

The Journal of Academic Social Science Studies



International Journal of Social Science
Volume 6 Issue 4, p. 431-441, April 2013

THE SECONDARY GRADUATE CERTIFICATION PROGRAM AT TEXAS A&M UNIVERSITY: PROMOTING SUCCESS FOR FUTURE EDUCATORS

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PROGRAMI: GELECEĞİN EĞİTİMCİLERİ İÇİN BAŞARININ TEŞVİKİ*

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Abstract

Alternative certification programs, like the Secondary Graduate Certification Program, offer students an alternative means to obtain a teaching certification (for their respective state). The Secondary Graduate Certification Program is a program that has been at Texas A&M University for almost ten years. This program is characteristically special in the state of Texas as it offers future secondary educators a chance to earn their teacher certification as well as their master of education in curriculum and instruction within about fifteen months. Our longitudinal study explores the intricacies of the program and those areas of significance within the program over the past five years.

The purpose of this study is to analyze demographic and academic characteristics (e.g., gender, grade point average, content area) to note the impact of those factors on their viability in the program. The researchers also investigated the correlation of certain demographic and academic factors among the students in the program. A final area of interest to the researchers is to find

the percentage of students that were able to secure teaching internships their first year dependent on their certification field and gender. The participants of this study are 330 students that have been accepted to the Secondary Graduate Certification program from 2007-2011, spanning five cohorts. The sample has 82 males and 248 females across 12 teaching fields. Non-parametric tests were utilized to determine if selected applicants were related to successful program completion. The results showed that there were significant differences present between students' primary certification field and their gender, with a medium effect size present. Also, there were significant differences between gender and GPA scores, with a small effect size present. There were significant differences to report in terms of securing a teaching position and the students' primary certification field, with a medium effect size present. This study found that mathematics, physical science and the science composite positions continue to be in highest demand as 94.1%, 88.9% and 72.2% of students were hired respectively. However, there were no significant differences between securing a teaching position and gender.

Key Words: Alternative certification program, teacher education, teaching.

Öz

Amerika Birleşik Devletleri'nde öğretmen eğitimi alanında farklı bir uygulama göze çarpmaktadır. Alternatif sertifika programları, öğretmenlik yapmak isteyen lisans mezunu öğrencilerin öğretmenlik sertifikası kazanmalarına olanak sağlamaktadır. Yukarıda bahsedilen alternatif sertifika programlarında birisi olan Ortaöğretim Lisansüstü Sertifika Programı yaklaşık on yıldır Teksas A&M Üniversitesi'nde hizmet sunmaktadır. Bu program, öğretmen olmak isteyen lisans mezunu öğrencilere, 15 ay sonunda öğretmenlik yapma şansı sunmakta; bununla birlikte müfredat ve öğretim alanında yüksek lisans derecesi kazanmalarına olanak sağlamaktadır.

Bu çalışmanın amacı, Ortaöğretim Lisansüstü Sertifika Programı'ndan öğretmenlik sertifikası alan öğrencilerin demografik ve akademik özelliklerini incelemek (cinsiyet, not ortalaması, içerik alanı) ve bu özelliklerinin onların program sonundaki başarılarına olan etkisini analiz etmektir. Bu çalışmada ayrıca demografik faktörlerle akademik faktörler arasındaki ilişki de incelenmiştir. Son olarak, bu programdan mezun olan öğrencilerin atanma durumları da araştırılmıştır. Araştırmanın örneklemini 2007-2011 yılları arasında Texas A&M Üniversitesi Ortaöğretim Lisansüstü Sertifika Programı'nda eğitim görmüş 82 erkek ve 248 bayan olmak üzere toplam 330 öğrenci oluşturmuştur. Elde edilen veriler SPSS programına yüklenmiş ve araştırmanın alt problemlerine göre analiz edilmiştir. Verileri analiz etmede non-parametrik testlerden Ki kare testi uygulanmıştır. Bulgularda seçilen branşlarla cinsiyet arasında anlamlı farklılıklar bulunmuştur. Ayrıca, program sonucunda öğrencilerin not ortalamaları ve cinsiyet arasında da anlamlı farklılıklar görülmüştür. Bu çalışmanın sonucunda matematik öğretmenliği programından

mezun olanların %94.1'inin, fen bilgisi alanından mezun olanların ise %72.2'sinin programı tamamlar tamamlamaz öğretmen olarak atandıkları tespit edilmiştir.

Anahtar Kelimeler: Alternatif sertifika programları, öğretmen eğitimi, öğretmenlik.

Introduction

Alternative certification programs, like the Secondary Graduate Certification Program, offer students an alternative means to obtain a teaching certification (for their respective state). Alternative certification programs can be defined as, "any alternative to a 4-year or 5-year undergraduate teacher education program, including programs that have reduced standards and those that hold teachers to the same standards as college- and university-based undergraduate teacher education" (Zeicher & Schulte, 2001, p. 266). Without an established definition of an alternative certification program, one could potentially confuse the university-based alternative certification program with other alternative routes of becoming a certified teacher (Darling-Hammond, 1990; Wilson, Floden, & Ferrini Mundy, 2001). Many current state-run, school district based, or profit-centric alternative certification programs have been plagued with problems as the expectations of these programs are widely varied. When compared to university programs, these alternative certification programs emphatically emphasize content knowledge over classroom management skills (Association, 1990; Zumwalt, 1991; Baines, 2001). This has led to many states, like Texas, imposing tighter rules for teacher-candidates (Honawar, 2008).

Texas Senate Bill 174 (2009) was passed in an effort to remedy the problems facing many teacher preparation programs, including both alternative and university based programs in the state. Many of the teacher preparation programs that the state was targeting were those that lacked in terms of accountability for new teacher candidates. The lacking programs have also been faced with challenges ranging from lack of mentor support for pre-service teachers to ineffectual professional development. Texas Senate Bill 174 (2009) would make effectual strides in ensuring that teacher certification programs supported their candidates throughout the entire process of candidates becoming educators.

The university alternative certification program bases its value off accreditation and foundational classroom expertise for pre-service teachers. The Secondary Graduate Certification program works hand-in hand with the Texas Education Agency (TEA) to follow strict guidelines regarding the composition and operation of the alternative certification program (Wale, 1989; Littleton, 1991; Duhon-Haynes, 1996).

The demographic and academic variables examined in this study relate to the Secondary Graduate Certification Program at Texas A&M University's admission criteria as well as the selected literatures' discussion on important characteristics regarding current and future educators (Allen, 2003; Darling-Hammond, 2006; Denton et al., 2009; Goldhaber & Brewer, 2000; Zientek, 2007). Our study fills a specific void in the literature as it investigates the correlation of certain demographic and academic factors among the students in the Secondary Graduate Certification Program at Texas A&M. This study is also concerned about the number of interns that were able to secure a first year teaching position based on their certification field.

The purpose of this study is to analyze demographic and academic characteristics (e.g., gender, grade point average, content area) to note the impact of those factors on their viability in the program. The researchers also investigated the correlation of certain demographic and academic factors among the students in the program. A final area of interest to the researchers is to find the percentage of students that were able to secure teaching internships their first year dependent on their certification field and gender.

Theoretical Framework

The theoretical framework for this study is modeled off of a previous study (Denton et. al. 2009) that examined the Accelerate Online/OPTIONS program at Texas A&M University. This study focuses on the Secondary Graduate Certification program at Texas A&M University. This program has certified a number of teachers over the past 10 years at Texas A&M University. This program certifies teachers in a wide range of content areas as outlined by the Texas Essential Knowledge and Skills (TEKS) (e.g. Mathematics, Science Composite, Social Studies Composite, etc.). This program is one of the few operating in Texas that allows students to complete their teacher certification and master of education simultaneously. As a result of offering students a number of benefits, the program is strictly regulated by TEA. In order to apply to the Secondary Graduate Certification Program, candidates must meet the following criteria:

- Either be a college graduate or be within one year of completing a baccalaureate.
- Applicants must have at least a 2.75 GPR in their baccalaureate course work attempted.
- Have a minimum of 24 semester hours in a specific content specialization or 36 semester hours in a composite field (including a minimum of 3 semester hours in all sub-areas).
- Pass the required Texas Examinations of Educator Standards (TExES) content exam(s). This requirement was included to enable our candidates to be considered "fully qualified" in a content area as defined by the "No Child Left Behind" guidelines.

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- Taken the 9 hours of pre-requisite education coursework.
 - Complete 40 hours of classroom observation.
 - Submit two letters of recommendation.
 - Complete a Texas A&M University Graduate Application
 - Complete a Teaching, Learning, and Culture Departmental application with an interest in the Secondary Certification Program.
 - Students must attend a series of orientation meetings as they proceed through the application process. (Kelly, 2012)

The program operates under a cohort system, functioning to ideally support between 50 to 60 students over the course of 15 months. In addition to securing a teaching position, students are responsible for all of the 36 hours of graduate coursework included in their degree plan. Students that go through the program do not have to complete the master in education but many of them choose to do so, as they have already accumulated the required number of hours over the year. The program begins every summer, which is ideal as students complete their undergraduate graduation in May and then would be able to start teaching in line with the typical academic calendar in the fall. Students are admitted as graduate students immediately after their undergraduate graduation. In the first summer, students build upon the pre-requisite education coursework that they took as an undergraduate. Students also bring in their content knowledge from their respective majors to work with students from a variety of major fields of study for the duration of the summer. Students explore the culture of classrooms and discuss essential components of classroom management both in large group setting and in smaller focused classroom settings throughout the day. Usually in the afternoons, students break off into their respective content areas to go more in depth with veteran instructors in their content area.

Over the course of the following year students are enrolled in a three-hour internship course (Fall/Spring) and a three-hour seminar course (Fall/Spring). The internship course is students' daily classroom teaching experience for the entire school year. The seminar requires students to travel back to Texas A&M one Saturday a month for a daylong course taught by the director of the Secondary Graduate Certification Program, Dr. Larry Kelly. The Saturday course component provides an opportunity for students to catch up with one another, share their first year teaching experiences, building upon their current education skill-set, and preparing students for the Texas Pedagogy and Professional Responsibilities exam. In the students' internship year they are supported by program coordinators who act as mentors, performing numerous classroom observations during the course of the yearlong

internship. These classroom visits provide support for the teacher intern above-and-beyond the districts typical classroom observation schedule (e.g. PDAS). There is also an alternative route for those students that fail to secure a teaching internship position. Those students will substitute teach at a district in the fall and then student teach at that same school district during the spring semester, this process also satisfies the conditions of the Secondary Graduate Certification Program.

Following the completion of their first year of teaching, students finish up any remaining coursework in the summer session and present an action research project to their committee. Most students usually graduate with their master of education in August, although students can finish their internship solely attaining their certification.

Methods

Research Questions

The following research questions provided the focus for this study:

- 1) Do males and females significantly differ on their decision about their primary certification field?
- 2) Is there any significance difference between gender of secondary certification program participants and their grade point average?
- 3) Is there any significant difference between students' gender and their securing a teaching internship?
- 4) Is there any relationship between students' primary certification field and their securing a teaching internship?

Sample

The participants of this study are 330 students that have been accepted to the Secondary Graduate Certification program from 2007-2011, spanning five cohorts. The sample has 82 males and 248 females across 12 teaching fields: Physical Sciences ($n = 9$), Life Sciences ($n = 18$), Composite Science ($n = 9$), Communications ($n = 11$), English/Language Arts/Reading ($n = 130$), Theater Arts ($n = 4$), History ($n = 38$), Composite Social Studies ($n = 75$), Mathematics ($n = 17$), Spanish ($n = 22$), French ($n = 1$), Latin ($n = 3$). The students' cumulative grade point average levels were also examined, < 2.49 ($n = 5$), $2.50 - 2.74$ ($n = 17$), $2.75 - 2.99$ ($n = 75$), $3.00 - 3.24$ ($n = 72$), $3.25 - 3.49$ ($n = 73$), $3.50 - 3.74$ ($n = 46$), $3.75 - 3.99$ ($n = 31$), and 4.00 ($n = 6$).

Data Collection

The Secondary Graduate Certification Program began collecting demographic data on applicants within a program database from the time they initially show interest in the program. If a Secondary Graduate Certification candidate meets all of the requirements in the admission process they are admitted. After the student is admitted, in order for the students to receive both their normal teacher certification and master degree the students must successfully complete their internship year, their

36-hour graduate program through Texas A&M University and their TExES Pedagogy and Professional Responsibilities (grades 8-12) examination (e.g., passing the State's minimum score of 240).

Data Analysis

The researchers involved in this study used the Statistical Package for the Social Sciences (SPSS) for the manipulation and review of the certification program's data. The program aided in performing descriptive processes of the demographic and academic variables within the sample of applicants with respect to completing teacher certification in the Secondary Graduate Certification Program. The summary of data presented in the aforementioned 'Sample' section ensures a wide enough target of applicants to merit further data analysis. Non-parametric tests were utilized to determine if selected applicants were related to successful program completion.

Results

Descriptive Analysis

From the initial descriptive statistics performed, it is clear that there are some significant numbers to notate within the preliminary research. The Secondary Certification program has a large number of female students over male students from 2007 - 2011. It can be concluded that the largest group of certified students in the Secondary Certification program are in English/Language Arts ($n = 127$), followed by Social Studies Composite ($n = 75$) and History with ($n = 34$). The disparity in certification fields comes in the high-need content areas, Composite Science ($n = 18$), Life Science ($n = 18$), Physical Science ($n = 9$) and Mathematics ($n = 17$). The enrollment numbers of the Secondary Graduate Certification program have generally declined somewhat since 2007; this can be caused by a number of factors (e.g. economic factors, employment opportunities, etc.).

Cross-tabulations

Cross-tabulation results of primary certification field selection and gender

The researchers cross-tabulated primary certification field selection and gender in order to see if males and females differed on their choice of primary certification field. The cross-tabulation table shows that the communication field was selected by 90.9 % of females while only 9.1 % of males selected this as their primary focus. History was selected by 61.8 % of females; however only 38.2 % of males selected history. 72.2 % females and only 27.8% of males chose life science. For mathematics, 76.5 % of females chose this field while only 23.5% of males focused on this field. 89% of females and 11 % of males selected English/Language Arts/Reading. The gap between males and females is minimal in social studies with 58.7% of females and 41.3% males. From the results, the researchers found that there was a significant

difference at the $p < .001$ level between primary certification field selection and gender. The chi-square test table shows that $\chi^2 = 30.60$, and $p < .001$. Cramer's V could be used as an effect size measure because this is a 2×10 table. It is .31, a medium effect size.

Cross-tabulation results of gender and grade point average

The researchers were also interested in whether there is any significance difference between participants' gender and their grade point average (GPA). In order to examine this difference, we conducted Mann-Whitney non-parametric test. The mean ranks of male and female students on GPA are compared. According to the results, males and females differ significantly on GPA scores. It can be seen the ranks table that females had higher mean ranks than males on GPA. An effect size can be computed by converting the z to r ($r = z$ square root of N). This effect size for GPA is $r = .17$, is a small effect size.

Cross-tabulation results of gender and securing an internship

The researchers cross-tabulated whether a teaching position was secured for the internship (or not) and gender in order to see if males and females differed on whether they found a teaching position. The cross-tabulation table shows that 75.6 % of males found teaching positions at a district in Texas, while 64.1 % of females found a position. 12.2 % of males and 11.7% of females completed their internship substituting and student teaching. However, 12.2 % of males and 24.2% of females did not find a teaching position. From the results, the researchers found that there was no significant difference between securing a teaching position and gender. The chi-square test table shows that $\chi^2 = 6.59$, and $p = .086$. Cramer's V could be used as an effect size measure because this is a 2×4 table. It is .14, a small effect size.

Cross-tabulation results of primary certification field and securing an internship

The researchers cross-tabulated whether a teaching position was secured and primary certification field in order to see if content areas differed on whether participants of the Secondary Graduate Certification Program found a teaching position. The cross-tabulation table shows that 45.5 % of graduates from communications found teaching positions at a district in Texas, 18.2 % of them found a student teaching position; however 36.4 % of them were not able to find a teaching position. 58.8 % of students who had history certification found a teaching position in a district in Texas, 26.5 % of them found student teaching positions, while 14.7 % of them were not able to find any teaching positions. For the life sciences, 72.2 % of the graduates were able to find a teaching positions, 16.7 % of them found student teaching positions, while 11.1 % of them did not find any teaching positions. The field of mathematics shows the highest rate of securing a job; 94.1 % of graduates found a teaching position, but only 5.9 % were not able to find a teaching position. Physical science shows second highest rate for finding a teaching position; 88.9 % of graduates found a teaching position in a district in Texas, 11.1 % of them found a student

teaching position. Therefore, all of the participants who had physical science certification were able to find a position of some capacity in Texas. With a science composite, 72.2 % of the participants were able to find a teaching position in a district in Texas, but 27.8 % of them did not find any teaching positions. For theater arts, 50% graduates found a job but the other half was not able to secure a position. In the field of English Language Arts, 60.6 % of participants found a teaching positions, 10.2 % of them found student teaching positions, 29.2 5 of them did not find any teaching positions. Language Other Than English (LOTE) certification was ranked third for job opportunities; 73.7 % of participants found a teaching positions, 5.3 % of them found student teaching positions, but 21.1 % of them were not able to find any teaching positions. For social studies, 72 % of participants found teaching positions, 13.3 % of them found student teaching positions, but 14.7% of them were not able to find a teaching position. In general, 67 % of the participants of the program found teaching positions at a district in Texas, 11.8 % of them found student teaching positions, but only 21.2 % of them were not able to find any teaching positions in Texas. From the results, the researchers found that there was a significant difference at the $p < .05$ level between primary certification field and ability to secure an internship. The chi-square test table shows that $\chi^2 = 46.96$, and $p = .010$. Cramer's V is .38, a medium size effect.

Conclusion

The Secondary Graduate Certification Program has certified a number of students through the years and along with other certification programs in the state, maintains a strong role in certifying a number of qualified students to be educators. While this study was searching for significance across a number of variables within the Secondary Graduate Certification Program at Texas A&M, many certification programs may share similar trends throughout the state.

There were significant differences present between students' primary certification field and their gender, with a medium effect size present. In terms of primary certification in the high need subject areas (e.g. math, science) females dominated males by a substantial margin in both math and science.

There were significant differences between gender and GPA scores, with a small effect size present. This study found that females had higher mean GPA over male students.

There were no significant differences between securing a teaching position and gender. This was an important finding to note, as potential employers do not seem to favor one gender over the other in their hiring process.

There were significant differences to report in terms of securing a teaching position and the students' primary certification field, with a medium effect size present. This study found that mathematics, physical science and the science

composite positions continue to be in highest demand as 94.1%, 88.9% and 72.2% of students were hired respectively.

Items for Further Study

In further studies the researchers would like to analyze students that are only available in the hard copy form along with the results from this current study, ideally 2001-2012. In terms of the demographic data, the researchers would like to expand our review of students' graduate applications in order to compare factors in our study to other demographic item (e.g. ethnicity, parents' highest level of education, etc.). The researchers would also like to see if there is any significance among students' geographic variables to see which areas of the state are hiring the most students from the Secondary Graduate Certification Program.

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