

Quality Alternative Certification Programs in Special Education Ensure High Retention

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Abstract

Market driven alternative routes to teaching have evolved into a quality program option and not just an answer to the teacher shortage. Alternative certification is a viable means of recruiting, training, and certifying those who have a bachelor's degree and a strong desire to enter the field of teaching. California has been a leader in the development of quality teachers. This cross-sectional study surveyed 124 California State University Alternative Route (Intern) program participants. Ten critical features located in three seminal studies framed the research conducted and provided quality features to enhance retention of teachers. It was determined that the integration of these critical attributes into the university alternative certification programs enhanced the retention rates of program graduates and served as a means to improve quality. The participants in this study have been teaching 10 years or longer, and the 96 percent retention rate is one of the highest in the country.

Keywords: alternative certification, teacher retention, teacher support, teacher preparation, special education

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Teacher shortages in special education are widespread and chronic, and have increased in severity since the mid-1980's in the United States (Karge, Glaeser, Sylva, Levine, & Lyons, 2006; Sindelar, Brownell, & Billingsley, 2010; Tyler & Brunner, 2014). Alternative certification programs have proliferated in the past two decades as a partial solution to a shortage of teachers as well as a means to decrease the number of emergency certifications in high-need areas. These market driven preparation programs have given individuals the opportunity to earn teacher certification in a structured program while concurrently teaching in a classroom with support and supervision (Chin & Young, 2007; Gimbert & Stevens, 2006; McCabe, Mortorff, Karge, & Lasky, 1993; Rosenberg, Boyer, Sindelar, & Misra, 2007). The beginning teacher will have greater teaching successes if a unified support team is established (Karge, Lasky, McCabe, & Robb, 1995). Alternative certification has evolved into a quality program option and not only an answer to teacher shortages.

Every state in the nation is now taking seriously the challenge to create alternatives to the traditional undergraduate college teacher education program route for certifying teachers (Feistritzer & Chester, 2000, 2003). The three longest standing programs are from New Jersey, California, and Texas (Feistritzer, 2009). Most recently, Oklahoma approved an alternative route program (Oklahoma Senate Bill 388, 2011). Basinger (2000) reported that over 250 universities around the country provide some type of alternative teacher preparation program. In 2011, the National Center for Education Information stated that 10 percent of all newly certified teachers were trained through alternative certification programs (Feistritzer, 2011). This is equivalent to two percent of the entire teacher labor force. Haberman (2006) purported that alternative certification programs bring over 200,000 new teachers into teaching every year. In an interview of Haberman conducted by Shaughnessy, Melancon, & Abebe (1999), Haberman stated alternative routes are a valued and encouraged practice. The Office of Special Education Programs further indicated that approximately seven percent of special education teachers were certified in Alternative Certification programs (SPeNSE, 2003). Most recently the U.S. Department of Education report from the Office of Postsecondary Education (2013) purported that 429 programs were classified as alternative route teacher preparation programs based at Institutes of Higher Education (p. 3). These data were from the school year 2009-2010.

The purpose of this study is to expand the literature base regarding the efficacy of alternatively certifying teachers. More specifically, this study will reinforce the importance of 10 critical features of alternative certification and extend the literature to show that these critical components identified in the alternative certification literature are essential for quality programs. Furthermore, it will be validated that these critical components do make a difference and are needed to retain teachers.

The literature in the area of alternative certification offers conflicting results and many studies suggest differences between alternative certification programs and traditional teacher preparation. However, it is difficult to compare programs without clearly defining terminology. The term "alternative certification" has diverse meanings. These diverse terms create havoc for meaningful comparative research. Rosenberg and Sindelar (2005) stated, "teacher preparation may best be represented as a continuum along which the point where alternative ends and standard preparation begins is uncertain" (p. 1). The National Association for Alternative Certification (NAAC, 2014) recently developed the following definition.

Alternative route to certification or licensure: A preparation program that primarily serves candidates who become the teachers or other school leaders of record in classrooms/schools while participating in, or immediately after participation in, the route to certification. Institutions with alternative routes focus not only on preparation but also on recruitment, selection, support, and retention. In common usage, “alternative routes to certification or licensure” broadly describes any preparation program other than a traditional undergraduate degree-granting program leading to certification. Each state further defines “alternative routes to certification or licensure.”

Some researchers suggested the differences between alternative certification and traditional teacher preparation programs are in the training, design, and the length of the professional development and coursework as opposed to program content, rigor, and expected outcomes (Miller, McKenna, & McKenna, 1998; Rosenberg & Rock, 1994; Smith, Nystrand, Ruch, Gideonse, & Carolson, 1985). Buchanan, Lang, and Morin (2013) stated that it is critical for alternative pathways to be similar in rigor to traditional programs and must meet the same standards to obtain state certification. Rosenberg and Rock (1994) completed a demonstration of efficacy of alternative certification in comparison to traditional teacher training. According to external raters, data indicated teachers trained from both types of programs performed on a comparable level. However, Darling-Hammond (1998) suggested alternative certification programs bring under-qualified teachers into the classroom.

Flippin, Lopez-Reyna, Tyler, and Yzquierdo (2004) clarified Darling-Hammond’s terminology stating that there is a substantial difference between alternative certification and alternative routes. Wise and Darling-Hammond (2004) noted that alternative certification refers to programs with “reduced standards” and alternative routes refer to programs in which the standards remain consistent and in alignment with the traditional program, yet the route to certification is different. Further, they stated the extent of pedagogical professional development is the variable that makes the difference in teacher effectiveness.

Darling-Hammond (2013) cited the mixed results explored in four well-controlled longitudinal studies and noted that when alternative route teachers completed the full range of coursework for certification, there were few significant differences in effectiveness. Other recent research has turned the focus from comparing alternative and traditional programs to acknowledgement that it is impossible to compare the two paths to certification due to variability in programs. Instead, importance should be placed on clear and accurate descriptions of each pathway to teaching with information and data to assist consumers in making informed decisions for program entry, design, and retention (Feistritzer, 2009). Feistritzer (2009) reported that teachers obtaining certification through alternative routes are still teaching five years later at a retention rate of 85 to 90 percent, whereby only two-thirds (66 percent) of traditional route certified teachers remained in the field.

California Alternative Certification

Since 1983, the National Center for Education Information (NCEI) has been collecting and publishing data about alternative certification programs across the United States. Similarly,

Karge and McCabe (2006) and Karge et. al. (2004) have published several monographs that describe key components of California alternative preparation programs in special education.

Over 20,000 individuals have been alternatively certified in California since 1995 (Kearney, 2013). Alternative pathways have been an excellent support for alleviating shortages in the California teacher labor force (Chin & Young, 2007). Eighty-three percent of the interns remained in the same school after five years of teaching (Bond & Sandy, 2001). In California, approximately 18 percent of the new teachers are alternatively certified (Kearney, 2013). These individuals are teachers of record on full contract with all the rights and responsibilities of fully credentialed teachers while concurrently completing all required coursework and fieldwork in teacher preparation programs. This coursework must be taken in the same credential or certification specialization as the teaching assignment. The alternative certification program may be university- or district- sponsored or facilitated collaboration between a district and university. California alternative certified teachers have 24 months to complete all credential requirements in university-sponsored programs or 36 months in district-sponsored programs.

In California, alternative certification is available through a California Commission on Teacher Credentialing (CCTC) approved intern program. In 1967, California law established the opportunity for universities in collaboration with public school districts to form intern partnerships (The Teacher Education Internship Act 44450, 1967). The intent of the legislature was to increase the effectiveness of teachers and other professional school service personnel in California public schools by placing theory and practice as closely together as possible in college and university programs for the preparation of teachers and professional school service personnel (California Education Code 44451, 1976). In 1983, legislation was passed to allow school districts or consortium of districts to develop intern programs (McKibbin, 2002). California established an Intern Grant program in 1993 (Clark, Noelting, Sacramento, & Kearney, 2012). Statutes passed in 1997 assured both district and university intern programs met the identical performance standards of CCTC for all teacher preparation programs. Thus, every teacher prepared in California, regardless of the route, must meet the same standards. In 2007, the Intern Grant program was enhanced to add additional funding opportunities for programs to expand the English Language component (Clark et al., 2012).

Typically, intern programs are developed in content shortage areas, such as mathematics, science, and special education. Furthermore, they often are created to attract historically underrepresented candidates into the teaching force (Mader, 2013). In 2004 it was found that 2,485 of the 8,880 internships granted in California were in the area of special education (McKibbin, 2006). In 2012, 2,601 internships were granted with 1,621 in special education (Kearney, 2013).

There is great variation among and within programs across California. In fact, there is often more variation within programs than between programs. In 2005/2006 there were 74 intern programs, which is California's term for alternative certification programs. McKibbin (2006) reported that of the 74 programs, 65 were university-based intern programs, nine were district-based intern programs, 48 programs offered both general education and special education, and 14 provided services to prepare special education teachers only. In 2013, there were 222 intern programs

offered at 65 institutions (Kearney, 2013). It was found that 871 school districts participated in one or more of the programs (Kearney, 2013).

Many California alternative certification programs attract individuals for which teaching is a second career or those already employed in a school district (Kearney, 2013). Several studies verified that alternative certification programs tend to attract proportionally different populations than traditional programs, such as business professionals and other second career persons, including military members and people of color (Edelen-Smith & Sileo, 1996; Shen, 1988; Zeichner & Schulte, 2001). As stated by Evans (2014), “it should be a goal for school districts and schools/colleges of education to have a diverse teaching force” (p. 34).

Feistritzer and Chester (2000, 2003), reported teachers with alternative certification tend to be older and include more men. Karge et. al. (2006) purported the average age for teachers in California intern programs is 33 years old and 33.8 percent are male. It has been documented that these subgroups of prospective teachers tend to stay in teaching longer than their traditionally trained colleagues (Johnson, Berg, & Donaldson, 2005). The investigation in this study will validate this finding. The hypothesis explored in this study is to determine *if the integration of critical attributes into an alternative certification special education program enhances the retention rates of program graduates as well as improves quality.*

Methods

The programs described in this study are two California State University special education intern programs. Both are two-year intensive and cohort-based alternative routes to California teacher certification. Both programs require completion of the same coursework as the traditional program on the university campus in a rigorous two-year program. The programs are based on the same competencies as traditional routes to teacher preparation, and align with the California Standards for the Teaching Profession (CSTPs). The alternatively certified teachers (Interns) teach full time in special education settings while concurrently completing all required coursework and fieldwork.

The intensive preliminary training period includes information on legislation, Individualized Education Plans (IEPs), English Language Learners (ELLs), transition, foundations of teaching, lesson planning and curriculum adaptation and differentiation, behavioral strategies, Common Core, and implementation of standards-based learning. The intern programs provide many opportunities for collaboration between the district and the university and with the general education teachers to transfer ideas for supporting children with disabilities into the general education classroom.

One of the many strengths of the programs described in this study is the continual program evaluation and strong focus on outcome-based learning for students with disabilities. Interns are taught to keep and maintain database records on individual students using action research to support tracking student growth.

Participants

The participants in this study attended one of two universities in the California State University system, a large public state university system. The California State University system includes 23 campuses that host a largely diverse student population. Both institutions are designated as “minority institutions” by the United States Department of Education and have received numerous federal and state grants and other support. Additionally, both Institutional Research and Analytical study departments list the campuses as National Hispanic Serving Institutions with 52 percent and 35 percent Hispanic population, respectively.

The 124 participants in this study taught on a full-time teaching “intern” contract for two years in one of the 48 participating school districts spanning across four counties in Southern California. During this time, they took coursework to complete the California Education Specialist Mild/Moderate Disabilities and/or Moderate/Severe Disabilities credentials. All of the participants had baccalaureate degrees, and the mean undergraduate GPA was 3.3. While in the intern program (post-baccalaureate program) the mean GPA was 3.85. The study included 21 percent male participants ($n = 24$) and 79 percent female participants ($n = 92$). Eight participants did not list their gender. Many of the participants were first generation college students, and the interns range in age from 25 to 65 with a mean age of 34 years old (See Table 1). Please note that participants often did not answer every item, which means that percentages and various sample size numbers may not coincide with the total sample of participants.

Seventy-nine percent ($n = 84$) of the participants indicated they had experience working with children with disabilities prior to becoming an intern. Thirty-five percent ($n = 37$) reported working as a paraeducator prior to entering the field of teaching. Thirty-two percent ($n = 36$) of the participants teach in schools designated by the California Board of Education as low performing urban schools, 40 percent ($n = 42$) teach in low performing suburban areas of the state, and 8 percent ($n = 9$) in low performing rural areas. Over 70 percent of the university service areas are comprised of underrepresented school populations with a high level of cultural diversity. Thirty-one percent ($n = 36$) of the interns supported students with disabilities in general education classrooms. Fifty-six percent ($n = 66$) of the interns in this study taught students in self contained classes for students with disabilities.

Table 1
Age of Participants

Year Born	Percentage of Participants
1940-45	8%
1946-50	18%
1951-55	17%
1956-60	12%
1961-65	10%
1966-70	4%
1971-75	14%
1976-80	17%

($N = 124$)

Instrument

The research question was predicated on recommendations from the literature regarding high quality alternative certification programs. Specifically, the general education and special education alternative certification research base for this study included the following: a) Haberman's (1991) conceptual framework and recommendations for five standards of excellence; b) five important features from a national study on alternative certification by Wilson, Floden, and Ferrini-Mundy (2002); and, c) three key indicators of successful/effective special education on alternative certification programs by Rosenberg and Sindelar (2001, 2005).

In 1991, Haberman introduced the following five standards of excellence for alternative certification: 1) highly selective participants, 2) recruitment of high quality teachers and mentors, 3) standards based curriculum, 4) effective teaching and pedagogy, and 5) program evaluation.

The United States Department of Education commissioned Wilson, Floden, and Ferrini-Mundy (2002) to critically evaluate the existing empirical research related to teacher preparation. The study was designed to summarize rigorous research on five key questions asked by policy makers, educators, and the public. These questions addressed the effects of major components of teacher preparation, the effects of teacher education policies, and alternative routes to teacher certification. One of the key questions was "What are the components of high-quality alternative certification programs?" Wilson and colleagues delineated the following important characteristics of high-quality alternative certification programs: 1) high entrance standards, 2) extensive mentoring and supervision, 3) extensive pedagogical training in instruction, curriculum, and working with diverse students, 4) frequent and substantial evaluation, 5) practice in lesson planning and teaching prior to taking on full responsibility as a teacher, and 6) high exit standards.

Rosenberg and Sindelar (2001, 2005) conducted similar studies of alternative certification programs, specifically in the area of special education. Their extensive review of the special education literature revealed the following three key indicators of successful effective special education alternative certification programs: 1) meaningful collaboration, 2) program length and rigor, and 3) high quality supervision. Table 2 provides the reader with the ten critical attributes discussed in the previous three articles. These categories were used to guide the design and interpretation of the researchers' instrument.

Table 2
Critical Attributes Located in three key Articles and Emphasized in Programs

Critical Attribute	Haberman	Wilson et. al.	Rosenberg & Sindelar
High entrance standards	X	X	
Extensive mentoring and supervision	X	X	X
Extensive pedagogical training		X	
Frequent and substantial evaluation	X	X	
Practice in lesson planning		X	
High exit standards		X	
Meaningful collaboration			X
Program length and rigor			X
Standards-based curriculum	X		
Program evaluation	X		

The instrument in this study was a researcher-designed 50 item Likert scale questionnaire. The questions were compiled from similar research studies and from researcher experience. Several former graduates of alternative certification programs from a third California State University campus were given the survey as a pilot. Participants were asked to evaluate their intern program, including the mentoring and guidance provided in the K-12 classroom, the academic coursework, and the support from both district and university personnel. They were invited to share specific challenges they encountered and solutions, if resolved. Additionally, demographic and retention data were collected.

Procedures

The researchers mailed 167 surveys to persons recently completing the intern program at the two universities. Each envelope contained the survey, a cover letter explaining the purpose of the

study, and a self-addressed stamped return envelope. Each participant signed a consent form agreeing to participate in the study with the understanding that all data gathered would be confidential under the Family Educational Rights to Privacy Act of 1974. Cautions associated with generalization of data from such volunteer samples should be considered. The participants were informed in writing that the purpose of the study was to assist the researchers in identifying the integral characteristics of successful intern programs. The University Coordinator of Regulatory Compliance gave the required approval for the study.

Return rate was 124 surveys were completed. Sixteen envelopes were returned due to faulty addresses. The percentages and data below do not necessarily sum to 124 (100%) of the participants due to lack of response to individual items.

Data Analysis

The cross sectional quantitative data was coded and entered into a SPSS spreadsheet. In addition, critical incidence qualitative techniques were used to analyze the open-ended questions. Two university research analysts checked for inter-rater reliability.

Results and Discussion

A critical finding of this study is that of the 124 intern participants, 96 percent remained in the teaching profession for 10 years or more. This percentage is higher than the 85 to 90 percent reported by Feistritz (2009).

The attributes for retention identified from the literature are richly demonstrated in the two programs. These attributes include high entrance standards, extensive mentoring and supervision, extensive pedagogical training in instruction and curriculum, frequent and substantial evaluation, practice in lesson planning and teaching prior to taking on full responsibility as a teacher, high exit standards, meaningful collaboration, adequate program length and rigor, standards-based curriculum, ample program evaluation, and additionally working with diverse students. A description of each attribute follows.

High entrance standards

California interns must meet several prerequisite teacher preparation requirements. These requirements include the following: baccalaureate degree, passage of the California Basic Educational Skills Test (CBEST), verification of the United States Constitution requirement, subject matter competency (usually passing the California Standards for Excellence in Teaching, CSET), and an extensive program interview. In addition to traditional prerequisite requirements, interns must meet a preservice requirement. These prerequisites ensured recruitment of highly-qualified teachers.

As noted in the description of participants, the data indicate strong academic achievement (mean GPA was 3.85), background with rich life experiences, a sincere desire to choose teaching as a career goal (noted in application/admission process), and content area specialists (as indicated by high passage rate of CSET and baccalaureate major). The interns tend to be somewhat older than the traditional candidate (mean age is 34 years old).

The prerequisite for entry is an intensive series of courses of approximately 150 credit hours prior to enrollment in the intern program as teacher of record. Sample coursework includes but is not limited to the following: introduction to special education, legislation, teaching English Language Learners, literacy, lesson planning and delivery, curriculum adaptation, behavior strategies, and standards-based learning. These requirements allow California interns to meet the No Child Left Behind (NCLB) highly-qualified teacher definition.

No Child Left Behind requires teachers to hold at least a bachelor's degree, be licensed by the state and demonstrate competency in each of the academic areas they teach, whether by passing a "rigorous" state test or by completing an academic major or its equivalent. (Special Education Report, 2004, p. 2)

Mentoring and supervision

Critical features of alternative certification programs are the hands-on support components. Intensive individualized support is one focus of the investment made by the California alternative programs to ensure that interns have the skills to succeed and commitment to stay (Kearney, 2013). Ninety-seven percent ($n = 113$) of the participants in this study indicated that they received valuable feedback during their program. The feedback came from support mentors at the school district and university level.

Title V of the California Education Code requires that all interns be assigned a district support person, hereafter referred to as "support provider." The support provider is responsible for coaching in the classroom and assistance with district procedures and paperwork. The support provider is assigned by the school district for the entire two-year program. These support providers must have a California Teaching credential, at least five years teaching experience, and exemplary professional recommendations. These mentors are highly valued by the program participants for their support, dedication, and hands-on guidance. Sixty-nine percent ($n = 81$) of the participants reported their support provider held a credential in special education and 35 percent ($n = 41$) held general education credentials. Forty-four percent ($n = 51$) of the support providers held advanced graduate degrees. One of the challenges is the efficiency with which the support provider is assigned. Only 27 percent ($n = 28$) indicated they were assigned a support provider on or before the first day of teaching. Twenty-four percent ($n = 25$) were assigned a support provider by the end of the first week in the classroom. Twenty-nine percent ($n = 30$) had someone assigned by the end of the first month teaching.

Table 3 provides the reader with details on the types of assistance the district support providers gave to the interns. They coached the interns in completing school forms, ordering materials, setting up their classrooms, and using a variety of assessment techniques. Interns were provided with a school district handbook.

The support providers also guided the interns as they gained experience in collaboration between general education and special education teaching. Specialized guidance was targeted to enhance the positive interactions between the intern and paraeducator. Lessons were modeled and recommendations were provided for modifications of the standards-based curriculum. A variety of teaching strategies and suggestions for writing appropriate IEPs were shared.

Table 3
Support from District Support Provider

Type of Support	Percentage of Interns	Number of Interns
Strategies for teaching	57%	67
IEP preparations	52%	61
Curriculum modifications	45%	53
Collaboration	41%	84
Assessment techniques	41%	48
Completion of forms	42%	50
Paraeducators	32%	38
Curriculum	31%	36
Order of materials	30%	35
Model lessons	30%	35
District handbook	27%	32
Classroom setup	26%	31

(*N* = 124)

The interns were asked if they had an opportunity to observe an expert or model teacher. Eighty-two percent (*n* = 97) indicated they participated in an observation of a stellar teacher. The university supervisor arranged many of these observations.

The programs in this study had frequent support from university supervisors who were hired specifically for their expertise and experience in special education. The pool included recently retired teachers and/or outstanding past graduates of the program. Every intern was assigned a university supervisor within the first month of his or her program. Twenty-one were assigned the first day in the classroom.

The university supervisors offered guidance by modeling lessons, assisting with classroom set up, establishing assessment techniques, working with paraeducators, and setting up standards-based curriculum. The university supervisors also provided ideas for curriculum modification, strategies for teaching, IEP preparation, and collaboration with general educators. Table 4 provides the reader with the intern reported support the university supervisor gave to the interns. Strategies for teaching and curriculum modifications were the highest rated topic areas. Interns also received guidance with the district handbook, collaboration, and model lessons. A smaller number of interns reported support in the areas of working with paraeducators, assessment techniques, classroom set up, IEP preparations, and curriculum.

The university supervisors conducted support meetings in a variety of formats. For example, they facilitated frequent intern support seminars, grade-level meetings, on-line discussions, job-alike discussions, specialized intern seminars (e.g., formative assessment), disability specific strategies, evidence-based effective teaching practices, supports for classroom accommodations, classroom management, and behavior challenges.

Table 4

Support from University Supervisor

Type of Support	Percentage of Interns	Number of Interns
Strategies for teaching	74%	87
Curriculum modifications	53%	62
District handbook	45%	53
Collaboration	41%	84
Model Lessons	41%	48
Paraeducators	39%	46
Assessment techniques	36%	43
Classroom setup	31%	37
IEP preparations	31%	36
Curriculum	27%	32

(N = 124)

Extensive pedagogical training

As noted in Wilson, Floden, and Ferrini-Mundy (2002), an approach to conceptualizing pedagogical preparation is the examination of “value-added education coursework in teacher preparation programs” (p. 194). The value-added components of the teacher education programs in this study are two-fold. First, the interns complete the same coursework as traditional teacher education candidates. Second, they benefit by extensive enhanced support and professional development.

Frequent and substantial evaluation

The programs in this study had frequent and substantial evaluation. The university and the school district worked side-by-side to support the formative and summative evaluation. During training, the intern was required to participate in coursework assignments and evaluation. Of critical importance was the evaluation of the intern and also the assessment of student achievement in the intern’s classroom. The evaluation of the intern included micro-teacher samples, videotaped teaching, written course examinations, work samples, classroom observations, maintenance of a cumulative portfolio, and competency ratings. The evaluation of student achievement focused on coaching interns to administer curriculum-based assessments and behavioral assessments. Furthermore, a frequent and substantial evaluation consisted of a pre-post continuous cycle of formal and informal evaluations of the pre-K-12 student. Interns participated in professional development of action research to determine if their teaching was effective and student outcomes were evident.

At the end of each grading period, the intern was evaluated with a competency rating. A low rating at any evaluation point caused a plan for improvement, and the intern was notified that a recommendation for certification was at risk.

Additionally, the interns were evaluated by their site administrator using a standardized state-required teacher evaluation. They had to achieve satisfactory status or higher to maintain continued employment. Loss of employment resulted in automatic dismissal from the intern program.

Practice in lesson planning

California requires all alternative certification program interns to participate in intensive preservice coursework and field observation prior to taking on full responsibility as a teacher of record. The programs in this study require the participants to learn *how to teach* before they became responsible for full time teaching in the public school classroom. Both programs provided evidence-based effective teaching strategies and essential presentation skills. In addition to strategies to teach subject matter content, there was a strong focus on lesson design and delivery for teachers. The principles of explicit instruction were systematically taught using techniques introduced by Archer and Gleason (1994) and further described in Archer and Hughes (2011). The lesson design format, *Open, Body, Close*, was introduced and utilized throughout the methods/curriculum courses (see Table 5). This format was also used as part of formative assessment for classroom observations. The lesson design is necessary but not sufficient for effective teaching.

Interns were taught that effective teachers make use of critical delivery skills on a daily basis. These skills, listed in Table 6, were modeled in the university classroom and had to be demonstrated continually by the intern.

Table 5
Lesson Design Format

Design
Open
Gain attention of learner
Review previous lesson
State the goal and rationale of lesson
Body
Model (I do it.)
Prompt (We do it.)
Check (You do it.)
Close
Review information taught
Preview next lesson
Independent Work

Source: Archer & Gleason (1994)

Table 6
Critical Delivery Skills

Skills
Elicit frequent responses
Monitor student responses and adjust instruction
Maintain an appropriate pace
Maintain student attention
Ensure all students an equal chance to learn

Source: Archer & Gleason (1994)

High exit standards

At the completion of the two year program, all alternatively certified teachers were required to pass a California required Reading Competency Examination (RICA) as well as validate California Commission on Teacher Credentialing and national competencies at a satisfactory rank or higher. The university supervisor and site evaluator confirmed high quality effective teaching. Interns were required to earn a grade of B or better in all certification coursework.

Meaningful collaboration

The university and all participating districts had a memorandum of understanding (MoU) delineating the commitment and the partnership agreements. The collaborative MoU included advisory board participation, assignment of district support provider, and substitute days. The collaboration between university and district partners provided an excellent system for increased support and resources for the interns. It appeared that the strength of the alternative certification programs described in this study depended on the many resources provided to the interns. The participants reported benefiting from new teacher training and professional development, district release days, classroom materials, and district special handbook. Figure 1 provides a graphic of the resources used by at least fifty percent of the participants.

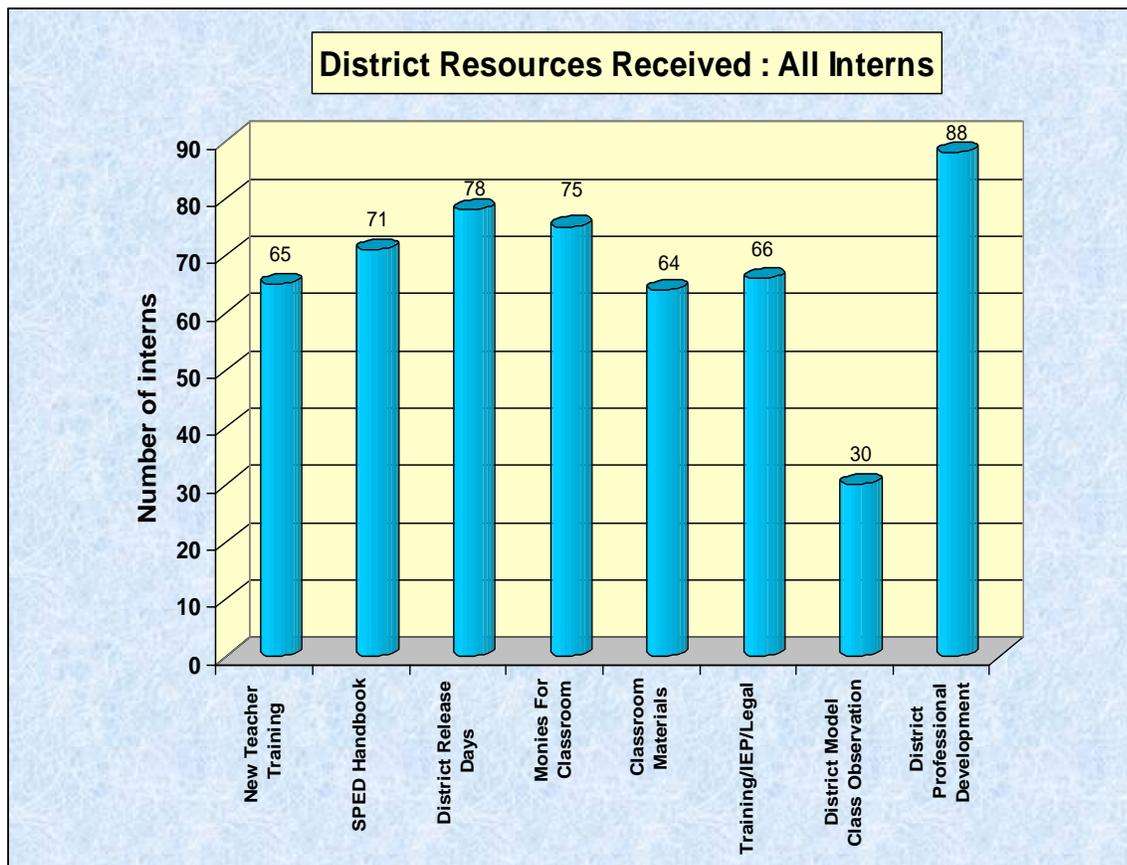


Figure 1. District Resources Received: All Interns

Program length and rigor

Participants were required to remain in the program for 24 months, and to receive satisfactory evaluations from their university supervisor, academic advisor, and school system. A GPA of 3.0 was required to maintain status in the program.

Standards-based curriculum

As Emerson Elliott, then director of NCATE's New Professional Teacher Standards Development Project stated, "The key questions now for standard developers are: What do candidates know and what can they do when they graduate from ...teacher preparation programs?" (Elliott, 1997, p. 6). The programs represented in this study require performance-based program outcomes. Both programs are strongly committed to a conceptual knowledge and skill-based framework, which is soundly integrated with the philosophies of the Council for the Accreditation of Educator Preparation (CAEP), the California Commission on Teacher Credentialing (CCTC), and the Council for Exceptional Children (CEC) Professional Standards. Additionally, California has its own standards for the teaching profession. The California Standards for the Teaching Profession (CSTP) include the following categories: engage and support all students in learning, create and maintain effective environments for student learning, understand subject matter, plan and design learning experiences for all students, assess student learning, and develop as a professional educator.

Program Evaluation

In addition to the reviews by CAEP and the CCTC, all funded intern programs in California must be peer-reviewed each year to ensure quality. This review includes program quality, student outcomes, and candidate retention data. A yearly report is compiled at CCTC documenting this data. At annual intern program directors' meetings a summary of the program evaluation data is presented with recommendations.

Working with diverse students

Specific information regarding best practices for teaching diverse students was infused throughout the programs. Additionally, a 45 hour course targeted foundations, assessment, and instruction of English Language Learners and culturally and linguistically diverse students. This included instruction in the concepts of cultural transmission, second language acquisition, and the acculturation process. Interns learned how to appropriately assess and plan instructional programs for culturally and linguistically diverse students with special needs. Interns interviewed a bilingual parent, conducted informal assessments, and planned instruction for a student who is an English Language Learner and has a disability or is performing significantly below academic standards.

Conclusions

The ten critical features located in the three seminal studies framed the research conducted and provided quality features to enhance retention of teachers. The integration of these critical

attributes into the university alternative certification programs enhanced the retention rates of program graduates and served as a means to improve quality. As future research is conducted in the area of alternative certification, it is important for researchers to collect evidence to reaffirm these findings.

Nations such as Finland, Singapore, and South Korea are continuously recognized in the education literature as high performing because they provide teacher candidates with highly structured opportunities to practice their craft (Greenberg, McKee, & Walsh, 2013). The authors believe the two alternative route programs described within this article give ample opportunities for teachers to practice their craft in a highly structured environment of support and collaboration. The participants in this study have been teaching 10 years or longer and the 96 percent retention rate is evidence of high retention.

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