moving students	yes
Grade 2	yes	yes	3	yes	yes	Easily distractible children who find it difficult to concentrate.	yes
Grade 2	yes	yes	6	yes	yes	Children who need much more one-one assistance than one classroom teacher is able to give	yes
Grades 2 & 3	yes	yes	3	yes	yes	Specific Learning Disability children	No. I feel that our Complementary Resource Teacher relates very well. Her technique & style does a great deal to enhance learning. The children enjoy working with her and are always asking to be taken by her.
Grade 3	yes	yes	1	yes	yes	Specific learning probl. in particular areas; auditory & visual discrimination	some
Grades 3 & 4	yes	yes	7	yes	yes	Working below grade level; coordination, emotional, memory, auditory & visual problems	yes
Grade 4	yes	yes	3	yes	yes	children who cannot function well in groups and need individual help; problems which cannot be handled in a regular classroom	no
Grades 4 & 5	yes	yes		yes	yes	Learning disabilities such as visual perception dyslexia, etc.	no
Grades 4 & 5	no	no		no	yes	children who need to be in a small group and can benefit from relating to one special person in the school.	no
Grade 5	yes	yes		yes	yes	Reading below grade level - for survival tactics or functioning	
Grade 5	yes	yes	3	yes	yes	Slow learner	yes
Media Specialist	yes			yes	yes yes yes		

Table 4g

TEACHER RESPONSES TO RESEARCH QUESTIONNAIRE	Have you used the services of the CTP this year?	Did she work directly with your children?	How many?	Did she offer you suggestions & materials for children in your room not serviced directly by her program?	Do you see this as a needed special education vice in your school?	Children manifesting what kinds of needs are best serviced in a Complementary Teaching Program?	Would the children serviced by the CTP be more adequately serviced by a self-contained class?
<u>SCHOOL</u> <u>WEST LANHAM HILLS</u> P.E. Teacher	no	no		yes	yes	Learning disabilities	no
Kindergarten	yes	yes	3	yes	yes	Learning problems and emotional problems	
Grade 1	yes	yes	6	yes	yes		yes
Grade 1	yes	yes		yes	yes		yes
Grades 1 & 2	yes	yes	1	yes	yes	Learning disabilities; behavior problems	no
Grade 2	yes	yes	7	yes	yes		
Grade 2	yes	yes	2	yes	yes	Learning disabilities; behavioral problems; emotional problems	yes
Grade 2	yes	yes	2	yes	yes	Children who need small group instructions, one to one directions, reinforcement of skills not learned in the self contained classroom, those with emotional & social problems	no
Grade 3	yes	yes	11	yes	yes	Slow learners, children who have social adjustment problem - disruptive tendencies, children w/more severe emotional problems	I'm not sure
Grades 3 & 4	yes	yes	2	yes	yes	Learning disabilities, low academic potential	no
Grade 4	yes	yes	1	no	yes	Children who need extra recognition and approval, children who have social problems.	no
Grade 4	yes	yes	2	yes	yes	Behavior problems, those not able to function in a self-contained class	Some of them
Grade 5	yes	yes	1	yes	yes	Learning disabilities, behavior modification for children with behavior problems, Children in need of self-concept improvement & help in getting along w/ others	no
Grade 5	yes	yes	4	yes	yes	Slow learners	no
Grades 5 & 6	yes	yes	4	no	yes	Low intellectual abilities and/or group behavior problems	no
Grade 6	yes	yes	3	yes	yes	Children working at least two years below grade level who have serious problems w/ reading. Because of the individual attention children w. poor self-concepts benefit considerably.	no
Grade 6	yes	yes	1	no	yes	Children who are unable to work in groups can get individual attention.	

TEACHER RESPONSES TO RESEARCH QUESTIONNAIRE	Have you used the services of the CIP this year?	Did she work directly with your children?	How many?	Did she offer you suggestions & materials for children in your room not serviced directly by her program?	Do you see this as a needed special education vice in your school?	Children manifesting what kinds of needs are best serviced in a Complementary Teaching Program?	Would the children serviced by the CIP be more adequately serviced by a self-contained class?
<u>SCHOOL TYLER</u> Grade 1	yes	yes	10	yes	yes	Children w/learning disabilities	
Grade 1	yes	yes	5	yes-used the suggestions for children in the prog. with rest of class	yes	Those children who are aren't reached by the Title I Program and need additional help in gaining good reading skills.	Yes-some
Grades 1 & 2	no	no		no	yes		?
Grade 2	yes	yes	2	yes	yes		?
Grade 2	yes	yes	8	yes	yes		no
Grade 3	yes	yes	3	yes	yes	Remediation of specific problems, auditory & visual discrimination motor problems.	no
Grade 3	yes	yes	3	yes	yes		yes & no
Grade 4	yes	yes	2	yes	yes	Need for individual instruction for child w/ learning difficulties; perception, motor co-ordination.	Yes - a self-contained classroom of learning disabilities
Grade 4	yes	yes	3	no	yes	Emotional	yes
Grade 4	yes	yes	2	yes	yes	Learning problems directly related to classroom difficulties-notnecessarily behavior problems (perception, motor, coordination, etc.)	yes
Grade 5	yes	yes		yes	yes		no
Grade 5	yes	yes	10	no	yes	Remediation of auditory, perceptual and motor problems and disabilities.	no

<u>SCHOOL BLADENSBURG</u> Grade 4	yes	yes			yes	Learning Disabilities	no
Grade 5	yes	yes	3	yes	yes	Children who exhibit an inability to direct themselves in independent work situations; children lacking self-confidence; low ability readers; attention seekers	no
Ungraded Intermediate 4-5-6	yes	yes	3	no	yes	Children with specific learning problems.	yes
Grade 6	yes	yes	3	yes	yes	Academic needs of children who need help in reading, math and language.	

t-TESTS FOR DIFFERENCE BETWEEN MEANS OF THE JUNIOR  
EXPERIMENTAL SAMPLE AND THE JUNIOR CONTROL SAMPLE  
ON THE PRETESTS 1973-74

[ TENNESSEE SELF-CONCEPT SCALE ]  
SUBSCALES

TEST	JUNIOR SAMPLES	N	MEAN	STANDARD DEVIATION	$t_o$
Positive Score	Experimental	18	348.8887	35.6167	-1.7270
	Control	16	369.0000	31.8266	
Variability Score	Experimental	18	45.3889	16.8003	1.1092
	Control	16	40.3125	7.6570	
Distribution Score	Experimental	18	115.2778	26.5348	-0.8642
	Control	16	123.0625	25.8546	
NATIONAL TEACHERS EXAMINATION Professional Education Subtest	Experimental	18	60.7778	8.4683	1.8523
	Control	16	54.3750	11.6039	
IVES PSYCHOSOCIAL ASSESSMENT SCALE	Experimental	18	30.8333	3.9742	0.0861
	Control	16	30.7143	3.7505	
COMPLEMENTARY TEACHER PROGRAM ACHIEVEMENT TEST	Experimental	18	33.6111	6.1275	2.8341
	Control	16	27.5000	6.4395	

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\* Indicates significant differences

Table 5

t-TESTS FOR DIFFERENCE BETWEEN MEANS OF THE JUNIOR  
EXPERIMENTAL SAMPLE AND THE JUNIOR CONTROL SAMPLE  
ON THE PRETESTS 1973-74

JUNIOR SAMPLES	N	MEAN	STANDARD DEVIATION	$t_0$	df	$t(.05)$	$P(t_0)$
Experimental	18	348.8887	35.6167				
Control	16	369.0000	31.8266	-1.7270	32	1.70	.9531 *
Experimental	18	45.3889	16.8003				
Control	16	40.3125	7.6570	1.1092	32	1.70	.1378
Experimental	18	115.2778	26.5348				
Control	16	123.0625	25.8546	-0.8642	32	1.70	.8030
Experimental	18	60.7778	8.4683				
Control	16	54.3750	11.6039	1.8523	32	1.70	.0366 *
Experimental	18	30.8333	3.9742				
Control	16	30.7143	3.7505	0.0861	30	1.70	.4660
Experimental	18	33.6111	6.1275				
Control	16	27.5000	6.4395	2.8341	32	1.70	.0039 *

significant differences

PRESENTATION OF MEANS AND STANDARD DEVIATIONS FOR  
THE JUNIOR SAMPLES ON BOTH THE PRETESTS AND THE  
POSTTESTS 1973 - 1974

- - CLASS OF 1975 - -

TEST	YEAR IN SCHOOL	EXPERIMENTAL SAMPLE			CONTROL SAMPLE		
		N	MEAN	STANDARD DEVIATION	N	MEAN	
TENNESSEE SELF-CONCEPT SCALE SUBSCALES	Positive Score	Pre Junior	18	348.8887	35.6205	16	369.0000
		Post Junior	18	365.6111	32.0331	16	358.8750
	Variability Score	Pre Junior	18	45.3889	16.8003	16	40.3125
		Post Junior	18	43.0555	15.3296	16	43.4375
	Distribution Score	Pre Junior	18	115.2778	26.5348	16	123.0625
		Post Junior	18	127.6111	27.3565	16	119.1875
NATIONAL TEACHERS EXAMINATION Professional Education Subtest	Pre Junior	18	60.7778	8.4683	16	54.3750	
	Post Junior	18	66.2778	8.1588	16	61.2500	
IVES PSYCHOSOCIAL ASSESSMENT SCALE 65	Pre Junior	18	30.8333	3.9742	14	30.7143	
	Post Junior	18	32.0000	2.9506	14	33.7500	
COMPLEMENTARY TEACHER PROGRAM ACHIEVEMENT TEST	Pre Junior	18	33.6111	6.1275	16	27.5000	
	Post Junior	18	45.2222	6.3112	16	29.8750	

Table 6

PRESENTATION OF MEANS AND STANDARD DEVIATIONS FOR  
 THE JUNIOR SAMPLES ON BOTH THE PRETESTS AND THE  
 POSTTESTS 1973 - 1974

-- CLASS OF 1975 --

LEVEL	EXPERIMENTAL SAMPLE			CONTROL SAMPLE		
	N	MEAN	STANDARD DEVIATION	N	MEAN	STANDARD DEVIATION
Junior	18	348.8887	35.6205	16	369.0000	31.8266
Junior	18	365.6111	32.0331	16	358.8750	38.0351
Junior	18	45.3889	16.8003	16	40.3125	7.6570
Junior	18	43.0555	15.3296	16	43.4375	12.3665
Junior	18	115.2778	26.5348	16	123.0625	25.8546
Junior	18	127.6111	27.3565	16	119.1875	22.9237
Junior	18	60.7778	8.4683	16	54.3750	11.6039
Junior	18	66.2778	8.1588	16	61.2500	10.8658
Junior	18	30.8333	3.9742	14	30.7143	3.7505
Junior	18	32.0000	2.9506	14	33.7500	3.6788
Junior	18	33.6111	6.1275	16	27.5000	6.4359
Junior	18	45.2222	6.3112	16	29.8750	7.4644

66

t-TESTS FOR DIFFERENCE BETWEEN MEANS OF THE JUNIOR EXPERIMENTAL SAMPLE AND THE JUNIOR CONTROL SAMPLE ON THE POSTTESTS 1973-74.

TEST	Junior SAMPLES	N	MEAN	STANDARD DEVIATION	t <sub>0</sub>	d
Positive Score	Experimental	18	365.6111	32.0319	0.5605	3
	Control	16	358.8750	38.0351		
Variability Score	Experimental	18	43.0555	15.3296	-0.0793	3
	Control	16	43.4375	12.3665		
Distribution Score	Experimental	18	127.6111	27.3563	0.9662	3
	Control	16	119.1875	22.9237		
NATIONAL TEACHERS EXAMINATION Professional Education Subtest	Experimental	18	66.2778	8.1588	1.5364	3
	Control	16	61.2500	10.8659		
IVES PSYCHOSOCIAL ASSESSMENT SCALE	Experimental	18	32.0000	2.9506	-1.5379	3
	Control	16	33.7500	3.6788		
COMPLEMENTARY TEACHER PROGRAM ACHIEVEMENT TEST	Experimental	18	45.2222	6.3111	6.4962	3
	Control	16	29.8750	7.4644		

\* approaching significance  
 \*\* highly significant

[TENNESSEE SELF-CONCEPT SCALE ]  
 SUBSCALES

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Table 7

t-TESTS FOR DIFFERENCE BETWEEN MEANS OF THE JUNIOR  
EXPERIMENTAL SAMPLE AND THE JUNIOR CONTROL SAMPLE  
 ON THE POSTTESTS 1973-74.

EXPERIMENTAL SAMPLES	N	MEAN	STANDARD DEVIATION	$t_0$	df	one-tailed $t(.05)$	$P(t_0)$
Experimental	18	365.6111	32.0319	0.5605	32	1.70	.2895
Control	16	358.8750	38.0351				
Experimental	18	43.0555	15.3296	-0.0793	32	1.70	.5314
Control	16	43.4375	12.3665				
Experimental	18	127.6111	27.3563	0.9662	32	1.70	.1706
Control	16	119.1875	22.9237				
Experimental	18	66.2778	8.1588	1.5364	32	1.70	.0671 *
Control	16	61.2500	10.8659				
Experimental	18	32.0000	2.9506	-1.5379	32	1.70	.9330
Control	16	33.7500	3.6788				
Experimental	18	45.2222	6.3111	6.4962	32	1.70	.0000 **
Control	16	29.8750	7.4044				

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ance

t-TESTS FOR DIFFERENCE BETWEEN MEANS OF THE  
SENIOR SAMPLES ON THE POSTTEST 1973-74

TEST	SENIOR SAMPLES	N	MEAN	STANDARD DEVIATION	$t_0$	
TENNESSEE SELF-CONCEPT SCALE SUBSCALES	Positive Scale	Experimental	21	373.1428	24.9304	.5175
		Control	21	368.6189	31.3584	
	Variability Score	Experimental	21	40.9048	15.3913	-0.9434
		Control	21	45.8095	18.1869	
	Distribution Score	Experimental	21	130.3810	26.4509	-0.0066
		Control	21	130.4286	20.2400	
NATIONAL TEACHERS EXAMINATION Professional Education Subtest	Experimental	21	68.4286	7.3659	2.0883	
	Control	17	63.6470	6.5569		
COMPLEMENTARY TEACHER PROGRAM ACHIEVEMENT TEST	Experimental	21	54.9524	4.5219	19.7387	
	Control	21	27.8095	4.3888		

69 \* Significant at .02 level

\*\* Highly significant difference between samples

t-TESTS FOR DIFFERENCE BETWEEN MEANS OF THE  
SENIOR SAMPLES ON THE POSTTEST 1973-74

EXPERIMENTAL SAMPLES	N	MEAN	STANDARD DEVIATION	$t_0$	df	one-tailed $t(.05)$	$P(t_0)$
Experimental	21	373.1428	24.9304	.5175	40	1.68	.3038
Control	21	368.6189	31.3584				
Experimental	21	40.9048	15.3913	-0.9434	40	1.68	.8244
Control	21	45.8095	18.1869				
Experimental	21	130.3810	26.4509	-0.0066	40	1.68	.5026
Control	21	130.4286	20.2400				
Experimental	21	68.4286	7.3659	2.0883	36	1.69	.0220*
Control	17	63.6470	6.5569				
Experimental	21	54.9524	4.5219	19.7387	40	1.68	.0000*
Control	21	27.8095	4.3888				

.02 level  
significant difference between samples

VARIABLE NAME	N	MEAN	STANDARD DEVIATION	STANDARD ERROR
<b>"Wanted Affection"</b>				
Group				
Junior Experimental				
Pre	18	5.5556	1.8222	0.4295
Post	18	5.6667	2.0292	0.4783
Junior Control				
Pre	16	5.7500	1.9149	0.4767
Post	16	6.5625	2.1282	0.5321
<b>"Expressed Affection"</b>				
Group				
Junior Experimental				
Pre	18	4.5556	1.9470	0.4589
Post	18	5.1111	1.6047	0.3782
Junior Control				
Pre	16	4.6875	1.6215	0.4054
Post	16	5.3125	2.2426	0.5607
<b>"Wanted Control"</b>				
Group				
Junior Experimental				
Pre	18	3.6111	1.6139	0.3804
Post	18	3.1667	1.8865	0.4447
Junior Control				
Pre	16	2.8750	2.0616	0.5154
Post	16	2.7500	2.0494	0.5124
<b>"Expressed Control"</b>				
Group				
Junior Experimental				
Pre	18	3.5556	2.2022	0.5191
Post	18	3.4444	2.2022	0.5191
Junior Control				
Pre	16	1.5625	1.1529	0.2882
Post	16	2.2500	1.6125	0.4031
<b>"Wanted Inclusion"</b>				
Group				
Junior Experimental				
Pre	18	4.0999	2.3689	0.7941
Post	18	5.7778	2.7128	0.6334
Junior Control				
Pre	16	3.5000	2.9212	0.7303
Post	16	5.0625	2.7681	0.6920
<b>"Expressed Inclusion"</b>				
Group				
Junior Experimental				
Pre	18	5.7778	1.7340	0.464
Post	18	5.4444	1.3815	0.3256
Junior Control				
Pre	16	4.6875	2.0565	0.5141
Post	16	4.6875	1.8875	0.4719

t-TESTS FOR DIFFERENCE BETWEEN THE PRETEST MEANS  
AND THE POSTTEST MEANS OF THE EXPERIMENTAL SAMPLE  
- - CLASS OF 1975 - -

TEST	YEAR IN SCHOOL	N	MEAN	STANDARD DEVIATION	t <sub>0</sub>
Positive Score	Pre Junior	18	348.8887	35.6167	-1.4811
	Post Junior	18	365.6111	32.0319	
Variability Score	Pre Junior	18	45.3889	16.8003	0.4353
	Post Junior	18	43.0555	15.3296	
Distribution Score	Pre Junior	18	115.2778	26.5348	-1.3730
	Post Junior	18	127.6111	27.3563	
NATIONAL TEACHERS EXAMINATION Professional Education Subtest	Pre Junior	18	60.7778	8.4683	-1.9844
	Post Junior	18	66.2778	8.1588	

[ TENNESSEE SELF-CONCEPT SCALE ]  
SUBSCALES

7/2/75

\* Highly probable.

t-TESTS FOR DIFFERENCE BETWEEN THE PRETEST MEANS  
AND THE POSTTEST MEANS OF THE EXPERIMENTAL SAMPLE  
-- CLASS OF 1975 --

YEAR IN SCHOOL	N	MEAN	STANDARD DEVIATION	$t_0$	df	one-tailed	
						$t(.05)$	$P(t_0)$
Pre Junior	18	348.8887	35.6167	-1.4811	34	1.69	.9261 *
Post Junior	18	365.6111	32.0319				
Pre Junior	18	45.3889	16.8003	0.4353	34	1.69	.3331
Post Junior	18	43.0555	15.3296				
Pre Junior	18	115.2778	26.5348	-1.3730	34	1.69	.9106 *
Post Junior	18	127.6111	27.3563				
Pre Junior	18	60.7778	8.4683	-1.9844	34	1.69	.9723 *
Post Junior	18	66.2778	8.1588				

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TABLE OF MEANS AND KUDER RICHARDSON CORRELATION COEFFICIENT  
FOR THE COMPLEMENTARY TEACHER PROGRAM ACHIEVEMENT TEST

GROUP	N	MEAN IN PERCENTILE SCORES	STANDARD DEVIATION	RANGE PERCENTILE
Junior Experimental				
Pre	18	40.98%	7.41	30-59%
Post	18	55.15%	7.68	41-70%
Junior Control				
Pre	16	33.53%	7.81	23-48%
Post	16	36.43%	9.10	26-63%
Total Juniors Experimental & Control				
Pre	34	37.48%	8.42	23-59%
Post	34	46.34%	12.57	26-70%
Senior Experimental				
Post	21	67.01	5.51	57-80%
Senior Control				
Post	21	33.91	5.34	23-43%
Total Seniors Experimental & Control				
Post	42	50.46	17.58	23-80%

TABLE OF MEANS AND KUDER RICHARDSON CORRELATION COEFFICIENTS  
FOR THE COMPLEMENTARY TEACHER PROGRAM ACHIEVEMENT TEST

N	MEAN IN PERCENTILE SCORES	STANDARD DEVIATION	RANGE PERCENTILE	KUDER RICHARDSON FORMULA 20
18	40.98%	7.41	30-59%	.60
18	55.15%	7.68	41-70%	.64
16	33.53%	7.81	23-48%	.66
16	36.43%	9.10	26.63%	.74
34	37.48%	8.42	23-59%	.68
34	46.34%	12.57	26-70%	.85
21	67.01	5.51	57-80%	.38
21	33.91	5.34	23-43%	.28
42	50.46	17.58	23-80%	.93

t-TESTS FOR DIFFERENCE BETWEEN MEANS OF THE JUNIOR CONTROL SAMPLE AND THE SENIOR CONTROL SAMPLE ON THE POSTTESTS 1973-74

TEST	CONTROL SAMPLES	N	MEAN	STANDARD DEVIATION	t <sub>o</sub>
Positive Scale	Junior	16	358.8750	38.0351	-0.8541
	Senior	21	368.6189	31.3584	
Variability Scale	Junior	16	43.4375	12.3665	-0.4480
	Senior	21	45.8095	18.1869	
Distribution Scale	Junior	16	119.1875	22.9237	-1.5806
	Senior	21	130.4286	20.2400	
NATIONAL TEACHERS EXAMINATION Professional Examination Subtest	Junior	16	61.2500	10.8659	-0.7727
	Senior	21	63.6470	6.5569	
COMPLEMENTARY TEACHER PROGRAM ACHIEVEMENT TEST	Junior	16	29.8750	7.4644	1.0538
	Senior	21	27.8095	4.3888	

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\* No significant differences between samples

Table 12

t-TESTS FOR DIFFERENCE BETWEEN MEANS OF THE JUNIOR  
CONTROL SAMPLE AND THE SENIOR CONTROL SAMPLE ON THE  
 POSTTESTS 1973-74

CONTROL SAMPLES	N	MEAN	STANDARD DEVIATION	$t_0$	df	one-tailed $t(.05)$	$P(t_0)$
Junior	16	358.8750	38.0351	-0.8541	35	1.69	.8006*
Senior	21	368.6189	31.3584				
Junior	16	43.4375	12.3665	-0.4480	35	1.69	.6716*
Senior	21	45.8095	18.1869				
Junior	16	119.1875	22.9237	-1.5806	35	1.69	.9385 *
Senior	21	130.4286	20.2400				
Junior	16	61.2500	10.8659	-0.7727	31	1.70	.7772 *
Senior	21	63.6470	6.5569				
Junior	16	29.8750	7.4644	1.0538	35	1.69	.1496*
Senior	21	27.8095	4.3888				

ant differences between samples

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t-TESTS FOR DIFFERENCE BETWEEN MEANS OF THE JUNIOR  
EXPERIMENTAL SAMPLE AND THE SENIOR EXPERIMENTAL  
SAMPLE ON THE POSTTESTS 1973-74

TEST	EXPERIMENTAL SAMPLE	N	MEAN	STANDARD DEVIATION	$t_0$
Positive Score	Junior	18	365.6111	32.0319	- 0.8252
	Senior	21	373.1428	24.9304	
Variability Score	Junior	18	43.0555	15.3296	0.4358
	Senior	21	40.9048	15.3913	
Distribution Score	Junior	18	127.6111	27.3563	- 0.3209
	Senior	21	130.3810	26.4509	
NATIONAL TEACHERS EXAMINATION Professional Education Subtest	Junior	18	66.2778	8.1588	-0.8651
	Senior	21	68.4286	7.3659	
COMPLEMENTARY TEACHER PROGRAM ACHIEVEMENT TEST	Junior	18	45.2222	6.3111	-5.5912
	Senior	21	54.9524	4.5219	

\* Significant difference at .001 level

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Table 13

t-TESTS FOR DIFFERENCE BETWEEN MEANS OF THE JUNIOR  
EXPERIMENTAL SAMPLE AND THE SENIOR EXPERIMENTAL  
SAMPLE ON THE POSTTESTS 1973-74

EXPERIMENTAL SAMPLE	N	MEAN	STANDARD DEVIATION	$t_o$	df	one-tailed $t_{(.05)}$	$P(t_o)$
Junior	18	365.6111	32.0319	- 0.8252	37	1.69	.7927
Senior	21	373.1428	24.9304				
Junior	18	43.0555	15.3296	0.4358	37	1.69	.3327
Senior	21	40.9048	15.3913				
Junior	18	127.6111	27.3563	- 0.3209	37	1.69	.6250
Senior	21	130.3810	26.4509				
Junior	18	66.2778	8.1588	-0.8651	37	1.69	.8037
Senior	21	68.4286	7.3659				
Junior	18	45.2222	6.3111	-5.5912	37	1.69	.0000 *
Senior	21	54.9524	4.5219				

ifference at .001 level

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TABLE OF MEANS AND KUDER RICHARDSON CORRELATION COEFFICIENTS  
FOR THE IVES PSYCHOSOCIAL ASSESSMENT SCALE

GROUP	N	MEAN PERCENTILE SCORES	STANDARD DEVIATION	RANGE PERCENTILE
Junior Experimental				
Pre	18	61.7%	7.93	46-74%
Post	18	64.0%	5.90	54-76%
Junior Control				
Pre	16	61.4%	7.50	44-72%
Post	16	67.5%	7.35	54-80%

TABLE OF MEANS AND KUDER RICHARDSON CORRELATION COEFFICIENTS  
FOR THE IVES PSYCHOSOCIAL ASSESSMENT SCALE

N	MEAN PERCENTILE SCORES	STANDARD DEVIATION	RANGE PERCENTILE	KUDER RICHARDSON FORMULA 20
18	61.7%	7.93	46-74%	.49
18	64.0%	5.90	54-76%	.15
16	61.4%	7.50	44-72%	.44
16	67.5%	7.35	54-80%	.48

TABLE OF MEANS FOR THE VAL-ED SCALE

Table 15

VARIABLE NAME	N	MEAN	STANDARD DEVIATION	STANDARD ERROR
<b>"Teacher Child Affection"</b>				
Group				
Junior Experimental				
Pre	18	6.0000	1.5339	0.3615
Post	18	7.0000	1.4552	0.3430
Junior Control				
Pre	16	6.7500	1.4832	0.3708
Post	16	5.9375	1.7689	0.4422
<b>"Administrator Teacher Affection"</b>				
Group				
Junior Experimental				
Pre	18	6.8333	1.5435	0.3638
Post	18	7.0556	1.3492	0.3180
Junior Control				
Pre	16	6.3125	1.9225	0.4806
Post	16	5.6875	2.4144	0.6036
<b>"Teacher Child Control"</b>				
Group				
Junior Experimental				
Pre	18	2.3889	1.6499	0.3889
Post	18	2.2222	1.5925	0.3753
Junior Control				
Pre	16	3.0000	1.9664	0.4916
Post	16	3.1875	1.8697	0.4674
<b>"School Child Control"</b>				
Group				
Junior Experimental				
Pre	18	5.5556	2.2809	0.5376
Post	18	5.9444	2.1550	0.5079
Junior Control				
Pre	16	5.3750	1.8212	0.4553
Post	16	5.6875	1.9568	0.4892
<b>"Teacher Community Inclusion"</b>				
Group				
Junior Experimental				
Pre	18	5.6667	1.1882	0.280
Post	18	5.4444	1.9166	0.4517
Junior Control				
Pre	16	3.7500	2.8166	0.704
Post	16	4.3750	2.5783	0.644
<b>"Administrator Community Inclusion"</b>				
Group				
Junior Experimental				
Pre	18	5.0556	2.0996	0.4949
Post	18	5.4444	1.8542	0.4370
Junior Control				
Pre	16	5.8125	1.5586	1.5586
Post	16	5.8750	1.9621	0.4905

CORRELATION MATRICES FOR THE POSTTEST SCORES  
INSPECTING RELATIONSHIPS WITH COMBINED JUNIOR  
AND SENIOR SAMPLES

Pearson Product-moment Correlation Coefficient

Senior and Junior Experimental

	POSTP	POSTV	POSTD	NTE	CTPAT
POSTP	1.0000 ( 0) S=0.001	-0.4301 ( 39) S=0.003	0.7815 ( 39) S=0.001	0.3469 ( 39) S=0.015*	0.2564 ( 39) S=0.002*
POSTV		1.0000 ( 0) S=0.001	0.0633 ( 39) S=0.351	-0.1313 ( 39) S=0.212	-0.1116 ( 39) S=0.249
POSTD			1.0000 ( 0) S=0.001	0.2141 ( 39) S=0.095	0.1300 ( 39) S=0.215
NTE				1.0000 ( 0) S=0.001	0.5131 ( 39) S=0.001*
CTPAT					1.0000 ( 0) S=0.001

\* S indicates the level of significance

Senior and Junior Control

	POSTP	POSTV	POSTD	NTE	CTPAT
POSTP	1.0000 ( 0) S=0.001	-0.7260 ( 37) S=0.001	0.6026 ( 37) S=0.001	-0.0920 ( 33) S=0.305	-0.4088 ( 37) S=0.006
POSTV		1.0000 ( 0) S=0.001	-0.1435 ( 37) S=0.198	0.0642 ( 33) S=0.361	0.3383 ( 37) S=0.020
POSTD			1.0000 ( 0) S=0.001	0.2223 ( 33) S=0.107	0.0645 ( 37) S=0.352
NTE				1.0000 ( 0) S=0.001	0.5784 ( 33) S=0.001
CTPAT					1.0000 ( 0) S=0.001

CORRELATION MATRICES OF POSTTEST  
SCORES FOR SENIOR SAMPLES

Table 17

Pearson Product-moment Correlation Coefficients

Senior Experimental

	POSTP	POSTV	POSTD	NTE	CTPAT
POSTP	1.0000 ( 0) S=0.001	-0.3027 ( 21) S=0.091	0.7779 ( 21) S=0.001*	0.3915 ( 21) S=0.040	0.1429 ( 21) S=0.268
POSTV		1.0000 ( 0) S=0.001	0.2668 ( 21) S=0.104	-0.2215 ( 21) S=0.167	-0.0841 ( 21) S=0.358
POSTD			1.0000 ( 0) S=0.001	0.2209 ( 21) S=0.168	0.0491 ( 21) S=0.416
NTE				1.0000 ( 0) S=0.001	0.4795 ( 21) S=0.014*
CTPAT					1.0000 ( 0) S=0.001

\* S indicates the level of significance

Senior Control

	POSTP	POSTV	POSTD	NTE	CTPAT
POSTP	1.0000 ( 0) S=0.001	-0.7394 ( 21) S=0.001	0.7238 ( 21) S=0.001	0.2677 ( 17) S=0.149	-0.1168 ( 21) S=0.307
POSTV		1.0000 ( 0) S=0.001	-0.2032 ( 21) S=0.188	-0.3838 ( 17) S=0.064	0.0960 ( 21) S=0.339
POSTD			1.0000 ( 0) S=0.001	-0.0152 ( 17) S=0.477	-0.1448 ( 21) S=0.266
NTE				1.0000 ( 0) S=0.001	0.5038 ( 17) S=0.020
CTPAT					1.0000 ( 0) S=0.001

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INTERRATER RELIABILITY AND INDIVIDUAL CORRELATIONS

SUM OF RATINGS CORRELATED  
EXPERIMENTAL CTPAT SCORES

Pearson correlation coefficients				Pearson correlati
	S1	S2	CTPAT	
S1	1.0000 ( 0) S=0.001	0.9532* ( 21) S=0.001	.3190** ( 21) S=0.079	SUM
S2		1.0000 ( 0) S=0.001	0.2691 ( 21) S=0.119	CTPAT
CTPAT			1.0000 ( 0) S=0.001	

\* Correlation coefficient of Complementary Teacher  
Program Faculty 1 with CTP Faculty 2 / high  
correlation

\* Correlation  
ratings

\*\* Correlation of Faculty 1 ratings with Senior  
CTPAT Score

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## ABILITY AND INDIVIDUAL CORRELATIONS

SUM OF RATINGS CORRELATED WITH SENIOR  
EXPERIMENTAL CTPAT SCORES

Spearman coefficients			Pearson correlation coefficients		
S1	S2	CTPAT	SUM	SUM	CTPAT
1.0000	0.9532*	.3190**	SUM	1.0000	0.2975*
( 0)	( 21)	( 21)		( 0)	( 21)
S=0.001	S=0.001	S=0.079		S=0.001	S=0.001
	1.0000	0.2691	CTPAT		1.0000
	( 0)	( 21)			( 0)
	S=0.001	S=0.119			S=0.001
		1.0000			
		( 0)			
		S=0.001			

Correlation coefficient of Complementary Teacher  
Faculty 1 with CTP Faculty 2 / high

\* Correlation coefficient of sum of  
ratings with CTPAT Scores

Correlation coefficient of Faculty 1 ratings with Senior

## CORRELATION MATRIX OF JUNIOR EXPERIMENTAL SA

PEAKS, D. G. U. K. E. L. A. T. I. G. H. G. U. E. F. I. C. I. E. N. T. S.

	PREP	PPEV	PREO	PREN	PREI	PREC	POSTP	POSTV	POSTO	POSTN	POSTI	POSTO
PREP	1.0000 (.01) S=0.001	-0.5893 (.181) S=0.005	0.2717 (.181) S=0.137	0.5075 (.181) S=0.005	0.6049 (.181) S=0.004	0.6127 (.181) S=0.003	0.0952 (.181) S=0.001	-0.4759 (.181) S=0.023	0.7372 (.181) S=0.001	0.5185 (.181) S=0.014	0.2551 (.181) S=0.174	0.5893 (.181) S=0.001
PPEV		1.0000 (.01) S=0.001	-0.0911 (.181) S=0.300	-0.2021 (.181) S=0.128	-0.1891 (.181) S=0.226	-0.0980 (.181) S=0.345	-0.6072 (.181) S=0.004	0.5641 (.181) S=0.007	-0.3003 (.181) S=0.113	-0.3467 (.181) S=0.079	-0.1869 (.181) S=0.224	-0.1869 (.181) S=0.001
PREO			1.0000 (.01) S=0.001	0.2673 (.181) S=0.142	0.2045 (.181) S=0.208	0.6583 (.181) S=0.001	0.1278 (.181) S=0.307	0.0458 (.181) S=0.420	0.0044 (.181) S=0.493	0.3499 (.181) S=0.077	-0.1057 (.181) S=0.230	0.5893 (.181) S=0.001
PREN				1.0000 (.01) S=0.001	0.2785 (.181) S=0.132	0.6070 (.181) S=0.004	0.2855 (.181) S=0.125	-0.3955 (.181) S=0.002	0.0887 (.181) S=0.363	0.7442 (.181) S=0.001	-0.4685 (.181) S=0.025	0.5893 (.181) S=0.001
PREI					1.0000 (.01) S=0.001	0.4465 (.181) S=0.032	0.5993 (.181) S=0.004	-0.4285 (.181) S=0.038	0.4896 (.181) S=0.020	0.3244 (.181) S=0.095	0.2408 (.181) S=0.166	0.5893 (.181) S=0.001
PREC						1.0000 (.01) S=0.001	0.3774 (.181) S=0.061	-0.1782 (.181) S=0.240	0.2272 (.181) S=0.182	0.5906 (.181) S=0.005	-0.1464 (.181) S=0.201	0.5893 (.181) S=0.001
POSTP							1.0000 (.01) S=0.001	-0.5449 (.181) S=0.010	0.7955 (.181) S=0.001	0.2888 (.181) S=0.123	0.4425 (.181) S=0.033	0.5893 (.181) S=0.001
POSTV								1.0000 (.01) S=0.001	-0.1830 (.181) S=0.234	-0.0169 (.181) S=0.470	-0.0852 (.181) S=0.371	-0.0852 (.181) S=0.001
POSTO									1.0000 (.01) S=0.001	0.1971 (.181) S=0.216	0.4424 (.181) S=0.033	0.5893 (.181) S=0.001
POSTN										1.0000 (.01) S=0.001	-0.1417 (.181) S=0.207	0.5893 (.181) S=0.001
POSTI											1.0000 (.01) S=0.001	-0.1417 (.181) S=0.001
POSTO												1.0000 (.01) S=0.001

\* Indicates strong relationship between  
NTE scores and the CTEAT scores

## CORRELATION MATRIX OF JUNIOR EXPERIMENTAL SAMPLE

Table 19

C. U. A. K. E. L. A. T. I. G. H. U. E. F. I. C. I. E. N. T. S.

	PREM	PREI	PREC	POSTP	POSTV	POSTU	POSTN	POSTI	POSTC	VERBAL	MATH	UPI	AGE
19	0.5095	0.6049	0.6127	0.8952	-0.4759	0.7372	0.5185	0.2551	0.5895	0.6628	0.2792	0.2862	0.1418
61	(.14)	(.18)	(.18)	(.18)	(.18)	(.16)	(.16)	(.18)	(.18)	(.16)	(.15)	(.15)	(.19)
37	S=0.005	S=0.004	S=0.003	S=0.001	S=0.023	S=0.001	S=0.014	S=0.174	S=0.000	S=0.000	S=0.140	S=0.125	S=0.287
11	-0.2821	-0.1891	-0.0980	-0.6072	0.5441	-0.3003	-0.3467	-0.1869	-0.1060	-0.4144	-0.1106	-0.1301	-0.5513
81	(.19)	(.18)	(.18)	(.19)	(.18)	(.18)	(.16)	(.18)	(.18)	(.16)	(.16)	(.18)	(.19)
30	S=0.128	S=0.226	S=0.349	S=0.004	S=0.007	S=0.113	S=0.019	S=0.229	S=0.336	S=0.000	S=0.374	S=0.304	S=0.069
00	0.2673	0.2045	0.6583	0.1278	0.0458	0.0044	0.3499	-0.1857	0.5352	0.4806	0.2937	0.2937	-0.0127
01	(.18)	(.18)	(.18)	(.19)	(.18)	(.18)	(.18)	(.18)	(.16)	(.16)	(.16)	(.19)	(.18)
01	S=0.142	S=0.208	S=0.001	S=0.307	S=0.420	S=0.493	S=0.077	S=0.230	S=0.011	S=0.027	S=0.137	S=0.116	S=0.460
	1.0000	0.2785	0.6070	0.2855	-0.3955	0.0867	0.7442	-0.4685	0.6200	0.5551	0.5113	0.6342	0.0727
	(.18)	(.18)	(.18)	(.19)	(.18)	(.18)	(.18)	(.18)	(.18)	(.16)	(.16)	(.15)	(.18)
	S=0.001	S=0.132	S=0.004	S=0.125	S=0.022	S=0.363	S=0.001	S=0.025	S=0.005	S=0.005	S=0.120	S=0.002	S=0.387
	1.0000	0.4465	0.5993	-0.4285	0.4896	0.3244	0.2408	0.0003	0.5177	0.1352	-0.2007	0.5310	0.0310
	(.18)	(.18)	(.18)	(.18)	(.15)	(.18)	(.16)	(.18)	(.16)	(.16)	(.19)	(.18)	(.18)
	S=0.004	S=0.032	S=0.004	S=0.038	S=0.020	S=0.095	S=0.160	S=0.050	S=0.020	S=0.305	S=0.208	S=0.451	S=0.451
	1.0000	0.3774	-0.1782	0.2272	0.5906	-0.1464	0.9333	0.5764	0.2506	0.4910	0.4910	-0.1810	-0.1810
	(.18)	(.15)	(.18)	(.18)	(.18)	(.18)	(.18)	(.16)	(.16)	(.18)	(.16)	(.18)	(.18)
	S=0.001	S=0.061	S=0.240	S=0.182	S=0.005	S=0.281	S=0.001	S=0.010	S=0.175	S=0.019	S=0.019	S=0.230	S=0.230
	1.0000	-0.5449	0.7955	0.2888	0.4425	0.2821	0.5528	0.2170	0.5528	0.2170	0.5509	0.5587	0.5587
	(.18)	(.18)	(.18)	(.18)	(.18)	(.18)	(.18)	(.16)	(.16)	(.16)	(.19)	(.18)	(.18)
	S=0.001	S=0.010	S=0.001	S=0.123	S=0.033	S=0.128	S=0.013	S=0.149	S=0.421	S=0.421	S=0.421	S=0.421	S=0.421
	1.0000	-0.1830	-0.0189	-0.0852	-0.0901	-0.0037	-0.1127	0.0852	-0.4249	0.0852	-0.4249	-0.4249	-0.4249
	(.18)	(.18)	(.18)	(.18)	(.18)	(.18)	(.18)	(.18)	(.18)	(.18)	(.18)	(.18)	(.18)
	S=0.001	S=0.234	S=0.470	S=0.371	S=0.301	S=0.475	S=0.339	S=0.368	S=0.040	S=0.368	S=0.040	S=0.040	S=0.040
	1.0000	0.1971	0.4424	0.1454	0.4070	0.0470	0.0470	-0.0947	-0.0721	-0.0721	-0.0721	-0.0721	-0.0721
	(.18)	(.18)	(.18)	(.18)	(.18)	(.18)	(.18)	(.18)	(.18)	(.18)	(.18)	(.18)	(.18)
	S=0.001	S=0.216	S=0.033	S=0.219	S=0.028	S=0.431	S=0.354						
	1.0000	-0.1417	0.6510	0.6503	0.5213	0.5600	0.0491	0.0491	0.0491	0.0491	0.0491	0.0491	0.0491
	(.18)	(.18)	(.18)	(.18)	(.15)	(.18)	(.18)	(.18)	(.18)	(.18)	(.18)	(.18)	(.18)
	S=0.001	S=0.287	S=0.000										
	1.0000	-0.1927	0.5072	0.0540	-0.2896	0.1366	0.1366	0.1366	0.1366	0.1366	0.1366	0.1366	0.1366
	(.18)	(.18)	(.18)	(.18)	(.18)	(.18)	(.18)	(.18)	(.18)	(.18)	(.18)	(.18)	(.18)
	S=0.001	S=0.222	S=0.124	S=0.021	S=0.124								
	1.0000	0.5972	0.2917	0.5699	-0.0839	-0.0839	-0.0839	-0.0839	-0.0839	-0.0839	-0.0839	-0.0839	-0.0839
	(.18)	(.18)	(.18)	(.18)	(.18)	(.18)	(.18)	(.18)	(.18)	(.18)	(.18)	(.18)	(.18)
	S=0.001	S=0.007	S=0.137	S=0.007									
	1.0000	0.4540	0.3749	0.1506	0.1506	0.1506	0.1506	0.1506	0.1506	0.1506	0.1506	0.1506	0.1506
	(.18)	(.18)	(.18)	(.18)	(.18)	(.18)	(.18)	(.18)	(.18)	(.18)	(.18)	(.18)	(.18)
	S=0.001	S=0.039	S=0.076	S=0.000									
	1.0000	0.4373	0.1267	0.1267	0.1267	0.1267	0.1267	0.1267	0.1267	0.1267	0.1267	0.1267	0.1267
	(.18)	(.18)	(.18)	(.18)	(.18)	(.18)	(.18)	(.18)	(.18)	(.18)	(.18)	(.18)	(.18)
	S=0.001	S=0.044	S=0.320										
	1.0000	0.0710	0.0710	0.0710	0.0710	0.0710	0.0710	0.0710	0.0710	0.0710	0.0710	0.0710	0.0710
	(.18)	(.18)	(.18)	(.18)	(.18)	(.18)	(.18)	(.18)	(.18)	(.18)	(.18)	(.18)	(.18)
	S=0.001	S=0.326											

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## CORRELATION MATRIX OF JUNIOR CONTROL SAMPL

## PEARSON CORRELATION COEFFICIENTS

	PREP	PREV	PREU	PREN	PREI	PREC	POSTP	POSTV	POSTJ	POSTN	POSTI	POSTC
PREP	1.0000 ( 0) \$=0.001	-0.3943 ( 10) \$=0.005	0.9003 ( 10) \$=0.001	-0.2996 ( 10) \$=0.100	0.0104 ( 14) \$=0.496	-0.0343 ( 10) \$=0.421	0.6010 ( 10) \$=0.002	-0.4101 ( 10) \$=0.057	0.5952 ( 10) \$=0.013	-0.1386 ( 10) \$=0.011	-0.1403 ( 10) \$=0.294	-0.2279 ( 10) \$=0.190
PREV		1.0000 ( 0) \$=0.001	-0.5170 ( 10) \$=0.110	-0.1503 ( 10) \$=0.202	0.2175 ( 14) \$=0.220	-0.0901 ( 10) \$=0.361	-0.3452 ( 10) \$=0.097	0.3702 ( 10) \$=0.079	-0.4300 ( 10) \$=0.037	-0.3231 ( 10) \$=0.111	0.0408 ( 10) \$=0.440	0.1010 ( 10) \$=0.350
PREU			1.0000 ( 0) \$=0.001	-0.1293 ( 10) \$=0.316	0.0096 ( 14) \$=0.407	0.1037 ( 10) \$=0.351	0.4485 ( 10) \$=0.091	-0.1329 ( 10) \$=0.206	0.6008 ( 10) \$=0.003	-0.0093 ( 10) \$=0.486	-0.1919 ( 10) \$=0.238	-0.0131 ( 10) \$=0.491
PREN				1.0000 ( 0) \$=0.001	0.1039 ( 14) \$=0.300	0.2915 ( 10) \$=0.003	-0.2302 ( 10) \$=0.107	0.3001 ( 10) \$=0.080	0.3270 ( 10) \$=0.108	0.0013 ( 10) \$=0.301	0.3319 ( 10) \$=0.105	0.0200 ( 10) \$=0.005
PREI					1.0000 ( 0) \$=0.001	0.0054 ( 14) \$=0.386	-0.1105 ( 14) \$=0.353	0.0740 ( 14) \$=0.401	0.1055 ( 14) \$=0.339	0.1376 ( 14) \$=0.320	0.0913 ( 14) \$=0.378	0.4724 ( 14) \$=0.044
PREC						1.0000 ( 0) \$=0.001	-0.1747 ( 10) \$=0.259	0.4491 ( 10) \$=0.040	0.3538 ( 10) \$=0.039	0.7880 ( 10) \$=0.001	0.2912 ( 10) \$=0.067	0.4896 ( 10) \$=0.027
POSTP							1.0000 ( 0) \$=0.001	-0.8301 ( 10) \$=0.001	0.4041 ( 10) \$=0.035	-0.3396 ( 14) \$=0.099	-0.1559 ( 10) \$=0.277	-0.5017 ( 10) \$=0.039
POSTV								1.0000 ( 0) \$=0.001	-0.1242 ( 10) \$=0.323	0.4705 ( 10) \$=0.033	0.1386 ( 10) \$=0.304	0.7424 ( 10) \$=0.001
POSTJ									1.0000 ( 0) \$=0.001	0.2934 ( 10) \$=0.135	-0.1344 ( 10) \$=0.284	0.2994 ( 10) \$=0.133
POSTN										1.0000 ( 0) \$=0.001	0.4019 ( 10) \$=0.001	0.0500 ( 10) \$=0.003
POSTI											1.0000 ( 0) \$=0.001	0.0571 ( 10) \$=0.417
POSTC												1.0000 ( 0) \$=0.001

VERBAL

RATH

SPI

AGE

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## CORRELATION MATRIX OF JUNIOR CONTROL SAMPLE

Table 20

## CORRELATION COEFFICIENTS

	PREN	PREI	PREC	POSTP	POSTV	POSTJ	POSTN	POSTI	POSTC	VERBAL	MATH	GPI	AGE			
1	-0.2590 (.10) S=0.100	0.0104 (.14) S=0.436	-0.0343 (.10) S=0.421	0.0010 (.10) S=0.002	-0.4101 (.10) S=0.007	0.2552 (.18) S=0.013	-0.1380 (.10) S=0.011	-0.1403 (.10) S=0.294	-0.2277 (.10) S=0.150	0.0290 (.14) S=0.400	-0.1001 (.14) S=0.283	-0.0220 (.10) S=0.407	-0.0267 (.10) S=0.000			
2		-0.1500 (.10) S=0.292	0.2175 (.14) S=0.228	-0.0907 (.10) S=0.361	-0.2432 (.10) S=0.097	0.3702 (.10) S=0.079	-0.4900 (.10) S=0.037	-0.3231 (.10) S=0.112	0.0400 (.10) S=0.350	0.1010 (.10) S=0.350	-0.2711 (.14) S=0.174	-0.1500 (.14) S=0.297	0.0053 (.10) S=0.377	0.1459 (.10) S=0.277		
3			-0.1290 (.10) S=0.310	0.0090 (.14) S=0.407	0.1037 (.10) S=0.301	0.4185 (.10) S=0.091	-0.1220 (.10) S=0.280	0.0000 (.10) S=0.003	-0.0093 (.10) S=0.186	-0.1914 (.10) S=0.238	-0.0131 (.10) S=0.491	0.2004 (.14) S=0.237	-0.1002 (.14) S=0.359	-0.2100 (.10) S=0.217	-0.0709 (.10) S=0.010	
4				1.0000 (.0) S=0.001	0.1009 (.14) S=0.300	0.3915 (.10) S=0.000	-0.2302 (.10) S=0.107	0.3001 (.10) S=0.000	0.3270 (.10) S=0.108	0.0013 (.10) S=0.001	0.3319 (.10) S=0.103	0.0200 (.10) S=0.005	0.7002 (.14) S=0.001	0.0010 (.10) S=0.009	0.2270 (.10) S=0.199	
5					1.0000 (.0) S=0.001	0.0054 (.14) S=0.300	-0.1105 (.10) S=0.353	0.0740 (.14) S=0.401	0.1005 (.14) S=0.359	0.1370 (.14) S=0.320	0.0913 (.14) S=0.378	0.4724 (.14) S=0.094	0.3790 (.12) S=0.024	0.0702 (.12) S=0.305	-0.1521 (.14) S=0.207	0.0102 (.14) S=0.475
6						1.0000 (.0) S=0.001	-0.1747 (.10) S=0.201	0.4491 (.10) S=0.040	0.3538 (.10) S=0.009	0.7000 (.10) S=0.001	0.3912 (.10) S=0.007	0.4890 (.10) S=0.027	0.0031 (.14) S=0.011	0.2025 (.14) S=0.102	0.0024 (.10) S=0.009	0.1423 (.10) S=0.300
7							1.0000 (.0) S=0.001	-0.0501 (.10) S=0.001	0.4861 (.10) S=0.350	-0.0390 (.14) S=0.399	-0.1599 (.10) S=0.277	-0.05017 (.10) S=0.009	-0.2905 (.14) S=0.152	-0.0020 (.14) S=0.417	0.4509 (.10) S=0.040	-0.0028 (.10) S=0.012
8								1.0000 (.0) S=0.001	-0.1242 (.10) S=0.320	0.4705 (.10) S=0.330	0.1380 (.10) S=0.309	0.7424 (.10) S=0.001	0.4994 (.14) S=0.030	0.0100 (.14) S=0.432	-0.4990 (.10) S=0.025	0.4010 (.10) S=0.030
9									1.0000 (.0) S=0.001	0.2934 (.10) S=0.135	-0.1544 (.10) S=0.284	0.2494 (.10) S=0.130	0.3990 (.14) S=0.074	0.2000 (.14) S=0.102	-0.1901 (.10) S=0.230	-0.2423 (.10) S=0.100
10										1.0000 (.0) S=0.001	0.4019 (.10) S=0.001	0.0000 (.10) S=0.003	0.0703 (.14) S=0.001	0.0031 (.14) S=0.010	-0.1070 (.10) S=0.200	0.1400 (.10) S=0.200
11											1.0000 (.0) S=0.001	0.0071 (.10) S=0.417	0.2315 (.14) S=0.210	0.0191 (.14) S=0.474	0.3992 (.10) S=0.003	0.2017 (.10) S=0.227
12												1.0000 (.0) S=0.001	0.7404 (.14) S=0.001	0.4071 (.14) S=0.030	-0.4911 (.10) S=0.027	0.3107 (.10) S=0.110
13													1.0000 (.0) S=0.001	0.7000 (.14) S=0.001	-0.4240 (.14) S=0.030	-0.0151 (.14) S=0.400
14														1.0000 (.0) S=0.001	-0.2391 (.14) S=0.200	-0.1521 (.14) S=0.320
15															1.0000 (.0) S=0.001	-0.0372 (.10) S=0.490

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TWO-YEAR REPORT OF THE MEANS AND STANDARD DEVIATIONS  
OF THE CLASS OF 1974, EXPERIMENTAL AND CONTROL, ON THE  
TENNESSEE SELF-CONCEPT SCALE AND THE NATIONAL TEACHERS  
EXAMINATION SUBTEST

TEST	YEAR IN SCHOOL	EXPERIMENTAL SAMPLE			CONTROL SAMPLE	
		N	MEAN	STANDARD DEVIATION	N	MEAN
Positive Score	Pre Junior	21	351.1904	25.4057	21	354.9045
	Post Junior	21	360.9521	28.6729	21	362.6665
	Post Senior	21	373.1428	24.9304	21	368.6189
Variability Score	Pre Junior	21	46.0952	9.5337	21	43.9524
	Post Junior	21	43.6667	13.0051	21	43.3810
	Post Senior	21	40.9048	15.3913	21	45.8099
Distribution Score	Pre Junior	21	119.5238	24.1756	21	115.5238
	Post Junior	21	121.0952	26.1971	21	121.2857
	Post Senior	21	130.3810	26.4509	21	130.4286
NATIONAL TEACHERS EXAMINATION Professional Education Subtest	Pre Junior	21	62.2857	7.8240	21	58.5238
	Post Junior	21	67.2381	6.5108	21	60.0476
	Post Senior	21	68.4286	7.3659	17	63.6471

\* N =

Table 21

TWO-YEAR REPORT OF THE MEANS AND STANDARD DEVIATIONS  
OF THE CLASS OF 1974, EXPERIMENTAL AND CONTROL, ON THE  
TENNESSEE SELF-CONCEPT SCALE AND THE NATIONAL TEACHERS  
EXAMINATION SUBTEST

YEAR IN SCHOOL	EXPERIMENTAL SAMPLE			CONTROL SAMPLE		
	N	MEAN	STANDARD DEVIATION	N	MEAN	STANDARD DEVIATION
Junior	21	351.1904	25.4057	21	354.9045	26.7097
Junior	21	360.9521	28.6729	21	362.6665	23.9794
Senior	21	373.1428	24.9304	21	368.6189	31.3584
Junior	21	46.0952	9.5337	21	43.9524	9.8665
Junior	21	43.6667	13.0051	21	43.3810	11.7664
Senior	21	40.9048	15.3913	21	45.8095	18.1869
Junior	21	119.5238	24.1756	21	115.5238	20.7620
Junior	21	121.0952	26.1971	21	121.2857	21.7925
Senior	21	130.3810	26.4509	21	130.4286	20.2400
Junior	21	62.2857	7.8240	21	58.5238	8.1279
Junior	21	67.2381	6.5108	21	60.0476	7.9717
Senior	21	68.4286	7.3659	17	63.6470*	6.5569*

\* N= 17

**Teacher**

**School:** \_\_\_\_\_

**Grade:** \_\_\_\_\_

**Complementary Teacher Program operating from** \_\_\_\_\_

**to** \_\_\_\_\_

**Date:** \_\_\_\_\_

## Teacher Questionnaire

1. Have you used the services of the Complementary Teacher this year?  
YES \_\_\_\_\_ NO \_\_\_\_\_
2. Did she work directly with your children? YES \_\_\_\_\_ NO \_\_\_\_\_  
How many? \_\_\_\_\_
3. Did she offer you suggestions and materials for children in your class not serviced directly by her program?  
YES \_\_\_\_\_ NO \_\_\_\_\_
4. Do you see this as a needed special education service in your school?  
YES \_\_\_\_\_ NO \_\_\_\_\_
5. Children manifesting what kind of needs are best serviced in a Complementary Teaching Program?
6. Would the children serviced by The Complementary Teaching Program be more adequately serviced by a self-contained classroom?  
YES \_\_\_\_\_ NO \_\_\_\_\_

Your school has had the service of a special education Complementary Teaching Program this school year. The following information will help us evaluate the effectiveness of our Complementary Teacher Training Program. We need your input to refine the service we offer children with special needs.

Thank you,

The Complementary Teaching Staff  
The George Washington University

Note: The term direct service refers to the Complementary Teacher directly teaching your students. The term indirect service refers to any consultation offered by the Complementary Teacher to you in an effort to help you help your students.

Principal

School: \_\_\_\_\_

Name: \_\_\_\_\_

Complementary Teaching Program Operated From \_\_\_\_\_ to

\_\_\_\_\_

Date: \_\_\_\_\_

## Principal Questionnaire

1. Describe the Special Education Complementary Teaching Program as you have come to understand it through its operation in your school.
2. Did the Special Education Complementary Teaching Program meet a special education need identified in your school?
3. Define the service provided.
4. What types of children were serviced in the program?
5. What type of child is best serviced in the Complementary Teaching Model?

6. Would the children serviced by the Complementary Teaching Program be more adequately serviced by a self-contained classroom?  
  
\_\_\_\_\_
7. Number of children serviced on a daily basis by the Complementary Teacher?  
  
\_\_\_\_\_
8. Average number of children in each group?  
  
\_\_\_\_\_
9. Number of groups per day?  
  
\_\_\_\_\_
10. Total number of children serviced directly this year?  
  
\_\_\_\_\_
11. Total number of children serviced indirectly through consultant services of the Complementary Teacher?  
  
\_\_\_\_\_
12. Total number of teachers serviced through consultant services of the Complementary Teacher?  
  
\_\_\_\_\_
13. Total number of classrooms serviced directly by this program?  
  
\_\_\_\_\_
14. Has the Complementary Teacher made an effort to coordinate her activities with the regular instructional program of her students?
15. Has the regular teacher been receptive to these efforts of the Complementary Teacher?

16. What feedback method appears to be most successful between Complementary and regular Teacher?

17. Briefly describe any change in the dynamics of your school which you attribute to the Complementary Teacher Model?

18. We invite any additional comment!!! We value your input!

APPENDIX B

1. Three-Year Research Tables
  - a. Tables 22 - 27
  
2. Report of Program Graduates
  - a. Class of 1973
  - b. Class of 1974

A THREE-YEAR ANALYSIS OF THE VARIANCE OF THE EXPERIMENTAL  
 SAMPLES' SCORES ON THE PROFESSIONAL EDUCATION TEST OF THE  
 NATIONAL TEACHERS EXAMINATION INDICATING THE  $t$ -PROBABILITY

Class	N	YEAR IN SCHOOL	NTE Scores	Standard Deviation	$t_o$	df
1973	21	Pre Junior	58.6500	5.7699	-4.5658	39
		(2 yrs.) Post Senior	67.8095	6.9830		
1974	21	Pre Junior	62.2857	7.8240	-2.6196	40
		(2 yrs.) Post Senior	68.4286	7.3659		
1975	18	Pre Junior	60.7778	8.4683	-1.9844	34
		(1 yr.) Post Junior	66.2778	8.1588		

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\* Indicates high level of probability.

A THREE-YEAR ANALYSIS OF THE VARIANCE OF THE EXPERIMENTAL SAMPLES' SCORES ON THE PROFESSIONAL EDUCATION TEST OF THE NATIONAL TEACHERS EXAMINATION INDICATING THE  $t$ -PROBABILITY

YEAR IN SCHOOL	NTE Scores	Standard Deviation	$t_0$	df	one-tailed	
					$t(.05)$	$P(t_0)$
Pre Junior yrs.)	58.6500	5.7699	-4.5658	39	1.69	1.000*
Post Senior	67.8095	6.9830				
Pre Junior yrs.)	62.2857	7.8240	-2.6196	40	1.68	.9938*
Post Senior	68.4286	7.3659				
Pre Junior yr.)	60.7778	8.4683	-1.9844	34	1.69	.9723*
Post Junior	66.2778	8.1588				

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level of probability.

COMPARISON OF THE PERCENTILE RANKS OF THE EXPERIMENTAL  
AND CONTROL SAMPLES ON THE NATIONAL TEACHERS  
EXAMINATION, PROFESSIONAL EDUCATION SUBTEST.

September 1973		<u>JUNIOR COMPARISON</u> NATIONAL PERCENTILE RANKS	April 1974	
PRE-TEST Experimental	Control		POST-TEST Experimental	Control
1	1	90th	4	4
7	2	75th	7	1
5	3	50th	3	3
2	3	25th	4	6
3	7	10th	0	2

September 1972		<u>SENIOR COMPARISON</u> NATIONAL PERCENTILE RANKS	April 1974	
PRE-TEST (beg. Jr. year) Experimental	Control		POST-TEST (end Sr. year) Experimental	Control
3	2	90th	9*	4
5	4	75th	4	3
7	2	50th	6	3
5	6	25th	2	7
1	3	10th	0	0

\* Highly supportive of hypothesis

INSPECTION OF MEANS AND STANDARD DEVIATIONS FOR  
 THE COMBINED JUNIOR AND SENIOR EXPERIMENTAL SAMPLES  
 AND THE COMBINED JUNIOR AND SENIOR CONTROL SAMPLES  
 ON THE POSTTESTS 1973-74

TEST	POST TEST SAMPLES	EXPERIMENTAL SAMPLE			CONTROL SAMPLE		
		N	MEAN	STANDARD DEVIATION	N	MEAN	
TENNESSEE SELF-CONCEPT SCALE SUBSCALES	Positive Score	Total- Junior & Senior	39	369.67*	28.30	37	364
	Variability Score	Total- Junior & Senior	39	41.90*	15.20	37	44
	Distribution Score	Total- Junior & Senior	39	129.10 *	26.55	37	125
NATIONAL TEACHERS EXAMINATION Professional Education Subtest	Total- Junior & Senior	39	67.44*	7.71	37	62	
COMPLEMENTARY TEACHER PROGRAM ACHIEVEMENT TEST	Total- Junior & Senior	39	50.46*	7.26	37	28	

\* Supportive of research hypotheses

INSPECTION OF MEANS AND STANDARD DEVIATIONS FOR  
 THE COMBINED JUNIOR AND SENIOR EXPERIMENTAL SAMPLES  
 AND THE COMBINED JUNIOR AND SENIOR CONTROL SAMPLES  
 ON THE POSTTESTS 1973-74

TEST SAMPLES	EXPERIMENTAL SAMPLE			CONTROL SAMPLE		
	N	MEAN	STANDARD DEVIATION	N	MEAN	STANDARD DEVIATION
al- & Senior	39	369.67*	28.30	37	364.41	34.25
al- & Senior	39	41.90*	15.20	37	44.78	15.78
al- & Senior	39	129.10 *	26.55	37	125.57	21.87
al- & Senior	39	67.44*	7.71	37	62.48	8.85
al- & Senior	39	50.46*	7.26	37	28.70	5.92

PRESENTATION OF THREE-YEAR INVESTIGATION OF MEANS AND  
STANDARD DEVIATIONS ON THE TENNESSEE SELF-CONCEPT SCALES  
AND THE NATIONAL TEACHERS EXAMINATION SUBTEST FOR THE  
EXPERIMENTAL SAMPLES

TEST	YEAR IN SCHOOL	CLASS . OF 1973			CLASS OF 1974		
		N	MEAN	STANDARD DEVIATION	N	MEAN	STANDARD DEVIATION
Positive Score	Pre Junior	20	344.1499	29.5460	21	351.1904	25.4057
	Post Junior	21	360.8095		21	360.9521	28.6729
	Post Senior	21	370.0952	31.2788	21	373.1428	24.9304
Variability Score	Pre Junior	20	46.5000	9.1047	21	46.0952	9.5337
	Post Junior	21	39.5238		21	43.6667	13.0051
	Post Senior	21	40.3810	9.4999	21	40.9048	15.3913
Distribution Score	Pre Junior	20	111.1000	21.4596	21	119.5238	24.1756
	Post Junior	21	121.2380		21	121.0952	26.1971
	Post Senior	21	131.1429	26.8128	21	130.3810	26.4509
NATIONAL TEACHERS EXAMINATION Professional Education Subtest	Pre Junior	20	58.6500	5.7699	21	62.2857	7.8240
	Post Junior	21	65.6666		21	67.2381	6.5108
	Post Senior	21	67.8095	6.9830	21	68.4286	7.3659

Interpretation - Scores are stable and supportive of research

Table 25

PRESENTATION OF THREE-YEAR INVESTIGATION OF MEANS AND  
STANDARD DEVIATIONS ON THE TENNESSEE SELF-CONCEPT SCALES  
AND THE NATIONAL TEACHERS EXAMINATION SUBTEST FOR THE  
EXPERIMENTAL SAMPLES

SCHOOL	CLASS OF 1973			CLASS OF 1974			CLASS OF 1975		
	N	MEAN	STANDARD DEVIATION	N	MEAN	STANDARD DEVIATION	N	MEAN	STANDARD DEVIATION
Junior	20	344.1499	29.5460	21	351.1904	25.4057	18	348.8887	35.6205
Junior	21	360.8095		21	360.9521	28.6729	18	365.6111	32.0331
Senior	21	370.0952	31.2788	21	373.1428	24.9304	18		
Junior	20	46.5000	9.1047	21	46.0952	9.5337	18	45.3889	16.8003
Junior	21	39.5238		21	43.6667	13.0051	18	43.0555	15.3296
Senior	21	40.3810	9.4999	21	40.9048	15.3913	18		
Junior	20	111.1000	21.4596	21	119.5238	24.1756	18	115.2778	26.5348
Junior	21	121.2380		21	121.0952	26.1971	18	127.6111	27.3565
Senior	21	131.1429	26.8128	21	130.3810	26.4509	18		
Junior	20	58.6500	5.7699	21	62.2857	7.8240	18	60.7778	8.4683
Junior	21	65.6666		21	67.2381	6.5108	18	66.2778	8.1588
Senior	21	67.8095	6.9830	21	68.4286	7.3659	18		

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Conclusion - Scores are stable and supportive of research hypotheses

t- TESTS FOR DIFFERENCE BETWEEN MEANS FOR PRE-  
PROGRAM/POST PROGRAM OF THE EXPERIMENTAL SAMPLE  
- - CLASS OF 1973 - -

TENNESSEE SELF-CONCEPT SCALE  
SUBSCALES

TEST	YEAR IN SCHOOL	N	MEAN	STANDARD DEVIATION	$t_0$
Positive Score	Pre Junior	20	344.1499	29.5460	-2.7273
	Post Senior	21	370.0952	31.2788	
Variability Score	Pre Junior	20	46.5000	9.1047	2.1037
	Post Senior	21	40.3810	9.4999	
Distribution Score	Pre Junior	20	111.1000	21.4596	-2.6342
	Post Senior	21	131.1429	26.8128	
NATIONAL TEACHERS EXAMINATION Professional Education Subtest	Pre Junior	20	58.6500	5.7699	-4.5658
	Post Senior	21	67.8095	6.9830	

\*Indicates high probability of attaining established levels of supportive of success in CTP

t- TESTS FOR DIFFERENCE BETWEEN MEANS FOR PRE-  
PROGRAM/POST PROGRAM OF THE EXPERIMENTAL SAMPLE  
-- CLASS OF 1973 --

GRADE IN SCHOOL	N	MEAN	STANDARD DEVIATION	$t_0$	df	one-tailed $t_{(.05)}$	$P(t_0)$
Junior	20	344.1499	29.5460	-2.7273	39	1.69	.9952 *
Senior	21	370.0952	31.2788				
Junior	20	46.5000	9.1047	2.1037	39	1.69	.0210*
Senior	21	40.3810	9.4999				
Junior	20	111.1000	21.4596	-2.6342	39	1.69	.9940 *
Senior	21	131.1429	26.8128				
Junior	20	58.6500	5.7699	-4.5658	39	1.69	1.0000 *
Senior	21	67.8095	6.9830				

has high probability of attaining established levels of significance  
relative of success in CTP

t- TESTS FOR DIFFERENCE BETWEEN MEANS FOR  
 PRE-PROGRAM/POST-PROGRAM OF THE EXPERIMENTAL SAMPLE  
 - - CLASS OF 1974 - -

TEST	YEAR IN SCHOOL	N	MEAN	STANDARD DEVIATION	t <sub>o</sub>
Positive Score	Pre Junior	21	351.1904	25.4057	-2.8261
	Post Senior	21	373.1428	24.9304	
Variability Score	Pre Junior	21	46.0952	9.5337	1.3138
	Post Senior	21	40.9048	15.3913	
Distribution Score	Pre Junior	21	119.5238	24.1756	-1.3884
	Post Senior	21	130.3810	26.4509	
NATIONAL TEACHERS EXAMINATION Professional Education Subtest	Pre Junior	21	62.2857	7.8240	-2.6196
	Post Senior	21	68.4286	7.3659	

\*High probability  
 Supportive of research hypotheses

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t-TESTS FOR DIFFERENCE BETWEEN MEANS FOR  
 PRE-PROGRAM/POST-PROGRAM OF THE EXPERIMENTAL SAMPLE  
 - - CLASS OF 1974 - -

IN L	N	MEAN	STANDARD DEVIATION	$t_o$	df	one-tailed $t(.05)$	$P(t_o)$
Junior	21	351.1904	25.4057	-2.8261	40	1.68	.9963*
Senior	21	373.1428	24.9304				
Junior	21	46.0952	9.5337	1.3138	40	1.68	.0982
Senior	21	40.9048	15.3913				
Junior	21	119.5238	24.1756	-1.3884	40	1.68	.9137
Senior	21	130.3810	26.4509				
Junior	21	62.2857	7.8240	-2.6196	40	1.68	.9938*
Senior	21	68.4286	7.3659				

\*High probability  
 Supportive of research hypotheses

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Report of Program Graduates

Prior Academic Year 72 73

Institution: The George Washington University

No.	Pre-grad Area	(2) Student Information		(3) Financial Award Data		(4) Pre-para-tion Level	(5) Position Placement		(6) Program Type
		Sex	Other	No.	Amount		Type	Edu-cation Level	
M	F	Fed-eral	Other						
1	Resource Room/		X	X	\$1,000	R		E	
2	Elementary		X	X			res rm tch	E	pub sch dist
3	Teaching		X	X			res rm tch	E	pub sch dist
4	"		X	X			sp cl tch	E	spec day sch
5	"		X	X			grad sch	E	spec ed
6	"		X	X			grad sch	E	spec ed
7	"		X	X			grad sch	E	
8	"		X	X			pre-sch tch	E	spec day sch
9	"		X	X			res rm tch	E	pub sch dist
10	"		X	X			sp cl tch	E	pub sch dist
11	"		X	X			res rm tch	E	pub sch dist
12	"		X	X			res rm tch	E	pub sch dist
13	"		X	X			res rm tch	E	pub sch dist
14	"		X	X				E	
15	"		X	X			res rm tch	E	pub sch dist
16	"		X	X			sp cl tch	E	pub sch dist
17	"		X	X			res rm tch	E	spec day sch
18	"		X	X			sp cl tch	E	pub sch dist
19	"		X	X			res rm tch	E	pub sch dist
20	"		X	X					

Report of Program Graduates

Prior Academic Year 72 73

AVAILABLE

The George Washington University

Order	(3) Financial Support Data			(4) Pre- para- tion Level	(5) Position Placement		(6) Program Type	(7) Geographical Location of Position		
	No.	Source			Type	Edu- ca- tion Level		Town/City	R/U	State
		Fed- eral	Other							
										California
			\$1,000	R						Maryland
	X				res em tch	E	pub sch dist	Beltsville		New Jersey
	X				res em tch	E	pub sch dist			New York
	X				sp cl tch	E	spec day sch	Flushing		New York
	X				grad sch	E	spec ed	Columbia Univ.		California
	X				grad sch	E	spec ed	American Univ	U	Washington
	X					E				New York
	X				pre-sch tch	E	spec day sch	Beaver Hills		Maryland
	X				res em tch	E	pub sch dist	Takoma Park		Maryland
	X				sp cl tch	E	pub sch dist	Landover		Maryland
	X				res em tch	E	pub sch dist	Lanham		Maryland
	X				res em tch	E	pub sch dist	Chesley		Maryland
	X				res em tch	E	pub sch dist	Nassau Co.	U	New York
	X					E				France
	X				res em tch	E	pub sch dist	Gainesville	R	Virginia
	X				sp cl tch	E	pub sch dist	Tallahassee	R	Florida
	X				res em tch	E	spec day sch			Florida
	X				sp cl tch	E	pub sch dist			Florida
	X				res em tch	E	pub sch dist	Unionville	R	New York
	X									
	X									

110

Report of Program Graduates

- A -

Prior Academic Year 73-74

Handicap and Program Type SCT-Resou

Agency/Institution:

The George Washington University.  
Complementary Teacher Program

Number of Graduates	(2) Student Information		(3) Financial Support Sources		(4) Preparation Level	(5) Preparation Type		(6) Position Information		(7) Placement	
	Sex	Other	No	Yes		In Serv	Pre-Serv	Position Type	Education Level		
				Sources							
				Federal Amount							Other Amount
1		X		L200	B		FT	Resource Rm. tchr.	E	PSD	
2		X		↑				" " "	E	PSD	
3	X							" " "	E	PSD	
4		X						Res. Rm. tchr.	E	PSD	
5		X						Res. Rm. tchr.	E	PSD	
6		X						Res. Rm. tchr.	E	PSD	
7		X						Res. Rm. tchr.	E	PSD	
8		X						Res. Rm. tchr.	E	PSD	
9		X						" " "	E	PSD	
10		X						SCT	E	SPS	
11		X						Res. Rm. tchr.	E	PSD	
12		X						" " "	E		
13	X							" " "	E		
14		X						Res. Rm. tchr.	E		
15	X							" " "	E		
16		X						Res. Rm. tchr.	E		
17		X						Res. Rm. tchr.	E		
18	X							Reg. Class	E		
19		X						Res. Rm. tchr.	E		
20		X						Res. Rm. tchr.	E	PSD	
21		X		V	B		FT	Res. Rm. tchr.	E	PSD	

Report of Program Graduates

- A -

Prior Academic Year 73-74

Handicap and Program Type SCT - Resource Rcom.

The George Washington University.  
Complementary Teacher Program

(3)		(4)	(5)		(6)		(7)	(8)		
Financial Support Data		Preparation Level	Preparation Type		Position Information		Placement Type	Geographical Location of Position		
No	Yes		In Serv	Pre-Serv	Position Type	Education Level		Town/City	R/S/U	State
Sources										
Federal Amount	Other Amount		FT	PT						
L100		B	FT		Resource Rm. tchr.	E	PSD	Greenbelt	S	Maryland.
					" " "	E	PSD	Camp Springs	S	Maryland.
					" " "	E	PSD	Macleod Hgts.	S	Maryland.
					Res. Rm. tchr.	E	PSD	Macleod Hgts.	S	Maryland.
					Res. Rm. tchr.	E	PSD	Fairfax Co.	S	Virginia
					Res. Rm. tchr.	E	PSD	Toxona Park	U	Maryland.
					" " "	E	PSD	West Linton	E	Maryland.
					SCT	E	SPS	Philadelphia	S	Penna.
					Res. Rm. tchr.	E	PSD	Fairfax Co	S	Virginia.
					" " "	E		Hyattsville	U	Maryland.
					" " "	E		Fairfax Co	S	Virginia
					Res. Rm. tchr.	E		College Park	U	Maryland
					" " "	E		Prince Georges Co	S	Maryland
					Res. Rm. tchr.	E		Manassas	S	Virginia
					Reg. CLASS	E		Surrellsville	S	Maryland.
					Res. Rm. Rm	E		Pr. Wm Co.	U	Virginia
					Res. Rm. tchr.	E	PSD	Blitt Co.	S	Maryland

APPENDIX C

1. Article "Complementary Teaching"
2. Supervisory Personnel Forms
3. Student Devised Evaluation Forms

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from the author of . . . . .

*"Rusty of Happiness House,"*

*another story to make you feel good about school*

# COMPLEMENTARY TEACHING

by Marcia Gregg

photographs by the author

TWO SMALL CAKES with lighted candles are set before the Vietnam veteran and the nine year old girl. The video camera moves in and the chorus breaks into "Happy Birthday." It is not a surprising scene at J. Fnos Ray Elementary School in Takoma Park, where George Washington University students are in training as "complementary teachers."

The veteran is one of the University juniors who are paired with elementary students for a year-long seminar and laboratory in special education at a Maryland school in the Washington suburbs. The children are chosen to represent a variety of learning disabilities.

This unique program for student teachers (and at the same time a battery of resource services for an elementary school) is the result of an agreement between George Washington University and the Prince George's County Schools. It's a pilot program funded in part by the Bureau for the Educationally Handicapped (HEW).

"We believe equal educational opportunities are provided best for all when handicapped children are kept in the mainstream of their school's program," Dr. Rita Ives, former and super sale man of the "complementary teacher" program says. Dr. Ives is now coordinator for special education and early childhood programs at George Washington University.

*(Continued on Page 14)*

The MARYLAND TEACHER

(from page 12)

"The course is built around the premise that a large percentage of special education children can be successfully serviced within regular

classes by school-based intervention teachers, supporting and complementing the regular teaching program."

It's a happy marriage between the

University and the public school, for Mrs. Rogene Higgins, principal at J. Enoe Ray, subscribe to the philosophy that most children with special needs function best in the regular classroom.

"But most classroom teachers need help in programming for individual needs," Mrs. Higgins points out. "After they organize classes into several skill levels for reading and arithmetic, they haven't the time, and most don't have the training to assess a child's style of learning and initiate a prescribed teaching technique."

In return for the resource and teaching services provided by the University, the public school offers classrooms and children.

### The Many Faces of Kids

The widest possible variety of behavior patterns is the criterion for selecting the J. Enoe Ray students for the teacher-training phase of the program. Mrs. Higgins, Miss Fattie Nakewaja, counselor, and classroom teachers furnish background information and confer with the George Washington staff: Dr. Michael Castleberry, complementary teacher coordinator; Mrs. Nancy Sobel, special education instructor; and Mrs. Mona Wireberg, teaching assistant. Included in the two seminar groups are children in grades 2 through 6. They are aggressive, submissive, angry, passive. The complementary teacher candidate who works in the school for an entire year, is exposed to a representative range of learning disabilities and behaviors.

Children in the operational models, not part of the seminar program, were selected because of their special needs. The GWV staff worked with these small groups on a regularly scheduled basis. Eight sixth-grade boys, whose many frustrations bound them together in playground aggression and classroom rebellion, met three times a week with Dr. Castleberry and Mrs. Sobel and formed the "Co-op Club." They chose their own project, a giant rock ball game. The playing field took up a considerable portion of the classroom floor. Players were made and named by members of the club. Writing the rules and actually playing the game and

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teaching others became a long, slow exercise in cooperation. The teachers called this the "caring" group and directed the energies of the boys toward discovering alternatives to their frustrating attempts at handling their society.

There were other models, a fifth and sixth grade girls' coping club, a group of kindergartners and first graders developmentally behind, and one of second and third graders in need of remedial reading help. When the GW staff is not busy with their teacher-training seminars or the model groups, they are available for consultant help to teachers in diagnosis and programming.

### A Typical Day

The university juniors and their assigned students meet throughout the fall semester all day each Tuesday and Thursday. The teacher-trainers are briefed before they go after their young charges for the seminar program. They sit with their students and help them with the day's activity. It may be learning a new phonics game, making self-image dolls in the school wood shop, or "acting out" with the dolls in a puppet show. Recorded on video tape, the children and student teachers have frequent opportunities to review their own behavior and the effectiveness of their teaching techniques.

When the children return to their classrooms, they are accompanied by their "GW teachers" who spend the rest of the day helping and observing them as well as other children in the classrooms who exhibit special needs. The afternoon seminar group reverses the schedule spending the mornings in the classrooms.

Early in the year it was evident that close relationships were developing between the GW students and their young counterparts. They walked hand-in-hand down the hall, sat together in a corner of the seminar room making a learning skill game for the rest to play, or spent their recess time making a doll house for their smaller brothers and sisters at home.

A tall bearded University student kneels beside his retreating charge and prods him out of his shell and

into the group activity. A cool holds her angry, explosive-shouting, third grade boy tightly in her arms, restraining him while she talks softly, "There's another way to do this, George. Cool it and let's figure it out."

The student teachers are putting together a melange of the theories they study: Murry's "Autistic Perception," or Redf's "Life Space Interview." But it's much more than that. They are personally involved in the lives of the children. "Interacting" is listed as a skill to be acquired and developed by the complementary teacher candidates.

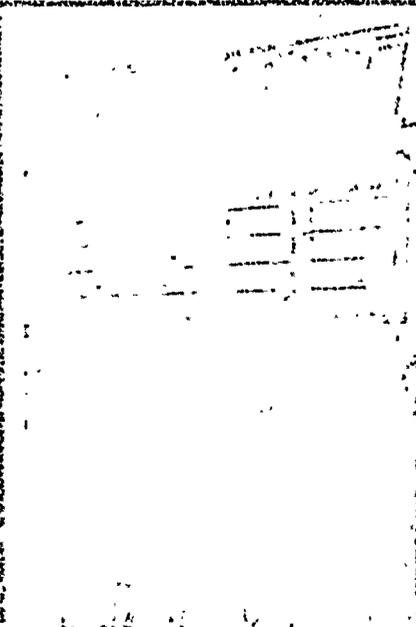
If success isn't instant, the student teacher is encouraged by long range indications. There's Edith who spoke in single and two-word sentences in a near whisper when she joined the group in September. In her second year of kindergarten, she didn't know "in" from "out", couldn't name numbers beyond "1", and was unresponsive to the group stimuli. Edith's GW teacher grasped at each opportunity to draw out a third and fourth word, played "Simon says," and repeated the directions of seminar activities in

exaggerated voice and dramatic pantomime. The supplemental experiences are helping Edith. Only recently she began looking at the persons speaking to her, and she can carry out two simple directions given simultaneously.

### Program Is Unique

Such extra services as the reading and speech teachers offer in elementary schools, predate most other special programs. More recently the school-based "floater," "crisis," and "diagnostic and prescription" teachers have appeared to offer supportive services to classroom teachers. The uniqueness of the complementary teacher program, however, is the school-based training designed to prepare the across-categories teachers for their roles as interventionists.

Following his junior year with a minimum of 325 clock hours in the demonstration seminar program, the senior complementary teacher candidate becomes an intern in yet another school. He designs, introduces, and operates a complementary teaching model program. Under the mentorship of both the University



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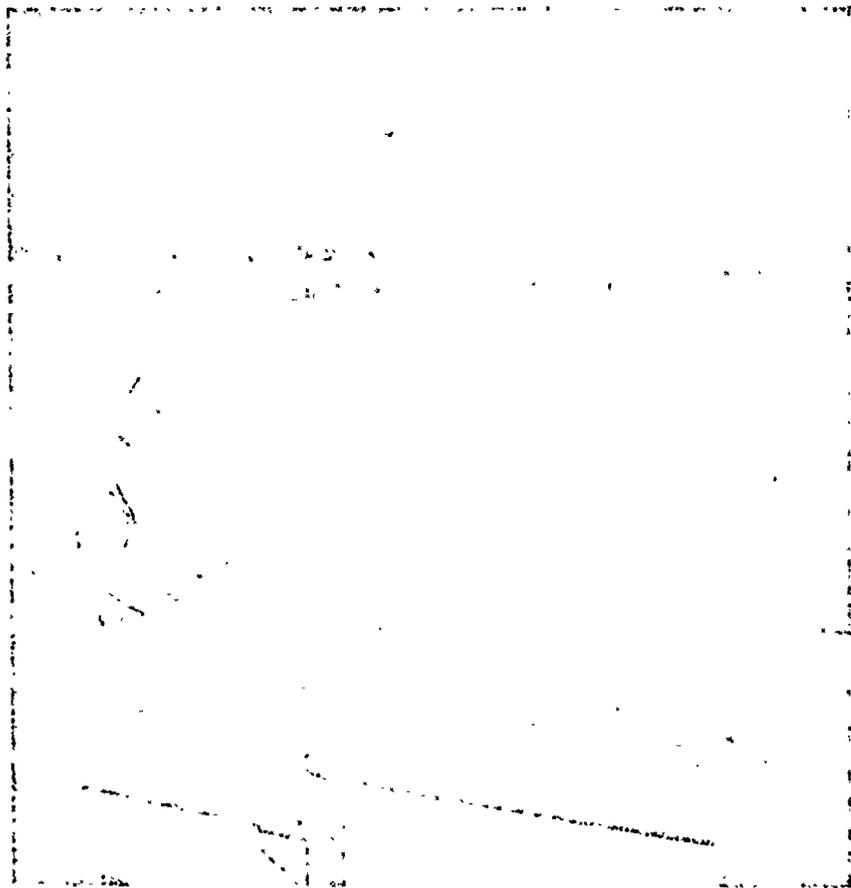
CITY \_\_\_\_\_ STATE \_\_\_\_\_ ZIP \_\_\_\_\_

and the school, he practices his trade for a minimum of eight weeks.

In 1972, nine students made up the first group to graduate from George Washington in the complementary teacher program. All are teaching today, five as school-based interventionists as they were trained. To date, approximately 25 are expected to finish in the next two classes.

A process evaluation of this experiment in special education teacher training has been made, and a product evaluation is due in 1974.

"The program will continue to evolve," Dr. Ives predicts. "To teach is to be involved in an ongoing diagnostic process. As lifestyles change, combinations of learning disabilities, and the teaching services they require, change. The experiences encountered working with exceptional children provide the 'reality' or 'specific' to which is tied the general knowledge of psychology, sociology, and pedagogy. We believe that 'real' experiences with 'real' children produce 'real' teachers." △

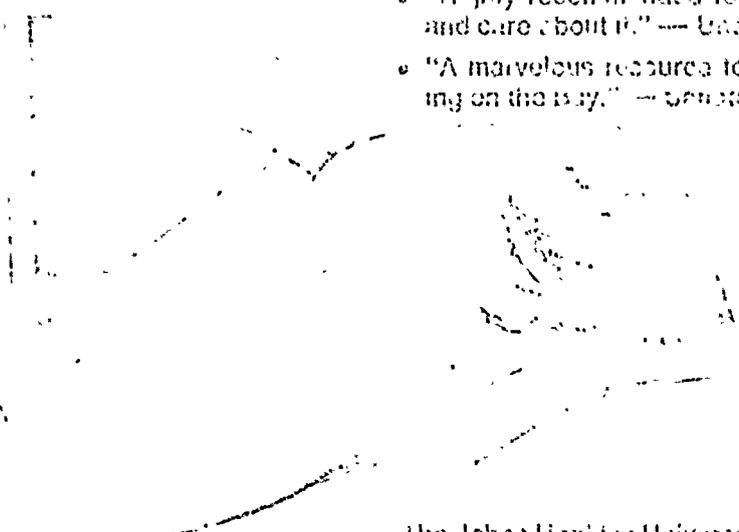


Alphabetic or phonics games are created, built, and taught to others in the seminar group by teams of GLE students and their J. Enos Ray Elementary School charges.

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SUPERVISORY PERSONNEL EVALUATIONS  
OF THE COMPLEMENTARY TEACHER PROGRAM INTERNSHIPS

The George Washington University  
 School of Education  
 Department of Special Education.

Complementary Teacher Intern Doreen Sabell  
 Internship Site Benjamin Stoddert  
 Supervisory Personnel Walter Tava

- Describe the Special Education Complementary Teaching Program as you have come to understand it through the performance of the Complementary Teachers in your building this term. *The program has been one of complementing the classroom teacher and helping the student to regain or seek the areas he (she) can be successful in, giving the student a purpose to come to school.*
- Did the Complementary Teaching Program offer your school a special education service? *Yes.*

Define the service provided. *There has been only one resource room teacher at Benjamin Stoddert before Doreen and Skip arrived. She hadn't even begun to scratch the surface. Both Doreen and Skip have made an impact upon the school's students who haven't been coming to school, began to come. They →*

- Evaluate the performance of your Complementary Teachers. Were they:

	Poor	Adequate	Excellent
(1) Self-Directed	1	2	(3)
(2) Prepared and Proficient at <u>all</u> times	1	2	(3)
(3) Totally involved in your school program	1	2	(3)

Comments:

*I feel that Doreen and Skip have done a great job. Both of them are beautiful people. Please keep Stoddert in mind for next year for interns. They need all of the help they can get.*

The George Washington University  
 School of Education  
 Department of Special Education

Complementary Teacher Intern Rita Greeley  
 Internship Site Valley View  
 Supervisory Personnel Joseph Logan

1. Describe the Special Education Complementary Teaching Program as you have come to understand it through the performance of the Complementary Teachers in your building this term.

To extend or compliment the regular ongoing program here at Valley View. Toward this goal, Mrs. Greeley worked with small groups of students in all areas of the curriculum. It was necessary for her to maintain a classroom and work closely with the administration and staff.

2. Did the Complementary Teaching Program offer your school a special education service?

Define the service provided.

Yes, very definitely. She performed well, according to her role. (above). She was able to maintain good rapport with the classroom teachers.

3. Evaluate the performance of your Complementary Teachers. Were they:

	Poor	Adequate	Excellent
(1) Self-Directed	1	2	3
(2) Prepared and Proficient at <u>all</u> times	1	2	3
(3) Totally involved in your school program	1	2	3

Comments:

It has been a pleasure to have Mrs Rita Greeley work in our school. In my opinion, she is a Pro working with the Administration, staff, and students.

4.5

The George Washington University  
School of Education  
Department of Special Education

Complementary Teacher Intern Linda Fialkow  
 Internship Site Taylor Elem.  
 Supervisory Personnel Mr. Kacsmavile

1. Describe the Special Education Complementary Teaching Program as you have come to understand it through the performance of the Complementary Teachers in your building this term.

*A resource program in which teachers work in an interventionist role providing additional help for children with special needs.*

2. Did the Complementary Teaching Program offer your school a special education service?

*Yes*  
 Define the service provided.

*Special educational needs were met for children which can't be fully met within a regular program.*

3. Evaluate the performance of your Complementary Teachers. Were they:

	Poor	Adequate	Excellent
(1) Self-Directed	1	2	(3)
(2) Prepared and Proficient at <u>all</u> times	1	2	(3)
(3) Totally involved in your school program	1	2	(3)

Comments:

*An excellent program which provided many benefits for each child participating.*  
*Linda P. Kacsmavile*

**Student Devised Evaluation Instrument**

## SPECIAL EDUCATION QUESTIONNAIRE

SPECIAL EDUCATION 102: Teaching the Child with Special Needs: Techniques and Methods

SPECIAL EDUCATION 103: Teaching the Child with Special Needs: Creative Programming

1. What is your reaction to your experiences at J. Enos Ray in relation to your overall teacher-training?

It was an enormous asset into the training because it enabled us to practice all our theories and ideas from seminars w/ "real" kids who gave us "real" reactions to them.

2. Did you find that the assignments complemented the goals of the two courses?

Pretty much - there seemed to be good continuity in both assignments & seminars.

3. Do you have any suggestions as to how the courses and/or assignments could be altered to better accomplish these goals?

I do think the juniors should be programmed to see Comp. programs, as you will be doing next yr.

4. Do you feel that the courses could have been equally as valuable if held in a university classroom?

No, a classroom environment would have, at most, resulted in verbalization of the techniques and methods; in order to internalize them, we had to practice and experience it.

## SPECIAL EDUCATION 189. Pre-Professional Internship in Special Education I

1. Do you think that the nine hours per week invested in this course were an enrichment to your experiences in Special Education 102?

yes; it enabled us to see a more "total" picture of a child's functioning in his "regular" environment. Helped us to see importance of collecting all kinds of info about child when trying to program him for success.

## SPECIAL EDUCATION 170. Interpersonal; Intrapersonal Relationships for Teachers

1. Do you feel that the group seminar in Special Education 170 was a valuable addition to your special education training?

Yes, it played an important role but I don't think I got as much out of it as I would have had I (personally) known more about the program and felt more comfortable about it at that time.

2. In what ways would you change or improve this course?

I personally probably would have gotten more out of it if it had been 2<sup>nd</sup> semester; I really didn't know much about the program until then. Add more role-playing of specific situations that are likely to occur in schools.

## SPECIAL EDUCATION 190. Pre-Professional Internship in Special Education II

1. How valuable did you find the visits and guest speakers in Sp. Ed. 190?

These speakers were valuable as were some of visits. Several visits, however, were a waste of time - poor directions, poor facilities once we got there; staff not really very joyful to have us, etc. Perhaps a more thorough screening - or even cutting down the number of places from which to choose - would result in more positive experiences with the visits. (i.e., closer contact with fewer places).

2. Do you feel that the same insights into special education could have been accomplished in any other ways?

Probably not - first-hand experience is still the best. On a pinch, some well-made films or slides depicting the various services could be used. These would also be helpful in previewing the places to be visited or for scanning the whole range of services.

SPECIAL EDUCATION 101: Seminar. Dimensions of the Complementary Teaching Role

1. In what ways has Special Education 101 enhanced your elementary and special education training?

Of all the spec. ed. courses this one had the most impact and effect on my training. The material covered was material that I had been repeatedly exposed to over a period of 5 yrs. I found the course redundant because of this.

2. How could the course be improved? -

Deal with curricular measures in reading, math, writing; deal with relevant problems facing comp. teachers in schools; perhaps role-play notions of setting up a comp. program.

Do you feel that the theories, materials, methods and techniques, etc. covered in the special education undergraduate program is redundant of what you encountered in regular elementary education courses?

Not at all - el. ed. did not reach depth nor range of the experiences in sp. ed. It did complete our knowledge of how to teach, however.

El. ed - how to teach subjects +  
Sp. ed - ... .. kids = a super-teacher!  


## SPECIAL EDUCATION QUESTIONNAIRE

SPECIAL EDUCATION 102: Teaching the Child with Special Needs: Techniques and Methods

SPECIAL EDUCATION 103: Teaching the Child with Special Needs: Creative Programming

1. What is your reaction to your experiences at J. Enos Ray in relation to your overall teacher-training?

The experiences provided at Ray were by far the most meaningful and purposeful for me, with the exception of our internship.

2. Did you find that the assignments complemented the goals of the two courses?

Each assignment was again as purposeful as the experiences. It was hard for me to understand this completely when doing the assignments however everything fell into place as each goal was met.

3. Do you have any suggestions as to how the courses and/or assignments could be altered to better accomplish these goals?

I know that time was a big factor, but I would have liked another opportunity to construct and initiate a unit.

4. Do you feel that the courses could have been equally as valuable if held in a university classroom?

No! Being in the elementary school made it all real.

## SPECIAL EDUCATION 199. Pre-Professional Internship in Special Education I

1. Do you think that the nine hours per week invested in this course were an enrichment to your experiences in Special Education 102?

To an extent, yes - but I feel I would have gotten just as much out of being in the classroom in less hours per week. Depending on just how much interaction the classroom teacher permitted permits makes a difference.

## SPECIAL EDUCATION 170. Interpersonal, / Intrapersonal Relationships for Teachers

1. Do you feel that the group seminar in Special Education 170 was a valuable addition to your special education training?

Sp.Ed. 170 was valuable for me in that it brought me "out of my shell" and made me more aware of myself and others. It was a course where I find myself referring back to material we read and philosophies presented. The group seminar however may have been a bit more structured so that we didn't get off on so many tangents.

2. In what ways would you change or improve this course?

see above = more structure, less irrelevance.

## SPECIAL EDUCATION 190. Pre-Professional Internship in Special Education II

1. How valuable did you find the visits and guest speakers in Sp. Ed. 190?

The visits and speakers were valuable in that they exposed us to the many facets of the special education continuum.

2. Do you feel that the same insights into special education could have been accomplished in any other ways?

I would have liked to see more comp. teacher programs in action.

**SPECIAL EDUCATION 101: Seminar. Dimensions of the Complementary Teaching Role**

1. In what ways has Special Education 101 enhanced your elementary and special education training?

It helped to put everything in perspective and provide us with methods and ~~matter~~ materials which have proved to be extremely useful in the operational model.

2. How could the course be improved?

I found it very helpful as our last bit of preparation before becoming practicing professionals.

Do you feel that the theories, materials, methods and techniques, etc. covered in the special education undergraduate program is redundant or what you encountered in regular elementary education courses?

Absolutely not.

## SPECIAL EDUCATION QUESTIONNAIRE

SPECIAL EDUCATION 102: Teaching the Child with Special Needs: Techniques and Methods

SPECIAL EDUCATION 103: Teaching the Child with Special Needs: Creative Programming

1. What is your reaction to your experiences at J. Enos Ray in relation to your overall teacher-training?

I feel these experiences were invaluable to my overall teacher training. They gave me practical knowledge and many insights in successful techniques to be used when working with children. I need so much to work directly with children in order that I realize all the components necessary for successful teaching.

2. Did you find that the assignments complemented the goals of the two courses?

At that time, I felt the ~~courses~~ assignments to be very valid and meaningful in order to gain a complete picture of teaching procedures. These assignments gave me much insight into various teaching strategies and philosophies.

3. Do you have any suggestions as to how the courses and/or assignments could be altered to better accomplish these goals?

I hope students will be able to visit more complementary teacher programs in order to understand how the program works.

4. Do you feel that the courses could have been equally as valuable if held in a university classroom?

Definitely not - I feel the direct experiences with children are invaluable.

**SPECIAL EDUCATION 189. Pre-Professional Internship in Special Education I**

1. Do you think that the nine hours per week invested in this course were an enrichment to your experiences in Special Education 102?

Yes - I feel this helped me to understand the dynamics of a school as well as understanding the child I was studying.

**SPECIAL EDUCATION 170: Interpersonal; Intrapersonal Relationships for Teachers**

1. Do you feel that the group seminar in Special Education 170 was a valuable addition to your special education training?

Yes - I feel this course was very valuable in both understanding myself and my relationship to others as well as how to best work with a school system.

2. In what ways would you change or improve this course?

smaller discussion groups

**SPECIAL EDUCATION 190: Pre-Professional Internship in Special Education II**

1. How valuable did you find the visits and guest speakers in Sp. Ed. 190?

I found these visits to be very valuable in order to understand the full continuum of services. The guest speakers were very informative and gave me and insights to the needs of various systems.

2. Do you feel that the same insights into special education could have been accomplished in any other ways?

no

**SPECIAL EDUCATION 101: Seminar: Dimensions of the Complementary Teaching Role**

1. In what ways has Special Education 101 enhanced your elementary and special education training? The seminar pulled

together many of the philosophies and practical knowledge in order to be able to run a successful complementary seminar program. The course had many practical suggestions that were utilized.

2. How could the course be improved? more emphasis on

the dynamics of a school - how to best approach and support the faculty and administration.

more emphasis on teaching ideas and structure of what academic areas should be covered when children have more severe learning problems.

Do you feel that the theories, materials, methods and techniques, etc. covered in the special education undergraduate program is redundant of what you encountered in regular elementary education courses?

not at all - the entire schedule toward children as conveyed by the special education program was a very important input in my training. The education courses contained theories of teaching yet they had no relevance or practical application.

## SPECIAL EDUCATION QUESTIONNAIRE

- SPECIAL EDUCATION 102: Teaching the Child with Special Needs: Techniques and Methods
- SPECIAL EDUCATION 103: Teaching the Child with Special Needs: Creative Programming

1. What is your reaction to your experiences at J. Enos Ray in relation to your overall teacher-training? *The "in classroom" experience helped me a great deal in elementary student teaching. The most valuable experience at Ray was the opportunity to put theories into practice in real life situations with kids and school personnel.*
2. Did you find that the assignments complemented the goals of the two courses? *Yes*
3. Do you have any suggestions as to how the courses and/or assignments could be altered to better accomplish these goals?  
*The only suggestion in relation to 103 would be less observation while other S.W. teachers taught their units (i.e. visiting programs)*
4. Do you feel that the courses could have been equally as valuable if held in a university classroom? *No. The elementary school environment provided us with interactions with children, teachers and administrators that would not be available in a university classroom.*

**SPECIAL EDUCATION 189. Pre-Professional Internship in Special Education I**

1. Do you think that the nine hours per week invested in this course were an enrichment to your experiences in Special Education 102?

*My experience helped in student teaching - by familiarizing me with classroom techniques and materials. In relation to 102, this experience really allowed us to observe and know our children in another environment besides seminar.*

**SPECIAL EDUCATION 170: Interpersonal; Intrapersonal Relationships for Teachers**

1. Do you feel that the group seminar in Special Education 170 was a valuable addition to your special education training?

*Most discussions were valuable in getting to know each other and to understand the dimensions of relationships with people. Many of the discussions were very superficial with many people non-participants.*

2. In what ways would you change or improve this course?

*More role-playing of real life elementary school situations such as principal-C.T., classroom teachers-C.T. situations.*

**SPECIAL EDUCATION 190. Pre-Professional Internship in Special Education II**

1. How valuable did you find the visits and guest speakers in Sp. Ed. 190?

*The visits provided a wide scope of special education programs and services. It gave me a good idea where the C.T.P. fit in within a continuum of special ed. services and programs.*

2. Do you feel that the same insights into special education could have been accomplished in any other ways? I think each course was fantastic and beneficial preparation for setting up and running a program. The only additional suggestion would be visits to programs and visiting comp. teachers to speak.

**SPECIAL EDUCATION 101: Seminar: Dimensions of the Complementary Teaching Role**

1. In what ways has Special Education 101 enhanced your elementary and special education training? The course familiarized me with many materials which I have used. The visiting comp. teachers really helped to prepare us as to what was ahead.

2. How could the course be improved?

it was excellent as it was.

Do you feel that the theories, materials, methods and techniques, etc. covered in the special education undergraduate program is redundant of what you encountered in regular elementary education courses?

NOT AT ALL!!!

## APPENDIX D

1. Computer Programs
  - a. GRADES
  - b. t-Test

GGGGGG	RRRRR	AAAAAAA	DDDDD	EEEEEE	SSSSSS
G	R R	A A	D D	E	S
G	R R	A A	D D	E	S
G GGG	RRRRR	AAAAAAA	D D	EEEEEE	SSSSSS
G G	R R	A A	D D	E	S
G G	R R	A A	D D	E	S
GGGGGG	R R	A A	DDDD	EEEEEE	SSSSSS

GRADING

RECORD KEEPING

ANALYSIS

AND

DISPLAY

EDUCATIONAL

SYSTEM

AN EDUCATIONAL MANAGEMENT INFORMATION SYSTEM  
 DESIGNED AND IMPLEMENTED BY  
 G. CHARLES TACK, MS

SCHOOL OF MEDICINE  
 THE GEORGE WASHINGTON UNIVERSITY

SEPTEMBER, 1973



# GRADES -- AN EDUCATIONAL MANAGEMENT INFORMATICA SYSTEM.

## INTRODUCTION

GRADES IS AN EDUCATIONAL MANAGEMENT INFORMATION SYSTEM DESIGNED TO RELIEVE THE CLASSROOM INSTRUCTOR OF THE CLERICAL TASKS INVOLVED IN THE ADMINISTRATION OF MULTIPLE CHOICE EXAMINATIONS, THEIR EVALUATION, AND THE MAINTENANCE OF CLASS RECORDS.

HAVING ONCE ESTABLISHED A MAGNETIC TAPE FILE OF THE CLASS ROSTER, AND IDENTIFICATION NUMBERS, WITH THE "GRADTP" PROGRAM, GRADES WILL SCORE, ANALYZE AND MAINTAIN A FILE OF UP TO TWENTY EXAMINATIONS ON A SINGLE REEL OF MAGNETIC TAPE. THE GRADES SYSTEM WAS DESIGNED TO PROVIDE A GREAT DEAL OF FLEXIBILITY IN ITS PERFORMANCE WHILE MAINTAINING SIMPLICITY IN ITS USE.

GRADES HAS TWO SEPARATE INPUTS, ONE THROUGH "SYSIN" CONTAINS THE PARAMETER AND SUBSET INFORMATION DESCRIBED LATER, AND THE OTHER THROUGH "DATA" CONTAINS THE EXAM DATA WITH ITS KEY.

THOUGH DESIGNED FOR USE IN CONJUNCTION WITH THE OP SCAN 17 OPTICAL MARK PAGE READER AND GWMC STANDARD ANSWER SHEET - A, WHERE THE USER NEED ONLY SPECIFY THE EXAM NAME AND NUMBER OF QUESTIONS IN THE PARAMETER CARD, THE USER CAN, THROUGH THE USE OF OTHER SELECTED PARAMETERS, USE DATA PROCESSED BY THE IBM 1232 OPTICAL MARK PAGE READER, OR THE OP SCAN STANDARD ANSWER SHEETS, OR THAT HAVE BEEN KEYPUNCHED FROM OTHER SOURCES.

THE GRADES SYSTEM CONTAINS THREE MAJOR DISPLAY SECTIONS. THEY ARE THE "TEST GRADING SECTION", THE "ANALYSIS OF QUESTIONS (ITEMS) SECTION" AND THE "RECORD KEEPING SECTION". DETAILED INFORMATION ABOUT EACH OF THESE DISPLAY SECTIONS IS CONTAINED ON THE FOLLOWING PAGES. A FOURTH DISPLAY, THE "ERROR SECTION", IS PRODUCED ONLY WHEN ERRORS ARE GENERATED. THE ERRORS ARE LISTED IN THE ORDER OF DETECTION IN THE INPUT DECK TO MAKE THEM EASIER TO LOCATE. SINCE A SUBSET OF THE EXAMINATION IS TREATED AS A SEPARATE EXAM FOR PROCESSING, SOME ERROR MESSAGES MAY BE REPEATED IN THE ERRGR SECTION AS EACH SUBSET IS BEING PROCESSED.

TEST GRADING SECTION

ALL EXAM PAPERS SUBMITTED ARE INCLUDED IN THIS SECTION REGARDLESS OF WHETHER THERE IS OR IS NOT A MASTER RECORD FOR THE IDENTIFICATION NUMBER OF THE EXAM PAPER GRADED.

THE TEST GRADING SECTION WILL DISPLAY THE FOLLOWING:

- 1) FREQUENCY DISTRIBUTION OF GRADES, WITH VALUES FOR THE MEAN AND STANDARD DEVIATION.
- 2) FREQUENCY DISTRIBUTION OF ADJUSTED GRADES, IF THE PCST PARAMETER IS SET TO OTHER THAN 'ORIGINAL'.
- 3) HISTOGRAM OF GRADES, WITH THE MEAN (M) AND PLUS/MINUS 1, 2, AND 3 STANDARD DEVIATIONS (D) INDICATED ON THE X AXIS.
- 4) HISTOGRAM OF ADJUSTED GRADES, IF THE POST PARAMETER IS SET TO OTHER THAN 'ORIGINAL'.
- 5) ANALYSIS SECTION.
- 6) DISPLAY OF CORRECT ANSWERS (KEY).
- 7) DISPLAY OF STUDENT RESPONSES.
- 8) DISPLAY OF ITEM NUMBERS OMITTED, MISSED, OR MULTI-MARKED.
- 9) GRADING SUMMARY.
- 10) EXAM REPORT.

IF SUBSETTING IS PERFORMED, EACH SUBSET IS GRADED AND DISPLAYED IN THE ABOVE FORMAT.

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ANALYSIS OF QUESTIONS (ITEMS) SECTION.

ALL EXAM PAPERS SUBMITTED ARE INCLUDED IN THE ANALYSIS.

THE INDEX OF ITEM DIFFICULTY, THE INDEX OF DISCRIMINATION, AND THE TEST RELIABILITY (KUDER-RICHARDSON FORMULA 20) ARE COMPUTED USING THE CONCEPTS OF ROBERT L. EBEL AS DESCRIBED IN CHAPTERS 14 AND 15 OF HIS BOOK TITLED ESSENTIALS OF EDUCATIONAL MEASUREMENT, 1972, A COPY OF WHICH MAY BE FOUND IN THE LIBRARY (CATALOG LB 3051.E22).

THE ITEM EVALUATION PRINTED WITH THE VALUES FOR THE INDEX OF ITEM DIFFICULTY AND DISCRIMINATION ARE SELECTED AS FOLLOWS:

ITEM DIFFICULTY	ITEM EVALUATION	
76 AND UP	POOR	TOO DIFFICULT TO SHOW GOOD DISCRIMINATION
51 - 75	GOOD	HAS AT LEAST THREE-FOURTHS OF THE MAXIMUM POTENTIAL DISCRIMINATION
50	EXCELLENT	HAS MAXIMUM POTENTIAL DISCRIMINATION
25 - 49	GOOD	HAS AT LEAST THREE-FOURTHS OF THE MAXIMUM POTENTIAL DISCRIMINATION
BELOW 25	POOR	TOO EASY TO SHOW GOOD DISCRIMINATION
DISCRIMINATION	ITEM EVALUATION	
40 AND UP	EXCELLENT	VERY GOOD ITEM
30 - 39	GOOD	REASONABLY GOOD BUT POSSIBLY SUBJECT TO IMPROVEMENT
20 - 29	MARGINAL	USUALLY NEEDING AND BEING SUBJECT TO IMPROVEMENT
BELOW 20	POOR	TO BE REJECTED OR IMPROVED BY REVISION

VALUES FOR THE ABOVE ITEMS OF ANALYSIS ARE COMPUTED BASED ON THE CRITERION GROUPS OF APPROXIMATELY 27 PERCENT OF THE TOTAL GROUP WHO RECEIVED HIGHEST SCORES ON THE TEST, AND A LOWER GROUP CONSISTING OF AN EQUAL NUMBER FROM THOSE WHO RECEIVED LOWEST SCORES. THE REMAINING OR MIDDLE GROUP IS USED FOR RESPONSE COUNT INFORMATION AND INCLUSION IN TOTAL PERCENT CORRECT AND TEST RELIABILITY COMPUTATIONS.

THE INDEX OF ITEM DIFFICULTY REQUIRES THAT THE RESPONSE COUNTS FROM THE UPPER AND LOWER GROUPS TO THE CORRECT RESPONSE BE ADDED. SUBTRACT THIS SUM FROM THE MAXIMUM POSSIBLE SUM, THAT IS, THE SUM OF ALL RESPONSE COUNTS, INCLUDING OMIT AND MULTI, FOR THE UPPER AND LOWER GROUPS, AND DIVIDE THE DIFFERENCE BY THE MAXIMUM POSSIBLE SUM. THE QUOTIENT IS EXPRESSED AS A PERCENTAGE, THAT IS, MULTIPLY BY 100.

THE INDEX OF DISCRIMINATION REQUIRES THAT THE LOWER GROUP COUNT OF CORRECT RESPONSES BE SUBTRACTED FROM THE UPPER GROUP COUNT OF CORRECT RESPONSES. DIVIDE THIS DIFFERENCE BY THE MAXIMUM POSSIBLE DIFFERENCE, THAT IS, THE SUM OF ALL RESPONSE COUNTS, INCLUDING OMIT AND MULTI, FOR EITHER THE UPPER OR LOWER GROUP. THE QUOTIENT IS EXPRESSED AS A PERCENTAGE, THAT IS, MULTIPLY BY 100.

THE KUDER-RICHARDSON FORMULA 20 FOR TEST RELIABILITY REQUIRES THAT THE PROPORTION OF CORRECT RESPONSES TO EACH ITEM BE MULTIPLIED BY THE PROPORTION OF RESPONSES WHICH ARE NOT CORRECT. THESE VALUES FOR EACH ITEM ARE THEN ADDED FOR ALL ITEMS. THAT SUM, DIVIDED BY THE VARIANCE (SQUARE OF THE STANDARD DEVIATION OF THE TEST SCORES) AND SUBTRACTED FROM 1, IS THEN MULTIPLIED BY THE FRACTION OF THE NUMBER OF ITEMS IN THE TEST DIVIDED BY 1 LESS THAN THE NUMBER OF ITEMS.



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**RECORD KEEPING SECTION.**

ONLY THOSE EXAMS WHICH HAVE A MATCHING IDENTIFICATION NUMBER WITH ONE IN THE MASTER TAPE FILE ARE REPORTED IN THIS SECTION. (AN EXCEPTION TO THIS IS MADE IF THE PARAMETER TAPE = 'NO' HAS BEEN USED.)

CHECK THE ERROR SECTION TO RESOLVE UNREPORTED GRADES. THE TEST GRADING SECTION WILL CONTAIN ALL TEST INFORMATION UNREPORTED GRADES INDEXED BY THE ERRONEOUS I.D. NUMBER. A COMPARISON BETWEEN THE ERROR LIST AND THE COMPLETES (INC.) AT THE END OF THE LISTING HANDLED BY EXAM IN THIS SECTION MAY BE HELPFUL IN RESOLVING ERRONEOUS I.D. NUMBERS. GRADES FOR STUDENTS IN THIS CATEGORY MAY BE ENTERED VIA THE UPDATING PROCEDURE (GRADES = 'YES'), OR YOU MAY CORRECT THE I.D. NUMBERS ON THE DATA CARDS AND RESUBMIT THE EXAM.

THE ERROR SECTION WILL BE PRODUCED ONLY WHEN ONE OR MORE ERRORS ARE DETECTED. THIS SECTION WILL APPEAR ON A SEPARATE PAGE AND WILL BE EASILY RECOGNIZED BY STATEMENTS SUCH AS CARDS NOT IN ORDER, OR THERE IS NO CORRESPONDING RECORD ON TAPE, OR MESSAGES CONCERNING SUBSETTING.

THERE ARE ESSENTIALLY SIX SETS OF LISTINGS PRODUCED BY THIS SECTION. THEY ARE:

1. BY IDENTIFICATION NUMBER WITH NAME OMITTED.  
THIS LISTING MAY BE POSTED FOR STUDENT INFORMATION.
2. ALPHABETIC LISTING BY NAME.
3. RANKING BY AVERAGE TO DATE.
4. RANKING BY GRADE ON THE EXAM GRADED.
5. RANKING BY GRADE FOR EACH SUBSET, IF SUBSETTING IS SPECIFIED.
6. HISTOGRAM OF AVERAGE TO DATE.

THE USE OF CERTAIN PARAMETERS SUCH AS TAPE = 'NO' OR GRADES = 'YES' WILL RESULT IN AN ABBREVIATED SET OF LISTINGS.

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TABLE OF PARAMETERS.

PARAMETER NAME	DEFAULT VALUE	OPTIONS	NOTES
TITLE	BLANK	UP TO SIX CHARACTERS	DEFAULT CAN ONLY BE USED WHEN UPDATING AN EXAM WHERE TITLE IS INCLUDED IN THE DATA CARD. OTHERWISE THIS IS A REQUIRED ITEM.
QUESTIONS	0 (ZERO)	1 TO 150	THIS IS A REQUIRED ITEM, EXCEPT WHEN GRADES='YES'.
GRADES	'NO'	'YES'	
TAPE	'YES'	'NO'	
OPTICAL	'NO'	'YES'	
KEYS	1	1 TO 5	
RESPONSES	5	2 TO 9	
WEIGHT	1.00	0.00 TO 9.99	
DEPT	BLANK	UP TO TWENTY CHARACTERS	
MEAN	0.00	0.00 TO 100.00	USED ONLY WHEN ONE OF THE POST OPTIONS IS SELECTED. THE DEFAULT VALUE OF 0.00 WILL BE CHARGED IN THE SYSTEM TO THE COMPUTED IDEAL MEAN.
DEVIATION	0.00	0.00 TO 99.99	USED ONLY WHEN ONE OF THE POST OPTIONS IS SELECTED. THE DEFAULT VALUE OF 0.00 WILL BE CHARGED IN THE SYSTEM TO THE STD.DEV. OF THE TEST.

G R A D E S --- AN EDUCATIONAL MANAGEMENT INFORMATION SYSTEM.

TABLE OF PARAMETERS (CONTINUED).

PARAMETER NAME	DEFAULT VALUE	OPTIONS	NOTES
POST	'ORIGINAL'	'ADJUSTED' 'HIGHEST' 'COMBINE'	
SOCSEC	'YES'	'NO'	
SUBSET	0 (ZERO)	1 TO 5	
ITEMS	50	1 TO 150	
STU	150	3 TO NO LIMIT	LIMIT SET BY CORE SIZE OF COMPUTER IN USE.

EACH ITEM ON THE PARAMETER CARD(S) MUST BE SEPARATED BY A COMMA, OR BLANK(S).

THE LAST ITEM MUST BE FOLLOWED BY A SEMI-COLON(;).

ITEMS MAY APPEAR IN ANY ORDER.

ONLY THOSE ITEMS WHICH THE USER WISHES TO BE CHARGED FROM THE DEFAULT FOR THAT ITEM NEED BE INCLUDED ON THE PARAMETER CARD(S) EXCEPT FOR TITLE AND QUESTIONS, WHICH ARE REQUIRED ITEMS.

AN ITEM IS INDICATED BY THE ITEM NAME, AN EQUAL SIGN(=), AND THE VALUE. FOR ITEMS WITH A CHARACTER(ALPHABETIC) VALUE, THE VALUE MUST BE ENCLOSED BY APOSTROPHES(').

SAMPLE PARAMETER CARD:

TITLE='MS-01', QUESTIONS=100, TAPE='NG', OPTICAL='YES', ITEMS=40, DEPT='SAMPLE';

# GRADE S --- AN EDUCATIONAL MANAGEMENT INFORMATION SYSTEM.

## PARAMETERS

### DEPT

USED IN THE RECORD KEEPING SECTION OF THE SYSTEM AS PART OF THE PAGE HEADING FOR THE VARIOUS DISPLAYS TO IDENTIFY THE DEPARTMENT ISSUING THE EXAMINATION OR FOR WHAT EVER OTHER INFORMATION THE USER MAY DESIRE. DEFAULT IS A BLANK CHARACTER STRING. FORM: DEPT='AAAAAAAAAAAAAAAAAAAA'.

### DEVIATION

USED TO ADJUST THE GRADES TO PRODUCE THE SPECIFIED STANDARD DEVIATION FOR THE CLASS EXAMINATION. DEFAULT IS THE STANDARD DEVIATION COMPUTED FOR THE EXAMINATION BY THE PROGRAM. FORM: DEVIATION=XX.XX.

### GRADES

IF PERCENT GRADES ARE BEING SUBMITTED TO THE PROGRAM DIRECTLY, THEN ADD GRADES='YES' TO THE LIST OF PARAMETERS. DEFAULT IS GRADES='NO'.

### ITEMS

USED TO INDICATE HOW MANY RESPONSES ARE CONTAINED ON ONE CARD OR RECORD. WHEN USING THE OP SCAN STANDARD ANSWER SHEETS THIS WILL USUALLY BE SET TO 40. DEFAULT IS ITEMS=50.

### KEYS

IF MORE THAN ONE RESPONSE TO A QUESTION IS TO BE CONSIDERED CORRECT, THEN ADD KEYS=X WHERE X IS AN INTEGER VALUE SPECIFYING THE NUMBER OF SETS OF KEY CARDS SUBMITTED IN THE "DATA" INPUT. DEFAULT IS KEYS=1.

### MEAN

USED TO ADJUST THE GRADES TO PRODUCE THE SPECIFIED CLASS MEAN. DEFAULT IS THE ACTUAL CLASS MEAN WHEN THE POST PARAMETER IS SET TO "ORIGINAL" AND IS THE IDEAL MEAN COMPUTED BY THE PROGRAM WHEN THE POST PARAMETER IS SET TO ONE OF THE OTHER OPTIONS. FORM: MEAN=XXX.XX.

### OPTICAL

IF THE IBM 1232 OPTICAL MARK PAGE READER HAS BEEN USED TO PRODUCE THE KEY AND ANSWER DATA, OR IF OP SCAN STANDARD ANSWER SHEETS WERE USED (I.E. THE RESPONSES PUNCHED IN THE DATA CARDS MUST BE CONVERTED) THEN ADD OPTICAL='YES' TO THE LIST OF PARAMETERS. DEFAULT IS OPTICAL='NO'.

PARAMETERS (CONTINUED)

POST

USED TO SELECT THE GRADE TO BE POSTED IN THE RECORD KEEPING SECTION.  
DEFAULT IS POST='ORIGINAL', THE ORIGINAL CALCULATED GRADE.  
POST='ADJUSTED' WILL POST THE ADJUSTED GRADES AS CALCULATED USING  
THE MEAN AND DEVIATION PARAMETERS.  
POST='HIGHEST' WILL POST EITHER THE "ORIGINAL" OR THE "ADJUSTED"  
GRADES DEPENDING ON WHICH PRODUCED THE HIGHEST CLASS  
MEAN.  
POST='COMBINE' WILL DISPLAY BOTH THE "ORIGINAL" AND "ADJUSTED" GRADES,  
AND WILL POST THE "ORIGINAL" GRADES IN THE  
RECORD.

QUESTIONS      REQUIRED ITEM

INDICATES THE NUMBER OF QUESTIONS ON THE EXAMINATION, INCLUDING ANY  
OMITTED, (I.E. THE LAST QUESTION NUMBER USED ON THE EXAMINATION).  
THIS PARAMETER MUST APPEAR IN THE PARAMETER LIST, EXCEPT WHEN GRADES='YES'.  
DEFAULT IS QUESTIONS=0.

RESPONSES

INDICATES THE MAXIMUM NUMBER OF RESPONSES OR CHOICES TO ANY QUESTION ON  
THE EXAMINATION.  
A TRUE - FALSE EXAMINATION WOULD USE THE OPTION RESPONSES=2 IN THE  
PARAMETER LIST.  
DEFAULT IS RESPONSES=5.

SOCSEC

IN DISPLAYING THE GRADES, THIS OPTION WILL CAUSE THE IDENTIFICATION  
NUMBERS TO BE PRINTED IN THE FORM XXX-XX-XXXX.  
DEFAULT IS SOCSEC='NO' WHICH WILL CAUSE THE ID NUMBER TO BE PRINTED  
IN THE FORM XXXXXXXXX WITH LEADING ZEROS PRINTED.

SUBSET

USED TO INDICATE INTO HOW MANY SUBSETS THE EXAM IS TO BE DIVIDED.  
SEE THE SECTION ON SUBSETTING.  
DEFAULT IS SUBSET=0.

STU

USED TO INCREASE THE STORAGE REQUIREMENTS OF THE SYSTEM WHEN A CLASS SIZE  
IS GREATER THAN 150 STUDENTS. THE MAXIMUM VALUE ALLOWED WILL DEPEND ON  
THE PARTITION SIZE ALLOCATED ON A SPECIFIC COMPUTER.

G R A D E S — AN EDUCATIONAL MANAGEMENT INFORMATION SYSTEM.

PARAMETERS (CONTINUED)

TAPE

IF STUDENT RECORDS ARE NOT ON MAGNETIC TAPE, OR THE BOOKKEEPING ROUTINES ARE NOT DESIRED (I.E. GRADES ARE NOT TO BE POSTED IN THE RECORD) THEN ADD TAPE='NO' TO THE LIST OF PARAMETERS.  
DEFAULT IS TAPE='YES'.

TITLE            REQUIRED ITEM

INDICATES THE REFERENCE NAME OF THE EXAMINATION. THIS REFERENCE NAME IS USED TO CORRECT OR UPDATE AN EXAMINATION AT A LATER DATE, AND THUS MUST BE A UNIQUE NAME FROM OTHER EXAM NAMES THAT HAVE BEEN STORED IN THE TAPE RECORD.  
THIS PARAMETER MUST APPEAR IN THE PARAMETER LIST UNLESS YOU ARE USING THE UPDATING ROUTINE TO CORRECT MORE THAN ONE EXAMINATION IN THE JOB. SEE THE SECTION ON UPDATING ROUTINE.  
DEFAULT IS TITLE='            '.    FORM: TITLE='AAAAAA' WHERE 'A' IS A CHARACTER STRING OF UP TO SIX ALPHA-NUMERICS.

WEIGHT

INDICATES THE WEIGHT TO BE GIVEN TO THE EXAMINATION IN CALCULATING THE AVERAGE TO DATE.  
DEFAULT IS WEIGHT=1.00.

# GRADES --- AN EDUCATIONAL MANAGEMENT INFORMATION SYSTEM.

## SUBMISSION OF PREDETERMINED GRADES OR UPDATING PROCEDURE.

PARAMETER GRADES='YES'.

### DATA CARD FORMAT.

<u>VARIABLE.</u>	<u>CARD COLUMN</u>	<u>FORMAT</u>	<u>NOTES</u>
ID NUMBER	1 - 9	XXXXXXXX	
TITLE	10 - 15	AAAAAA	IF USED IT MUST BE EXACTLY COPIED FROM PREVIOUS TITLE USED INCLUDING LEADING BLANKS.
GRADE	16 - 21	XXX.XX	
WEIGHT	22 - 24	XXX	IMPLIED DECIMAL (X.XX)

### TITLE

IF GRADES SUBMITTED IN THE JOB ARE ALL FOR THE SAME TITLE (ADDING PREVIOUSLY CALCULATED GRADES TO THE STUDENTS ACCUMULATIVE RECORD, OR IF UPDATING ONLY ONE EXAM) THEN THE TITLE (CARD COLUMN 10 - 15) MAY BE LEFT BLANK IN THE DATA CARD AND INSERTED IN THE PARAMETER CARD FOR THAT JOB.

IF GRADES SUBMITTED IN THE JOB ARE TO UPDATE MORE THAN ONE TITLE THEN THE TITLE IS INSERTED IN THE DATA CARD AND THE TITLE PARAMETER OMITTED. THE TITLE PARAMETER WILL OVERRIDE THE TITLE FIELD IN THE DATA CARDS UNLESS THE PARAMETER TITLE IS BLANK OR OMITTED FROM THE PARAMETER CARD.

### GRADE

GRADE MAY BE PUNCHED ANYWHERE IN CARD COLUMNS 16 - 21 IF A DECIMAL POINT IS PUNCHED. OTHERWISE AN IMPLIED DECIMAL POINT IS ASSUMED AND THE INTEGER PORTION OF THE GRADE MUST BE PUNCHED IN CARD COLUMNS 18 - 19 AND THE DECIMAL PORTION PUNCHED IN CARD COLUMNS 20 - 21 (EXCEPT FOR A GRADE OF 100 WHICH IS PUNCHED IN CARD COLUMNS 17 - 19). THE DECIMAL PORTION MAY BE OMITTED IF ZERO. A GRADE OF "EXEMPT" OR "INC." MAY BE SUBMITTED OR YOU MAY USE THE ABBREVIATION E OR I AS LONG AS THE LETTERS E OR I ARE PUNCHED IN CARD COLUMN 16.

### WEIGHT

IF WEIGHT IS OMITTED FROM THE DATA CARD, OR 000 IS PUNCHED IN THE WEIGHT FIELD (CARD COLUMNS 22 - 24), THEN THE WEIGHT PARAMETER FROM THE PARAMETER CARD FOR THE JOB IS SUBSTITUTED. IF THE WEIGHT PARAMETER IS OMITTED, REMEMBER THAT THE DEFAULT FOR THE WEIGHT IS 1.00. IF TITLE PARAMETER FOR THE JOB IS OMITTED THEN THE WEIGHT DATA FIELD IN THE DATA CARD MUST BE PUNCHED.

SUBMISSION OF PREDETERMINED GRADES OR UPDATING PROCEDURE (CONTINUED).

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SUMMARY

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1. TO ADD A NEW SET OF GRADES TO THE STUDENT RECORD, (I.E.) ESSAY OR LAB GRADE, PUT THE TITLE OF THE EXAM AND THE WEIGHT OF THE EXAM IN THE PARAMETER CARD AND SET THE PARAMETER GRADES='YES'.  
FILL IN THE ID (CARD COLUMNS 1- 9) AND GRADE (CARD COLUMNS 16 - 21) ONLY IN EACH DATA CARD. IF YOU ARE UPDATING OR ADDING TO A SINGLE PREVIOUSLY STORED EXAM YOU MAY USE THIS PROCEDURE OR THE PROCEDURE FOR UPDATING MORE THAN ONE EXAM.
2. TO ADD TO PREVIOUSLY STORED EXAMS OR TO CHANGE GRADES OR WEIGHTS OF PREVIOUS EXAMS, LEAVE THE TITLE AND WEIGHT FIELDS OUT OF THE PARAMETER CARD AND PLACE THEM IN THE TITLE (CARD COLUMNS 10 - 15) AND WEIGHT (CARD COLUMNS 22 - 24) FIELDS OF EACH DATA CARD.
3. TO CHANGE THE WEIGHT OF A PREVIOUSLY STORED EXAM WHEN YOU HAVE NO ADDITIONS OR UPDATES TO MAKE UNDER THAT EXAM TITLE, PICK A STUDENT RECORD AND PUNCH THE ID, TITLE, AND GRADE FIELDS FROM THE RECORD AND PUT THE NEW WEIGHT IN THE WEIGHT FIELD OF THE DATA CARD. SINCE YOU ARE REPEATING THE STORED INFORMATION IN ALL FIELDS EXCEPT WEIGHT, THE STUDENTS RECORD WILL REMAIN UNCHANGED AND THE NEW WEIGHT WILL BE POSTED FOR THE EXAM AND NEW AVERAGES CALCULATED.
4. A SIMPLE WAY TO REMEMBER WHAT DATA IS REQUIRED IN THE DATA CARDS IS THAT IF TITLE IS PUNCHED, WEIGHT MUST BE PUNCHED OR IT WILL BE UPDATED TO A VALUE OF ZERO.

**G R A D E S --- AN EDUCATIONAL MANAGEMENT INFORMATION SYSTEM.**

**KEY AND EXAM DATA CARDS**  
-----

**PARAMETER GRADES='NO'.**

**DATA CARD FORMAT.**

<u>VARIABLE</u>	<u>CARD COLUMN</u>	<u>FORMAT</u>	<u>NOTES</u>
ID NUMBER	1 - 9	XXXXXXXX	
CARD NUMBER	10	X	
RESPONSES	11 - 50	X	MAY BE EXTENDED TO CARD COLUMN 80 WITH THE "ITEM" PARAMETER, OR FOR TAPE INPUT, "ITEM" MAY BE SET TO 150.

**I.D. NUMBER**  
-----

ANY NUMBER OF DIGITS UP TO A 9 DIGIT SOCIAL SECURITY NUMBER IS TO BE PLACED IN CARD COLUMNS 1 - 9 OF EACH CARD SUBMITTED. WHEN MORE THAN ONE CARD IS REQUIRED, (I.E. THE VALUE OF THE PARAMETERS "QUESTIONS" DIVIDED BY "ITEMS" IS GREATER THAN ONE) THE SYSTEM CHECKS EACH CARD IN THE SET FOR MATCHING I.D. NUMBERS. ERRORS WILL BE DISPLAYED IN THE ERROR SECTION UNDER "CARDS NOT IN ORDER" AND THE SYSTEM WILL HALT PROCESSING.

**CARD NUMBER**  
-----

IF MORE THAN ONE CARD IS REQUIRED, SEE I.D. NUMBER ABOVE, THEN EACH CARD IN A SET MUST BE SEQUENCE NUMBERED IN CARD COLUMN 10, STARTING WITH THE DIGIT 1. THIS IS REQUIRED FOR USER PROTECTION. A MAXIMUM OF 9 CARDS PER SET IS ALLOWED. ERRORS WILL BE DISPLAYED IN THE ERROR SECTION UNDER "CARDS NOT IN ORDER" AND THE SYSTEM WILL HALT PROCESSING.

**RESPONSES**  
-----

THE STUDENTS RESPONSES TO THE QUESTIONS ON THE EXAMINATION START IN CARD COLUMN 11 AND CONTINUE FOR THE NUMBER OF COLUMNS SPECIFIED IN THE PARAMETER "ITEMS".

G R A D E S --- AN EDUCATIONAL MANAGEMENT INFORMATION SYSTEM.

KEY AND EXAM DATA CARDS (CONTINUED).

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KEY CARD(S)

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THE KEY IS PUNCHED EXACTLY THE SAME AS THE STUDENT DATA CARDS, EXCEPT THAT THE I.D. NUMBER IS LEFT BLANK OR PUNCHED WITH ZEROS. IN PLACE OF THE RESPONSES, THE CORRECT ANSWER IS PUNCHED. A QUESTION MAY BE OMITTED FROM THE EXAM BY LEAVING THAT QUESTION BLANK IN THE KEY. THE SYSTEM ALLOWS THE USER TO SPECIFY THAT A QUESTION OR QUESTIONS IS TO HAVE MORE THAN ONE CORRECT RESPONSE. A SET OF KEY CARDS IS REQUIRED FOR EACH CORRECT RESPONSE DESIRED, WITH A MAXIMUM OF 5 SETS ALLOWED. EXCEPT FOR THE FIRST SET OF KEY CARDS, ONLY THOSE QUESTIONS WITH MORE THAN ONE CORRECT RESPONSE NEED BE PUNCHED, THE REST OF THE CARD IS LEFT BLANK.

CAUTION: IF A KEY REQUIRES MORE THAN ONE CARD IN THE SET, THE ADDED KEYS MUST ALSO CONTAIN THAT NUMBER OF CARDS WITH I.D. AND CARD NUMBERS PUNCHED, EVEN THOUGH THE REST OF THE CARD IS BLANK. THE USER MUST MAKE SURE THAT THE ADDED KEY SETS FOLLOW THE ORIGINAL KEY IN THE DATA DECK, SINCE BLANKS IN THE FIRST SET OF KEY CARDS SIGNAL AN OMITTED QUESTION. THE KEYS PARAMETER IS SET TO THE NUMBER OF SETS SUBMITTED. THE KEY SETS MUST BE THE FIRST CARDS OF THE "DATA" DECK.

WHEN USED WITH THE OPTICAL SCANNING AT G.W.U. THE "DATA" CARDS ARE AUTOMATICALLY FORMATTED, AND THE USER NEED ONLY FILL OUT A ANSWER SHEET WITH THE CORRECT RESPONSES FOR THE KEY AND MARK ADDITIONAL SHEETS FOR ADDED KEYS ONLY IN THOSE QUESTIONS THAT HAVE MULTIPLE CORRECT ANSWERS.

## G R A D E S --- AN EDUCATIONAL MANAGEMENT INFORMATION SYSTEM.

### SUBSETTING AN EXAM

PARAMETER SUBSETS=X WHERE X IS GREATER THAN 0 (ZERO).

#### DATA CARD FORMAT

SUBSET DATA CARDS ARE PUNCHED IN FREE FORMAT (I.E. THERE ARE NO SPECIFIED CARD COLUMNS RESERVED FOR THE DATA).

THE DATA ITEMS MUST APPEAR IN THE FOLLOWING ORDER, SEPARATED BY COMMAS OR BLANKS: SUBSET NAME, NUMBER OF QUESTIONS IN THE SUBSET, QUESTION NUMBERS IN ASCENDING ORDER. NO SEMI-COLON REQUIRED AT THE END OF THE DATA CARD. SUBSET NAME MUST BE ENCLOSED IN APOSTROPHES('), AND CONTAIN LESS THAN SIX CHARACTERS.

EXAMPLE: 'MATH',5,1,9,21,50,56

SUBSET NAME IS MATH, THE SUBSET CONTAINS 5 QUESTIONS WHICH ARE QUESTIONS 1,9,21,50, AND 56.

SUBSETTING IS FOR INFORMATIONAL DISPLAY ONLY, AND CANNOT BE USED FOR PUSING TO A STUDENT'S RECORD. THE SUBSET INFORMATION IS NOT STORED AND THEREFORE IS LOST AT THE CONCLUSION OF THE JOB.

WHEN SUBSETTING IS SPECIFIED, THE SYSTEM WILL, AFTER PROCESSING THE ENTIRE EXAM, EXTRACT EACH SUBSET FROM THE EXAM AND PROCESS IT AS A SEPARATE EXAMINATION. ALL INFORMATION DISPLAYED FOR THE WHOLE EXAM IS REPEATED FOR THE SUBSET. THIS IS A USEFUL TOOL TO THE USER WHEN HE DESIRES TO SEE HOW THE CLASS PERFORMED ON SELECTED AREAS OF THE EXAMINATION.

THE SUBSET DATA CARDS FOLLOW THE PARAMETER CARDS IN THE "SYSIN" INPUT DECK.

GRADES --- AN EDUCATIONAL MANAGEMENT INFORMATION SYSTEM.

DECK STRUCTURE

USE A JOB SUBMITTAL CARD AND SPECIFY UPACK1 IS TO BE USED, PLUS YOUR TAPE.

// STANDARD JOB CARD WITH ESTIMATED TIME SET AT 2 MINUTES FOR EACH EXAM AND  
SUBSET. (I.E. FOR AN EXAM WITH 2 SUBSETS USE  
6 MINUTES).

ESTIMATED LINES SET AT 2 THOUSAND FOR EACH EXAM  
AND SUBSET. (I.E. FOR AN EXAM WITH 2 SUBSETS USE  
6 THOUSAND LINES).

AND CLASS=8

// EXEC PL1X6, DSN='MS7387.TACK', PROG='GRADES'

//GC.PTR0 DD SYSOUT=A, DCB=(RECFM=UA, BLKSIZE=133), COPIES=1

//GO.ERR0R DD SYSOUT=A, DCB=(PFCFM=UA, BLKSIZE=133)

//GU.ITAPE DD VOL=SER=XXXXXX, UNIT=2400, DISP=(OLD, PASS), DSN=GRADAV,  
XXXXXX REPLACED BY YOUR TAPE SERIAL NUMBER

// DCB=(RECFM=FB, LRECL=155, BLKSIZE=2015)  
THE ABOVE TWO CARDS ARE TO BE OMITTED IF YOU ARE NOT USING TAPE

//GC.SYSIN DD \*  
PARAMETER CARD(S)  
SUBSET CARD(S) IF USING SUBSETTING

/\*  
//GO.DATA DD \*  
KEY CARD(S)  
STUDENT DATA CARDS  
OR PRE-PUNCHED GRADES MAY BE SUBSTITUTED FOR KEY AND STUDENT DATA.  
/\*

GRADES --- AN EDUCATIONAL MANAGEMENT INFORMATICA SYSTEM.

MASTER TAPE INITIALIZATION

THE MASTER TAPE FOR THE GRADES SYSTEM IS CREATED THROUGH THE USE OF A SEPARATE PROGRAM TO ELIMINATE THE ACCIDENTAL ERASURE OR REWRITING OF THE TAPE DURING THE RUNNING OF GRADES.

THE CARD FORMAT FOR SUBMITTING I.D. NUMBERS AND NAMES FOR THE TAPE FILE IS AS FOLLOWS:

<u>VARIABLE</u>	<u>CARD COLUMN</u>
-----------------	--------------------

I.D. NUMBER	1 - 9
NAME	11 - 36

A PARAMETER CARD IS REQUIRED WITH THE DEPARTMENT NAME OR COURSE I.D. PUNCHED IN CARD COLUMNS 1 - 40, AND IS PLACED IN FRONT OF THE CLASS ROSTER.

THE NAME IS TO BE PUNCHED IN THE FORM OF LAST NAME, FOLLOWED BY A COMMA, THEN THE FIRST NAME. IF THE PROGRAM DOES NOT FIND A COMMA, IT WILL PLACE THAT PORTION OF THE NAME FROM THE LEFT TO THE FIRST BLANK IN THE LAST NAME, AND THE NEXT NON-BLANK CHARACTER TO THE END OF THE NAME FIELD IN THE FIRST NAME. 15 CHARACTERS ARE ALLOWED FOR THE LAST NAME AND 11 CHARACTERS FOR THE FIRST NAME. IF EITHER NAME IS LONGER THEN ALLOWED, IT WILL BE TRUNCATED ON THE RIGHT.

DECK STRUCTURE

USE A JOB SUBMITTAL CARD AND SPECIFY UPACK1 IS TO BE USED, PLUS YOUR TAPE.

```
// STANDARD JOB CARD WITH ESTIMATED TIME SET AT 2 MINUTES
// ESTIMATED LINES SET AT 2 THOUSAND
// AND CLASS=9
// EXEC PLIX6,DSN='MS7387.TACK',PROG='GRADTP'
//GO.TAPE CL VOL=SER=XXXXXX,UNIT=2400,DISP=(NEW,PASS),DSN=GRADAV,
// XXXXXX REPLACED BY YOUR TAPE SERIAL NUMBER.
// DCB=(RECFM=FB,LRECL=155,BLKSIZE=2015)
//GC.SYSIN DD *
// PARAMETER CARD
// DATA CARDS
```



## 20. SUBPROGRAM T-TEST: COMPARISON OF SAMPLE MEANS<sup>1</sup>

Subprogram T-TEST provides the capability of computing Student's  $t$  and probability levels for testing whether or not the difference between two sample means is significant. Two types of tests may be performed:

1. Independent samples--cases are classified into two groups and a test of mean differences is performed for specified variables.
2. Paired samples--for paired observations arranged case-wise, a test of treatment effects is performed. For example, the same (or similar) individual (or object) is measured before and after treatment. This is sometimes called a correlated  $t$ -test.

The tests are for equality/inequality of the mean, but other hypotheses may be tested. The full range of SPSS data-modification and data-selection procedures may be used.

A brief introduction to testing hypotheses about sample means is presented here. Some users may prefer to skip directly to Section 20.2.

### 20.1. INTRODUCTION TO THE T-TEST OF SIGNIFICANCE

In many investigations, the researcher is primarily interested in discovering and evaluating differences between effects, rather than the effects themselves. For example, one may be interested in the difference in income for people at various levels of education. The most common of this type of analysis is the comparison of two groups of subjects, with the group means as the basis for comparison. An example of this would be to determine the difference in income between college graduates and non-graduates. This example is an instance where the two groups preexist the analysis. In some cases, a researcher may randomly assign subjects to two groups and apply a treatment to one group. Treatment effects are measured by comparing the two groups. For example, the effect of a brand of tooth paste on the prevention of cavities might be tested this way.

In the comparison of group means, the term "treatment" is used to refer to the basis on which the two groups are differentiated. In the

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<sup>1</sup>The T-test procedure was developed, programmed, and documented for the SPSS CDC-6400 version by James Tuccy at Northwestern University.

first example, college education is the treatment; in the second example, it is very natural to call the toothpaste the treatment.

### 20.1.1. THE PROBLEM

Since it is most often impossible, or at least impractical, to compute a group mean based on all members of the group, the researcher must use a sample. The true but unknown mean for a group is called the "population mean"; it is estimated by the "sample mean." The comparison of two group means is thus a problem of comparison of two sample means, and from that, inferring the difference between the means of the parent populations.

The basic problem is to determine whether or not a difference between two samples implies a true difference in the parent populations.

Since it is highly probable that two samples from the same population would be different due to the natural variability in the population, it is clear that a difference in sample means does not necessarily imply a difference in the populations. The preceding statement hits at the general approach to be used; namely, given a sample from each of the two groups, consider whether or not it would be "reasonable" to draw two such samples from a single population.

The goal of the statistical analysis is to establish that a difference between two samples is significant. "Significant" here does not mean "important" or "of consequence"; it is used here to mean "indicative of" or "signifying" a true difference between the two populations. The systematic approach used to test sample differences is as follows:

(1) A null hypothesis and a corresponding alternative hypothesis are formulated. The null hypothesis ( $H_0$ ) must be a precise statement, for which some statistic (and probability) can be computed.

Typically,  $H_0$  is what the researcher is trying to disprove or reject, so that the alternative hypothesis ( $H_1$ ) can be accepted. Most often  $H_0$  states that the population means are the same ( $H_0: \mu_1 = \mu_2$ ). Another possible statement:  $H_0$  is that the population means differ by

a specific amount (e.g.,  $H_0: \mu_1 - \mu_2 = 5.2$ ).  $H_1$  is usually the set of all other possible outcomes ( $H_1: \mu_1 \neq \mu_2$ ;  $H_1: \mu_1 - \mu_2 \neq 5.2$ ).

(2) A "significance level" for testing  $H_0$  is chosen. Since sampling is being used, a decision to accept or reject  $H_0$  cannot be made with absolute certainty; the decision must be based on probabilities. The significance level is the smallest probability that will be accepted as reasonable (i.e., due to chance or sample variability).

(3) The samples are taken and the two sample means and variances are computed.

(4) Assuming  $H_0$  is true, the t statistic (see below) is computed. From the frequency distribution of the statistic the probability of getting a more extreme value of the statistic is computed. Intuitively, this is the probability of drawing two samples that differ more than the pair actually drawn.

(5) If the probability computed in step 4 is smaller than the significance level chosen in step 2,  $H_0$  is rejected. If the probability is larger,  $H_0$  is not rejected. However, this does not necessarily imply that  $H_0$  is true, only that the true situation is not "significantly" different from that assumed by the null hypothesis.

Typical values for significance level chosen in step 2 are .05 or .01. The specific value of the significance level chosen is based both on the seriousness of the type I error (rejecting  $H_0$  when it is true) as opposed to the type II error (accepting  $H_1$  when it is false). The significance level is exactly the probability of rejecting  $H_0$  when it is true. Thus, if type I error is very serious, the significance level would be set correspondingly low (.001 is sometimes used). On the other hand, if type II error has the worse consequence, the significance level could be raised (e.g., .10).

## APPENDIX E

1. Complementary Teacher Program Course Outlines
2. Bibliography of Complementary Teacher Program Resource Text
3. Recruitment Correspondence
  - a. Description of Program
  - b. Letters re: Students Processing for CTP Acceptance
  - c. Dissemination Pamphlet

The George Washington University  
School of Education  
Department of Education

Special Education 101  
Fall Term 1973

Mrs. N. Sobel

SEMINAR: DIMENSIONS OF THE COMPLEMENTARY TEACHING ROLE

Course Purpose:

The purpose of this course is to provide experience that will build expertise in the many areas of operation essential to successful complementary teaching. These essential areas of operation are presented under three main headings:

1. Insights and Techniques of Group Management
2. Techniques of Remedial Instruction
3. The Complementary Teacher: The Operational Role

Instructional Objectives:

1. Knowledge of age appropriate fears, wishes, and interests.
2. Ability to sense subtle changes in the psychological climate.
3. Ability to select and utilize age appropriate finger plays, poetry, and literature in the service of group control.
4. Ability to utilize various systems for coding observational data.
5. Ability to utilize organizational devices in the services of group control.
6. Ability to purposefully initiate, conduct, and follow-through the Life Space Interview technique.
7. Familiarity with instructional/ remedial techniques in the area of reading, writing, and math.
8. Ability to delineate, describe, and operate the Complementary Teaching Model within the Continuum of Services.

Required Reading:

1. Carter, Ronald D. Help! These Kids Are Driving Me Crazy.
2. Gearheart, F.R. Education of the Exceptional Child.
3. Love, Harold D. Educating Exceptional Children in Regular Classrooms.
4. Meacham, Merle L. and Wiesen, Allen P. Changing Classroom Behavior: A Manual For Precision Teaching.
5. Rowen, Betty. The Children We See.

Course Requirements:

1. Participation in all seminar activities- role playing, discussions, presentations, and problem-solving groups.
2. Completion of all course assignments - ON TIME!
3. Class Attendance.



Assignment 1 - Review child development sources. Read Chapters 9 & 10 in Rowen book. Present a documented list of fears, interests, and wishes of the pre-school (4 to 6), primary (6 to 9), and intermediate (9 to 12) age child.

Due - September 20

Assignment 2 - Read Carter's book, Rowen's Chapter 4, and Teacham and Miesen's book. React to these books in terms of their practical application for you. Relate this to your child at Ray in terms of controlling his behavior.

Due - October 4

Assignment 3 - Read Chapters 1, 2, and 3 in the Gearheart book. Read Chapters 1 and 2 in the Love book. Present a paper in which you synthesize their individual presentations and in which you present the kind of information requested in the study guide for these books.

Due - October 18

Assignment 4 - Read Chapters 7 and 8 in the Gearheart book. Read Chapters 8 and 9 in the Love book. This assignment asks you to present a paper identical to the intent of assignment 3. Use the study guide.

Due - October 25

Assignment 5 - Read Chapter 10 in the Gearheart book. Read Chapter 3 in the Love book. React and compare. Follow the study guide.

Due - November 1

Assignment 6 - Read Chapter 11 and 12 in the Gearheart book. Read chapters 11 and 12 in the Love book. Synthesize the philosophies of these books. What controversial issues have meaning to you and where do you stand on these issues? Are you developing a philosophy of special education? Please feel free to express those budding philosophical thoughts.

Due - November 15

Assignment 7 - Conduct a thorough investigation of the resource services within a school and within that system. Discuss perceptions of a practicing Complementary Teacher about the within school and within system referral procedures to other resources. Compare these perceptions with the administrative explanation of how a referral works.

Due - November 29

The George Washington University  
School of Education  
Department of Special Education

Mrs. H. Sobel

Special Education 101  
Fall 1973

Study Guide

Education of the Exceptional Child  
By B.R. Gearheart

-- Educating Exceptional Children in  
Regular Classrooms by Harold L. Love

In this course you are required to read two related but diverse presentations of a single subject. The subject is the education of exceptional children. These books contain information that any "self-respecting special educator" should possess. After your year at Ray I, now you all fall into the above category.

The following questions are intended as a guide to your study. All questions will not apply to all chapters, most will! As you prepare the assignments concerned with these two books consider each of the following questions and when applicable include the answers in your papers.

1. What definitions are offered by the authors?
2. What salient characteristics do the authors present?
3. What range of programs are presented?
4. Which programs are the more typical?
5. What trends are delineated?
6. What important professionals are singled out as historically significant?
7. In your opinion, how is the special education population under consideration best serviced?
8. How does the population under consideration relate to the Complementary Teacher Program?
9. What is the bias of the author?
10. How does the bias of the author compare to the bias of this program?
11. What services presented would you tap as a Complementary Teacher?
12. Did you learn something new? What?

THE GEORGE WASHINGTON UNIVERSITY  
SCHOOL OF EDUCATION  
DEPARTMENT OF SPECIAL EDUCATION

SPECIAL EDUCATION 102  
Fall 1973

Mr. H. Castleberry  
Mrs. H. Sobel

Teaching the Child with Special Needs: Methods and Materials

COURSE PURPOSE: The purpose of this course is to sensitize future special educators to the educational and psycho-social needs of children who require the services of special education. This course will emphasize two primary points:

- (1) The role of interpersonal dynamics in special education, and
- (2) The adaptation of the curriculum and the psycho-social climate to meet individual needs.

COURSE REQUIREMENTS:

1. Attendance at both the Tuesday and Thursday demonstration seminars. The demonstration seminar is a 3 hour bi-weekly session conducted at the J. Enos Ray Elementary School. J. Enos Ray is located at the corner of New Hampshire Avenue and Ray Road in Prince George's County. The phone number is 270-2440.
2. Completion of written assignment ON TIME.
3. The preparation of teaching materials as needed.
4. Participation in all seminar activities, i.e. role playing, discussions, reports as indicated.
5. Final Exam.

COURSE OBJECTIVES:

Ability to recognize the dynamic information necessary to program a child for success.

Ability to collect dynamic information.

Ability to use dynamic information in adjusting the curriculum and the psychological climate to meet individual needs.

SPECIAL EDUCATION 102  
Fall term 1973

Mr. Castleberry  
Mrs. Sobel

REQUIRED READING:

1. Petry, Ann. The Street
2. Aston-Warner, Sylvia. Teacher  
Schwartz, Louis. "The Clinical Teacher" (Handout)
3. Mager, Robert. Preparing Instructional Objectives.
4. Carter, Ronald D. Help. These Kids are Driving Me Crazy.
5. Smith, Robert. Diagnosis of Educational Difficulties.
6. Saint Exupery, A. de. The Little Prince.
7. Williams, Margery. The Velveteen Rabbit.
8. Various class handouts
9. Review of designated research

COURSE SESSIONS:

September 11 - Introduction. Room 430, Building C

September 13 - First class at J. Enos Ray Elementary School. Everyone will attend from 9-12.

GENERAL DATE INFORMATION

Thanksgiving, November 22 - no class

Classes resume November 25

Classes End, December 6

Examination Period, December 12-21

The Child

The emphasis of this period will be on observing, noting and interpreting the behavior of the children referred to our service. We will be concerned with the selection of child participants.

SPECIAL EDUCATION 102  
Fall 1973

Mr. Castleberry  
Mrs. Sobel

Assignment 1: Complete the book The Street and present a paper in which you analyze the behavior of the child Bub. You are in possession of considerable intimate knowledge of this child. Direct your paper to the question "What is Bub all about?" Infer, speculate and interpret his total functioning. You are being asked to thoroughly know Bub as you will need to know each child with whom you will work in the future. This paper is due September 27.

Assignment 2: Read Mager's book, Preparing Instructional Objectives and Carter's book, Help These Kids Are Driving Me Crazy.

This assignment has two parts:

- A. The Mager book is precise in its specificity of learning objectives. Such precision can be interpreted so as to restrict the educational freedom of the child. React to this kind of preciseness in educational programming and its implications in providing a situation in which a child is free to learn. This possible curtailment of freedom can also be viewed in Carter's book. React to Carter's obvious desire to have teachers "manipulate" children. This assignment is primarily asking you to inspect and react to the concept of individual freedom as it relates to the Mager and Carter books.
- B. You are in possession of intimate knowledge concerning the child Bub. State three specific measurable instructional objectives based on your knowledge of Bub's academic needs, a la Mager. State three behavioral objectives based on your knowledge of his psycho-social needs, a la Carter.

This assignment is due October 11.

#### The Curriculum

This period will emphasize the elementary school curriculum as it specifically relates to the children of the demonstration seminar.

Assignment 3: Read Teacher.

- A. Relate the educational techniques and philosophy of Ashton-Warner to the children with whom we work at J. Enos Ray.
- B. Read Schwartz's article "The Clinical Teacher". Compare Schwartz's "teacher" and Ashton-Warner's "teacher".

This assignment is due October 25.

SPECIAL EDUCATION 102  
Fall Term 1973

Mr. Castleberry  
Mrs. Sobel

Assignment 4: There is a rich literature on the learning characteristics of the educable mentally retarded child. Research this literature and synthesize the information. Present a paper in which you discuss the learning characteristics of the educable mentally retarded child as they relate to the presentation of instructional activities.

- a. This assignment asks you to direct your attention to the question "What knowledge has research presented of the learning style of these children and how must this knowledge guide their instructional program?"

Your review of the literature should include at least three sources in each of the following curriculum areas - reading, math, and writing.

- b. In each of the above curriculum areas present one page in which you outline 3 possible activities you might employ to teach a lesson in each of the curriculum areas. Three different lessons designed to facilitate the same instructional objective and based on the general characteristics you have discussed in the first part of your paper.

This assignment is due November 8.

The Interaction  
child/teacher/curriculum

The emphasis of this final period will be on the interaction of the components of the instructional milieu.

Assignment 5: Smith's book, Teacher Diagnosis of Educational Difficulties, provides much information on techniques of informal, teacher assessment and evaluation. Review the strengths and weaknesses of "your child." What additional information must you possess to insure this child a strong and relevant instructional program. Plan a series of diagnostics evaluations in the basic curriculum areas that will provide you with the necessary information.

- a. What instruments will you use?
- b. Present a rationale for your choice of instruments.
- c. On the basis of what you now know about your student, outline the kind of psychological climate you would

design for his informal diagnostic interview.

- d. Is the concept of "individual freedom" incompatible with Smith's call for specific instructional objectives. What are the philosophical implications involved.

This assignment is due November 20.

Assignment 6. The books, The Little Prince and The Velveteen Rabbit are loaded with statements reiterated by the philosophy and theories of the Complementary Teaching program. Pull some of these statements and react to them.

This final assignment is due December 4.

Final date to be announced.

NOTE: Hopefully students will be aware of the scheduling complications involved in a training program of this nature. Any schedule revisions needed will be announced as early as possible and the general message here is: **HANG LOOSE!!!**

The George Washington University  
School of Education  
Department of Special Education

Special Education 102  
Spring Term 1974

Dr. Michael Castleberry  
Mrs. Fancie Sobel

TEACHING THE CHILD WITH SPECIAL NEEDS:  
CREATIVE PROGRAMMING

Course Purpose:

The purpose of this course is to pragmatically utilize through creative programming the dynamic information collected in the first half of the seminar: Special Education 102. This course will emphasize two primary points.

1. Assessment as the basis for creative programming
- AND
2. Creative programming as the instrument of intervention in the school failure cycle.

Course Requirements:

1. Attendance at both the Tuesday and Thursday demonstration seminars. These seminars are held at the J. Inos Ray Elementary School located at New Hampshire and Ray Road. Hours 9:00 to 12:00 and 12:30 to 3:30.
2. Completion of written assignments - on time.
3. Participation in the planning and execution of the educational program of the demonstration seminar.
4. Final exam.

Required Reading:

1. Dewey, John: Experience and Education.
2. Dreikurs, Rudolf and Grey, Loren: A New Approach to Discipline: Logical Consequences.
3. Frierson, Edward and Garte, Walter: Educating Children with Learning Disabilities: Selected Readings
4. Frostig, Marianne and Maslow, Phyllis: Learning Problems in the Classroom.
5. Goffman, Irving: The Presentation of Self in Everyday Life.
6. Talbot, Toby: The World of the Child.

Course Objectives:

1. Ability to plan an interest unit based on a thorough assessment of the academic and emotional needs of the students of the demonstration seminar.
2. Ability to provide (make or collect) the necessary teaching materials needed for a specific unit.

Course Objectives: (cont'd)

3. Ability to execute, i.e., plan, introduce, motivate, teach, and evaluate an interest unit aimed at strengthening the basic language arts skills of the students.
4. Ability to assess academic levels, state instructional goals based on this assessment and commit to paper an educational program embodying specific teaching techniques and activities.

Course Sessions:

There will be 26 meetings of the demonstration seminar. The first 2 sessions will be planning. The last 2 sessions will be IDI's. If 4 weeks are allowed for each interest unit with 3 people per teaching committee, then 3 units can be presented. The remaining 10 sessions can be used for students presenting another unit. Some units can take 5 weeks.

For the demonstration seminar to be a creative, and successful experience for the children the program must remain flexible. It's nice to have extra time!!!

Written Assignments:

Six written assignments are required. They are based on the required readings.

Assignment 1: \* Due January 31

Read Presentation of Self in Everyday Life. Present a paper in which you synthesize the philosophy of the author and discuss the relevance of this book for you as a special education professional.

Assignment 2 \*Due February 14

Read Frostig & Maslow, Parts IV and V, Smith's chapter on academics, and Ashlock and Stephens'. Present a variety of alternative remedial procedures for teaching children. Select three or four areas in which the child you select is having difficulty. Using the above mentioned books as resources - and documenting their use - construct the materials you would use to program that child. Include:

(a) a description of the area of difficulty, e.g. visual-motor, auditory discrimination, etc.

(b) specific remedial materials for each deficiency area.

Assignment 3 \*Due February 28

Read Frostig & Maslow, Part II. Summarize the salient points described in Chapters 4-8. Read Dreikurs, Part I. Compare and/or contrast the theories found in Frostig/Maslow with Dreikurs's views. Present three specific interactions between you, the teacher, and your student (or students) when logical consequences could have been or were used to resolve the disrupting situations.

Assignments: (cont'd)

Assignment 4

\*Due March 21

From the following list of topics, select one in which you do the following:

1. Thoroughly investigate through reading and/or examining the appropriate materials the topic.
2. In a paper, synthesize and/or explain the salient aspects of the topic.
3. Be prepared to present your findings to your seminar.

Topics:

1. Frierson & Barbe: I, Section A: Overview  
Section B: The Child with Brain Dysfunctions
2. " " " II, Section A: Special Education, Psychology & Sociology  
Section E: Neurology, Psychiatry & Pediatrics
3. " " " IV, Section A: Rationale for Education  
Section F: Educational Procedures
4. Language Experience: Duse, Peabody, & SPA Kits
5. Reading: Jeanne Chall, Learning to Read, The Great Debate.
6. Jean Piaget: Learning Theories
7. Maria Montessori: Theories & materials
8. Early childhood evaluation kits: Peterson, WELP, McCarthy
9. Fritz Redl: Concept of Therapeutic Milieu  
Concept of Life-Space Interviewing
10. WISC and Stanford-Binet

Assignment 5

\*Due April 4

Read Part 5 in Tallot and Experience & Education.

This year you have effected change in children's lives by practicing strategies which you have studied in theory. These books present several philosophical viewpoints which are the essences of your work this year. Present a paper in which you synthesize these philosophies, citing their specific relationship to those undercirding you real-life experiences this year in the Complementary Teacher Program.

Assignment 6: due April 30:

Using Smith, Frostig and Maslow, and Frierson and Earbe as resources:

1. Prepare a diagnostic assessment kit
2. Conduct 2 Informal Diagnostic Interviews (IDI)
3. On the basis of the information gained in the IDI:
  - a. present instructional levels
  - b. formulate precise instructional objectives in each academic area
  - c. design an instructional program in the service of the stated instructional objectives
  - d. suggest specific materials and techniques to be employed.

The George Washington University  
School of Education  
Department of Special Education

Special Education 170  
Fall 1973

Mr. Castleberry

INTRAPERSONAL/INTERPERSONAL RELATIONSHIPS FOR TEACHERS

Course Purpose:

The purpose of this course is to sensitize future teachers to a greater awareness in the consideration of factors leading to successful interaction with children.

Course Requirements:

- a. Class attendance
- b. Completion of written assignments on time.
- c. Thinking
- d. Sharing

In this course you are not competing against your fellow students. The goal of the course is to facilitate optimum learning for every student. You are encouraged to share ideas and perceptions with others in the course. The capacity to see the worth of sharing and testing your own learning is indicative of an openness essential to successful teaching.

Course Objectives:

Ability to interact with children guided by the knowledge of such concepts as Redl's "therapeutic milieu," Adler's "life style," Sullivan's "the self as the reflected appraisal of significant others."

Ability to interact with the total school staff guided by the knowledge and theory of interpersonal dynamics.

Required Readings:

Combs, Arthur (ed.)	<u>Perceiving, Behaving, Becoming</u>
Murphy, Gardner	"Perceptual Autism" (handout)
O'Neill, Eugene	"Long Day's Journey
O'Neill, Eugene	The Iceman Cometh
Powell, John	<u>Why Am I Afraid to Tell You Who I am?</u>
Sullivan, Adler, Forney	(handouts)
Toffler, Alvin	<u>Future Shock</u>

\*

You are encouraged to discuss any problems or concerns you may have concerning the course. Appointments are easily arranged by phoning 676-5174, stopping by the Department of Special Education (Bldg. C, Room 420), seeing the instructor before or after class, or contacting the instructor at 524-5195.

<u>PBB</u> , pps. 9-64	September 17	Introduction Film: 'Leo Beuerman'
<u>PBB</u> , pps. 65-163	September 24	Rogers, Maslow, Combs, Kelley Film: "Journey into Self"
<u>PBB</u> , pps. 164-253	October 1	Rogers, Maslow, Combs, Kelley Film: "Maslow and Self-Actualization"
	October 8	Sullivan, Adler,orney
handout: Murphy	October 15	Gestalt Theory Film: 'Frederick Perls and Gestalt Therapy'
handout: Systems Thry.	October 22	Perceptual Autism
	October 29	Systems Theory
	November 5	O'Neill's- <u>The Iceman Cometh</u>
	November 12	O'Neill's- <u>Long Day's Journey</u>
	November 19	Toffler- <u>Future Shock</u>
	November 26	Dynamics of Relationships
	December 3	Summary

Course Assignments:

## Assignment 1: Due September 24

Select the most meaningful interaction you have had of a positive nature for you. Describe the situation and events and, using the perceptual model in PBB, analyze the interactions and feelings as you perceived them. Include yourself!

## Assignment 2: Due October 8

The readings you have encountered thus far- Rogers, Maslow, Combs, Kelley-provide theory relative to the "family of ideas" undergirding this course. Analyze the theories presented and react (a) in regard to you as an individual, (b) your relationships with others, and (c) implications in your work as a teacher.

## Assignment 3: Due October 22

To be completed in class

## Assignment 4: Due November 5

You have now spent an intense amount of time together. You should be in possession of dynamic information concerning some needs, styles, and "games played" of at least one member of this group. DO NOT IDENTIFY THE MEMBER but present:

- a. The dynamic information you have collected.
- b. Offer a rationale for the diagnosis you have made (evidence that brought you to this point.)
- c. Suggest the attitudes and techniques you would use to create a therapeutic milieu in order to "teach" that person.

## Assignment 5: Due November 19

Analyze your experiences in the course thus far. What have you learned? How have you changed? Has the experience been of meaning to you? For? What have you perceived your investment to be? Has it been of worth? How?

## Assignment 6: Due December 3

O'Neill's Long Day's Journey is a study in interpersonal relationships. Interpret and analyze it following the concepts and theories presented to you through your readings thus far.

THE GEORGE WASHINGTON UNIVERSITY  
SCHOOL OF EDUCATION  
DEPARTMENT OF SPECIAL EDUCATION

SPECIAL EDUCATION 189

MR. MICHAEL CASTLEBERRY  
Fall - 1973

PRE-PROFESSIONAL INTERNSHIP IN SPECIAL EDUCATION

**COURSE DESCRIPTION:** This internship will be conducted at J. Enos Ray Elementary School. Students will spend 7 hours per week engaged in some type of classroom participation. This course will be taught in conjunction with Special Education 102. Students will have an opportunity to observe elementary pupils in demonstration seminar and in the milieu of their classroom.

**COURSE PURPOSE:** The purpose of this course is identical to the purpose of Special Education 102. The purpose of this course is to sensitize future special educators to the emotional and educational needs of children who require the services of special education. This course will emphasize two primary points.

1. The role of interpersonal dynamics in special education and
2. The adaptation of the curriculum and the psychosocial climate in order to meet individual needs.

**COURSE REQUIREMENTS:**

1. Each student will select and study one child participating in the demonstration seminar.
2. Seven hours per week (or the equivalent thereof) will be spent observing and interacting with the child in the context of the regular class milieu.
3. Each student will be expected to attend the monthly discussion meeting throughout the term.

**COURSE TEXTS:** Ashlock and Stephen, Educational Therapy in the Elementary School

Good and Brophy, Looking in Classrooms

**WRITTEN ASSIGNMENTS:**

Assignment 1: Due November 1

Present a paper in which you speculate on the motives - attractions - aspirations - that led you to choose the particular child with whom you will work this year.

Assignment 2: Due November 15

1. Investigate various formats used in the presentations of case studies (use and note at least three different sources of information).
2. Present a paper in which you outline the format you intend to use for the collection and presentation of your case study data.

Assignment 3: Due December 6

Present a thorough case study of the child with whom you have worked all term. This case study will emphasize:

- (1) the educational needs of the child
- (2) the psycho-social style of the child
- (3) the personalized curriculum required to program the child for success

Present all background and operational information that you consider relevant to the life style of this child.

The George Washington University  
School of Education  
Department of Special Education

Dr. Michael Castleberry

Special Education 190  
Spring, 1974

Preprofessional Internship in Special Education II

Course Purpose:

The purpose of this course is to familiarize the student with the concept of comprehensive special education programming, i.e., vertical and horizontal accommodations. In the service of this purpose instructional experiences are designed to familiarize students with the range of special education services offered by three area public school systems and several private special schools.

Course Objectives:

1. The ability to delineate the various types of special education programs in this area.
2. The ability to describe the scope of the particular special education service offered by the complementary teacher.
3. The ability to describe the continuum of special education services needed to service the multifarious demands of the child with special needs.

Course Requirements:

1. An average of 4 hours per week will be spent either in the field or in seminars conducted by special education leadership personnel of the greater metropolitan area.
2. Each student will be responsible for a written record (of the type they prefer) which presents:
  - a. The type of program visited
  - b. The population the specific programs were designed to serve
  - c. An evaluation of the program in relation to its stated purpose
3. Each student will be responsible for a written summary of the corresponding Gearheart chapter to correspond with type of special education site visited.

Class Sessions:

This course depends almost entirely on the cooperation of the surrounding school systems. We have been most fortunate in receiving their full cooperation. The following schedule must remain flexible as it involves the commitments of many people.

Required Reading:

1. Berne, E. Games People Play.
2. Decker, S. An Empty Spoon.
3. Cullum, A. Push Back the Desks.
4. Fast, J. Body Language.
5. Beery, K. Models for Mainstreaming.
6. Rothman, E. The Angel Inside Went Sour.
7. Gearheart, B.R. Education of the Exceptional Child.
8. Gardner, J. Self-Renewal.

Course Assignments:

With the exception of the Gearheart book the above books are short, interesting and fast reading. You are directed to read all seven books (excluding Gearheart) and to commit to paper a one page reaction. Do not summarize the book. React to the book in the light of the goals of the Complementary Teacher Training Program. An excellent and terse way to do this is to quote the authors and relate the quote to program philosophy.

<u>Due</u>	<u>Book</u>
1. January 25	Decker
2. February 1	Berry
3. February 15	Rothman
4. February 22	Fast
5. March 1	Berne
6. March 8	Cullum
7. April 5	Gardner
8. April 26	Summary of visitations and Gearheart chapters

Course Sessions:

<u>Dates</u>	<u>School System</u>	<u>Official</u>	<u>Activity</u>
Jan. 18 9-12 C-430		Dr. Castleberry	Introduction/organization
Jan. 25 9-12 C-430	Dept. of Sp. Ed. G.W. University	Dr. Perry Botwin Dept. Chairman	Comprehensive Sp. Ed. Programs - Cascade Continuum Comprehensive Plan
Feb. 1 9-12 C-430	Prince George's Cty. Public Schools	Mrs. Jane Riggin Admin. Asst. for Sp. Ed. P.G. Cty. Public Schools, Upper Marlboro, Md. 627-4800 ex.241	PRESENTATION: An overview of the nature & goals of the Sp. Ed. Dept. of P.G. Cty.
Feb. 8, 15,22	Prince Georges Cty. Public Schools	Mrs. Riggin & staff	Three sessions spent in various Sp. Ed. settings in P. G. County
March 1 9-12 C-430	Montgomery County Public Schools	Mrs. Geraldine Meltz, Supervisor of School-Based Programs, Mark Twain School, 1551 Avery Rd., Rockville, Md. 20853. 762-4350	PRESENTATION: An overview of the nature & goals of the Special Ed. Dept. of Montgomery Cty.

<u>Dates</u>	<u>School System</u>	<u>Official</u>	<u>Activity</u>
March 3, 22	Montgomery Cty. Public Schools	Mrs. Meltz & staff	Two sessions spent in various special education settings in the Mont- gomery Cty. Pub. Schools.
March 29 - April 5	D.C. Public Schools		Site visits to various special education settings in the D.C. public school system.
April 12 9-12 C-430	SUMMARY		
April 19	Private schools Sp. Ed. facilities Va. - Md. - D.C.		Site visits to various private schools servicing exceptional children.

The George Washington University  
School of Education  
Department of Special Education

Special Education 197  
Fall 1973

Instructor: Mrs. N. Sobel

SPECIAL STUDY IN SPECIAL EDUCATION

This course is designed to provide individual study in Special Education. It permits specialized instruction in facets of Special Education for the individual enrolled in the Complementary Teaching Program, the undergraduate program in Special Education; furthermore, it provides exposure and experience for undergraduates in other major field areas who seek individualized programming in Special Education. The study is executed in specific elementary schools with supervision by both the school and the university.

The George Washington University  
School of Education  
Department of Special Education

Special Education 198  
Spring 1974

Mrs. Nancie Sobel, Instructor

DIRECTED STUDY IN SPECIAL EDUCATION

Course Purpose:

The purpose of this independent study is to provide an overview of exceptionality in children. This overview includes investigation of the continuum of services for children needing special help.

Course Objectives:

The ability to describe characteristics of those children classified as exceptional within each area of exceptionality and specify characteristics common to all.

The ability to describe the various learning styles and adaptations within curriculum which have to be made to teach these children.

The ability to delineate the continuum of services concept.

Course Requirements:

To attend the designated site visits. Regular attendance at discussion sessions and prompt completion of written assignments.

Seminar Dates : in Building C, Room 437, from 1-2:00 P.M

Feb. 6	March 27
Feb. 20	April 10
March 6	April 17

Visitation Dates:

The following visitations have been arranged for you. If transportation problems arise, please communicate this to me.

<u>Date</u>	<u>Location</u>	<u>Contact Person</u>	<u>Nature</u>
Jan. 25 9-12 C-430	Dept. of Sp. Education G.W. University	Dr. Perry Botwin Dept. Chairman	Comprehensive Sp. E. Programs-Cascade Continuum Comprehen- sive Plan
Feb. 1 9-12	Cerebral Palsy Development Center of Northern Virginia 111 North Cherry Street Falls Church, Va. 22046	Mrs. Elaine Payne Director 534-5353	site visit to priv. school servicing children with cerebral palsy.

<u>Date</u>	<u>Location</u>	<u>Contact Person</u>	<u>Nature</u>
Feb. 8 9:45-	St. John's Child Development Center 5005 Mac Arthur Blvd. N.W Washington, D.C. 20016	Mrs. Lorraine Botwin Supervisor 363-7032	site visit to private school servicing educable mentally retarded children
Feb. 22	Complementary Teaching Program		site visit to public school to see resource program
March 8	Gallaudet College Kendall Elementary School 7th St. & Florida Ave. N.E Washington, D.C. 20002	Mrs. Olive Tiller Visitor Coordinator & Public Relations 447-0621	site visit to private school servicing deaf children
March 22	Cooperative School for Handicapped Children 4710 N. Chambliss St. Alexandria, Va. 22312	Mrs. Joan Gendreau 941-1499	site visit to private school servicing multiply handicapped children
March 29	Sharpe Health School 4300 13th St. N.W. Washington, D.C.	Mrs. Orelia Ledbetter Acting Asst. Principal 629-7077	site visit to public school servicing physically handi- capped children
April 5	Rose School Area A Mental Health	Mr. Fairfield Butt Principal 625-4351	site visit to public facility for emo- tionally disturbed children
April 19	Leary School 2849 Meadow View Rd. Falls Church, Va. 22042	Mr. Albert Leary Director 573-5400	site visit to private school for learning disabled children

### Written Assignments:

Preceding each visit, do the following:

1. Summarize the salient features of at least two articles concerning the "area of exceptionality" you will be visiting.
2. Include some documented recommendations for educational practices for and placements of the children being discussed.

Following each visit, do the following:

1. Write about what you actually saw during your visit. Include the nature, number, and ages of the population, description of the facility, activities you observed, staff responsibilities, and other highlights.
2. Comment upon your impressions by integrating ideas from that which you read and that which you saw.
3. As a result of the experience, state what questions, concerns, etc., you have.

### Suggested Reading Materials:

Any journal concerning exceptionality.

Journal of Learning Disabilities

Exceptional Children

Journal of Speech and Hearing

Jones, Reginald, Problems and Issues in the Education of Exceptional Children.

Gearheart, B. R., ed., Education of the Exceptional Children.

Jones, Morris, ed., Special Education Programs.

Love, H.D., Education of Exceptional Children in Regular Classrooms.

This is only a beginning of suggestions. Browse in our office library. Select readings listed in our extensive bibliography.

Complementary Teacher Program  
Department of Special Education  
The George Washington University

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The George Washington University  
School of Education  
Department of Special Education  
Washington, D.C. 20006

Undergraduate Special Education:

THE COMPLEMENTARY TEACHER PROGRAM

To the Inquiring Student:

The George Washington University offers a 24 hour undergraduate sequence in Special Education. Students of this program major in Elementary Education. A dual preparation is gained - Elementary Education/Special Education and the degree of Bachelor of Arts is awarded.

The following statement imparts the philosophy, goals, and role delineation of the Complementary Teacher Program. It is also the intent of the following information to answer questions most frequently asked by interested students.

Michael Castleberry, Ed.D  
Coordinator

Telephone: (202)-676-6174

1. "What Is This Program All About??"

We are "about" children -- children with special needs. We face the problem of producing high quality manpower geared to service large numbers of children within the structure of the public school system. This intent bears the philosophy and goals of the Complementary Teacher Program.

Our Philosophy:

1. We believe that all children deserve an equal educational opportunity.
2. We believe that the above statement is facilitated by efforts to keep handicapped children in the regular classroom.
3. We believe that a large percentage of special education candidates may be successfully serviced within the regular classroom if special education school-based intervention programs support and complement services of regular education.

Our Goals:

The above philosophical premise logically leads to the following statement of goals.

1. To train teachers who can effectively function as a supportive complementary special education service to the efforts of regular education.
2. To produce a Special Education Complementary Teacher who by virtue of her service keeps an impressive percentage of exceptional children in the regular classroom and out of situations that stigmatize and impede children with special needs.

2. "With What Type of Children Will I Work??"

The children served by the Special Education Complementary Teacher are unequivocally "exceptional children". However, their handicap might not be the highly visible handicap the neophyte teacher associates with special education. The Virginia State Department of Special Education defines exceptional children as those children who deviate from the norm, physically, mentally or emotionally, to the extent that they are unable to profit from instruction in the regular classroom. They require different instructional techniques or special services to meet their specific needs.

The child population to be served by this program falls within the above delineation. The question of severity of handicap becomes important. It is far easier to identify a child as a retarded mongoloid than it is to identify a retarded reader as a child handicapped by perceptual-motor problems. It is easier to identify a psychotic

child than it is to identify a child crippled by emotional stress. A continuum of special education services is needed to serve the range of disabilities confronting public education. The service offered by the Special Education Complementary Teacher is one such service within this range of services. The children to be served represent children suffering from various handicaps. The following characteristics represent a partial list of the empirical traits of these children. The Special Education Complementary Teacher serves those children who: evidence school failure as a life-style and for whom the regular classroom channel has failed. Evidence wide discrepancy, in school achievement, children who function normally in certain areas of the curriculum but who fail in others and for whom the regular education channel is not enough to make the difference. Evidence acting-out, angry behavior, those children who spend many school hours standing outside the classroom door or in the principals office-and for whom a complementary special education service is deemed essential by all school personnel. Evidence withdrawn, retreating behavior and for whom the classroom teacher utters the p;aintiff cry "If I only had more time." Evidence absentee problems and for whom the regular class fails.

In every public school there are children whose special need elude categorization and whose needs go unserved. These children are the domain of Special Education. William C. Geer, Executive Secretary of the Council for Exceptional Children recently wrote a letter which appeared in the Washington Post. He commented on the discontinuation of special education classes in the Falls Church Schools. He said:

"Falls Church has taken a step that is being considered by school systems and special educators all over the country. It's evident that most children who have learning problems do much better in their education, their daily living and in overcoming their learning difficulties when they are made welcome in the group of children their own age than when they are excluded by being placed in separate classes."

This training program is designed to train personnel who can competently support the regular educational channels thus keeping many exceptional children in main-stream education.

### 3. "In What Type of Setting Will I Work??"

The Complementary Teacher Program is a school based intervention model. Special Education teachers are prepared to work within the structure of the public school system. We believe that the greatest number of special education candidates can best be serviced by a school based interventionist and this becomes the emphasis of our program.

The role conceived for a graduate of this program is that of Special Education Complementary Teacher. The word "complementary" is defined in The Oxford Universal Dictionary as "That which when added, completes a whole." The Special Education Complementary Teacher acts to fulfill this need.

The setting for this service is the public elementary school. The Special Education Complementary Teacher is assigned a room but not a class. She is an on-the-spot, immediate service to children with special needs - she functions in the service of school-based intervention goals. She meets individual needs in both group and individual settings. Children see her on a regularly scheduled basis and on a spontaneous "needs" basis. Her role at any given school and at any given time can only be defined in terms of the special needs of children. She is not an "all-things" to all children. She is a complement to existing channels; she is a school-based service to children for whom the regular classroom fails.

On a given day a Special Education Complementary Teacher may work with a group of children who are non-readers. These children may be from several different grade levels and from different classrooms. The aim of the complementary teacher is to complement the language-arts goals of the regular teacher. She would do this in an educational activity designed to motivate and stimulate children who see themselves as failures. There are many creative approaches to be utilized for this purpose. Our training program is designed to build the insights and knowledge that undergird the skills of creative teaching. In the small group settings the Special Education Complementary Teacher would be very aware of the fact that she is dealing with children who have evidenced a life-style of failure. She would take great care not to duplicate the techniques of the regular teacher which although sound, have failed with these children. Instead she would search for the educational activity which would involve, motivate and "reach" these children. She would be guided by the thoughts of John Dewey:

"The most important attitude that can be formed is that of desire to go on learning. If impetus in this direction is weakened instead of being intensified, something much more than mere lack of preparation takes place. The pupil is actually robbed of native capacities which otherwise would enable him to cope with the circumstances that he meets in the course of his life."

The Complementary Teacher will also see children on an individual basis. She will talk with children who need an "ear" and a "friend." This is not to say she is a counselor or psychiatrist. She is not - she is a special teacher trained to remediate feelings as well as skills. The Special Education Complementary Teacher is a trained professional, equipped to perform the service Fritz Redl has defined as "mediating school-life experiences." In all her dealings with children the Special Education Complementary Teacher remains cognizant of her role as one service in an array of services. She has a specialized service to offer children in need; and that service is made more effective by the interrelation of relevant school services.

The philosophy, goals, skills and setting of this training model are empirically derived. It is a simple, uncomplicated model evolving out of a simple, uncomplicated need --- children whose special educational needs go unmet. The theoretical undergirdings of this program are as old as Rousseau, Pestalozzi and Froebel. They are as new as Bruner, Postman-Weingarten and Holt. Concerned principals, good classroom teachers and dedicated ancillary personnel have incidentally functioned in the service of the needs defined by this proposal. The claim of this proposal is modest.

Special Education . needs a service which:

1. Is specifically designed to minister to the special needs of children by complementing and supporting the work of the regular classroom teacher and,
2. For which personnel are specifically trained.

#### 4. "What Will You Teach Me??"

The goals of this program have been stated. These goals dictate the skills to be developed. Instructional experiences are designed to develop the following skills.

#### The Goals:

"To train teachers who can effectively function as a supportive, complementary special education service to the efforts of regular elementary education."

#### The Skills:

1. The ability to assess a child's level of academic functioning.
2. Ability to plan, initiate and execute appropriate instructional programs in the areas of language arts and arithmetic.
3. Ability to utilize grade-appropriate curriculum materials in the instructional program.
4. Ability to interact, with children guided by the knowledge of such concepts as Sullivan's "the self as a reflected appraisal of significant others" - Redl's "life space interviewing" - Adler's "life style" and Murphy's "Autistic perception."
5. Ability to assess a child's style of learning and to discern which teaching technique complements his unique style.
6. Ability to interact with the total school staff guided by the knowledge and theory of interpersonal dynamics.

The Goals

to produce a Special Education Complementary Teacher who by virtue of her service keeps an impressive percentage of exceptional children in the regular classroom and out of situations that stigmatize and impede children with special needs.

The Skills

1. Ability to recognize the dynamic information necessary to program a child for success.
2. Ability to collect this dynamic information.
3. Ability to use this information by adjusting the curriculum and psychological climate to meet individual needs.
4. Ability to utilize the resources of the total school program so as to better program a child for success.
5. Ability to utilize the resources of the total school system, as well as the community at large, so as to better program a child for success.
6. Ability to view the need for a continuum of special education services and understand that the special education service of the complementary teacher is but one service in the range of services.
7. Ability to discern the appropriate special education service demanded by a particular child's behavior.

5. What Courses Are Required??

The following information presents the four year curriculum of elementary education majors. All students preparing for entrance in the Complementary Teacher Program must follow this plan.

The Complementary Teaching Program begins in the junior year. All Special Education courses represent electives. Thus the elective slot appearing in the elementary education program mislead special education students. The special education courses are the electives.

The special education sequence is as follows:

Junior Year - Fall Semester

Special Education 102	Teaching the Child with Special Needs: Methods and Materials .....	3
Special Education 170	Interpersonal/Intrapersonal Relationships for Special Education Teachers .....	3
Special Education 189	Pre-Professional Internship: Observing the Special Child in the Regular Class Milieu .....	3

Junior Year - Spring Semester

Special Education 103 Teaching the Child With Special Needs: Creative  
Programming .....3  
Special Education 190 Pre-Professional Internship: Inspecting a Continuum  
of Special Education Services .....3

Senior Year - Fall Semester

Special Education 101 Seminar: Dimensions of the Complementary Teaching  
Role .....3

Senior Year - Spring Semester

Special Education 199 Internship in Complementary Teaching .....6

Special Education 102, 103, 170, 189, and 190 must be taken prior to the senior year.

THE GEORGE WASHINGTON UNIVERSITY  
SCHOOL OF EDUCATION  
Suggested Program.  
(PRE-EDUCATION - COLUMBIAN COLLEGE)  
ELEMENTARY EDUCATION MAJOR

<u>First Semester</u>		<u>Second Semester</u>	
English 9 or 10	3	English 11	3
History 71	3	History 72	3
Math 9	3	Math 10	3
PE (First Group)	1	PE (First Group)	1
Science	3-4	Science	3-4
Elective	3	Elective	3
TOTAL	16-17	TOTAL	16-17

<u>Third Semester</u>		<u>Fourth Semester</u>	
Econ. 1 or Geog. 51 or 52	3	Econ. 1 or Geog. 51 or 52	3
Engl. 51, 71, or 91	3	English 52, 72, or 92	3
PE (First Group)	1	Psyc. 29	3
Psyc. 22	3	Social Studies	3
Science	3-4	Speech & Drama 1 or 11	3
Social Studies	3	TOTAL	15
TOTAL	16-17		

For transfer to the School of Education, 63 hours are needed. The 9 hours in science must include courses in both physical and biological sciences. Fifteen hours of English are required for certification in Virginia

SCHOOL OF EDUCATION

<u>Fifth Semester</u>		<u>Sixth Semester</u>	
Art or Music* (Survey)	3	Art or Music* (Survey)	3
Education 108** or 123	3	Education 108** or 123	3
PE (Second Group)		Ed. 115 or elective	3
(Recommend PE 122)	3	Elective	8-9
Elective	8-9	TOTAL	17-18
TOTAL	17-18		

<u>Seven Semester</u>		<u>Eighth Semester</u>	
Education 111 <sup>o</sup>	15	Education 112	3
Elective	2-3	Education 135	9
TOTAL	17-18	TOTAL	12

A minimum of 126 semester hours is needed for graduation. In some cases, one may be given advanced standing in certain course areas (especially foreign language and English); however, the number of hours in this specific area must meet the minimum for certification.

\*As approved by advisor.

\*\*Reserve one morning, other than Friday, from 8:00 a.m. to 1:00 p.m. for field work.

<sup>o</sup>Includes field work in schools also as a course requirement.

National Teacher Examination must be taken prior to graduation.

21.

REQUIRED COURSES

- Sp.Ed. 101 Seminar: Dimensions of the Complementary Teaching Role (3)  
Instructional experiences designed to refine the insights and competencies essential for successful operation of the Complementary Teaching Model - Senior year - Fall term.
- Sp.Ed. 102 Teaching the Child with Special Needs: Methods and Materials (3)  
Laboratory course taught in an elementary public school. Students observe and participate in a demonstration seminar conducted by the instructor. Must be taken concurrently with Sp.Ed. 189. Junior - Fall term.
- Sp.Ed. 103 Teaching the Child with Special Needs: Creative Programming (3)  
Continuation of Sp.Ed. 102. Concentration on the total programming of the child with special needs. Must be taken concurrently with Sp.Ed. 199 - Junior year - Spring term.
- Sp.Ed. 170 Interpersonal/Intrapersonal Relationships for Teachers (3)  
Consideration of factors leading to successful interaction with children - Junior year - Fall term.
- Sp.Ed. 189 Pre-Professional Internship: Observing the Special Child in the Regular Class Milieu (3)  
Supervised internship in school setting. Emphasis on intensive study of a child evidencing special needs. Must be taken concurrently with Sp.Ed. 102 - Junior year - Fall term.
- Sp.Ed. 190 Pre-Professional Internship - Inspecting a Continuum of Special Education Services (3)  
Observation and participation in various special education settings. Emphasis on exposure and familiarity with goals and programs of various special education models. Must be taken concurrently with Sp.Ed. 103 - Junior year - Spring term
- Sp.Ed. 199 Internship in Complementary Teaching (6)  
Supervised teaching internship in a school based intervention program. Student teaching with children identified as needing special education services. A minimum of 210 clock hours is required. Pre-requisite: Permission of the instructor. Senior year - Spring term.

ELECTIVE COURSES:

- Sp.Ed. 197-8 Special Study in Special Education (Individual Study) (3-3)
- Sp.Ed. 289 The Diagnostic Procedure (3)  
Examination of the rationale, techniques and tools essential to academic and psychological assessment. Designed to provide practice as well as familiarity with standard diagnostic procedures. Pre-requisite: Permission of the instructor. (Summer only)

Sp.Ed. 290 Control and Management Techniques in the Classroom (3)  
Examination of the theory, techniques and tools essential  
for group control. Designed to provide practice as well as  
familiarity with the various theories of control of human behavior.  
Pre-requisite: Permission of the instructor. (Summer only)

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6. "How Do I Get Into the Program??"

Formal application must be made directly to the Complementary Teaching Program. Admittance to this program is contingent upon admittance to the George Washington University and admittance to the School of Education. However, acceptance by the School of Education does not automatically admit a student to the Complementary Teaching Program. A separate set of requirements operates within the Special Education Department. The enclosed application form provides the necessary information.

7. "What's So Different About This Program??"

The Complementary Teaching Program is unique in two respects. First, it is one of a very few undergraduate programs in special education preparing teachers for service in across-categories school-based intervention. Second, the core of this training is received in a public elementary school. The "real" special education needs of children become the stimulus and focus of the training process. The experiences encountered working with exceptional children provide the "reality" or the "specific" to which is tied the "general" knowledge of psychology, sociology and pedagogy. We believe that "real" experience with "real" children produces "real" teachers.



THE  
GEORGE  
WASHINGTON  
UNIVERSITY

Washington, D.C. 20006 / Department of Special Education / (202) 676-6170

Dear

We have an innovative and challenging non-categorical special education undergraduate program here at The George Washington University. Our program is a twenty-four hour total sequence. It begins in the Fall of the Junior year and all course work must be taken in sequence.

Our students major in elementary education and minor in special education. The enclosed materials will explain the intent and content of our program. Entrance into our program is not automatic. A personal interview is required as well as the information required on the enclosed application blank. Please contact me if I can answer further questions.

Sincerely,

Michael Castleberry, Ed.D.  
Coordinator  
Complementary Teacher Training Program

MC.jt

enclosures



THE  
GEORGE  
WASHINGTON  
UNIVERSITY

Washington, D.C. 20006 / Department of Special Education / (202) 676-6170

Dear

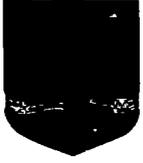
This is to inform you that your application to the Undergraduate Complementary Teacher Program of the Special Education Department has been received. It will receive careful consideration. Action will be facilitated by your attention to the additional requirements of (1) three letters of reference; (2) official transcript of all college credit to date; (3) statement of your professional goals; (4) personal interview; (5) a one page summary of your perceptions of the interview.

Please feel free to contact us if you have questions or concerns.

Sincerely,

Michael Castleberry, Ed.D  
Coordinator  
Complementary Teacher Program

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THE  
GEORGE  
WASHINGTON  
UNIVERSITY

*Washington, D.C. 20006 / Department of Special Education / (202) 676-6170*

Dear

We wish to congratulate you on having been selected for the traineeship in Special Education for which you have applied.

In order that we may complete the processing of your grant award, it is imperative that we receive a letter of acceptance from you within the next few days.

If you have any questions regarding your program please contact a member of the Complementary Teacher Program staff at 202-676-6174.

Sincerely,

Michael Castleberry, Ed.D  
Coordinator  
Complementary Teacher Program

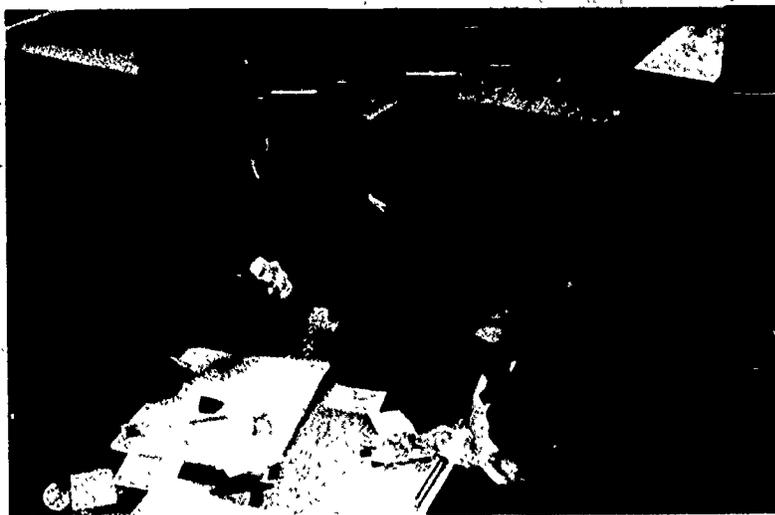
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The Complementary Teacher Program is an innovative undergraduate training sequence preparing teachers to work as special education public school-based interventionists.

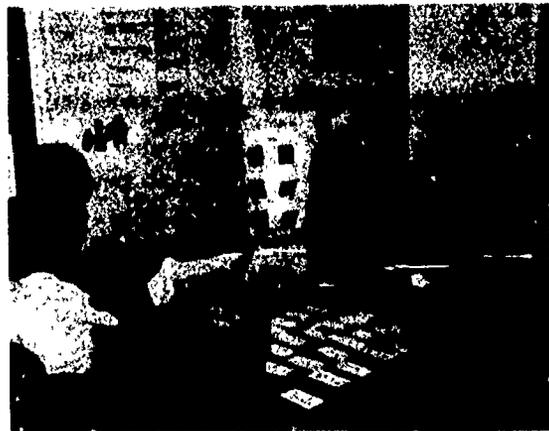


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Complementary Teacher Program is an innovative undergraduate training sequence preparing students to work as special education public school-based interventionists.



Students receive the core of their special education training in a public school while working with small groups of children manifesting special needs.

The Complementary Teacher Program is an exciting and dynamic educational experience. Training begins in the junior year. Students enrolled in this special education program must major in elementary education. A dual preparation is thus gained.





THE  
GEORGE WASHINGTON  
UNIVERSITY

Department of Special Education

# THE COMPLEMENTARY TEACHER PROGRAM

Undergraduate Special Education  
at the  
George Washington University  
School of Education  
Washington, D.C. 20006



Dr. Michael Castleberry  
Complementary Teacher Program  
Department of Special Education  
George Washington University  
2201 G Street, N.W.  
Washington, D.C. 20006

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For detailed information and application forms contact

Dr. Michael Castleberry  
Complementary Teacher Program  
Department of Special Education  
George Washington University  
2201 G Street, N.W.  
Washington, D.C. 20006  
(202) 676-6174

Although the program begins in the junior year, it is essential that interested freshmen and sophomores consult with the adviser for advance scheduling.

Name \_\_\_\_\_, Tel. \_\_\_\_\_

Address \_\_\_\_\_  
Street

City State Zip

College or university currently being attended \_\_\_\_\_

Year in college \_\_\_\_\_ Major \_\_\_\_\_