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ABSTRACT

Documented shortages of secondary mathematics and science teachers have occurred over a decade. Yet a program developed to enable individuals with academic preparation in mathematics and/or science to become teachers encountered difficulty in placing the students in paid teaching internships. Although benefits to school districts for participating in the program included salary savings and assistance with their teacher induction programs, not many districts have shown interest in participating in the program. Discussion of factors such as timing of employment decisions, scheduling of intern with mentor teacher, and characteristics of interns thought to affect the employment of teaching interns are presented in this report. (Author/MVL)

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Project Portrayal
Recruitment and Selection of Mathematics
and Science Teaching Candidates for
a Non-traditional Teacher Certification
Program: A Case Study

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**Recruitment and Selection of Mathematics and Science Teaching Candidates for a
Nontraditional Teacher Certification Program: A Case Study**

Abstract

Documented shortages of secondary mathematics and science teachers have occurred for over a decade. Yet a program developed to enable individuals with academic preparation in mathematics and/or science to become teachers encountered difficulty in placing the students in paid teaching internships. Although benefits to school districts for participating in the program included salary savings and assistance with their teacher induction programs, not many districts have shown interest in participating in the program. Discussion of factors such as, timing of employment decisions, scheduling of intern with mentor teacher and characteristics of interns thought to affect the employment of teaching interns are presented.

Recruitment and Selection of Mathematics and Science Teaching Candidates for a Nontraditional Teacher Certification Program: A Case Study

INTRODUCTION

Substantial evidence has been compiled to document critical shortages of qualified secondary mathematics and science teachers. Over the past decade, Association for School, College, and University Staffing (ASCUS) surveys have consistently reported teacher shortages in mathematics, physics, and chemistry (Stern & Williams, 1986). To aggravate the problem many states have increased the curricular requirements in science and mathematics for high school graduation. State legislatures reacting to national reports decrying the quality of education, have increased the number of mathematics and science units for high school graduation while increasing the requirements for becoming a certified teacher. Increasing the number of science courses translates into a greater need for mathematics and science teachers, whereas increasing the requirements for becoming a teacher reduces the number of individuals aspiring to become teachers. These phenomena, a documented shortage of teachers and legislation which adversely affects the shortage, have encouraged the development of nontraditional programs for teacher certification. This case study examines how an alternative certification program for secondary teachers was developed and implemented to meet local and regional teacher shortages in mathematics and science.

CONTEXTUAL BACKGROUND

To understand the order of events and their significance during the development of the program, a brief discussion of the policy and organizational contexts of the alternative certification program is presented.

Policy Context

Consistent with an organizational position favoring centralized decision-making, Texas has enacted a number of education codes which increase accountability of school clients and professionals to the Texas Education Agency. Processes include standardized tests whose results are interpreted to determine learner mastery of the essential elements contained in the state-adopted curriculum. In 1984, additional legislation was enacted which affected nearly every aspect of public education including teacher preparation. The concern for teacher quality and accountability was so pronounced that all teachers under contract were required to satisfactorily complete the TECAT, a standardized test of basic skills of communication (reading and writing) and computation. Failure to complete this examination satisfactorily resulted in the revocation of an individual's teaching certificate.

This legislation also required teacher preparation programs to implement a testing program which included entrance and exit tests. In order to be admitted into teacher education, all prospective candidates must achieve criterion scores on the Pre-Professional Skills Test (PPST) of 171, 172, 173 for mathematics, reading and writing, respectively. Assuming a successful experience with the PPST, the individual is allowed to be admitted into teacher education and complete the course requirements for the certificate. At the conclusion of the program, the teaching candidate then must successfully complete another standardized test, the EXCET examination. On this test, candidates must evidence mastery of pedagogy, and their teaching field specialties through meeting or exceeding established cut-off scores. Successful scores on the EXCET examination must be attained before the candidate can apply for their initial teaching certificate. These end-of-program examinations were first administered during the Spring, 1986.

Ironically, while the testing movement gained momentum and sensitivity to quality heightened, the state continued to allow school districts to employ nonqualified individuals to teach with emergency certificates. These individuals simply filed a "deficiency plan" identifying requisite course work needed to complete the teaching specialty they were being employed to teach. Assuming no qualified candidates were available, these individuals could legally be employed to teach with the emergency certificate for a period up to three years. The PPST was not required of these individuals until Spring, 1987.

Abuses of emergency certificates are far too common. In one instance a school district requested the university to develop a deficiency plan for one of their coaches enabling him to teach junior high mathematics. Upon examination of the individual's transcript, it was learned he had 3 hours of mathematics credit, 21 hours short the minimum requirement for a teaching field, yet the district was willing to place him in a mathematics classroom. Had the university complied with the district's request to develop a deficiency plan in mathematics, the coach would have been a legally qualified teacher!

A second abuse of deficiency plans is linked to a regulation of the temporary certificate which requires that an individual demonstrate progress in completing courses on the deficiency plan each year. Here, individuals develop a deficiency plan, "teach" the subject they are not prepared adequately to teach, but do not complete any of the stated course deficiencies. At the conclusion of the year, the "qualified" teacher merely moves back into his/her area of certification and the process is repeated with someone else. This situation typically occurs when district officials fail to recruit sufficient members of qualified teachers.

While abuses of emergency certification plans are legend, the state has not eliminated this loophole in the certification process. The hypocrisy of the

emergency certificate seriously undermines the effort to raise the quality of education in every classroom.

Organizational Context

The University is a land-grant institution with an enrollment which exceeds 39,000 students. There are more than 2,000 faculty at the University teaching in 28 different departments within 10 academic colleges. The campus is located in the east-central part of the state approximately 90 miles northwest of Houston.

The College of Education includes 7 departments whose primary functions are teaching, research and public service. The main teaching role of the College is to serve as a professional school for the preparation of elementary and secondary school teachers, with particular emphasis upon teaching in the State of Texas. Presently the College of Education has an undergraduate enrollment exceeding 2,400 students. The number of students completing the requirement for Texas teaching certificates exceeded 450 last year.

Among recent enrollment figures are substantial numbers of teaching candidates with teaching fields in mathematics and science. Spring, 1987 enrollment figures included: 241 - mathematics, 103 - biology, 42 - chemistry, 28 - earth science, and 16 - physics (Romig, 1987). In fact, the University was credited with preparing more mathematics and science teachers in 1986 than any other college or university in the United States.

Given the urgings by the dean and the impetus from national reform reports, including the Carnegie Forum on Education and the Economy report, A Nation Prepared: Teachers for the 21st Century (1986), the National Governors' Association report, Time for Results: The Governors 1991 Report on Education (1986), and the Holmes Group report, Tomorrow's Teachers: A Report of the Holmes Group (1986), varied approaches to teacher preparation programs are being tried

across the college.

Program

A non-traditional graduate level certification program was developed to meet the perceived shortage of mathematics and science teachers for secondary schools. The program, fashioned to prepare teachers to implement a diagnostic prescriptive model of instruction (Armstrong, Denton, & Savage, 1978), was designed as a post-baccalaurate or fifth year certification plan. This model of instruction describes teaching as a series of processes requiring five distinct instructional skills: specifying performance objectives, diagnosing learners, selecting instructional strategies, interacting with learners, and evaluating the effectiveness of instruction.

This model provides a conceptual framework for teaching candidates as they apply principles of pedagogy to practical instructional problems that arise in the classroom. Moreover, this model encourages the development of individual teaching styles. Individualized styles are encouraged because of the emphasis placed on determining the entry level skills of learners then accounting for these skills as the instructional strategies are developed. Teachers in preparation are free to choose techniques and materials which they believe will enable learners to achieve the performance objectives. If during the implementation of instructional strategies learners do not demonstrate satisfactory progress, the teaching candidate adjusts the strategy or attempts another approach. In this model evaluating the instructional plan is of a formative and iterative nature.

Course Offerings

Thirty-six semester hours of course work are associated with the alternative certification program. The sequence of course work illustrated in Table 1 permits the candidate to earn a Master of Education degree while

satisfying the requirements for certification. The program begins in June and concludes, for those candidates remaining on-schedule, some 15 months later with summer graduation exercises.

Place Table 1 about here.

During the initial summer experience, candidates complete course work emphasizing instructional design, classroom management, and instructional resources. Additional experiences in operating secondary classrooms are arranged for the candidates.

Course work which accompany the paid professional internship place substantial emphasis on classroom practices. Research protocols and empirical findings on teaching and learning are stressed in these courses. The culminating experience of the internship is an instructional research project completed by the candidate during the year.

During the final summer, two courses of the required core courses in the traditional master's degree and six semester hours of electives are completed. Capping the program, a written report of the recently completed instructional investigation is prepared and defended. Non-course requirements for certification such as the EXCET examination are also completed during the final stages of the program.

THE RECRUITMENT PROCESS

Generally, alternative certification programs can be completed in a shorter period of time, but require more field experience and greater supervision than traditional routes to teacher certification. Typically, more extensive field

experience coupled with close supervision are seen as positive program characteristics among teacher educators. This program exhibits these characteristics and offers the additional incentive of a graduate degree. However, a limitation of this program for candidate recruitment is the reduced salary the candidate earns during the professional internship. These characteristics of the program have affected the applicant pool, screening process and selection of candidates.

Developing an Applicant Pool

When recruitment efforts for the first cohort were made during spring 1986, the economic plight of the oil industry in Houston was such that a large talent pool was available. Displaced engineers, geologists, and chemists were anxious to apply their academic and professional experience in secondary classrooms. Advertisements, such as the example in figure 1, generated 54 applicants within a week! These advertisements were placed in two community newspapers on May 10 and 11 in a daily paper and May 14 in a weekly paper. The communities served by the newspapers are located immediately north of Houston and have school districts which had agreed to participate in the program with the University.

Place Figure 1 about here.

The response to these advertisements exceeded expectations, yielding far more applicants than the anticipated placements. This level of interest in the program combined with the excellent academic credentials of a number of applicants indicated a valuable human resource was available at that time to help alleviate the shortage of mathematics and science teachers.

While the depressed economy undoubtedly contributed to the abundance of

applicants, eroding tax bases and declining school enrollments dictated retrenchment rather than expansion by school districts. At the beginning of the program on June 6, 1986, four candidates had committed internships rather than the 12 positions that were expected by the program staff.

Individuals not receiving internships were told the program would continue and that they would be contacted to apply for the second cohort. By this time, June 1986, the University's public information office had learned of the program, interviewed the program staff and had submitted a news release to the wire service. Brief articles describing the program began to appear in local papers across the state, radio interviews about the program were conducted and descriptions of the the program appeared in university publications. With each article and interview, additional inquiries from potential applicants occurred. The volume of requests for information hastened the development of printed materials. A brochure which described the program, listed the course sequence, and provided a mailer requesting application materials was completed in September, 1986.

Recruitment of candidates for cohort 2 began with the placement of a classified ad, in the Houston Chronicle on November 22 and 23, 1986. This ad, similar to figure 1, was modified to reflect the June 1987 start-up date and the number of candidates was increased from 12 to 24. The ad was subsequently placed in three local newspapers on January 10 and 11, 1987. Individuals responding to these ads were mailed brochures as were unsuccessful applicants of cohort 1.

Although 107 brochures were mailed, not quite half of the individuals (48) receiving brochures requested application forms for the program. Subsequently, 21 completed applications were submitted. The attrition of individuals requesting but not submitting application forms perhaps was linked to the costs

associated with the entrance examinations (i.e., GRE - \$29, PPST - \$40) and the number of steps involved in submitting a complete set of application materials. These 21 individuals represented the applicant pool for cohort 2.

Screening of Applicants

When the program began in 1986, applications were received just prior (2-3 weeks) to the beginning of the course work. Application materials were screened with respect to whether sufficient credit hours had been completed in teaching fields to qualify for the program and evidence of a baccalaureate degree. Application materials of individuals meeting these criteria were submitted to the participating school districts to use in selecting the interns.

An initial group of nine individuals began the program in June, 1986. Four of these individuals had commitments from school districts when the program began. It was anticipated that the remaining individuals would be placed in paid internship positions before the beginning of the 1986 fall semester (September, 1986); unfortunately this optimistic expectation did not occur. Of the five intern candidates who began the program in June 1986 but were not committed to a school district, one person resigned from the program midway through summer school. A second individual chose to take a part-time teaching job requiring two years of experience in order to complete certification requirements. A third individual enrolled in course work during the fall semester (1986) and completed student teaching to fulfill certification requirements. Two other candidates participated in the course offered in conjunction with the internship during the fall semester and were placed in internships for the spring semester 1987 (one paid, one non-paid). Collectively, six of the original nine candidates completed internships during the academic year.

As year two of the program approached, a three step procedure was

established to screen applicants. Some individuals in cohort 1 lamented they had not been appraised of all the steps involved in becoming certified at the outset of the program. To remedy this limitation, individuals requesting application materials were sent a packet of registration materials including a cover letter (figure 2) which delineated the procedures for applying to the program. The letter was designed to discourage the person with a casual interest and little commitment to teaching.

Place Figure 2 about here.

The second step of the process was a review of the completed application forms for evidence that:

- (1) the prerequisite tests had been satisfactorily completed, (i.e., Graduate Record Examination (GRE) scores sufficiently high and recent; PreProfessional Skills Test (PPST) scores which met or exceeded the state established criterion scores of 171, 172, 173 for mathematics, reading, and writing, respectively.)
- (2) sufficient hours had been completed in teaching fields to qualify for the program: two-24 hour teaching fields, or a 36 hour program or a 48 hour composite field.
- (3) sufficient grade point ratios (GPR) in teaching fields and undergraduate grade point (cumulative GPR=2.50). Evidence of baccalaureate degree.

Assuming these conditions were met, the final step in this process was an interview with the candidate. As part of the interview, candidates made a brief presentation (8-10 minutes) and completed the Strong-Campbell Vocational

Preference Inventory. Following the interviews, biographic information and academic credentials of the candidates were compiled to share with school districts. Table 2 summarizes the academic qualifications of the final list of candidates for cohort 2.

Place Table 2 about here.

Reviewing Table 2 reveals these candidates collectively possessed strong academic credentials illustrated by the following statistics: six of these individuals had earned masters degrees; the mean Graduate Record Scores - GRE (verbal and quantitative) $M = 1100+$, range 870 to 1500; the mean Grade Point Ratio - GPR, $M = 2.9+$, range 2.1 to 3.8. Additionally, four of these individuals (23% of the sample) represented minority segments of our society. Two of the minority candidates elected to participate in the program without a paid internship, but obtained internships during the summer. These statistical descriptors of the group compare very favorably to other graduate students in Educational Curriculum and Instruction, where minority representation is less than 20 percent and average GRE values for masters level candidates is 900.

Selection of Candidates by School Districts

Three school districts (CISD, SISD and TISD) participated in the pilot phase (cohort 1) of the alternative certification program. These districts, located within 30 miles of Houston, agreed to participate in the program for cohort 2. Numerous meetings and telephone conferences were conducted and written communications completed, all with the common goal of encouraging additional school districts to participate in the program by providing paid

internships during the 1987-88 school year. Table 3 lists the school districts contacted, the type of communication and the initial reaction from the district.

Place Table 3 about here.

Once the screening of candidates had been completed, follow-up correspondence occurred with each of these districts, except the district who declined an invitation to participate, in early April, 1987. Districts were supplied a list of candidates, their teaching fields, academic degrees, and date(s) of graduation. Given this list, districts were encouraged to request the biographic information and academic credentials of the candidates from the university. The three districts that had participated in the pilot phase of the program (1986-87) immediately requested credentials, but the "new" districts did not respond. After two weeks had passed without requests from the "new" districts, personal visits and/or telephone calls and letters were directed to these districts. Sets of credentials were hand-delivered to three districts, and mailed to two other districts when timely appointments were not possible with the director of personnel. The two remaining "new" districts indicated no openings in mathematics and science and declined the invitation to participate in the program during 1987-88.

Throughout May, 1987, numerous telephone contacts were made encouraging interviews and reminding school officials of the closing date for selection (June 8, 1987) of interns. With the opening day of class for summer school one week away, intern candidates were mailed the following letter (Figure 3). This letter identified the districts continuing to maintain an interest in participating in the program at that date.

Place Figure 3 about here.

On June 8, 1987, the first day of summer school and the first day of course work for cohort 2 of the alternative certification program, one individual held an internship commitment from SISD. However, both CISD and TISD maintained they wanted to participate in the program. By Friday, June 19, 1987, TISD had employed an intern and CISD had committed to 4 interns, and had identified one individual. Seven candidates remained in the alternative certification program after two weeks. Technically four of the individuals not holding commitments from school districts were in the non-paid internship program, but since three paid internships remained, three of these individuals were to be placed in the CISD system leaving one person in the non-paid internship program. Acting with substantial initiative, the unplaced candidate located a position in IISD and requested an opportunity to complete a paid internship in that school district. The school district and university agreed to the request, resulting in an alternative certification plan being filed with the Texas Education Agency.

Summarizing these negotiations, four school districts employed 7 interns for cohort 2. CISD employed four interns, while SISD, TISD, and IISD each employed one intern. The remaining candidates listed in table 2 did not participate in the program. Individuals selected for internships shared the following characteristics: recent graduate (1982-1987), initiated requests for interviews by calling school districts for interview appointments (only one intern was placed where the district initiated the request for an interview), conveyed an enthusiastic attitude for working with people, and held a science composite teaching field - if employed to teach science. While academically successful, these individuals did not possess the top academic credentials in

the group. Two individuals on the list of candidates were awarded graduate college fellowships (\$9,000) based on their academic credentials, yet both individuals, quite independently, came to decisions not to pursue teacher certification and relinquished their fellowships.

AN ASSESSMENT

The placement of qualified candidates in secondary mathematics and science classrooms over the past two years has been less successful than anticipated. Critical shortages of mathematics and science teachers cited in the literature (Stern & Williams, 1986) simply have not occurred in the south-central region of Texas. The softened economy of Houston, brought on in part by depressed oil prices, has created a surplus of teaching candidates with academic backgrounds in mathematics and/or science. In addition, the economic plight of the region has reduced the need for teachers due to diminishing school budgets and declining enrollments. In spite of the dampening economic forces which potentially reduced or negated school districts from participating in the program, a careful assessment was undertaken of the policies and assumptions which guided the development and implementation of the alternative certification program. The following observations resulted from that assessment.

1. Requiring school districts to select interns by early June placed additional and unwelcomed burdens on personnel officers and administrators at the close of the school year.
2. Scheduling an intern for four instructional periods and a common preparation period with a mentor teacher was said to be of concern to two districts who did not select interns.
3. Salary savings to the district of \$3,000 ± 1,000, depending on the salary of the participating mentor teacher, was not a sufficient

- incentive for districts to participate in the program.
4. Participating in an operating first-year teacher induction program with the university facilitating the teacher's entry into teaching was not perceived as a sufficient benefit for districts to participate in the program.
 5. Intern candidates with considerable experience and superior academic credentials were not actively recruited.

Perhaps the greatest impediment to placing candidates in paid internships was the issue of timing. In order for the candidate to acquire the necessary skills and knowledge for entering the classroom as a beginning teacher, the program staff felt a semester of course work was absolutely essential. Beginning the course work sequence in September would have created even greater placement problems because few classroom teaching positions open during the school year. A January start-up appears to have been a more viable alternative. Although the internship would not have begun until the following September, program officials would have had an additional period to negotiate internships with districts. This arrangement would have alleviated pressure requiring personnel decisions to be made at the conclusion of the school year (late May - early June). From the perspective of many candidates though, a January start-up would have created additional financial hardships and uncertainty, since the unemployment period for these individuals would increase by 5 months (January to September in contrast to the June to September period).

Personnel officials of school districts who find strong candidates early in the "recruiting season" sometimes gamble and offer the candidate a contract. In this situation, the candidate is hired although no opening exists but is subsequently placed when an appropriate opening occurs. During periods of

declining enrollments and dwindling financial resources this recruiting strategy is rarely used (Darling-Hammond, Wise, Berry, & Praskac, 1987). Given the economic circumstances since the program began in 1986, school districts have not been inclined to offer candidates contracts for expected openings, thus the potential advantage of increasing the length of time for recruitment from January through March for placing interns is very slight.

Another factor negating early employment of candidates is the common practice of filling vacancies from an internal transfer pool of teachers. That is, teachers within the district are given an opportunity to transfer to another teaching position within the district. Generally, internal transfers are completed before external candidates are offered employment. In order to avoid less desirable teachers from the internal transfer pool, principals delay the posting of vacancies from their schools. This practice is accomplished simply by requesting resigning teachers to submit their resignations in mid-summer. Teachers are usually quite willing to comply with this request since district benefits, such as, health insurance, remain in effect until they officially resign.

The difficulty of scheduling an intern and the mentor teacher for four instructional periods daily, rather than five periods, was raised as a concern by two school districts. Had these districts been quite small with less than 10 mathematics and science teachers, this concern for scheduling would be more easily justified, at least to the program staff. Yet the smaller of these districts employed more than 300 teachers while the larger district employed over 530 teachers. Perhaps these districts were expressing reservations about participating in a nontraditional program especially one in its second year of operation. With an additional year of operation, the program may be perceived as more settled, less experimental and thus more acceptable to these districts.

From the viewpoint of the program staff, benefits to school districts, such as, salary savings and induction year assistance, were sufficient rewards for participating in the program. Clearly these "benefits" were not viewed as compelling reasons for participating in the program by a number of school districts. The salary savings per intern was not sufficient to off-set the financial risk of hiring an intern in June for an anticipated opening that fails to occur. Second, because an induction program for beginning teachers is a nascent idea for many school districts, this benefit has been undervalued. When school districts realize that help for first year teachers enhance the probability of their effectiveness and retention, induction programs will be valued and accepted. Further, Wise (1987) contends that teacher recruitment is often enhanced when candidates realize the district will provide assistance and support during their first year in the district.

Finally, characteristics of individuals not selected for internships were reviewed for commonalities. Perhaps the most telling characteristic was personal initiative. Individuals who did not actively pursue a position, choosing instead to wait for school districts to make the initial contact were not selected. In fact, with two exceptions in two years, these individuals did not participate in a single interview!

Less common, but more troubling, has been the lack of success older candidates have experienced in being selected for internships. It appears that candidates with extensive experience in business or industry who possess excellent academic credentials will encounter personnel officials with reservations about their motivation to teach. Reservations based solely on age are not openly expressed by personnel staff. However, concern for whether older candidates will "fit-in" and be compatible with students, teachers, and administrators is voiced. A second concern is whether older candidates are

sufficiently flexible to conform to school regulations or whether will they challenge the system to explain regulations which tend to be accepted as givens, by younger, less experienced candidates. One might conclude from these "observations" that the need for social harmony and acceptance of institutional norms are of greater importance than how an individual's extensive experience can enrich classroom instruction.

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Table 1: Graduate Certification Course Work and Sequence

<u>Title</u>	<u>Description</u>
FIRST SUMMER SEMESTER (10 weeks)	
Science in the Middle and Secondary School (4 sem. hrs.)	This course emphasizes the organization, management and safety of science labora- tories for instruction.
or	
Mathematics in the Middle and Secondary School (4 sem. hrs.)	This course presents instructional strategies for teaching various mathematical topics to students with diverse backgrounds.
Seminar in Field and Laboratory Experiences (2 sem. hrs.)	This course provides interns with actual classroom experience in tutoring, monitoring class, and presenting lessons.
Models for Classroom Management Processes (3 sem. hrs.)	This course examines management programs with respect to the changing student, schools as organizations and expectations of the community and state.
Theory and Instructional design of Teaching (3 sem. hrs.)	This course examines the diagnostic prescriptive model of instruction and culminates with the development of an instructional plan which incorporates all elements of the model.
ACADEMIC YEAR	
<u>Fall</u>	
Professional Internship (3 sem. hrs.)	Course credit is awarded for teaching four periods each day throughout the academic year with supervision provided by the school district and university. In addition, the district pays the intern's salary and assigns a mentor teacher to guide and counsel the intern.
Analysis of Teaching Behavior (3 sem. hrs.)	This course examines topics, such as teacher expectations, learner motivation, teacher planning, individualizing instruction and how these concepts affect their classrooms. In addition, interns are required to develop a proposal for an instructional investigation.

Spring

Professional Internship
(3 sem. hrs.)

(see preceding description of
internship.)

Teaching Strategies: Critical
Problems (3 sem. hrs.)

This course addresses strategies for
problem solving, deductive logic, and
the influence of epistemology on curri-
culum designs. Interns are required to
provide a preliminary report of their
completed instructional investigation.

SECOND SUMMER SEMESTER (10 weeks)

Cultural Foundations
(3 sem. hrs.)

This course employs a conflict analysis
model to examine school issues as they
relate to the individual, culture,
society, and the school.

Curriculum Development
(3 sem. hrs.)

This course examines skills in develop-
ing a course curriculum with emphasis
placed on underlying assumptions and
legal requirements for public school
curricula in Texas.

Electives (6 Sem. hrs.)

Graduate course offerings in interns
teaching field, educational technology
or educational psychology are recommended.

**Table 2: Academic Credentials; and Professional Information
Regarding Final List of Intern Candidates for cohort 2**

<u>Candidate</u>	<u>GRE</u>	<u>GPA</u>	<u>Degree/Date</u>	<u>Teaching field(s)</u>
01	1220	2.7	B.S. 1986	Math/Computer Sci.
02	1200	3.0	B.S. 1981 M.S. 1983	Earth Sci./Sci. Composite
03	870	2.7	B.S. 1987	Earth Sci./Sci. Composite
04	1140	3.6	B.A. 1978 M.S. 1984	Earth Science
05	1300	3.2	B.S. 1986	Biology/Sci. Composite
06	1140	3.3	B.S. 1983 M.S. 1987	Earth Sci./Sci. Composite
07	1020	3.1	B.S. 1985	Biology/Sci. Composite
08	1140	3.7	B.S. 1982	Biology/Sci. Composite
09	1280	3.4	B.A. 1986	Chemistry
10	1390	2.7	B.A. 1977 M.S. 1984	Mathematics
11		2.7	B.S. 1986	Biology/Sci. Composite
12	1460	2.6	B.S. 1983 M.S. 1987	Earth Science
13	1500	3.8	B.S. 1981	Biology/Sci. Composite
14	980	2.1	B.A. 1972	Mathematics
15		3.6	B.S. 1970 M.S. 1971	Earth Sci./Math/Sci. Composite
16	1080	3.8	B.S. 1985	Chemistry/Mathematics
17	1010	3.6	B.S. 1983	Mathematics

**Table 3: School Districts Contacted for Participation
in Alternative Certification Program**

Date	Initial Communication	School District(s)	Placed Initial Reaction	Interns 87-88
10/29/86	meeting-conference hotel	CISD SISD AISD ALISD	positive positive positive positive	* *
11/10/86	letter & telephone	KISD	negative	
11/04/86	telephone	CSISD	positive	
11/18/86	letter	NISD	unknown	
11/20/86	letter	BISD	positive	
12/02/86	meeting-Central Office	BRISD	positive	
12/05/86	meeting-Central Office	TEISD	positive	
12/09/86	meeting-Central Office	TISD	positive	*

A UNIQUE OPPORTUNITY TO BECOME A CERTIFIED SECONDARY TEACHER

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Limited to: Twelve individuals holding baccalaureate degrees with majors in mathematics, chemistry, physics, or earth science but are not yet certified to teach.

Program: Two summers of coursework and one academic year of paid internship leading to a M. Ed. degree and a secondary teaching certificate. Coursework begins June, 1986.

For more information contact:

~~XXXXXXXXXX~~
College of Education
Department of EDCI
~~XXXXXXXXXX~~ University
~~XXXXXXXXXX~~
~~XXXXXXXXXX~~

Figure 1

Newspaper Advertisement for Teaching Candidates

Dear

Thank you for your interest in the Graduate Level Certification Program for Secondary Teachers offered by XXXXXX University. Enclosed are the application materials which we hope you will complete and remit. In addition to completing the enclosed forms please attach a copy of your transcript. Further, we have enclosed information on the Pre-Professional Skills Test (PPST) and the Graduate Record Examination (GRE) if you have not taken these tests.

Upon receipt of your completed forms and transcript an analysis will be conducted with respect to the following program admission criteria:

Candidate Qualifications - Program Admission

- * Baccalaureate degree in mathematics or science
- * Undergraduate Grade Point Ratio - 2.5
- * Satisfactory performance on Graduate Record Examination (GRE) to meet entrance requirements for masters degree program (combined verbal and quantitative scores must meet or exceed 800.)
- * Satisfactory performance on Pre-Professional Skills Test (PPST) Mathematics (171), Reading (172), Writing (173).
- * Two 24 semester hour teaching fields or composite field of 48 semester hours with one of the fields in mathematics or science.

Assuming you meet these criteria with the possible exceptions of having completed the PPST and GRE examination, we will contact you regarding our analysis and encourage you to complete the PPST and GRE examinations at the earliest opportunity. The deadline dates for applying for these tests are PPST (February 4, 1987) and GRE (January 7, 1987).

Assuming criterion scores are attained on these examinations you will be scheduled for an on-campus interview during March or April, 1987. This interview session will include:

- * visiting with an admissions committee
- * completing the Strong-Campbell Interest Inventory
(an assessment of vocational/professional career interests)
- * presenting an informal talk for 5 to 10 minutes on a topic of your choice (hobbies, professional interests)

Once these procedures have been completed and admission criteria have been met you will be recommended to participating school districts for employment as interns for 1987-88. It is our intention to notify all interns of their acceptance into the program between May 18, and June 1, 1987. Actual course work for the program begins June 8, 1987.

While the preceding requirements for admission are complex and demanding, we feel you need to know in advance the requirements you must satisfy. Becoming a teacher in this program requires a serious commitment to teaching, yet the completion of teacher certification and a graduate degree in 15 months from XXXXXX University are significant accomplishments.

Sincerely,

Enclosures

Figure 2

Cover Letter Accompanying Application Materials

June 1, 1987

Dear (candidate's name):

With the beginning of school rapidly approaching, it is time to consider other options if you have not been employed as an intern for the coming year. I am very pleased with the quality of your credentials and have received very favorable comments from school districts when your credentials were shared with them. Yet school districts have been reluctant to commit themselves regarding next year's staff needs. I plan to contact all school districts this week and remind them that unless decisions are made by this Friday (June 5, 1987) interns will not be available to them. Further, I certainly encourage you to call the local districts' personnel offices (BRISD XXX-3208; CSISD XXX-8893; CISD XXX-7751; SISD XXX-1126; TISD XXX-8234) and request interviews. Be sure to tell the personnel folks that you are a candidate for an internship with the Graduate Certification Program. Perhaps hearing from both of us will initiate some action.

If you do not receive an internship, the only option I can suggest is the Graduate Certification Program that Dr. XXXXXX (XXX-8367) has developed. This program would permit you to complete requirements for certification in 15 months while completing nearly all course requirements for the M.Ed. degree. The major difference between his program and the program I am working with is the paid internship. In his program, the internship is a one semester non-paid experience. All of the paperwork and processing (i.e., tests, and interviews) conducted for this program would apply to his program. I am sharing your biographic information with him just in case this option is necessary and you choose to pursue it. Good luck landing an internship!!

Sincerely,

Figure 3

Letter of June 1, 1987 to Intern Candidates