

## DOCUMENT RESUME

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## ABSTRACT

The Experimental Student Teaching/Differentiated Staffing Program involved hiring selected elementary education students in their senior year as half-day teacher aides for the full public school year. Within this program, teaching methods courses were conducted at the site by university personnel on selected afternoons during the fall semester; assignments were contracted and judged relevant to the classes taught during the day. The program, centering predominantly around language arts and mathematics, allowed both teachers and student teachers to become active members of differentiated staffing teams. The program provided student teachers a full year of teaching exposure and the city schools with added staff to better utilize existing curriculum in meeting the needs of the individual child. The program was expanded the ensuing year. (Author)

ED 085358

AN EXPERIMENTAL STUDENT TEACHING/  
DIFFERENTIATED STAFFING PROGRAM

45

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EDUCATION & WELFARE  
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ABSTRACT/INFORMATION FORM - 1974 DAA PROGRAM

(Please note: This information will be the basis for the description of your institution's DAA entry in the official DAA booklet given at the Annual Meeting and subsequently distributed widely.)

Please Type or Print:

Name of Program Submitted: AN EXPERIMENTAL STUDENT TEACHING/  
DIFFERENTIATED STAFFING PROGRAM

Institution (complete name): The University of Tennessee at Chattanooga

President: James E. Drinnon, Jr., Interim Chancellor

Campus Public Information Officer: David Parker

Faculty Member Responsible for Program: Robert J. Krajewski

Title of the Faculty Member: Assistant Professor of Education

Signature: \_\_\_\_\_

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

Please describe in 150-200 words the program which you have entered in the 1974 AACTE Distinguished Achievement Awards. A sample is included below to give a general idea of the kinds of information we need. Your abstract will be the basis for reporting your entry in Excellence in Teacher Education. Please continue on back if extra space is needed.

**SAMPLE:** *Hypothetical Sample Description:* Recognizing the necessity for public school teachers to have a continuing education as well as realizing the need for continually updating the elementary science curriculum, the College of Saint Alphonsia Joseph, together with the school district of Stockton, New Hampshire, began in 1969 the Advance Learning for Science Teachers Program (ALSTP). The program, initially funded by a National Science Foundation grant, features a six-week summer institute during which members of the college staff instruct teachers throughout the school district. Also, 30 consultants from the college's science and education departments visit each of the elementary schools during the year. Featured in the six-week institute are effective ways to teach environmental studies, using the neighborhood as key resource. The program has had sufficient impact to project a similar one for secondary science teachers.

Realizing that existing elementary school staffing patterns had to be varied to provide a more functional atmosphere for educating the individual child, the University of Tennessee at Chattanooga, together with the Chattanooga City Schools, developed in 1971, an Experimental Student Teaching/Differentiated Staffing Program. The program, requiring no additional school funding, featured selected elementary education students in their senior year being hired by the Chattanooga City Schools as half day teacher aides for the full public school year. Within this program teaching methods courses were conducted at the site by university personnel on selected afternoons during the fall semester, with assignments contracted and relevant to the classes and subjects taught during the day. The program, centering predominantly around language arts and mathematics allowed both teachers and student teachers to become active members of differentiated staffing

teams. The program provided student teachers a full year of teaching exposure and the city schools with added staff to better utilize existing curriculum in meeting the needs of the individual child. The program was expanded the ensuing year.

## SUMMARY

In the spring of 1971 four elementary education majors from the University of Tennessee at Chattanooga were selected to participate in a cooperative experimental student teaching program. They were hired by the Chattanooga City Schools as half day teacher aides for the entire 1971/72 school year. In the mornings they were members of a differentiated staffing team, assuming full teaching responsibilities on a gradual basis. Student teaching requirements and instructional activities ordinarily included in methods courses occupied the afternoons of the fall semester. Assignments for these on-site methods courses were contracted and related directly to their daily work with students (ie., in mathematics and science methods, they micro-taught practice lessons to their peers and were subjected to video-taping and interaction analysis.)

In the spring, the student teachers taught only half day. Throughout the year, they received varied experiences in team teaching, large group instruction, small group instruction, individual instruction, etc. Lessons were planned weekly in cooperation with the remaining three members of each team.

Evaluation was by questionnaire administered to teachers and student teacher aides and by the results of the California Achievement Tests administered to students. Results were supportive of the program.

During the 1972/73 school year, the program was expanded to eight student teachers, all teaching in the same school. The

## SUMMARY (2)

program was similar except for a two week workshop with both teachers and student teachers prior to the opening of school. The evaluations at the end of that school year showed similar positive results.

CASE STUDY: AN EXPERIMENTAL STUDENT TEACHING/DIFFERENTIATED STAFFING PROGRAM

A program of experimentation in teacher preparation is presently being conducted at the University of Tennessee at Chattanooga where the city schools and the university have cooperated in developing a differentiated staffing program in which student teachers in their senior year are employed by the school system as regular teaching aides. The program, though limited in scope, allows ample time afforded to prospective teachers for both observing, teaching, and being fully involved. The key word here is action, the central theme throughout being to provide training where the action is - out in the schools.

In this particular program, the student teachers teach a half day throughout the academic year in the mornings. In the afternoons of the first semester, they receive both their methods courses within the elementary school setting and teach, thereby satisfying methods and student teaching requirements. The methods courses are taught by the UTC Coordinator of the special program, with all assignments relevant to their teaching duties. For example, in mathematics and science methods (see appendix A), the students micro-teach math and science lessons to their peers prior to the lessons being taught in the actual classroom. The lessons are video-taped, subjected to Flanders Interaction Analysis and further analysis from their own peers. In addition, tests are given in specific mathematics and science materials. Student teachers contract for the grades received in each subject area.

## CASE STUDY (2)

In reading methods (see appendix B), the student teacher is required to keep a diary for the academic year to include the lesson plans and their evaluations as well as experiences while teaching the varied assignments within reading. The student teacher is also required to make and utilize interest centers relevant to the lesson and needs of the students on a consistent basis, the number of which depending on the requirements of the contract for the desired grade.

In social science methods (see appendix C), the student teacher experiences the making of learning activity packages which are to be used in the teaching and subsequently analyzed for effectiveness, again the number depending on requirements of the contract for the specific grade.

This particular experimental student teaching program has been in operation for two years. Initially, the program grew out of a request from the Chattanooga public school system after several years of experimentation with differentiated staffing. During the 1971-1972 academic year, the program began with four student teachers. Proving successful, the next year it was increased to include eight students under the same coordinator and all in the same elementary school. The principal of the elementary school and the project coordinator from UTC work closely with the student teachers as well as work closely together in order to develop an instructional program for the school in which the talents of the student teachers can be maximized

### CASE STUDY (3)

within a specially designed differentiated staffing plan.

The prospective student teachers for the program are selected the previous spring through interviews with both the principal and the university project coordinator. They have a chance to visit the school, observe and then list their preferences for grade placement.

A two week workshop, to include the entire school faculty, is conducted prior to the opening of school in the fall. The workshop, designed to acquaint both student teachers and teachers with the details of the plan for the academic year, also includes work-study sessions on indirect teaching strategies. It aids to establish the necessary preliminaries for the student teachers to begin working with children in the classroom.

The school, an inner city paired school, consists of fourth, fifth, and sixth grade students. Both staff and school are integrated. With the use of the differentiated staffing program, the staff and the student teachers work closely together in order to implement an instructional program designed to meet the needs of the individual students and to best capitalize on the strengths of the teachers involved. This program is basically centered around language arts and math.

During language arts the students are broadly grouped (slower achievers and faster achievers) according to reading achievement and teacher observation. Each day, 120 minutes are devoted to language arts. The program is divided into four parts:

#### CASE STUDY (4)

1) English skills, 2) reading, 3) laboratory activities, and 4) spelling and handwriting with the periods ranging from 30 to 45 minutes depending on grade level (see appendix D). Each student teacher teaches all four parts of language arts daily for twelve weeks. Scheduling is effected so that the student teachers teach English skills to their cooperating teacher's homeroom section. At the end of each twelve week period the student teacher rotates among cooperating teachers and thus receives a different homeroom for her basic English class. It must be noted that as care is taken to group students for each of the four divisions of language arts, the groupings are quite different for each activity. Each student teacher normally teaches four different groups (several faster achieving groups and several slower achieving groups) during the language arts period, though some students are in several of their classes.

Mathematics instruction, averaging close to an hour in length, follows the language arts block to round out the morning. The students are grouped similarly, as in reading, into faster and slower groups. Each teacher and student teacher has a class. The student teacher also changes math groups every twelve weeks as homerooms are changed. Again this gives them a variety of experiences to sample.

At the end of each six week period, the principal, cooperating teacher, student teacher and UTC coordinator conduct a formal objective evaluation of the student teachers' progress and elicit

## CASE STUDY (5)

suggestions from them for self-improvement. From these suggestions, objectives are developed for implementation during the coming six week period. In addition, at the end of each twelve weeks, students evaluate the student teachers via a student-teacher developed objective rating instrument. Again, self-improvement is the central theme.

In the reading methods course, each student teacher contracts for his grade. The assignments are geared to their practical work in the school. As noted above, each student teacher has teaching assignments in language arts. The student teachers are also required to make and utilize interest centers geared to lessons being taught and students' needs throughout the program. This is considered an important aspect of their experience, the proper use of interest centers created to fit the needs of the various children within the different groups based on the skills as they are taught. A 'diary' is to be written on the scope of their experiences. The diary, encompassing the full academic year, includes lesson plans and self-evaluation for each lesson taught, daily ideas and notes, a copy of their interest centers and bulletin boards, a review of each twelve week period and at the end an overall review of the academic year to include their personal views as well. The final grades for the reading methods, in addition to the examination scores on theoretical material presented by the UTC coordinator, are largely determined by the scope and quality of the diary. The student teachers are allowed to

## CASE STUDY (6)

keep their diary, thus affording them a full year written account of their teaching and learning experiences in reading as well as vast amounts of material - a veritable treasure for use in their future teaching experiences.

The first semester the student teachers experience the teaching of all subject areas at their grade level. During the second semester, the student teachers teach only the full morning for which they are paid as teacher aides. Their afternoons are free to return to the university and complete any unfinished course work. By the second semester, the teachers in training are taking full responsibility for most school duties while at the same time working and planning closely with the cooperating teachers with whom they are working as well as with the coordinator from the university. The children by now have pretty much accepted them as real teachers rather than "student teachers".

In a program such as this, the student teachers have the opportunity of really being a part of a total school year from beginning to end. They are able to see a year's curriculum development, a year's progress of involved students, and last but not least, a teacher's year. The experience of learning how to begin the year when the students first arrive and how to end the year to include testing, record keeping, and evaluation is obtained through first hand knowledge. The "whole picture" is exposed. They are given the opportunity to work with different teachers - seeing different personalities and methods of teaching behavior.

## CASE STUDY (7)

Then too, there is the exposure of the trainees to varied and effective skills/techniques utilized by several classroom teachers and on-the-job learning of somewhat mundane but important skills such as keeping a register and operating various types of school equipment. The multitude of experiences obtained are invaluable to all concerned, teachers, student teachers, children, etc.; all learn from each other and progress because of it. This leads to a reduction of barriers between theory and classroom practice as well as building self-knowledge leading to a more positive sense of self-worth and an increased focus on pupil needs.

Through the entire year's program, the university supervisor is planning and working closely with the eight people. He makes himself available to their needs and is frequently found in the school, in addition to the method teaching time, supervising, administering, and lending a helping hand, all in an indirect manner where needed. The student teachers have confidence in knowing they can approach him at any time, for he is willing to listen, as problems, ideas, and questions might arise.

All in all the total experience is well rounded, educational and rarely dull. The student teacher is in the middle of the action. He or she emerges truly knowing what it is all about, not just with a brief introduction, at some point within the year, that tends to still leave him wondering or even more confused as to whether he will like teaching as his future vocation.

## CASE STUDY (8)

One student teacher aide stated her experience quite aptly:

"Any person interested in this program should be prepared to work. We get the feel of a true job in education in a real school environment. We plan, grade, and do other jobs that regular teachers do, but we learn what to do (and what not to do!) from methods courses along with the job. In other words, we grow and develop into better roles as teachers, and we're much more prepared to go into full-time teaching than regular student teachers. I love it!"

A second noted:

"If you want a realistic experience in teaching - this is the program, if you want to work with children who are on a variety of different levels - this is the program, if you would like to experience working with several different teachers over a realistic period of time - this is the program, and if you want to work - this is the program."

Finally, another commented, "I have experienced situations that are generally faced by first year teachers - I feel as though I'm really prepared for next year, and looking forward to it."

## BUDGET

- Student Teachers: No additional funds were required for student teachers as the city schools allowed four half day student teacher aides plus one full time teacher aide in lieu of one teaching position, academic year 1971/72. In academic year 1972/73, eight half day student teacher aides plus two full time teacher aides were allowed in lieu of two teaching positions.
- University Coordinator: Each year, fall semester, three semester hours of teaching load were allocated for the coordinator to teach methods courses on-site to the experimental student teaching group. Appropriate allocation of semester hours (one hour per three student teachers) was afforded for supervision of student teaching experiences.
- Teachers: In 1972/73, the Chattanooga City Schools allocated \$2500 of in-service funds for payment of teachers to attend a two-week pre-school planning and instructional strategies workshop. No funds were allocated for the university coordinator and student teacher aides.

## EVALUATION

**Subjective:** In May 1972, essay answer questionnaires were distributed to teachers, student teachers and administrative personnel. An informal evaluation was also given by the students. Both individually and collectively, the program was considered a tremendous success. Suggestions for program improvement were incorporated into the 1972/73 planning. Again, in 1972/73, subjective evaluations showed strong support and approval of the program by teachers, student teachers and students.

**Objective:** A pre and post test (California Achievement Test) was administered to the sixth grade students. Results showed greater than normal progress for both years. Greater gain scores were experienced in 1971/72 than 1972/73, partially attributable to the fact that 1971/72 witnessed the student population and staffing change as a result of school pairing. Less change was experienced in 1972/73.

6/15/72

MEMORANDUM

To: Dr. James Henry, Superintendent

From: Amanda Cate, Principal, Barger Elem.

Because of the staff changes and school pairing which meant we had one-half new student body at Barger, and because of the differentiated staffing program, I asked that our students be retested on CAT this spring.

I am extremely proud of the results which show that Barger sixth graders achieved better than a year's progress for one year's work. I feel these scores are very significant proof that adding people in Language Arts and Math "pays off" for the children.

	Sept. 1 '71 CAT	May '72 CAT	Progress
Reading Vocab	6.18	7.09	+ .91
Compr.	6.62	7.65	+ .94
Total	6.37	7.35	+ .98
Math Compu.	5.73	6.76	+1.03
Cncpr	6.17	7.03	+ .86
Total	5.83	6.78	+ .95
Lang Mech	6.31	7.81	+1.50
Usgst	6.84	8.20	+1.45
Total	6.44	7.94	+1.50
Spelling	6.45	7.19	+ .74
Battery	6.07	7.20	+1.13

6th Grade Progress-Barger Elementary School  
 Experimental Student Teaching Program 1972-1973

	Oct ., 1 '72 CAT	April '73 CAT	Progress
Reading Vocab.	6.05	6.66	+.61
Compr.	6.27	7.02	+.75
Total	6.11	6.80	+.69
Math Comp.	5.40	6.51	+1.11
Concepts/Prob.	5.96	6.56	+.60
Total	5.55	6.45	+.90
Lang. Mech.	6.39	7.11	+.72
USGST	6.46	7.77	+1.31
Total	6.38	7.26	+.88
Spelling	6.19	6.50	+.31
Battery	5.86	6.70	+.84
Average	6.10	6.80	.70 Expected

APPENDIX A

MATHEMATICS AND SCIENCE  
EDUCATION 404

The grades for the Mathematics and Science Methods will result from contracts made between each student involved and the professor. Each student will evaluate the possible terms and then contract himself as a candidate for a particular grade. Any changes in contracts will be discussed with the professor.

Contract Terms

"C" Grade Requirement

1. Successful participation during designated methods class time in micro-teaching sessions with other student teacher aides - Mathematics; successful participation during designated methods class time in micro-teaching sessions with other student teacher aides - Science\*
2. An examination grade from 70-80 received on Mathematics exam.
3. An appropriate grade score on Science exam.

"B" Grade Requirement

1. Successful participation during designated methods class time in micro-teaching sessions with other student teacher aides - Mathematics; successful participation during designated methods class time in micro-teaching sessions with other student teacher aides - Science.
2. An examination grade from 80-90 received on Mathematics exam.
3. An appropriate grade score on Science exam.

"A" Grade Requirement

1. Successful participation during designated methods class time in micro-teaching sessions with other student teacher aides - Mathematics; successful participation during designated methods class time in micro-teaching sessions with other student teacher aides - Science.
2. An examination grade from 90-100 received on Mathematics exam.
3. An appropriate grade score on Science exam.

\*1972-73 Science Units - see next page

SCIENCE UNITS

Grade 4

1. Sounds
2. Light & Color
3. Earth History
4. Time & the Stars
5. Soil
6. Plants and Animals
7. Health

Grade 5

1. C & W
2. Nutrition  
4th week Sept.  
1st week Oct.
3. Geology
4. Magnets &  
Magnetism &  
Electricity
5. Simple Machines
6. Plants
7. Light & Heat

Grade 6

1. Solar System
2. Conservation
3. Your Living  
Body - Bones,  
Joints &  
Systems
4. Geology
5. Animal Growth

APPENDIX B

THE GROWTH OF READING ABILITY  
EDUCATION 402

The grades for the Reading Methods will result from contracts made between each student involved and the professor. Each student will evaluate the possible terms and then contract himself as a candidate for a particular grade. Any changes in contracts will be discussed with the professor.

"A" Grade Requirement

This assignment will consist of two parts; papers should be submitted for review as each assignment is completed:

- Assn. 1. Slower Reading Group  
" 2. Fast and Middle Reading Group

Please submit all assignments in the form of a diary including:

1. Your lesson plans in detail for each lesson taught to include materials and ideas used in presenting the lessons.
2. Your daily observation of the children's reaction to your teaching and your lesson, their acceptance and their progress.
3. Finally at the end of the diary, discuss your overall feelings of what you have done throughout the year to include the goals you had set and the results you feel you achieved or did not fully reach. Did the students benefit - why or why not, how do you know, what results do you see? What approaches or techniques might you have done differently? What have you learned from your cooperating teachers? How will these learnings help you as a future elementary school teacher?

Requirement 2: Read text Effective Teaching of Reading by Harris and Sipay to obtain a working knowledge of materials therein.

Requirement 3: Prepare two or more interest centers per month on reading skills being taught.

Requirement 4: Prepare an annotated bibliography of 100 or more books for one grade which would take into consideration all levels of reading within that grade (the librarian will be of some help in this requirement).

Requirement 5: Work with three of the lowest students - note the skills in reading that they are lacking and concentrate in a group session on these skills for 10 minutes twice a week. Keep a log of lesson plans, any assignments, interest centers used, reactions, and progress of each child.

Requirement 6: Notebook kept on all reading materials used to include their title, company produced, makeup, purpose, and type of child to be used with as well as reading level. Notebook will also include any materials described in class sessions or viewed at the UTC Curriculum Center or City Materials Lab.

Requirement 7: Final exam

THE GROWTH OF READING ABILITY  
EDUCATION 402

"B" Grade Requirement

This assignment will consist of two parts; papers should be submitted for review as each assignment is completed:

- Assn. 1. Slower Reading Group  
" 2. Fast and Middle Reading Group

Please submit all assignments in the form of a diary including:

1. Your lesson plans in detail for each lesson taught to include materials and ideas used in presenting the lessons.
2. Your daily observation of the children's reaction to your teaching and your lesson, their acceptance and their progress.
3. Finally at the end of the diary, discuss your overall feelings of what you have done throughout the year to include the goals you had set and the results you feel you achieved or did not fully reach. Did the students benefit - why or why not, how do you know, what results do you see? What approaches or techniques might you have done differently? What have you learned from this experience? What have you learned from your cooperating teachers? How will these learnings help you as a future elementary school teacher?

Requirement 2: Read text Effective Teaching of Reading by Harris and Sipay to obtain a working knowledge of materials therein.

Requirement 3: Prepare two or more interest centers per month on reading skills being taught.

Requirement 4: Work with three of the lowest students - note the skills in reading that they are lacking and concentrate in a group session on these skills for 10 minutes twice a week. Keep a log of lesson plans, any assignments, interest centers used, reactions, and progress of each child.

Requirement 5: Notebook kept on all reading materials (including Basal Series) used to include their title, company produced, makeup, purpose, and type of child to be used with as well as reading level. Notebook will also include any materials described in class sessions or viewed at the UTC Curriculum Center or City Materials Lab.

Requirement 6: Final Exam

APPENDIX C

METHODS OF TEACHING LANGUAGE ARTS AND  
SOCIAL SCIENCES IN ELEMENTARY SCHOOLS  
EDUCATION 403

The grades for Education 403 will result from contracts made between each student involved and the professor. Each student will evaluate the possible terms and then contract himself as a candidate for a particular grade. Any changes in contracts will be discussed with the professor.

Student teacher aides will present to the professor individual contracts to include work assignments and expected grade. The contracts will designate learning activity packets designed for a three week period to be used by the students in their respective classes for social studies. The packets are to be used as the primary instructional tool for that three week period to include the last two weeks in November and first in December. Advice and assistance from cooperating teachers is encouraged.

APPENDIX D

DIFFERENTIATED STAFF, 1972-73

Slower achievers

Faster achievers

I. LANGUAGE ARTS (120 minutes)

- A. English (30 minutes)  
1 Teacher
- B. Reading (30 minutes)  
2 Teachers  
1 Student Teacher Aide
- C. Lab Activities (30 minutes)  
1 Teacher
  - 1. Controlled reader
  - 2. Listening Station
  - 3. Spelling
  - 4. Creative writing
  - 5. SRA, Readers Digest, etc.
  - 6. Follow-up reading skills

- A. English, 1. Creative Writing  
Roberts (30 minutes)  
1 Teacher
- B. Spelling & Handwriting  
(30 minutes)  
1 Student Teacher Aide
- C. One-to-One (30 minutes)  
1 Student Teacher Aide
- D. Lab Activities (30 minutes)  
1 Teacher
  - 1. Controlled reader
  - 2. Thinking skills
  - 3. Listening station
  - 4. SRA, ISI, etc.
  - 5. Follow-up reading skills

II. MATH (50 minutes)

- A. 1 Teacher
- B. 2 Student Teacher Aides

- A. 2 Teachers
- B. 1 Student Teacher Aide

## SUPPLEMENTARY

The University of Tennessee at Chattanooga Coordinator has developed a 140 color slide, slide show, synchronized to narration and music. This slide show affords an excellent verbal/pictorial description of the program. Last December, the sound-synchronized slide show of the program was selected by the Executive Board of Tennessee Elementary School Principals' Association to represent Tennessee in Detroit (April 1973) at the National Meeting of the Association of Elementary School Principals (appendix 1 contains handout distributed). In Detroit it was warmly received by representatives from school systems throughout the United States and Canada.

In October 1973 the slide show was presented at The South East Regional Association of Teacher Educators (appendix 2 contains handout distributed) where it was also warmly received (appendix 3).

In April 1974, it will be presented at the National Meeting of Association for Supervision and Curriculum Development in Anaheim.

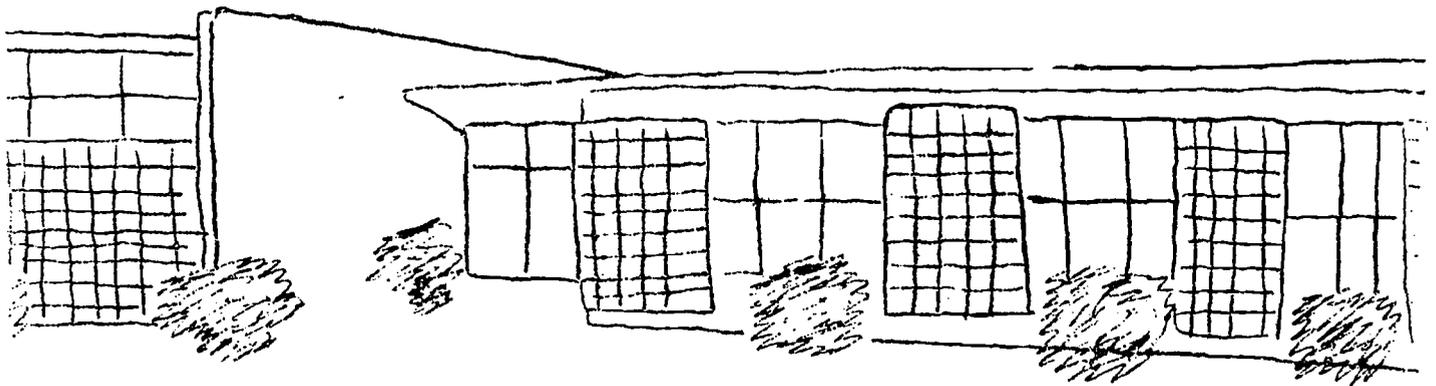
If deemed feasible, I shall be pleased to present it to the board reviewing the DAA entries. I feel it would be appropriate for viewing by the board.

Thank you for your consideration.



Robert J. Krajewski  
Assistant Professor of Education

Appendix 1



Henry L. Barger  
Elementary School

Chattanooga Public Schools  
Chattanooga, Tennessee

January, 1973

## BARGER ELEMENTARY SCHOOL

### DIFFERENTIATED STAFFING PROGRAM

Since 1965, Henry L. Barger Elementary School has been involved in a staff study of teaming and innovative curriculum practices. To this study was added a differentiated staffing project which has been in operation for the past two school years.

The proposal for the differentiated staffing component was presented in 1970 by the school principal to the superintendent of Chattanooga Public Schools, who in turn presented the plan to personnel of the Education Department of the University of Tennessee at Chattanooga. The plan involved the release of a teaching position which, instead, would be filled by one full-time teachers' aide and four half-time student-teacher aides completing course requirements in practice teaching for the University. An on-site methods course was taught by University personnel for student aides at Barger and was directly related to experiences and activities in which the student teachers were involved.

The instructional program at the school places emphasis on development of skills in mathematics and language. (For standardized testing results see the next page.) The morning hours are devoted to instruction in these two areas. The language arts block includes reading instruction for each pupil, providing one-to-one instruction for faster learners, and basal or Sullivan programmed materials for those whose learning styles require a slower approach. The language block also includes English, spelling, and handwriting, with laboratory to provide follow-up activities in one of the language areas. The aide staff allows formation of instructional groups which contain from eight to twenty pupils.

The mathematics block may group as many as 35 pupils whose math skills are quickly acquired. Pupils requiring more intensive work in the area of mathematics skills development may work in groups of eight or ten.

Afternoon activities are centered around science, social studies and physical education, with music and art activities provided once each week. In addition each child who wishes to do so may take instruction three times weekly in strings or band instruments.

6/15/72

MEMORANDUM

To: Dr. James Henry, Superintendent

From: Amanda Cate, Principal, Barger Elem.

Because of the staff changes and school pairing which meant we had one-half new student body at Barger, and because of the differentiated staffing program, I asked that our students be retested on CAT this spring.

I am extremely proud of the results which show that Barger sixth graders achieved better than a year's progress for one year's work. I feel these scores are very significant proof that adding people in Language Arts and Math "pays off" for the children.

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Math Compu.	5.73	6.76	+1.03
Cncpr	6.17	7.03	+ .86
Total	5.83	6.78	+ .95
Lang Mech	6.31	7.81	+1.50
Usgst	6.84	8.20	+1.45
Total	6.44	7.94	+1.50
Spelling	6.45	7.19	+ .74
Battery	6.07	7.20	+1.13

GRADE SIX

GRADE FIVE

GRADE FOUR

HENRY L. BARGER SCHEDULE

1972-73

Mrs. Johnson Mrs. Lovelady Mrs. Parker Mrs. O'Neal Miss Wallace Mrs. Shirey

Mrs. Brooks Mrs. Cooke Mrs. Holmes

8:45-	Language Arts + 3 Aides		L.A. 6 <sup>3</sup>	Language Arts + 3 Aides		L.A. 5 <sup>3</sup>	L.A. & Math 4 <sup>1</sup> 1st Sem.	L.A. & Math 4 <sup>3</sup>	L.A. & Math 4 <sup>2</sup> 1st Sem.	
	6 <sup>1</sup> & 6 <sup>2</sup>			5 <sup>1</sup> & 5 <sup>2</sup>						4 <sup>2</sup> 2d Sem.
10:45-	Math 6 <sup>3</sup>		Math 5 <sup>3</sup>		Math 5 <sup>1</sup> & 5 <sup>2</sup>					
10:45-	Math 6 <sup>1</sup> & 6 <sup>2</sup>		Math 5 <sup>1</sup> & 5 <sup>2</sup>							
11:35	LUNCH PERIOD									
11:40-12:25	LUNCH PERIOD									
12:35-1:20	S.S. 6	P.E. 6	Sci. 6	S.S. 5	Music Gr. 4-Fri.	Art Gr. 5-Tu.	Mr. Nasca Sci. 5 1st P-M. 2d P-O'N 3d P-Sh.	S.S. 4	Sci. 4	Temp. Hist. 4-1st Sem. Home Sci. 4-2nd Sem. (C)
1:20-2:05	S.S. 6	P.E. 6	Sci. 6	S.S. 5	Gr. 5-Th. Gr. 6-Tu. P.E. 5-Wed.	Gr. 4-M. Gr. 6-Th. PE 6-M.	Mrs. Sullivan PE 5 1st P-O'N 2d P-Sh. 3d P-W.	(L)	(P)	(S)
2:05-2:50	S.S. 6	P.E. 6	Sci. 6	S.S. 5						
	(J)	(L)	(P)	(O)				(B)	(C)	(H)
	Tuesday Off	Monday Off	Thursday Off	Thursday Off	Monday Off	Friday Off	Mr. Nasca Tuesday Off Mrs. Sullivan Wed. Off			

DIFFERENTIATED STAFF, 1971-72

Slower 54 children

Faster 75 children

I. MATH (50 minutes)

- A. 1 Teacher
- B. 1 Aide
- C. 2 Student Teacher Aides

- A. 1 Teacher
- B. 2 Student Teacher Aides

II LANGUAGE ARTS (90 minutes)

- A. English (30 min.) - 1 Teacher
- B. Reading (30 min.)- 1 TA, 1 STA
- C. Lab Activities (30 min)-1 STA
  - 1. Controlled reader
  - 2. Listening Station
  - 3. Spelling
  - 4. Creative writing
  - 5. SRA, Readers Digest, etc.
  - 6. Teacher written activities

- A. English, 1. Creative Writing, Roberts (30 min.) - 1 Teacher
- B. One-to-One (30 min.) - 1 STA
  - 1. Spelling Lab
- C. Lab Activities (30 min.) - 1 STA
  - 1. Controlled reader
  - 2. Thinking skills
  - 3. Listening Station
  - 4. SRA, LSI, etc.
  - 5. Teacher written activities

Since one Teacher Aide and four Student Teacher Aides could be used in lieu of one teacher position, the school was able to place seven adults with 129 children. This enabled teachers to create very small classroom groupings for skill instruction. Activities may be varied within the basic schedule above.

Amanda Cate, Principal  
Barger Elementary School

Robert J. Krajewski, Student Teacher Coordinator  
University of Tennessee at Chattanooga

Appendix 2

AN EXPERIMENTAL STUDENT TEACHING PROGRAM

by

Robert J. Krajewski

University of Tennessee  
Chattanooga

The Chattanooga City Schools and the University of Tennessee at Chattanooga have cooperated in developing a differentiated staffing program using student teachers as regular teaching aides. The student teachers teach 1/2 day throughout the academic year.

The student teachers have been under the guidance of Mrs. Amanda Cate, principal of Barger Elementary School, and Dr. Robert Krajewski, University of Tennessee at Chattanooga. In the first semester the student teacher aides receive their methods courses during the afternoon within the elementary school setting.

Mrs. Cate and Dr. Krajewski work closely to develop an instructional program for the school and for the student teachers.

In the Barger Differentiated Staffing Program, the staff works closely with the student teachers to implement an instructional program designed to meet the needs of the individual students. The program is centered around language arts and math. During language arts the children are grouped according to reading achievement and teacher observation. The language arts program is divided into four parts: reading, English skills, laboratory activities and spelling and handwriting. Each student teacher aide teaches spelling and handwriting. Spelling skills are reinforced through interest centers, active bulletin boards as well as materials in the basal program. Students receive more individualized instruction and play an active part in the learning process.

Handwriting skills are worked on daily and specific skills

biweekly. Bulletin boards and interest centers are displayed to help improve handwriting skills and encourage creative writing.

The reading lab is practical and diversified. Teachers make use of commercially produced materials such as filmstrips, listening stations, language masters and programmed materials to improve listening skills. Use is also made of SRA materials.

The one-to-one reading program provides an exciting possibility for independent work and development of responsibility. Under the teacher's supervision, the children within the group are free to choose their own reading material on their own level. Weekly conferences are held with each student to evaluate his progress. The aforementioned subjects are incorporated into reading. Each day two hours are spent on language arts with the periods ranging from 30 to 45 minutes depending on grade level. The differentiated staffing system allows for a lower student/teacher ratio thereby increasing individualized instruction and improving skills in various areas. We strive to create a wholesome learning environment by nurturing student involvement and active participation. Interest centers are utilized throughout the reading areas to reinforce skills the children have learned. The interest centers are an integral part of our every day teaching as are creative bulletin boards and student participatory activities.

In the math methods student teachers micro teach to their peers and are video taped and analyzed according to Flanders Interaction Analysis. These lessons are taught prior to their being used in the actual classroom. As in reading we attempt to make the teaching interesting and lively. Students are actively involved in each day's

lesson and their computational skills are improved through the use of interest centers and games. We try to show them that learning can be fun. It can be fun, and so can teaching, when the student becomes the focus.

As previously mentioned, the teaching methods courses were given within the school atmosphere during the first semester of the school year. They were taught by Dr. Robert Krajewski who in addition supervised the student teaching activities within the public school setting for the entire year. Teaching methods instruction was received in the areas of mathematics and science, language arts with special emphasis on reading, and social studies several times per week. The assignments within the specific methods courses varied with the intent of providing a diversified and practical approach for teaching methods within the school setting. For instance, the student teachers received varied experiences in teaching reading to various ability groups for twelve weeks each. They had both classroom and laboratory experiences. At the end of each six week period an evaluation was held on each individual student teacher. Mrs. Cate, Dr. Krajewski, the lead teacher and the student teacher took part in the evaluation. Strengths and weaknesses were discussed as well as how she might improve her weaknesses. A diary was kept by the student teachers for the entire year. This diary included her daily lesson plans, interest centers, personal feelings about her teaching, and other materials used in presenting her lessons. For each methods course taught, contracts were made with the instructor. They were fulfilled according to each student's teacher aide's experience in the classroom so that methods and actual classroom experience could

be combined. Instructional methodologies included in addition to the normal subject content a) sequences of micro-teaching lessons, in controlled, small group or peer sessions and b) a combination use of Flanders Interaction Analysis Category System Objective Analysis and videotaping analysis of student teacher aides' teaching interaction in the classroom. From this combination, each teacher was given the opportunity to analyze his own teaching skills and interaction within the actual classroom setting. The total learning for the student teacher aides was a coordinated and true to life one as their experiences and responsibilities varied from day to day as real teachers through the full academic year.

## MATHEMATICS AND SCIENCE

### EDUCATION 404

The grades for the Mathematics and Science Methods will result from contracts made between each student involved and the professor. Each student will evaluate the possible terms and then contract himself as a candidate for a particular grade. Any changes in contracts will be discussed with the professor.

#### Contract Terms

##### "C" Grade Requirement

1. An examination grade from 70-80 received on the mathematics exam.
2. Participation in micro-teaching sessions.
3. An appropriate grade score on the Science Process Measure for Teachers (AAAS) Part A and B.

##### "B" Grade Requirement

1. An examination grade from 80-90 received on the mathematics exam.
2. Participation in micro-teaching sessions.
3. An appropriate grade score on The Science Process Measure for Teachers (AAAS) Part A and B.

##### "A" Grade Requirement

1. An examination grade from 90-100 received on the mathematics exam.
2. Participation in micro-teaching sessions during which excellent teaching potential is shown through the use of methods, approaches and media.
3. An appropriate grade score on The Science Process Measure for Teachers (AAAS) Part A and B.

THE GROWTH OF READING ABILITY  
EDUCATION 402

The grades for the Reading Methods will result from contracts made between each student involved and the professor. Each student will evaluate the possible terms and then contract himself as a candidate for a particular grade. Any changes in contracts will be discussed with the professor.

"A" Grade Requirement

This assignment will consist of two parts; papers should be submitted for review as each assignment is completed:

- Assn. 1. Slower Reading Group  
" 2. Fast and Middle Reading Group

Please submit all assignments in the form of a diary including:

1. Your lesson plans in detail for each lesson taught to include materials and ideas used in presenting the lessons.
2. Your daily observation of the children's reaction to your teaching and your lesson, their acceptance and their progress.
3. Finally at the end of the diary, discuss your overall feelings of what you have done throughout the year to include the goals you had set and the results you feel you achieved or did not fully reach. Did the students benefit - why or why not, how do you know, what results do you see? What approaches or techniques might you have done differently? What have you learned from your cooperating teachers? How will these learnings help you as a future elementary school teacher?

Requirement 2: Read text Effective Teaching of Reading by Harris and Sipay to obtain a working knowledge of materials therein.

Requirement 3: Prepare two or more interest centers per month on reading skills being taught.

Requirement 4: Prepare an annotated bibliography of 100 or more books for one grade which would take into consideration all levels of reading within that grade (the librarian will be of some help in this requirement).

Requirement 5: Work with three of the lowest students - note the skills in reading that they are lacking and concentrate in a group session on these skills for 10 minutes twice a week. Keep a log of lesson plans, any assignments, interest centers used, reactions, and progress of each child.

Requirement 6: Notebook kept on all reading materials used to include their title, company produced, makeup, purpose, and type of child to be used with as well as reading level. Notebook will also include any materials described in class sessions or viewed at the UTC Curriculum Center or City Materials Lab.

Requirement 7: Final exam

DIFFERENTIATED STAFF, 1972-73

Slower achievers

Faster achievers

I. LANGUAGE ARTS (120 minutes)

- A. English (30 minutes)  
1 Teacher
- B. Reading (30 minutes)  
2 Teachers  
1 Student Teacher Aide
- C. Lab Activities (30 minutes)  
1 Teacher
  - 1. Controlled reader
  - 2. Listening Station
  - 3. Spelling
  - 4. Creative writing
  - 5. SRA, Readers Digest, etc.
  - 6. Follow-up reading skills

- A. English, 1. Creative Writing  
Roberts (30 minutes)  
1 Teacher
- B. Spelling & Handwriting  
(30 minutes)  
1 Student Teacher Aide
- C. One-to-One (30 minutes)  
1 Student Teacher Aide
- D. Lab Activities (30 minutes)  
1 Teacher
  - 1. Controlled reader
  - 2. Thinking skills
  - 3. Listening station
  - 4. SRA, LSI, etc.
  - 5. Follow-up reading skills

II. MATH (50 minutes)

- A. 1 Teacher
- B. 2 Student Teacher Aides

- A. 2 Teachers
- B. 1 Student Teacher Aide

Appendix 3

MISSISSIPPI STATE UNIVERSITY



DEPARTMENT OF EDUCATIONAL ADMINISTRATION AND COMMUNITY COLLEGE EDUCATION  
DRAWER LH  
MISSISSIPPI STATE, MISSISSIPPI 39762

November 7, 1973

Dr. Robert J. Krajewski  
Assistant Professor of Education  
The University of Tennessee  
at Chattanooga  
Chattanooga, Tennessee 37401

Dear Dr. Krajewski:

Thank you for your fine presentation at the SERATE Conference in Biloxi, October 25-27. The comments about your presentation have all been complimentary and positive. We hope you found the Conference enjoyable and worthwhile; and we hope you enjoyed your visit to the Mississippi Gulf Coast.

Sincerely,

Walter E. Sistrunk  
Professor of Education, M.S.U.  
and immediate past president  
of SERATE

WES/lrs