"The Kids Keep Me Fresh!" Results of a Follow-Up Survey of Graduates from Two Special Education Teacher Education Programs Who Are Teaching

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Although several researchers have reported interesting results of their follow-up of graduates from special education teacher education programs (e.g., Fimian, 1988; Frank & McKenzie, 1993; Jones, 1993; Singer, 1993), most did not include an analysis of the impact of the programs of study on applications in the classrooms of their graduates who were teaching. The only researchers who reported the effects of special education teacher education programs on their graduates in studies published between 1980 and 1995 were James E. Whorton (1980), Richard K. Myers (1981), and Owen D. Hargie and Eamon P. Dwyer (1982). Methodologies used by these researchers for their follow-up studies included a longitudinal analysis of employment after gradua-

tion (Whorton), correlation analysis of graduates rankings compared to special education director rankings of beginner special educator competencies (Myers), and a rating scale evaluating the impact of a micro teaching assignment during the teacher preparation program (Hargie & Dwyer).

The Myers study showed no significant differences in rankings for graduates from categorical or non-categorical programs. This suggests that graduates from non-categorical or categorical special education teacher education programs tend to evaluate beginner competencies in a similar fashion. The research reported by Hargie and Dwyer is most pertinent to the current study. The reactions of special education teachers to a micro teaching assignment during their student teaching semester were studied three years after the teachers had graduated. They endorsed the micro teaching experience because of its realistic, hands-on dynamics and suggested that increasingly complex assignments should be taught this way so as to better simulate what they would face in the classroom.

The lack of published research on program effectiveness corroborates Terry R. Berkeley's (1990) assessment of the state-of-the-art and practice of teacher preparation program follow-up studies which concluded, "the information base on the follow-up of graduates of professional education programs is scant" (p. 14). It is hoped that the results of the current study might add to the knowledge base and empirical base in the field of special education teacher education follow-up of graduates. Given the mandate by national and regional accreditation agencies for follow-up studies of graduates of teacher education programs, it seems important to identify follow-up methodologies that might be easy for teacher education faculty to implement and thus derive relevant data regarding program efficacy.

Design of the Study

The Research Question

This study assessed the extent to which graduates applied instructional methods taught in the special education classes at two teacher education programs in the southwestern United States. The following research question was addressed:

How do graduates of two special education teacher education programs in the southwestern United States (whose graduates teach similar populations of ethnically and linguistically diverse learners) rate their competence in implementing instructional practices recommended by the Council for Exceptional Children for beginning special educators?

In this study, both quantitative and qualitative methods were used. The quantitative analysis focused on frequencies and means of ratings from graduates' responses to a survey which included instructional competencies for beginning special educators (Standard IV of the Council for Exceptional Children [CEC] from Swan & Servis, 1992). The qualitative analysis of observations and interviews

focused on identifying themes that emerged from verbatim transcripts of interviews and notes from direct observations of lessons taught by survey respondents who volunteered to be observed and interviewed.

The Settings

Established in 1982 and accredited by the North Central Association of Colleges and Schools, Arizona State University West (ASUW), an upper level, non-residential campus of Arizona State University located in a metropolitan and multicultural area of northwest Phoenix, is comprised of four colleges. The ASUW mission is to prepare graduates to be successful in the global society of the Twenty-First Century by engendering a responsiveness to change and an appreciation of intellectual, cultural, gender, and generational diversity. The ASUW College of Education manifests this mission through its multiple teacher education programs which emphasize public school based integration of theory and practice. In addition, the faculty integrate methods of teaching elementary subjects (such as science, social studies, mathematics, and reading) with methods of adapting to accommodate for students with special needs.

Founded in 1989 and accredited by the National Council of the Association of Teacher Education, California State University San Marcos (CSUSM) is located between Los Angeles and San Diego, about 60 miles from the United States-Mexico border. The CSUSM mission endorses a global multicultural and multilingual perspective which is reflected in the curriculum, extracurricular activities, international exchanges, and special programs that focus on world issues and problems. The CSUSM College of Education (COE) manifests this mission by consciously selecting a faculty with a strong representation of people of color (for example, 30 percent of the faculty are non-Anglo) and faculty with extensive experience in diverse settings (for example, nearly 90 percent of the faculty have taught in multicultural settings). The faculty collaboratively create interdisciplinary teacher education programs with local K-12 faculty and consultants (for example, each year two public school teachers are selected to serve as Distinguished Teachers in Residence who co-teach the teacher education coursework with campus-based professors). As noted by COE founding faculty member Jennie Spencer-Green (personal communication, August, 1997), the COE programs hopefully prepare graduates to demonstrate several attributes of world class teachers in a multicultural and multilingual society, such as commitment to excellence in the profession, civility in debate and discussion, community service, collegiality, collaboration, and concern for the well-being of others.

Graduates of both ASUW and CSUSM teacher education programs join schools that serve multicultural, multiethnic school populations. Both ASUW and CSUSM teacher education faculty integrate theory and practice by linking school-based internships with campus-based instruction. Both ASUW and CSUSM special education faculty provide collaborative team teaching experiences within special

education methods classes. Both ASUW and CSUSM faculty focus on ensuring that graduates meet the Council for Exceptional Standards for professional practices.

There are two major differences between the programs. First, the California teacher credential system differs from Arizona in that it requires a completed bachelor's degree prior to entry into teacher education programs. Second, the CSUSM special education teacher education program provides intensive integrated instruction in Cross-cultural Language and Academic Development (CLAD), resulting in graduates being prepared to undertake appropriate instruction for students to learn English. The CSUSM concurrent credential program is a dual credential with a seamless program that includes elementary education, special education, and CLAD (Parsons, Vega-Castenada, & Hood, 1998).

The Survey

All graduates of each special education teacher education programs at the two universities (N=183 at ASUW and N=91 at CSUSM) were mailed a survey which asked respondents to reflect on their competencies on the CEC Professional Standard IV (Swan & Servis, 1992) for instruction (shown in Table 1) as well as the competencies related to the instructional management methods class for ASUW and the entire credential program for CSUSM.

Survey procedures included an initial mailing with a follow-up reminder two weeks later. Returned surveys due to errors in mailing addresses accounted for less than 10 percent of the non-respondents at each site.

Observations/Interviews

During the 1997-1998 academic year, a subset of survey respondents (graduates who were teaching) volunteered to be observed and interviewed (10 for ASUW and six for CSUSM). The observations took place in classrooms of ASUW and CSUSM graduates who were teaching in elementary, middle, and high schools. Either prior to or immediately after the observations, the graduates were interviewed. The interview protocols are shown in Table 2.

Results

Survey Results

It should be noted that questionnaires were distributed to 100 percent of all graduates from both programs (representing three graduating classes for CSUSM and 11 graduating classes for ASUW); 23 of the 91 CSUSM graduates (25 percent) and 22 of the 183 ASUW graduates (12 percent) responded. Although these relatively low response rates are consistent with survey research, the credibility of the results is increased because graduates from all CSUSM cohorts were represented and all but one semester's cohort from ASUW were represented. Moreover, types of positions held by survey respondents represented the entire K-12 teaching

spectrum (with the majority coming from teachers in K-8 classrooms) and the typical range of school-based special education delivery systems (i.e., classroom teachers, special class teachers, resource room teachers, and, in California, bilingual classroom teachers).

Frequencies of respondents ratings were tallied for each of the 11 competencies related to instruction recommended by the CEC for beginning special educa-

Table 1 Comparison of Graduates' Mean Ratings on CEC Competency for Instructional Practices¹

	Usin	Using Now	
	ASU West ²	CSUSM	
	(12% or 22/183)) (25% or 23/91)	
Basic classroom management theories, methods, and			
techniques for students with exceptional learning need		3.5	
2. Research based best practices for effective management of			
teaching and learning.	3.2	3.2	
3. Ways in which technology can assist with planning and			
managing the teaching and learning environment.	2.9	2.6	
4. Create a safe, positive, and supportive learning	0.0		
environment in which diversities are valued.	3,8	3.8	
5. Use strategies and techniques for facilitating the function		2.4	
integration of exceptional individuals in various setting		3.4	
6. Prepare and organize materials in order to implement dai	ну 3.7	2.5	
lesson plans.	3.1	3.5	
7. Incorporate evaluation, planning, and management			
procedures which match learner needs with the instructional environment.	3.8	3.4	
Besign a learning environment that encourages active	3.0	5.4	
participation by learners in a variety of individual and			
group learning activities.	3.7	3.8	
Design, structure, and manage daily classroom routines,	0.7	0.0	
including transition time, effectively for students, other	er		
staff, and the general classroom.	3.8	3.1	
10. Direct the activities of a classroom paraprofessional, aid			
volunteer, or peer tutor.	3.3	3,6	
11. Create an environment which encourages self-advocacy	,		
and increased independence.	3.6	3.5	
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^{1.} Standard IV, Swan & Servis (1992).

^{2.} ASU West respondents rated the CEC competencies using a 5-point likert-style rating scale with 1 representing "not at all" and 5 representing "very often," whereas CSUSM respondents used a 4-point likert-style rating scale with 1 representing "lowest" and 4 representing "highest." To make comparisons between the two scales, the ASU West means were recalculated according to the following ratio: ASU West Mean: 5=x:4.

Table 2 Observation Protocol and Interview Questions

ASUW Protocol:

- 1. Greet and thank the graduate for invitation to visit.
- 2. Explain intention to take no more than 1 to 2 hours.
- 3. Ask if it's possible to observe a lesson either before or after the interview.
- 4. Tell about your typical day.
- 5. What's an example of an untypical day?
- 6. Discuss your general assignment and service delivery model.
- 7. Discuss your case load (number, type, severity, gender, ethnicity).
- 8. Tell about one of your most successful experiences so far.
- 9. Tell about one of your most challenging experiences so far.
- 10. Talk about how your ASUW program prepared you (or did not prepare you).
- 11. What advice would you have to give faculty about special education teacher training?
- 12. What advice do you have for prospective special education teachers?
- 13. What professional development opportunities have you had since graduation?
- 14. How can ASUW best support you in your future professional development?
- 15. Ask for a copy of the District/School Parent Handbook and a copy of a progress report card.
- 16. Thank the graduate for the time and energy in arranging the site visit.

CSUSM Protocol:

- Greet and thank the graduate. Explain the purpose to obtain feedback on the "fit" between what was taught during the credentialing program and the professional responsibilities required in your current position.
- 2. Explain intention to take no more than 1 to 2 hours. Note date and time interview starts.
- 3. Ask if it's possible to observe a lesson either before or after the interview.
- 4. Ask about the "typical day."
- 5. What's an example of an "atypical" day?
- 6. Talk about your "general assignment" (service delivery model, roles, etc.).
- 7. Describe your "case load" (number, type, severity, gender, ethnicity, etc.).
- 8. Tell about one of your most successful experiences so far.
- 9. Tell about one of your most challenging experiences so far.
- 10. Talk about how your CSUSM program prepared (or didn't prepare) you for your current position. Talk about how your CSUSM program prepared (or didn't prepare) you for sheltered instruction. Talk about how your CSUSM program prepared (or didn't prepare) you for the Student Support Team (SST) process. How have you applied what you learned about how to include students with disabilities into general education?
- 11. What advice would you have to give faculty about the credentialing program?
- 12. What advice do you have for prospective special education teachers?
- 13. How do you reflect? How do you keep your teaching fresh?
- 14. In what ways can CSUSM support you in your professional development?
- 15. Do you have a copy of a student progress report to share? May I have a copy of the District/ School handbook?
- 16. What is your opinion of the cohort model?
- 17. Thank the graduate for their time and energy in arranging the site visit and interview.

tors. The ratings of only these competencies are presented because they were rated by graduates of both programs. Mean ratings on the CEC Professional Standard IV (instructional practices) were calculated and are shown in Table 1.

In spite of the differences between these two special education teacher education programs, the mean ratings show that respondents from both programs evaluated their use of the competencies similarly. For 10 of the 11 competency statements, respondents rated their use to be relatively high (means greater than 3 out of a 4-point scale). For one of the 11 competency statements, respondents rated their use to be relatively low: using technology for planning and managing the teaching and learning environment. It should be noted that for the competency related to direct instruction, ASUW respondents' mean rating was 3.8 compared to 3.1 for CSUSM respondents. This differential rating was reflected later in the interviews with CSUSM graduates (N=6) who believed they needed more instruction in this technique.

Observation and Interview Procedures

A total of 16 graduates who were teaching were observed and interviewed: 10 from ASUW and six from CSUSM. They represented the entire range of K-12 positions: K-6 teachers (60 percent or six of 10 for ASUW; 67 percent or six of nine for CSUSM); junior high or middle school teachers (20 percent or two of 10 for ASUW; 33 percent or three of nine for CSUSM); and high school teachers (20 percent or two of 10 for ASUW and 0 percent for CSUSM).

Interviews and observations ranged from one to seven hours for a total of 62.5 hours, with an average of three hours and 54 minutes over the 16 interviewees. Observation and interview notes were transcribed and subsequently reviewed by the interviewees, who were invited to make corrections. There were no substantive corrections and only one request to use a pseudonym instead of the graduate's real name.

The teachers who were observed and interviewed were working in a variety of service delivery models including regular classroom with supports, self-contained classrooms, resource rooms, and itinerant/inclusion arrangements. They were teaching children with a wide variety of special needs, such as students with serious emotional disturbance, learning disabilities, mental handicaps, physical disabilities such as cerebral palsy, other health impaired, cross categorical, and autism. In addition to observing the students and the lessons taught, the graduates were interviewed to discover their secrets of success (see Table 2 for Interview Protocols).

Observation Results

Results from observations of the graduates provide credibility for the range of mean ratings on the competencies related to the CEC Standard IV (Swan & Servis, 1992) for delivering instruction for students with special needs as shown in Table 1. The transcribed observation notes provided documentation that graduates were observed to be implementing best practices in instruction taught during their

respective special education teacher education programs for each of the eleven competencies as described below.

For the *classroom management* competency, 100 percent (all 10 ASUW graduates who were interviewed and observed and all six CSUSM graduates) were observed to be using positive reinforcement, contingency management, learning centers, and positive rules or affirmations. For *researched best practices* competency, 100 percent of the graduates (10 ASUW, six CSUSM) were observed to be using direct instruction and multi-modal instruction. For the *technology* competency, 100 percent of the graduates (10 ASUW, six CSUSM) used some form of Computer Assisted Instruction. All the graduates (10 ASUW, six CSUSM) used public posting of a variety of student products that showed a value for diversity of expression and levels of performance as well as an approach to problem solving which yielded a positive supportive environment which valued diversity. All of the CSUSM graduates (N=6) were observed to be using Sheltered English and other Specifically Designed Academic Instruction in English (SDAIE) techniques compared to three of the 10 ASUW graduates who used some form of sign or iconic language to augment communication in the classroom.

For the *functional integration* competency, 100 percent of the graduates (10 ASUW, six CSUSM) used some form of planned inclusion; 50 percent (five of 10) of the ASUW graduates who were interviewed reported using collaborative teaching arrangements with classroom teachers compared to 67 percent (four of six) CSUSM graduates. The xerox machine was a universal support system for organizing and preparing classroom materials for 100 percent of the graduates who were observed (10 ASUW, six CSUSM). Examples of study skills preparation, weekly report cards, running records, and data-based instruction systems were observed for each graduate which provided confirmation of the high ratings that survey respondents (22 of 183 or 12 percent of the ASUW graduates and 23 of 19 or 25 percent of the CSUSM graduates) gave to the competency related to evaluating, planning, and managing instruction to match learner needs.

For the active participation competency, 100 percent of the graduates who were observed and interviewed (10 ASUW, six CSUSM) used some form of handson learning. Examples of active learning procedures included learning centers, guided practice with hand-over-hand support, direct instruction prompts, guided practice, and cooperative groups. Routines and transitions were handled by 100 percent of the graduates (10 ASUW, six CSUSM) via the dual devices of public posting of the day's agenda and clear signals for when activities were to change.

For the competency related to directing paraprofessionals and volunteers and peer tutors, all of the graduates who were observed and interviewed publicly posted the schedule for their aides; 50 percent (five of 10) ASUW and 67 percent (four of six) had a systematic peer tutor training program. Ten percent (one of 10) ASUW and 16 percent (one of six) had a clearly defined role for volunteers and parents in the classroom. For the self-advocacy and independence competency, all (10)

ASUW, six CSUSM) had these skills as goals for their programs. Exemplars included coaching for more appropriate reactions to playground fights and teasing, helping to establish a chapter of the Association for Retarded Citizens on the school campus, and encouraging students to actively participate in campus governance.

Interview Results

Interview results closely matched the written responses and ratings from the survey respondents. Verbatim remarks to the interview questions were analyzed by one of the researchers (Nevin) and independently reviewed by two others (Lilly and Thousand). The seven universal themes emerged via a constant comparison approach. Independently, another member of the research team (Parsons) reviewed the verbatim interviews to confirm that remarks from each of the 16 interviewees could be matched to each theme. The themes that emerged are: (1) commitment to success of all students; (2) strategies for success in teaching all students; (3) knowledge of legal support for education of students with special needs; (4) active searches for mentoring on the job; (5) active participation in professional development; (6) perspective, perseverance, and balance; and (7) advice for improving the special education teacher preparation program.

Why are these particular themes important? The themes of commitment, flexibility, knowledge, professional development, and perspective (balance) are closely aligned with the attributes for world class teachers described by Spencer-Green (Personal Communication, August, 1997). It appears that there is some evidence that graduates of these two special education teacher education programs share some of the attributes of world class teachers. In addition, the importance of each theme in relation to the instructional management competency statements from Table 1 is elaborated below.

Theme 1: Commitment to the success of all students.

This was a universal theme: 100 percent of all graduates who were interviewed (10 ASUW; six CSUSM) and all who wrote comments on the surveys (12 percent or 22 of 183 ASUW graduates; 25 percnt or 23 of 91 CSUSM graduates) included comments related to their commitment to the success of their students and to putting children's needs first. Representative statements excerpted from the interviews which exemplify this theme include this comment from a fall 1995 ASUW graduate, "No two kids are alike. Treat them as people not as case studies. No matter what the label, remember they are children first." A spring 1996 ASUW graduate said, "Remember to keep the kids' needs first. Planning comes first, then individualized lessons. Remember that the children have emotional needs and academic needs not just one or the other."

"Last year I graduated six kids at grade level; this means they could enter middle school with their peers. They represent my basic mission—to help them

learn strategies so they can improve how they perform," said a spring $1995 \ CSUSM$ graduate.

A spring 1996 CSUSM graduate said, "In just a few weeks, I've seen a change in 'Joe,' one of the most troubled kids I've ever met. He's really found a home away from home here in my class—especially important as it is really not safe in his house (because of a parent who is a drug abuser). Now he really loves being part of my class. I tried to show consistently supportive actions with him. He has learned to trust that I am fair and consistent with my behavior management. He has kept me up at night thinking about ways to reach him. Now I feel there's real trust between us. For example, he recently shared that he had been teased and we went over some ways he could deal with it. I tried to coach him on appropriate social behavior. It's a very recent success!"

This theme captures the essence of individualizing instruction, the *sine qua non* of delivering appropriate special education. Additionally, the theme is important in relation to several academic management competencies for beginning special educators listed in Table 1, such as: incorporates evaluation, planning, and management procedures which match learner needs with the instructional environment; uses research based best practices for effective management of teaching and learning; and prepare and organizes materials in order to implement daily lesson plans.

Theme 2: Strategies for success in teaching all students.

This is another example of a universal theme which is reflected in the interviews from 100 percent of the interviewees (10 ASUW, six CSUSM). Their comments show the need for flexibility and resourcefulness in designing instructional interventions for both emotional and academic challenges. The comments associated with this theme reflected the graduates' beliefs in their abilities to change instructional variables so that their learners could be more successful. Representative comments include, "Be flexible!" exclaimed a fall 1992 ASUW graduate with five years of teaching experience. "Be flexible; there's a lot you'll need to do," echoed a spring 1997 ASUW graduate with only three months of teaching experience. She went on to say, "Don't let the first 'no' deter you. Wait and try again. Listen a different way. For example, when I hear a student say, 'I don't want to do that' what I hear is 'I'm afraid I'll fail again.'"

"I've been really successful at setting up real 'hands on' learning experiences for the children," explained a spring 1997 CSUSM graduate who is a classroom teacher for 20 first graders, including a nonverbal boy with autism who comes from the special day class for students with learning handicaps. She elaborated, "I let them try everything out. I encourage them to learn from their mistakes. I'm saying 'You can do it!' a lot!!"

"I use the different modalities all the time—visual, hands-on, auditory, involvement, active learning. I can't sit still myself! I am using what I learned in

sheltered instruction. I use it every day. One successful experience has to do with my so-called lowest group of students. During an evaluation from my vice-principal, I was teaching a lesson on suffixes. It was an oral language lesson and the students came up with the most wonderful oral poetry," explained a spring 1996 CSUSM graduate who is a teacher for a bilingual (English/Spanish) multi-age first and second grade class which includes three students with moderate-to-severe handicaps and one student with a mild-to-moderate learning handicap. She continued, "During the debriefing of the lesson, we commented that the so-called highest group seemed to be less creative. I can't think of them as highest and lowest anymore! I was so proud of them I told them they were Authors and Poets."

This theme is as important as the first theme in that it similarly represents the *sine qua non* of special education with its focus on individualizing students' learning opportunities, and the responsiveness to change instruction based on the learner's progress. The theme is also related to some of the academic and instructional competencies such as designing learning environments that encourage active participation by learners in a variety of individual and group learning activities.

Theme 3: Knowledge of legal support for education of students with special needs.

The specialized knowledge that special educators have regarding legal support and advocacy for students with special needs is another important distinction. The essence of this theme can be captured in the following representative verbatim quotations: "Be an advocate constantly!" advises a fall 1992 ASUW graduate. This concept is echoed again and again, e.g., "I highly recommend that they [prospective special education teachers] know how to take data. Document everything. Proper documentation allows for better implementation of the IEP process. It's especially important to have a paper trail for interactions with the students, parents, other teachers, and supervisors. If I hadn't had the data I had on the progress for one of my students, she would have been diagnosed as less capable than she was. You've got to have data," said a fall 1993 ASUW graduate.

"Pay real close attention to what you learn about 'the law,' and all the details about the laws. If you don't know your law or how to write an IEP, you're in trouble," suggested a fall 1995 ASUW graduate.

A spring 1996 ASUW graduate, who is in her second year of teaching, forewarned, "Be prepared for the paperwork."

A spring 1996 CSUSM graduate who experienced a due process hearing in her first year of teaching echoed this concept when she explained, "I don't really think I could have been taught ahead of time . Until you have to experience a mediation you really have no way of understanding what is involved.... I admit the experience affected me deeply. I almost quit teaching. I tried to handle the experience overall with composure and professionalism and I know my teaching career will be different because of it."

This theme is correlated with one of the instructional management competencies for beginning special educators, i.e., creating an environment which encourages self-advocacy and increased independence. Knowing how to be an advocate on behalf of students with disabilities can help special educators teach students self-advocacy.

Theme 4: Actively search for mentoring by observing others, asking for help, on-the-job learning.

Graduates of both programs emphasized their reliance on colleagues for advice, support, and additional training. An example of the type of comment related to this theme is the following quotation: "It really helps to have someone who is good at thinking things through as your mentor," reported a fall 1992 ASUW graduate. "I think you must have another teacher as a coach, to help you learn. For example, the teacher next door to me, and other teachers, share 'stuff' with me all the time. And I have shared with another new teacher. My advice is to pair up with a buddy!" said a spring 1995 ASUW graduate.

Essentially, graduates of both special education teacher education programs emphasized their understanding that their teacher education programs had prepared them to begin their careers. Many graduates focused their advice based on the realization that their program actually had prepared them to start a career. As this fall 1996 ASUW graduate said, "Be prepared to learn a lot on the job! It's a scary thing to realize that you are responsible for the whole thing! The first year will be tough. Seek a mentor in your school (mine was the same person who was my cooperating teacher during the third semester). Be willing to go to your principal with every question. I've learned to say, 'Well, I have a first year teacher question for you!'"

A spring 1996 CSUSM graduate noted, "Volunteer to help out in as many different delivery systems to see what teaching can be like in each situation. You can learn so much from other teachers."

The CEC instructional management competency from Table 1 relevant to this theme addresses the ability to work with other people to design, structure, and manage daily classroom routines, including transition time, effectively for students, other staff, and the general classroom. The importance of this theme is that it relies on the initiative of the graduate to ensure that skills learned during the teacher education programs are maintained and enhanced while new skills are acquired during the first years of teaching.

Theme 5:

Be active in professional development events.

Graduates from both programs indicated they were engaged in similar types of professional growth activities (e.g., district workshops and seminars, advanced

degree programs) and lots of it. Excerpts of their verbatim comments which exemplify this theme include the following.

A fall 1995 ASUW graduate said, "I'm pursuing my Reading Specialists certification (I can apply my inservice work on the Collaborative Literacy Intervention Project to that) and I want to start on an English as a Second Language endorsement through the [local university] (I'll be starting the first class in the spring.) I'm developing an inservice program for the teachers here and they will earn hours for the district and may get credit through [the local university]—I'm still working on that. I also taught and participated in the Navajo Nation Parent Teacher Conference last spring."

A fall 1996 ASUW graduate said, "I've participated in the inservices herelearned how to implement Make Your Day [a classroom management system] learning how to use AlphabeticPhonics [a multi-modal teaching/learning system]. I've started my Master's Degree right away and I'm taking a leadership class right now. I'm earning an M.Ed. in Educational Administration from [another university]. The school received a grant to maximize technology integration so I'll be learning all I can regarding e-mail, the Internet, Claris Works, and so on."

A spring 1995 CSUSM graduate explained, "I am getting my Resource Specialist certification at [another institution] but I've had some challenges. The classes they offer I've already had at [my alma mater]! Now I don't exactly know what to do (possibly an independent study, though I'll have to find out). I've taken the Reading Recovery Workshop, the New Zealand Best Practices in Reading Methods training, and the law class."

A spring 1997 CSUSM graduate with three months of teaching in her first classroom explained, "I've had a lot! For example in our district every new teacher has a mentor. We have 37.5 hours of inservice and a wonderful set of books as resources (such as Harry Wong's [1991] *The First Days of School* and Lee Cantor's [1993] *Assertive Discipline for Elementary K-5*, and the [local school district] *Handbook for New Teachers* that is full of ideas for classroom management, discipline, professional development, and communicating with parents. The district also teaches social skills associated with 'responsibility,' and I've had to give myself a sort of mini-inservice to learn it. There are 12 skills, each one is emphasized in in-depth lesson plans for the Responsibility Skill of the Month. And I've also taken the Essential Elements of Effective Instruction seminars which count three units on the salary schedule. We also have teacher meetings after school once a week, grade level meetings, and of course IEP meetings as needed. All of these meetings include exchanges of ideas that we can use in the classroom."

The similarities of the recommendations from graduates of both programs can be seen in that graduates urge the faculty to infuse into their respective preparation programs the types of professional development activities they have found most immediately useful. Unique to each state and school district might be specific school or district-wide discipline systems or state-mandated curricula.

On the other hand, some professional development activities might reflect significant gaps in content in the preparation programs. For example, comparatively more of the six CSUSM graduates who were interviewed reported enrolling in assessment and instruction strategies for teaching beginning reading, corroborated by survey respondents who reported being under-prepared in this area. Similarly, comparatively more of the 10 ASUW graduates who were interviewed reported enrolling in discipline and classroom management systems unique to their school districts which were not included in their teacher education program of study.

Theme 6:

Perspective, perseverance, and balance.

This theme was echoed by all the graduates of both programs (10 ASUW, six CSUSM) and can be captured by the following randomly selected representative comments.

"Don't sweat the small stuff!" said a spring 1994 ASUW graduate.

"I look at things as an opportunity to help or impact a life instead of as a challenge. For example, a student might be challenging my authority and I try to let him know there are some authority figures who can be trusted!" explained a spring 1992 ASUW graduate.

"My advice to future special educators is that if there is the least doubt about going into special education, then don't do it," advised a fall 1994 ASUW graduate.

"I learned to say 'I just don't know how to teach this student to be a functional reader!' which inspired me to get some help instead of saying, 'He's never going to be a functional reader!' which makes me give up," explained a fall 1992 ASUW graduate.

"I advise that you take vitamins, do your exercise to counter stress, and stay healthy. And it really helps to be part of a cohort—we were all friends and celebrated everything together (such as babies, birthdays)," said a spring 1995 CSUSM graduate.

"Be prepared to work with whoever is in your classroom! I thought I'd be teaching students with learning handicaps and now I have students with serious emotional disturbance. If one set of lessons don't work, throw them out and try something else," explained a spring 1996 CSUSM graduate.

The importance of this theme may be related to decreasing the likelihood of burnout by maintaining perspective and a sense of balance. Because special educators are at-risk for leaving the profession (Frank & McKenzie, 1993; Fimian, 1988), methods to maintain balance maybe important to include in special education teacher education programs.

Theme 7:

Make the preparation program better.

Graduates of both programs emphasized the need for the preparation program

to have a more direct relationship to the "real" world of teaching (e.g., more explicit instruction in behavior management, classroom organization, using technology to teach lessons, doing assessments and explaining assessment results, and working with others especially in supervising paraprofessionals and in conflict management). This theme is substantiated by the following representative comments.

A fall1994 ASUW graduate said, "My advice to the faculty as they consider program revision is to teach *more* communication skills, leadership skills, grant writing, and conflict management with colleagues!"

"Make *sure* we know how to interact with and guide and supervise paraprofessionals," said a spring 1992 ASUW graduate.

"Teach us some direct instruction techniques! Teach us about grading papers! The environmental/ecological case study was good; it was a great experience to do a home visit. We need more *details* about assessment procedures. We need to learn how to take the data and explain it to the parent, especially using ordinary language to explain how valid the test is, what confidence intervals mean, and so on. We need to know how to explain that the test cannot explain how some kids might be good test takers or just be having a bad day or a good day. Some kids will do very poorly on the tests but be showing progress in their classroom work. How do you explain that!?" advised a spring 1996 CSUSM graduate.

"Walk your talk! Don't use degrading teaching procedures. Give more attention to assessment, evaluation of results, and interpretation. Don't use just one set of forms, like from the [local] consortium because not all of us will be working in a district in that group!" recommended a spring 1996 CSUSM graduate.

In demonstrating their commitment to improve their respective special education teacher education programs, the 10 ASUW graduates and six CSUSM graduates who were interviewed and observed offered several suggestions for additions and increased emphasis unique to each program. For example, ASUW graduates recommended to their faculty the addition of a sociological perspective to better understand the culture of schools, techniques to address English as a Second Language instructional challenges, more explicit advocacy training, more instruction on communication skills, and more practice in spontaneous problem solving. In contrast, CSUSM graduates recommended that faculty include more explicit training in direct instruction practices, parent conferencing and communication techniques, interpretation of assessment, "beginner reading" instruction, and improved faculty coordination of classes.

Acknowledging Strengths and Weaknesses in the Preparation Programs

Based on the combined results of the survey, observations, and interviews, it seems that the graduates who are teaching are implementing many of the practices taught during their special education teacher education programs. In order to balance the possibly overly positive tone of the interviews and observations, it is important to return to the mean ratings of the competencies which indicate that there

were many graduates who did not rate themselves highly on these competencies. Explanations for some of the low ratings might be gleaned from those survey respondents who wrote additional comments. One spring 1997 CSUSM graduate wrote on the returned survey, "Did we bring to our jobs effective techniques and methods of teaching? Yes and no. We spent an extraordinary amount of time listening to the current theories, methods, and idealistic ways to be effective in a classroom. Has any of this done me personally much good as a real teacher? There is very little connection between these ideas and theories that I have been able to personally implement in my class."

The gap between what is possible and what is faced in their day-to-day teaching is reflected by a spring 1996 CSUSM graduate in her second year of teaching as she wrote on her survey. "I believe the course and information obtained was [sic] very beneficial; however what I found in resource rooms is there is a lot of ditto sheets. [During student teaching] I never saw and wasn't able to incorporate other types of instruction. Today I'm teaching in a resource room where the previous teacher did dittos and I'm struggling with the kids and myself trying to change it to what I know is good teaching practice."

The survey asked respondents to describe the professional development and inservice training events since graduation. Their responses confirmed what the 16 interview participants (10 ASUW, six CSUSM) named as areas which might be addressed in program redesign. For example, written comments from the CSUSM survey respondents mentioned the need for more explicit reading training most often, followed by math and classroom management techniques. Written comments from the ASUW survey respondents mentioned the need for more explicit reading training, most often followed by a desire for alternative assessment procedures.

Another request which can be detected in regards to program revisions is captured by this comment from a spring 1997 CSUSM graduate who wrote, "We need more [hands-on] assessment, more exposure to those who are doing 'it,' and more realistic materials like Harry Wong's First Days of School." This comment is echoed by one of the interviewees, a Spring 1992 ASUW graduate who had been teaching for five years, who wrote, "More hands-on; one professor did this, but not everybody. Hands-on things we can take with us! I think we needed more contact with people who are doing the job! We needed more exposure to actual practitioners. We needed more of the real-on-the-job perspective in a reflective situation. The student teaching experience was such a pressure-cooker situation that it was hard to even breathe let alone think—we just couldn't get outside of it. We needed to talk and ask someone who is not in the pressure cooker!"

The advice from survey respondents and interviewees from both CSUSM and ASUW to include more hands-on experiences during their special education teacher education programs can be compared to Hargie and Dwyer's results. They studied the perceptions of special education teachers who had participated in a micro teaching experience where they demonstrated teaching a lesson and received

faculty feedback immediately during their preparation. Even though three years had passed since they had participated in the micro teaching, 90 percent of them rated the experience as highly useful and recommended that more such experiences be included in the preparation program.

Although survey respondents and interviewees in the current study made relatively few comments about the structure of their respective special education teacher education programs, their comments reflected many of the benefits and advantages of completing their course of study with a relatively stable group of participants, known as the cohort model. Cynthia J. Norris, Bruce Barnett, M. Margaret Basom, and Diane Yerkes (1996) have summarized the theories that support the use of cohort models (e.g., sociological perspectives of interdependence of members associated with a specific group). CSUSM interviewees were specifically asked to comment about the cohort model, with 100 percent of them (six) providing positive comments. Two of the 10 ASUW interviewees mentioned that they were still in contact with the classmates who were in their respective cohorts.

Implications

The results of this study should be interpreted with caution. Given the relatively low response rate to the survey from the total pool of graduates at both institutions, there may be an over-representation of those who felt more favorable towards their program of study or there maybe an over-representation of those who had negative feelings towards their program of study. Although the observations and interviews tend to corroborate both the positive and negative findings from the survey, the self-selection process involved in volunteering to be observed and interviewed may have skewed the results to those who are more comfortable with their teaching practices.

Another factor to consider is the differences in the scope of the surveys and interviews: ASUW graduates were responding to the impact of one class whereas CSUSM graduates were responding to the impact of the entire program and data collection procedures. ASUW graduates returned the surveys to their former instructor and were interviewed by their former instructor (Nevin) whereas CSUSM graduates returned the surveys to the dean's office and were interviewed by a neutral third party (Nevin). Although these differences make some comparisons problematic, convergences are all the more dramatic. Another threat to reliability is the lack of observations of the teaching skills of the participants prior to entry into their respective programs of study.

Given these caveats, what are the benefits of conducting follow-up studies of graduates from teacher education programs? One benefit is that systematic follow-up studies help faculty meet the requirements of agencies that accredit teacher education programs. Another benefit is that faculty can discover unexpected outcomes. For example, Francisco Rios, Janet McDaniel, and Laura Stowell (1998) studied the pre- and post-coursework responses of CSUSM middle-level teacher

education candidates to questions about their experiences dealing with people from diverse backgrounds, their degree of comfort communicating about diversity issues and with people different from themselves, and questions about teaching students from diverse backgrounds. They state, "What emerged from data analysis was that candidates *felt* more strongly about multicultural and multilingual education" (p. 167). In a post-hoc analysis, they identified exemplars for an affective taxonomy for multicultural education, thus adding not only to the knowledge base about the impact of multicultural education but to the theoretical base.

If it is agreed that follow-up studies are beneficial, there are four implications of the methodology for graduate follow-up studies used in this study. First, the combination of a survey and observation with interview format for data collection provided both quantitative and qualitative information. Although the combination of quantitative and qualitative methodologies is not new, it is important to consider the information that each can yield for program revision decisions. For example, in this study, survey data alone might have led to misleading conclusions about the relatively low ratings on the use of technology in their classrooms (as shown in Table 1). The observation and interview data, however, revealed that every one of the 16 classrooms observed (10 ASUW, six CSUSM) had usable computers which were actively accessed for instructional purposes during the observations.

Second, the procedures of survey plus observation and follow-up interview elicited more in-depth explanations about the usefulness (or lack of usefulness) of specific coursework or learning activities. For example, the interview results corroborated the written survey responses related to professional development activities subsequent to graduation as well as recommendations for additions to their respective preparation programs. Information of this nature can be helpful in program redesign efforts and in fact guided the faculty of both institutions in their recent program revisions. In the case of CSUSM faculty, more explicit instruction in researched best practices like direct instruction has been incorporated in the new program (Thousand, 1998). And at ASUW, the faculty have added explicit instruction in Specifically Designed Academic Instruction In English (SDAIE) techniques to the instructional management methods class (Nevin, 1998).

Third, the interview results provided a rich array of stories grounded in actual experiences of graduates who are teaching. These narratives can help prospective special education teacher education candidates gain a more realistic perspectives of the nature of the positions that they may face upon graduation. Prospective candidates for special education teacher education programs may find that stories like these lead to more realistic expectations about what special educators face on the job. In fact, interviews alone can provide rich textual information. Rosario Diaz-Greenberg, Joseph Keating, and Mark Baldwin (in press) replicated the interview process used in this study to assess the extent to which graduates of the CSUSM secondary teacher education program were using their skills of service-learning. The results provided further guidance for improving the service-learning compo-

nent of the teacher education program and provided reinforcement for including more ways to prepare preservice candidates to inquire about their own practice.

Fourth, the process of survey and follow-up observation/interview may be easily incorporated as part of the ordinary tasks of a special education faculty. For example, the five ASUW faculty could distribute the observation and interviews in such a way that each faculty member would observe and interview two graduates randomly selected per semester (for a total of 20 per year). One compelling reason for using survey plus follow-up observations and interviews is the reassurance that redesign efforts would be more grounded in practice. Another compelling reason includes the rewards and reinforcement for the observer-interviewer in seeing the graduates in action. This information can be compared to previous reports about the teacher education programs. For example, A. Sandy Parsons, Lillian Vega-Castenada, and Toni Hood (1997) published a description of how the faculty at California State University San Marcos created an integration between the requirements for special education, elementary education, and bilingual-cross-cultural teachers. This study of program graduates allowed the faculty designers to discover what worked and what needed to be adjusted.

In conclusion, the voices of five of the 16 interviewees (randomly selected) may function rhetorically to return to the topic (program graduates) and let the reader understand more deeply the nature of their experiences.

"I feel really committed to meeting their needs."

David is a spring 1997 CSUSM graduate in his second month of his first year of teaching elementary students with a variety of categorical special needs (mild mental retardation, learning disabilities, emotional handicaps, autism, and other health impaired) in a special class setting with planned inclusion activities. "I wanted to be able to have a structured curriculum and schedule so the SDC [special day class] assignment really appealed to me. I've set up half-hour rotations with the students grouped by their skill level at the time. I have several who are beginner readers (K-1 grade equivalent) who are learning under a Reading Mastery structured programs. They have assignments that are individualized for their skill levels in spelling/decoding, sight words/penmanship computer/journal writing for those who finish early. Basically there is never a time when they are not engaged in something academic!"

"I feel really prepared to handle such a range of differences."

Kim is a spring ASUW 1995 graduate in her second year of teaching in elementary school with planned inclusion of students with cross categorical special needs. She explained, "I have 27 children in the third grade class. My children include 12 boys and 15 girls. There is a lot of diversity in our class. We have one child of Native American heritage, eight anglos, 11 Hispanics, and seven African Americans. Many of our children qualify for free and reduced lunches and

breakfasts (65 percent of the total school population). There's a student turnover rate of 60 percent which makes it really hard for continuity. In addition, I have four children who are have IEPs [Individualized Education Plans] for various areas; in addition to the supports I provide to individualize their learning, they also go to the resource room for extra one-to-one tutoring."

"Don't let the first 'no' deter you!"

Suzie, a spring 1997 ASUW graduate in her third month of her first year of teaching middle school students with learning disabilities in a resource room model with planned inclusion and co-teaching in general education classrooms, gave the following advice to prospective special education candidates: "Be flexible: there's a lot you'll need to do. Listen a different way. For example when I hear a student say, 'I don't want to do that' what I hear is 'I'm afraid I'll fail again.' Wait and try again. Don't let the first 'no' deter you."

"I really love my job!"

Anne, a spring 1996 ASUW graduate in her first year of teaching at a multicultural, lower-socio economic school district serving elementary students with cross-categorical special needs in a resource classroom, described her work in this way: "I have 27 students with various kinds of special needs. They come to my room from four 45-minute periods each day to one period. There are a couple who I think are ready to be placed on a 'monitoring' basis where I would monitor their progress with their classroom teacher and they would no longer come to my room. My assignment is that of being a resource teacher for students who are in the fourth or fifth grade. The classification is cross-categorical—and all three categories are represented. I'm really glad I studied all three areas and have endorsements to teach students with learning disabilities, students with mental retardation, and students with emotional handicaps."

"The kids keep me fresh!"

Mary is a spring 1996 CSUSM graduate in her second year of teaching at a middle school. Her assignment is to teach students with learning disabilities in a resource specialist model collaborating with their classroom teachers and supervising instructional aides. Mary summarized her method of keeping her teaching fresh by saying, "Every day is an adventure, especially in teaching students with Serious Emotional Disturbance (SED).... Something else that keeps me fresh is seeing those boys from the SED program around the campus this year! They always say 'Hi' and greet me in a friendly way. They really bonded last year and learned good social skills."

Postcript

The selection of "The kids keep me fresh!" for the title of this article is meant

to remind teacher education faculty to keep their focus on the "kids" as well as program graduates when conducting an impact analysis of their programs.

Note

1. The authors wish to thank an anonymous reviewer who made this observation.

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