### Newsletter of the California Council on Teacher Education

### Volume 27, Number 2, Summer Issue, June 2016

Jo Birdsell, Editor (National University)

Prepared for CCTE by Caddo Gap Press, 3145 Geary Boulevard, PMB 275, San Francisco, CA 94118

### In This Issue of CCNews ...

### Section 1 — News & Reports

Message from CCTE President Sharon Russell2-3
Report from ATE
CCTE 2016 Annual Election Results
Time to Renew CCTE Memberships for 2016-2017
CCTE Seeks Annual Sponsors for 2016-2017
CCTE Individual Membership Form for 2016-2017
From the Desk of the CCTE Executive Secretary7
Update from CCTE Policy Committee8-9
Update from Commission on Teacher Credentialing10-11
Call for CCTE Awards Nominations11
CCTE Search for Editor of <i>Teacher Education Quarterly</i> 12

### Section 2 — CCTE Conferences

Preview of the CCTE Fall 2016 Conference	13
Keynote Speaker for Fall 2016 Conference	14
Deans To Meet at Fall Conference	14
Report from ICCUCET	14
Tentative Program for Fall 2016 Conference	15
Registration Form for Fall 2016 Conference	16

### 

### Section 3 — CCTE Organizational Information

-	
CCTE New Faculty Support Program	
CCNews Call for Articles and News	18
Application for New Faculty Support Program	19
CCTE Graduate Student Support Program	20
Application for Graduate Student Support Program	21
CCTE Quest for Teacher Education Research	22
CCTE Outstanding Dissertation Award Competition	23

### Section 4 — Voices from the Field

Reports on Conference Presentations
"What's Missing? Understanding Best Practices When Teaching
Students with Disabilities" by Carolyn Lindstrom25-29
"Influences of Co-Teaching in Student Teaching on Pre-Service
Teachers' Teacher Efficacy" by Robin Perry
"SmartPens: Assistive, But Not Intuitive, Technology" by
Ben Seipel & Tal Slemrod 34-37



CCTE leaders hold certificates of service presented at Friday luncheon during Spring Conference in San Jose: Left to right are Virginia Kennedy, Deborah Hamm, Sharon Russell, Cindy Grutzik, Zaida McCall-Perez, Alan Jones, and Juan Flores. See report on 2016 CCTE election results on page 4 for additional details.



Newsletter of the California Council on Teacher Education

# The Changing Landscape in Teacher Education

### A Message from CCTE President Sharon Russell

Let me begin my tenure in office by thanking the membership for the trust you have placed in me to lead Cal Council. I want to thank the past presidents who have lead the Council with thoughtfulness and a sense of purpose, reaching out and responding to the membership, increasing our presence and voice in policy circles, and getting us a place at the table where decisions are made. I am committed to maintaining and nurturing these initiatives such as the surveys of

the membership, intersegmental Deans' meetings, policy networking, the Quest for Teacher Education Research, outreach and mentoring to graduate students and new faculty members, and advocating for the profession and the candidates and children we serve.

We are a strong and vibrant professional organization, the largest state chapter of the American Association of Colleges for Teacher Education with an active Board of Directors, productive committees, and a diverse and supportive membership. Despite our size, we are the organization where "everyone knows your name" and welcomes you just as you are. I am eager to serve you and will endeavor

to maintain our traditions and work with you to solve challenges that face us in the future.

In Juan Flores' last message to the membership he alerted us to some very real challenges we must meet in the future: "financial, maintaining and growing the membership, and being diversity brave." In Juan's words: "Our success as an association will depend on our ability to adapt to this current paradigm shift, which is a direct result of the three major influences in society: rapidly-changing technology, demographic shifts, and economic recovery."

In addition to these national paradigm shifts, I want to add the national and state paradigm shifts that are now occurring in public and teacher education. As a nation, we can bid adieu to the compliance orientation of *No Child Left Behind* and greet the *Every Student Succeeds Act*. Though the states have been given more agency in their decision making, the details are only slowly emerging and we must be vigilant and

Sharon Russell

be ready to weigh in about implementation and advocate before we are asked.

In California, as you well know, we are in the midst of an ambitious reform movement powered by the Commission on Teacher Credentialing to streamline and strengthen the accreditation system and re-model the Basic Teaching Credentials. I like to refer to this endeavor as raising the floor of the minimum and opening the canvas to allow programs to

> design the program that best implements their research based vision and mission. It is a time where we can work together to disseminate information, provide feedback, and build new teaching and learning structures together in collaboration. I think it is an opportunity for teacher educators to work together in ways we have not previously conceptualized and Cal Council can be the space for that collaboration.

In response to financial challenges and the diminishing attendance and revenues and rising costs at the Spring Conference, a variety of scenarios have been proposed. CCTE has decided to change the venue for its Spring Conference to Sacramento

beginning Spring 2017. There are four main reasons for this change:

1. To position CCTE as a voice in teacher education policy at the state level. This allows CCTE to become a stronger advocate for our candidates, faculty, and institutions, and aligns with CCTE's mission of being "active toward advancing research, practice, and policy for quality teaching."

2. To energize our membership by offering a new kind of meeting—a Sacramento Policy Action Network (SPAN)— that features legislative visits, California-based education research, a CTC documents workshop, and lots of time for networking with colleagues and policymakers.

3. To build the San Diego conference into CCTE's primary scholarly conference, with the traditional structure of keynote(s), research and best practice sessions, policy ses-—continued on next page—

### Message from CCTE President Sharon Russell

(continued)

sions, SIG meetings, poster session, banquet, and awards luncheon.

4. To help CCTE strengthen its financial base by offering a second annual meeting that is affordable and that brings resources to the organization.

The organization of the conference is not set. You can voice your opinion on different choices to structure the Spring Conference at this link: http://goo.gl/forms/XXFl-gCHiZxIoumkh1. This link will also be sent to the membership via email in hope of getting a robust response.

I make these commitments to you as I undertake my term of service: to be transparent in all communications and decisions, to maintain our culture of inclusivity and collaboration, to be a good financial steward, to strengthen our media presence, to increase our membership, and to keep our place at the table. Please feel free to contact me.

> -Sharon Russell, CCTE President CalStateTEACH sharonrussell@calcouncil.com

### **Report from the Association of Teacher Educators (ATE)**

By **Susan Westbrook** *CCTE Vice President for ATE* 

The information that follows has been taken (and slightly modified) from a recent email communication from the Association of Teacher Educators (ATE) to its affiliated state units. The California Council on Teacher Education is the California state affiliate of ATE.

### Implications of Passage of ESSA

With the passage of the Every Student Succeeds Act (ESSA), the most recent reauthorization of the Elementary and Secondary Education Act (ESEA), the U.S. Congress has transferred a larger amount of the responsibility for education (and educator preparation) back to the states and localities. This represents an opportunity for CCTE and other state chapters of ATE to reenergize and strengthen our state units and to work with our institutions and representatives of AACTE chapters as well as other state and local groups to monitor and if possible influence many of the changes that may be coming based on the way our state exercises its authority over education and teacher preparation. ATE is willing to try to help state units any way possible.

### **Strengthening State Units**

Here are a few ways ATE is working to strengthen state and regional units, along with some additional information:

*Sikula State Unit Awards*: This program recognizes the efforts and accomplishments of affiliated units across the country. ATE units provide essential services and programs at the local and state levels, thereby supporting the national organization's mission and goals. The Awards Program is a vehicle for ATE to provide visibility and distinction to units that fulfill the performance criteria indicated. Unit Awards are presented at ATE's Annual Meeting. Go here for additional information and submission requirements: http://www.ate1.org/pubs/Sikula\_Unit\_Awards.cfm.

*LFTE Leadership Grants*: In order to foster leadership, the Leadership Foundation for Teacher Education is pleased to announce the availability of matching grants to the units. Definitions are broad to allow maximum participation. Go here for details: http://www.ate1.org/pubs/ LFTE\_Leadership\_Gr.cfm.

*Teacher Educator Survey*: How do our members teach teachers? Please share your perspectives and experiences as teacher education professionals regarding curriculum and pedagogy by participating in the National Survey of Teacher Educators. The survey is completely anonymous and is a collaboration of the American Association of Colleges for Teacher Education (AACTE), Association of Teacher Educators (ATE), and the Gay, Lesbian, Straight Education Network. By offering your insights, you will help to improve supports for your work with teacher candidates in preparing them to teach all students. Teacher educators who complete the survey will have a chance to enter a drawing for one of five \$100 Amazon.com gift cards or one free registration to the AACTE conference in 2017. Go here to take the survey: www.teacheredsurvey.org.

Statewide Clinical Practice Symposium. At ATE's Summer Conference in Louisville, a statewide Clinical Fellows Symposium will be held that could be a model for other states. If you'd like to come and observe and/or participate, let David Ritchey (dritchey@ate1.org) know and he'll work with the organizers to provide additional information. Clinical practice will be increasingly important to the states, and this could be a great opportunity for our state. Go here for information on the Louisville Clinical Fellows Symposium: http://www.ate1.org/pubs/ First\_Statewide\_Cl.cfm. Go here for information on ATE's 2016 Summer Conference in Louisville, July 30-August2, 2016, at the Hyatt Regency Louisville: http://www.ate1. org/pubs/2016\_Summer\_Confer.cfm.

# **CCTE 2016 Annual Election Results**

The 2016 California Council on Teacher Education (CCTE) annual election involved election of three officers—President Elect, Vice President for AACTE, and Vice President for ATE, each to serve in those roles for two years—and three new members of the Board of Directors who will serve three-year terms.

The new CCTE officers for the 2016-2018 term are: President Sharon Russell of CalStateTEACH, who moves into that role after two years of service as President Elect; new President Elect Virginia Kennedy of California State University, Northridge, who served the past three years as a member of the Board of Directors; new Vice President for AACTE Linda Hoff of Fresno Pacific University; new Vice President for ATE Susan Westbrook of the California Federation of Teachers, who also serves as co-chair of the CCTE Policy Committee and is a past member of the Board of Directors; and new Past President Juan Flores, who assumes that role after the past two years as CCTE President.

The three new members of the CCTE Board of Directors elected in the 2016 election are Donald Cardinal of Chapman University, Deborah Hamm of California State University, Long Beach, and Pia Wong of California State University,



Passing the baton: CCTE Past President Juan Flores and new CCTE President Sharon Russell at the Friday luncheon at the Spring Conference in San Jose.



Among the new CCTE officers and Board members, left to right: Pia Wong, newly elected member of Board of Directors; Virginia Kennedy, newly elected President Elect; Deborah Hamm, newly elected Board member and past Vice President for ATE; and Sue Westbrook, newly elected Vice President for ATE.

Sacramento. The three members of the Board of Directors whose terms expired with the 2016 election are Keith Howard of Chapman University, Virginia Kennedy, and Zaida McCall-Perez of Holy Names University.

The officers and Board members who completed terms of service received certificates of appreciation at the Friday luncheon during the Spring Conference, and most of those individuals are pictured in the photograph on page 1 of this newsletter.

The annual election was conducted on line, utilizing the same procedures as the previous year. The initial report of the Nominations and Election Committee was distributed by e-mail to the membership in early January and a final report with instructions for access to the on-line voting was distributed in early February.

In addition to the 2016 election, one other change has taken place. Jared Stallones has resigned from the CCTE Board of Directors because he has accepted a new position at the University of Kentucky, and the CCTE Board has appointed Raina Leon of Saint Mary's University to fill the vacancy. Her term will run until March of 2018.

If you have any questions about the election procedures or results, please contact CCTE Executive Secretary Alan H. Jones. If you have an interest in being nominated for a CCTE office in future years, please share that information with Juan Flores who in his new role as Past President will chair the Nominations and Elections Committee for the next two years.

Volume 27, Number 2, Summer 2016

### Time to Renew CCTE Memberships for 2016-2017 Year

The 2016-2017 membership year for the California Council on Teacher Education runs from July 1, 2016, to June 30, 2017, and it is time to renew or join for that year. Renewal notices were sent to all previous individual and institutional members during May and everyone is encouraged to send in their memberships at their earliest convenience to assure that they do not miss any membership benefits.

A 2016-2017 membership entitles you to receive all CCTE publications and other membership benefits. You will find that the membership benefits continue to grow: issues of both of our scholarly journals are of higher quality than ever; our on-line newsletter offers wide ranging information, ideas, and opinions; our semi-annual conferences offer unique opportunities to explore important issues and exchange ideas with colleagues; and our leadership activities, committees, special interest groups, and other activities continue to break ground in policy, research, and practice.

In order to offset rising costs, the annual dues have been increased very modestly by the Board of Directors, so that a basic individual membership for 2016-2017 is \$120, a retired membership is \$90, and a student membership is \$60. Institutional memberships are \$700 for the 2016-2017 year.

To submit an individual membership for 2016-2017, please do the following:

(1) Fill out the membership form on the following page, checking the appropriate dues category.

(2) Include, if you wish, a membership in the California Association of Professors of Special Education/Teacher Education Division in addition to your CCTE membership. Add the CAPSE/TED dues to your check, and we will forward your membership to them.

(3) Make the check payable to the California Council on Teacher Education (spelled out in full, please), enclose it with the completed form, and mail it to:

### Alan H. Jones, CCTE Executive Secretary 3145 Geary Blvd., PMB 275, San Francisco, CA 94118

Institutional memberships for 2016-2017 are also being collected at this time. Renewal notices were sent to all institutional members in May along with the two forms to be completed (institutional membership form and institutional delegate form; institutional memberships involve the appointment of six delegates). Institutions which are not currently members but wish to join for 2016-2017 should e-mail CCTE Executive Secretary Alan Jones (alan.jones@ ccte.org) to obtain the two membership forms.

### CCTE Seeks Annual Sponsors for 2016-2017 Year

The California Council on Teacher Education (CCTE) initiated an annual institutional sponsorship program during the 2010-2011 membership year, through which several of our institutional friends were offered the opportunity to provide additional financial support for CCTE activities in return for recognition at our semi-annual conferences as "Annual Sponsors of CCTE."

The program has been repeated with similar success each year since. We are gratified to have had several sponsors from among higher education institutions in California each of those years. The participating institutions are listed as co-sponsors of our Fall and Spring Conferences during their years of sponsorship, are given the opportunity to display information about their institutions and teacher education programs in the conference exhibits and through complimentary advertisements in our conference programs, and also are recognized in our quarterly newsletters.

The range of benefits to sponsoring institutions varies with the level of sponsorship they undertake. Sponsorships are available at the Bronze level for \$2,000, at the Silver level for \$3,000, at the Gold level for \$5,000, and at the Platinum level for \$10,000. The sponsorship funds from those Annual Sponsors has allowed CCTE to augment the programs of our Fall and Spring Conferences and to expand our activities in other key areas as well.

Institutional co-sponsors for this 2015-2016 year now being completed have been the College of Education at California State University, Long Beach, the College of Educational Studies at Chapman University, the School of Education at Loyola Marymount University, and the School of Education at the University of Redlands. CCTE is deeply appreciative of the special support from those institutions, and we hope that other colleges and universities across the state will also become annual co-sponsors of CCTE this year and in the future.

The Annual Sponsorship Form for 2016-2017 which offers the four different levels of sponsorship and describes the benefits associated with each is available from CCTE Executive Secretary Alan Jones (e-mail at alan.jones@ccte. org). Please consider participating. While CCTE already appreciates the annual dues that our member institutions pay, we hope that many will wish to offer expanded support to CCTE by in addition serving as an Annual Sponsor during the coming 2016-2017 year.

If you have any questions about the CCTE Annual Sponsorship program, please do not hesitate to contact CCTE Executive Secretary Alan Jones (alan.jones@ccte.org).

### Page 5



President (2018) Sharon Russell CalStateTEACH President-Elect (2018) Virginia Kennedy California State University, Northridge Vice-President for AACTE (2018) Linda Hoff Fresno Pacific University Vice-President for ATE (2018) Susan Westbrook California Federation of Teachers Past President (2018) Juan Flores California State University, Stanislaus Board of Directors Donald Cardinal (2019) Chapman University Eric Engdahl (2017) California State University, East Bay Cynthia Geary (2018) University of Redlands Deborah Hamm (2019) California State University, Long Beach Karen Lafferty (2018) Poway Unified School District Lyn Scott (2017) Humboldt State University Jared Stallones (2018) California State University, Long Beach Mona Thompson (2017) California State University, Channel Islands Pia Wong (2019) California State University, Sacramento Teacher Education Quarterly Kip Tellez, Editor University of California, Santa Cruz Issues in Teacher Education Bradley Porfilio, Co-Editor California State University, East Bay & Richard Kahn, Co-Editor Antioch University, Los Angeles CCNews Jo Birdsell, Editor National University California Association of Bilingual Teacher Educators Karen Cadiero-Kaplan, President San Diego State University California Association of Professors of Special Education Irene Nares-Guzicki, President California State University. Monterev Bay Independent California Colleges and Universities Council on the Education of Teachers Christine Zeppos, President Brandman University Executive Secretary Alan H. Iones (2016) Caddo Gap Press 3145 Geary Blvd. PMB 275 San Francisco, CA 94118 415/666-3012 alan.iones@ccte.org

# INDIVIDUAL MEMBERSHIP FORM, 2016-2017 (Membership Year July 2016 through June 2017) Member Name Institutional Affiliation PreferredMailing Address\_ City and ZIP\_ Telephone Number (include area code) \_\_\_\_\_ email address Type of CCTE membership for 2016-2017: □ Individual (\$120) □ Retired (\$90) □ Student (\$60) You may also include an individual membership in the California Association of Professors of Special Education/Teacher Education Division for 2016-2017: □ Professor or associate professor at CAPSE/TED member institution (\$20) □ Professor or associate professor at non-member institution (\$25) □ Assistant professor or part-time faculty (\$15) □ Graduate student/other special educator (\$10) Include payment for CAPSE/TED membership with CCTE membership;

CALIFORNIA COUNCIL ON TEACHER EDUCATION

Include payment for CAPSE/TED membership with CCTE membership; Your CAPSE/TED membership information and dues will be forwarded by CCTE to CAPSE/TED.

Please complete and return this form with your check payable to the California Council on Teacher Education (please spell out in full). Please mail to:

Alan H. Jones, Executive Secretary California Council on Teacher Education 3145 Geary Boulevard, PMB 275 San Francisco, California 94118

Thank you.

# From the Desk of the CCTE Executive Secretary

Following are brief updates of current activities of the California Council on Teacher Education (CCTE) for the interest and consideration of all CCTE members, delegates, and friends:

### **Membership Renewal Time**

As described in the article on page 4, renewal letters have been sent to all CCTE institutional and individual members in hopes that everyone will renew for 2016-2017 in the near future. And, of course, memberships will be welcomed from new institutions and individuals as well.

### **Annual Sponsorship Program**

CCTE is also seeking to expand the annual sponsorship program, which is described on page 4. We have enjoyed four institutional co-sponsors during 2015-2016 and hope for yet others during the coming 2016-2017 year..

### **CCTE** Conferences

The Fall 2016 CCTE Conference, to be held October 20-22 in San Diego, will feature the theme "Together We Work Better: Partnerships in Teacher Education." See a preview on page 13 of this newsletter, the tentative program on page 15, and a registration form on page 16.

### **Quest for Teacher Education Research Underway**

As first reported in the Fall 2014 issue of *CCNews*, the goal of the CCTE Quest for Teacher Education Research is to encourage and support research on teacher education in our state in order to increase the knowledge base and better inform teacher education practice and policy. The Quest during the 2014-2015 year involved 37 different research studies with support from a State Chapter Grant from the American Association of Colleges of Teacher Education and the program expanded to 42 studies during 2015-2016. We are hoping for many more studies to participate during 2016-2017. See further information on page 22.

### **Focus on Increasing Diversity**

CCTE has enjoyed a State Chapter Support Grant from the American Association of Colleges of Teacher Education during the 2015-2016 year to augment efforts of our New Faculty Support Program and Graduate Student Support Program to increase diversity in the teacher education community in California. We will continue to encourage new faculty and graduate students representing diversity to participate in those programs during the 2016-2017, both of which are mentioned below and described elsewhere in this newsletter.

### **CCTE New Faculty Program**

The CCTE New Faculty Support Program will enjoy

its sixth year during 2016-2017. The program is open to any teacher education faculty in their first five years or service at any of our CCTE member institutions. The benefits of the program include discounted CCTE membership and conference registration and mentorship from an experienced CCTE leader. See further information and an application form on pages 18 and 19 of this issue.

### **CCTE Graduate Student Support Program**

The CCTE Graduate Student Support Program will be in its seventh year during 2016-2017. The program is open to graduate students at any CCTE member institution. The benefits include discounted CCTE membership and conference registration, an opportunity to submit a proposal for one of our conference programs, and participation in the CCTE Graduate Student Caucus. See further information and an application form on pages 20 and 21 of this issue.

### **Position and Event Announcements**

Over recent years CCTE has distributed via e-mail to all members and delegates announcements of available positions and special events at member institutions. Because of a rapidly increasing number of announcements, this past fall we added a special section to the CCTE website for posting of such announcements. Announcements are added to the website listing on a regular basis whenever we receive a request and information from any CCTE member institution. Having such announcements posted is one of the benefits of being a member institution of CCTE. There are currently over 70 announcements posted to the website, most providing information on new faculty positions currently seeking applicants as well as several announcements about upcoming events of interest to teacher educators. Please be sure to log in and check the announcements regularly at www.ccte.org

### Annual Election

The CCTE annual election for 2016 took place this Spring, as described on page 4 of this issue of *CCNews*. Congratulations to the newly elected officers and Board members, and a special thanks to those who completed terms of service in CCTE leadership roles this spring. All members of the CCTE leadership are volunteers, offering time, energy, and ideas that keep our organization strong and vital. Please share your thanks with those who have recently served and are now serving our California teacher education community.

> —Alan H. Jones, CCTE Executive Secretary 3145 Geary Boulevard, PMB 275, San Francisco, CA 94118 Telephone 415-666-3012 e-mail alan.jones@ccte.org

# Update from CCTE Policy Committee

By Susan Westbrook & Mona Thompson Co-Chairs, CCTE Policy Committee

#### May State Budget Revise

The May Revision revenue forecast has been reduced by \$1.9 billion, reflecting poor April income tax receipts and more sluggish sales tax receipts than expected, while Proposition 2's required contributions have been reduced by a combined \$1.6 billion. Even if the voters pass an extension of Prop 30 taxes, the longer-term budget outlook would be barely balanced. Until the voters decide in November whether temporary taxes should be extended, the May Revision reflects the principle that no significant new ongoing spending commitments should be made.

Under the May Revision, the minimum guarantee of funding for K-14 schools is expected to grow to \$71.9 billion in 2016-17, an increase of \$24.6 billion over the last five years (52 %). For K-12 schools, funding levels will increase by over \$3,600 per student in 2016-17 compared to 2011-12 levels. This reinvestment provides the opportunity to correct historical inequities in school district funding with continued implementation of the Local Control Funding Formula. The May Revision provides \$2.9 billion in new funding, bringing the formula's implementation to nearly 96 percent complete.

The Budget also invests in the state's public higher education system to maintain the quality and affordability of one of California's greatest strengths. The Budget keeps tuition at 2011-12 levels and commits \$25 million in new one-time funding for the California State University to reduce the time it takes a student to successfully complete a degree.

The May Revise proposes a \$10 million General Fund one-time investment for grants to California higher education instructors to improve upon or develop four-year integrated teacher credential programs. Grants of up to \$250,000 would provide the higher education institutions funding to create or improve blended programs. Preference will be given to proposals that include partnerships with community colleges and K-12 local educational agencies. (See AB 1756 below.)

The May Revise also proposes \$2.5 million Proposition 98 one-time funding for the California Center on Teaching Careers. Funds would be used for a competitive multi-year grant to be administered by the Commission on Teacher Credentialing and awardee to a local educational agency to administer the center. (See SB 915 below.)

The above information about the California State Budget is from: https://www.gov.ca.gov/home.php) and from http:// www.ebudget.ca.gov/FullBudgetSummary.pdf

#### Legislative Update

June 3 is the last day for each house to pass bills introduced in that house. If a bill does not move out of its house, it is dead. Fiscal bills "estimated to result in an annual revenue loss or gain of \$150,000 or more will be moved to the Assembly or Senate Committee's Suspense File, without prejudice, for further consideration." The bills may be amended and may move off the Suspense file, or may be left there until the end of the session to die.

The information about the following legislation is from leginfo.legislature.ca.gov. Use the link if you are interested in following education and teacher education bills.

#### **Financial** Aid

SB 62 (Pavley) Student financial aid: Assumption Program of Loans for Education: Governor's Teaching Fellowships Program. This bill would, among other things, require a program participant to teach in a teaching field with a critical shortage of teachers and to demonstrate financial need, revise the information that the Superintendent is required to furnish to the commission annually regarding the program, and make conforming changes. The bill would require the program to continue to be implemented as it read on January 1, 2015, for specified purposes relating to loan assumption agreements entered into before that date. This bill is in the Assembly Appropriations Committee.

AB 1721 (Medina) Student financial aid: Cal Grant Program. This bill would raise the amount of the maximum award for access costs under the Cal Grant B program to \$3,000, from its current level of \$1,551. It would also raise the maximum age for an applicant for an award under the California Community College Transfer Entitlement Program from 28 years old to 31 years old by December 31 of the award year. Currently, an awardee is required to have attended a California community college in the academic year immediately preceding the award. This would raise that limit to no more than 3 academic years before the academic year for which the award will be used. This bill is in the Assembly Appropriations Committee suspense file.

AB 1961 (Baker) Student Financial Aid: Ortiz-Pacheco-Poochigian-Vasconcellos Cal Grant Program: Private Nonprofit Postsecondary Educational Institutions. This bill would increase the maximum tuition award amount for Cal Grant A and B awards for new recipients at private nonprofit postsecondary educational institutions to no less than \$10,000 for the 2017-18 award year and each award year thereafter. For these award years, the maximum tuition award amounts would remain at \$8,056 for new recipients attending accredited private for-profit postsecondary educational institutions as referred to above. This bill is in the Assembly Appropriations Committee suspense file.

AB 2787 (Chavez) Student Financial Aid: Middle Class Scholarship Program: private nonprofit postsecondary educational institutions. This bill would extend the Middle Class

-continued on next page-

# Update from CCTE Policy Committee

### (continued from previous page)

Scholarship Program to undergraduate students who meet the requirements of the program and are enrolled in private non-profit postsecondary educational institutions, commencing with the 2017-18 academic year. Currently the program is only open to students enrolled in the University of California or California State University System. This bill is in Assembly Committee on Higher Education.

### **Teacher Education**

AB 2264 (Jones-Sawyer) Teachers: Training and Support. This bill would express the Legislature's intent to enact legislation that would support the development of a professional system of training and support for new and existing teachers focused on creating and maintaining effective environments for pupil learning and that would ensure the training is aligned with certain performance expectations. This bill has no committee assignment.

AB 2401 (O'Donnell) Teachers: California Beginning Teachers Support and Assessment System. This bill makes legislative findings regarding the teacher shortage and the value of the California Beginning Teacher Support and Assessment System (BTSA). It makes an unspecified appropriation from the General Fund to the State Superintendent of Public Instruction and the California Commission on Teacher Credentialing for the 2016-17 fiscal year to provide grants for BTSA participants; requires the allocation to be adjusted each fiscal year by an inflation factor provided in the annual Budget Act; and states future funding for BTSA be provided each year in the Annual Budget Act. This bill is in the Assembly Appropriations Committee suspense file.

### **Teacher Recruitment**

AB 1756 (Bonilla) Teacher Credentialing: Integrated Programs of Professional Preparation. This bill would require that student teaching hours be included among the intensive field experiences currently required as part of an integrated program. This bill includes language that explicitly authorizes a postsecondary institution to offer a 4-year integrated program of professional preparation that allows a student to earn a baccalaureate degree and a preliminary credential concurrently and within 4 years of study. Contingent upon appropriation of funds in the annual Budget Act or another statute, the bill would require the Commission to develop and implement a program to award 40 grants of \$250,000 each to postsecondary institutions for the development of transition plans to guide the creation of 4-year integrated programs of professional preparation, as provided. This bill is in the Assembly Committee on Appropriations suspense file.

AB 2122 (McCarty) California Classified School Employee Teacher Credentialing Program. This bill would revise the provisions of the old paraprofessional program, eliminating the need to collect repayments from previous participants, and create a grant program which CTC would administer. Districts would apply for funding, and the program would be open to all school classified employees. This bill is in the Assembly Committee on Appropriations suspense file.

SB 915 (Liu) Teacher recruitment: California Center on Teaching Careers. This bill would re-establish the California Center on Teaching Careers (CalTeach) to recruit qualified individuals into the teaching profession. It requires the State Superintendent of Public Instruction, contingent on budget funding, to contract with a local educational agency to establish and administer CalTeach with the concurrence of representatives of the Commission on Teacher Credentialing (CTC), the University of California, the California State University, the Chancellor's Office of the California Community Colleges, and independent institutions of higher education. CalTeach would be required to perform specified duties including creating or expanding a referral database for qualified teachers seeking employment in the public schools. The bill would authorize CalTeach, in conducting those duties, to coordinate and work collaboratively with the Education Job Opportunities Information Network, existing teacher recruitment centers, school districts, county offices of education, and other teachers clubs and organizations. It requires the CTC, in consultation with the Legislative Analyst, to conduct an evaluation of the program by January 1, 2020. This bill is in the Senate Appropriations Committee suspense file.

SB 933 (Allen) Teachers: California Teacher Corps Act of 2016: Teacher Residency Programs. This bill would enact the California Teacher Corps Act of 2016, under which the Superintendent of Public Instruction would make grants to high-need local educational agencies and consortia of local educational agencies to assist these agencies in establishing and maintaining teacher residency programs. The teacher residency programs established by the bill would be defined as school-based teacher preparation programs in which a prospective teacher would teach alongside an experienced mentor teacher while also receiving teacher training instruction in a teacher credentialing program in a qualified institution of higher education. The bill would establish eligibility standards for persons who apply for participation in the teacher residency programs established by the bill. The bill would provide that its provisions would not be implemented unless funding for its purposes is provided in the annual Budget Act or in another statute. This bill is in the Senate Appropriations Committee suspense file.

### **CCTE Policy Contacts**

The CCTE Policy Committee Co-Chairs can be contacted by e-mail as follows:

> Mona Thompson at almothomp@gmail.com Susan Westbrook at suew447@aol.com

### Updates from the Commission on Teacher Credentialing

#### **Data Dashboards**

As part of the Strengthening and Streamlining the Accreditation System, the Commission has been working with a contractor to develop data dashboards. The first set of dashboards, focusing on Assignment Monitoring, was posted in February 2016. These dashboards present data from the assignment monitoring process; at this time, for the lowest 3 decile schools. The second set of dashboards, focusing on Educator Supply and Demand, was posted in April 2016. These dashboards present data from the Teacher Supply Report including the number of new educators prepared by preparation programs as well as data on FTE and Expected Hires from the California Department of Education. These dashboards can be searched by county, district, or region of the state.

The third set of dashboards, focusing on Commissionapproved Institutions and the Educator Preparation Programs offered by the institutions, was posted in May 2016. The Institution and Educator Preparation Program dashboards provide data that the Commission currently collects (e.g., geographic location, contact information, link to institution's website, approved programs, and Title II information when appropriate) in a visual manner. The Commission is still considering what data to collect and display in the future. At this time the plan is to begin to collect additional data in 2016-17 on a pilot basis, including, for example, annual enrollment for each Commission-approved program and completion rates.

All dashboards are available from the Commission's Data and Reports page. There is a short (7 minute) tutorial that describes how to navigate through the dashboards. The dashboards have a Glossary that defines terms found in the dashboards as well as additional information available when your mouse hovers over an item in a map, a part of a graph, or specific data elements. There is a "Raw Data" link at the bottom of each dashboard that allows you to download the raw data in Excel.

### Elementary Subject Matter Programs and Waiving the CSET: Multiple Subjects Examination

With the signing of the *Every Student Succeeds Act* (ESSA), the Highly Qualified Teacher (HQT) requirement from NCLB will no longer be in effect as of July 1, 2016. At its April 2016 meeting the Commission directed staff to bring an agenda item to the June 2016 Commission meeting that will amend the Title 5 Regulations that address how prospective Multiple Subject teachers may satisfy the subject matter requirement. As part of the agenda item, information will be presented regarding what Elementary Subject Matter Programs approved before 2004 will need to do, as well as what new programs will need to do, to be able to verify subject matter.

### CalTPA Design Team

The CalTPA Design Team members began meeting in April 2016 and will meet monthly through September 2016. The redevelopment process is iterative and the Design Team will work with Commission staff and Evaluation Systems group of Pearson, the Commission's technical contractor.

### CalTPA Design Team

Rebecca Ambrose, University of California, Davis Paul Boyd-Batstone, California State University, Long Beach Jorge Colmenero, RFK UCLA K-12 Community School/ Los Angeles/LAUSD Nedra Crow, National University Brent Duckor, San Jose State University Karen Escalante, California State University, San Marcos Meredith Fellows, CalState TEACH Fred Freking, University of Southern California Donna Glassman-Sommer, Tulare County Office of Education Kim Harrison, Washington Unified School District Jose Lalas, University of Redlands Edmundo Litton, Loyola Marymount University Helene Mandell, University of San Diego Beth Roybal, Salinas Union High School District Donna Scarlett, Reach Institute for School Leadership David Sloan, Brandman University Daniel Soodjinda, California State University, Stanislaus Emily Vazirian, Olive Crest Academy Michael Verdi, California State University, San Bernardino Patricia Wick, University of Phoenix

Administrator Performance Assessment The APA Design Team members have been identified and the Design Team will begin meeting in May 2016.

Susan Belenardo, University of California Irvine Rebecca Cheung, University of California Berkeley Kathy Condren, Madera County Office of Education Janice Cook, University of San Diego Katrine Czajkowski, Sweetwater Unified School District Ardella Dailey, California State University, East Bay Alan Enomoto, Brandman University Deborah Erickson, Point Loma Nazarene University Ursula Estrada-Reveles, Azusa Pacific University Doug Fisher, California State University San Diego Lanelle Gordin, Riverside County Office of Education Keith Myatt, California State University Dominquez Hills Kelli Seydewitz, Irvine Unified School District James Webb, William Hart High School District Charles Weis, California State University Channel Islands

—continued on next page—

# Updates from the Commission on Teacher Credentialing

(continued from previous page)

### Additional Opportunities for Participation in the Redevelopment of the CalTPA and the Design and Development of the Commission's Administrator Performance Assessment (APA)

The Commission is seeking current California teachers, practicing PK-12 school administrators, educators who help prepare and/or mentor beginning teachers, and teacher preparation program faculty to participate in the upcoming pilot testing, field testing, scoring, and standard setting study for the Commission's model Teaching Performance Assessment (CalTPA) currently under redevelopment. It is anticipated that pilot testing will take place during 2016-17, with field testing and the standard setting study taking place during 2017-18. Scoring opportunities will be available both years. The continuing involvement of California educators as the CalTPA is redeveloped will help ensure that candidates have the appropriate knowledge, skills, and abilities needed to perform the job of a beginning California teacher. If you are interested in finding out more about participating in the pilot test, field test, scoring, and/or standard setting activities for the CalTPA, please contact Evaluation Systems at es-caltpa@ pearson.com.

In addition, the Commission is seeking current California teachers, practicing PK-12 school administrators, educators who help prepare and/or mentor beginning administrators, and administrator preparation program faculty to participate in the upcoming pilot testing, field testing, scoring, and standard setting study for the Commission's model Administrator Performance Assessment (APA) currently under development. It is anticipated that pilot testing will take place during 2016-17, with field testing and the standard setting study taking place during 2017-18. Scoring opportunities will be available both years. The continuing involvement of California educators as the APA is developed will help ensure that candidates have the appropriate knowledge, skills, and abilities needed to perform the job of a California school administrator. If you are interested in finding out more about participating in the pilot test, field test, scoring, and/or standard setting activities for the APA, please contact Evaluation Systems at es-caltpa@pearson.com.

### Opportunities for Professional Development and Professional Service Are Still Available

The Commission is seeking qualified individuals to serve within the Accreditation System as peer reviewers of initial program documents and of proposals submitted from institutions that want to offer subject matter programs. This is a great opportunity for professional growth and development as well as an opportunity to contribute a service critically important to the effective and efficient implementation of the Accreditation System. Travel expenses are reimbursable. If interested, please email IPR@ctc.ca.gov and include your particular area(s) of expertise and your contact information. Your colleagues thank you in advance!

### CCTE Call for Nominations for Awards in Advancing Current Pedagogy

The California Council on Teacher Education seeks to recognize the work of educators who are engaged in making significant contributions in areas of current pedagogy. We are seeking nominations for the Fall 2016 Conference for either of two awards. The awards are open to individuals, or schools, or districts.

• One award is focused on those conducting research and/or practice in support of the CCSS, Common Core State Standards. We are especially interested in recognizing programs that show innovation in school wide implementation models, highlighting how teachers are supported.

• The second award for current pedagogy seeks to honor those who are focused on conducting research and/or practice developing the implementation of the NGSS, Next Generation Science Standards. In addition to recognizing programs that show innovation in school wide implementation models, and how new teachers all teachers are supported; we are especially interested in honoring pedagogy that supports incorporation of both science literacy and literacy through science.

Nominations must include the following information: the names of the leading participants, a description of the school, or district, or county office, or university; as well as a description of the pedagogical innovation and how it benefits children. The total nomination document should not exceed five pages. It is hoped that awardees will be able to present on their program at the CCTE Fall Conference in San Diego, October 2016. Quest projects are eligible for this award. Awardees do not have to be CCTE members.

Please submit nominations by email by August 15 to Eric Engdahl:

eric.engdahl@csueastbay.edu

## CCTE Announces a Search for a New Editor for Teacher Education Quarterly

### Applications Due June 30, 2016

The California Council on Teacher Education (CCTE) is seeking an individual CCTE member or a team to serve as the next editor (or co-editors) of *Teacher Education Quarterly*, such appointment to be effective January 1, 2017. At a time when teacher education is in the national spotlight, the editorship is an opportunity to lead new and critical scholarship on teacher education.

*Teacher Education Quarterly* is a national and international peer-reviewed scholarly journal sponsored by CCTE and published four times each year by Caddo Gap Press. The journal, one of two sponsored by CCTE, features original manuscripts focusing on qualitative and quantitative research, scholarly analysis and reflection, and innovative thought related to teacher education broadly defined to include preservice preparation, the induction years, and the professional development of career teachers. The term of editorship is three years, renewable if mutually desired by the new editor and CCTE.

The editor is responsible for coordinating all aspects of manuscript solicitation, reception, review, communication with authors, and editing for submission to the publisher. Responsibilities include:

- receiving manuscript submissions;
- maintaining an online submissions system;
- notifying authors of the status of manuscripts;
- sending manuscripts out for peer review;
- maintaining a roster of reviewers;
- forwarding reviewer responses and acceptance status to authors;
- working with authors and a professional copy editor to prepare manuscripts for publication;
- determining the sequence of regular issues and special theme issues;
- identifying and working with guest editors for special issues as desired;
- selecting the contents of each issue;
- readying each issue for the publisher;
- reviewing final proofs prior to publication;
- writing an introduction, if desired, for each issue.

Much of this editorial process—submissions, reviews, and correspondence—is conducted electronically through an online submission system that will be available to the editor. The editor may also correspond with authors through electronic mail.

The editor serves as chair of an Editorial Board comprised of five at-large members of CCTE, plus the CCTE President and CCTE Executive Secretary. The new editor may appoint one or more associate editors as needed. The editor convenes the Editorial Board at each CCTE semi-annual conference, and regularly communicates by email and telephone. The editor also appoints and consults with an international editorial advisory board comprised of recognized scholars in teacher education. To ensure continuity between the CCTE Board of Directors and the journal, the editor sits *ex officio* on the CCTE Board, which requires attendance at quarterly CCTE board meetings, and reports regularly to the CCTE Board concerning the operation and direction of the journal.

Candidates for editor must be individual members or institutional delegates of CCTE with knowledge of and a record of scholarly activity in the organization and familiarity with CCTE publications. Candidates should also have demonstrable standing as scholars in the teacher education field, including previous experience in editing and publication of educational materials on a fixed schedule. Additional desired qualifications include service as a reviewer for peer-reviewed publications, service on editorial boards of educational publications, substantial authorship in peer-reviewed publications, and strong writing and editing skills.

CCTE will give preference to applicants who can provide formal expressions of financial and in-kind support for the journal from their employing institution(s). This support can include released time for the editor, graduate student assistants, copyediting and technical support, and travel for the editorial team, as these are costs that the CCTE budget does not cover. CCTE provides a budget of \$2,000 per year to the editor for expenses and operation of the journal website.

The deadline for application/nomination is June 30, 2016. Following that date a four-member search committee will review applications and nominations, seek additional information as needed, hold interviews if needed, and recommend a choice for editor to the CCTE Board of Directors which will make the appointment at its October 19, 2016, meeting. The new editor (or co-editors) will then work with the current editor, Dr. Kip Tellez of the University of California, Santa Cruz, from October 2016 through the remainder of the 2016 publication year, and will assume the editorship officially on January 1, 2017.

A professional curriculum vitae for each candidate for editor or co-editor should accompany the letter of application or nomination. Inquiries, applications, and nominations for editor should be submitted by mail or email to Alan H. Jones, CCTE Executive Secretary, 3145 Geary Boulevard PMB 275, San Francisco, CA 94118. Email: alan.jones@ccte.org

### Page 13



**CCN**ews

### Newsletter of the California Council on Teacher Education

### Volume 27, Number 2, Summer Issue, June 2016, Section 2

Jo Birdsell, Editor (National University)

Prepared for CCTE by Caddo Gap Press, 3145 Geary Boulevard, PMB 275, San Francisco, CA 94118

# Preview of CCTE Fall 2016 Conference

### "Together We Work Better: Partnerships in Teacher Education"

By Jo Birdsell, National University Eric Engdahl, California State University, East Bay & Karen Lafferty, Poway Unified School District

The California Council on Teacher Education Fall 2016 Conference will be held October 20-22 at the Kona Kai Resort in San Diego around the theme of collaboration with the title "Together We Work Better: Partnerships in Teacher Education."

Collaboration in both preservice and inservice teacher education occurs across a variety of contexts and in multiple ways. Teacher educators may collaborate around clinical practice, mentoring, accreditation, and professional development, among other areas. University-based teacher education programs work in conjunction with school districts to place student teachers and interns. State agencies coordinate with universities and school districts to credential teachers and offer induction programs to novices. Inservice teachers seek professional development and advanced degrees through local universities. At every stage in teachers' professional lives some form of collaboration informs their experiences.

The Fall 2016 CCTE Conference will thus focus on effective practices in collaboration, development of partnerships, and sustainability of collaborative initiatives. Questions to be addressed during the Conference include, but are not limited to:

What knowledge, skills, and dispositions are needed in order to form, work with, and sustain collaborations?

What is the impact of organizations working together on a goal? How can they work more effectively together?

What does collaboration look like when it is effective and when it is not effective?

What does authentic collaboration look like?

What facilitates and what constrains collaboration?

Are there times when collaboration is stated as the goal, but it is more driven by one partner, party, or perspective?

What are the issues of power and control in collaboration in teacher education?

What have partners found to be useful in moving collaboration forward?

What struggles are they still confronting?

What considerations need to be given to sustainability of collaboration, particularly once the impetus of the collaboration or initial funding is over?

The conference will offer opportunities for attendees to engage with these questions and develop both personal and institutional responses.

The Fall 2016 Conference will also feature meetings of CABTE, CAPSE, and ICCUCET, and the ten CCTE Special Interest Groups; a statewide education deans' meeting; a meeting of the CSU Field Coordinators' Forum; concurrent research and practice sessions and the poster session; a banquet Thursday evening and awards luncheon on Friday; plus special programming on Saturday morning.

Members of the Planning Committee for the Fall 2016 CCTE Conference are Jo Birdsell (National University), Eric Engdahl (California State University, East Bay), Juan Flores (California State University, Stanislaus), Cynthia Geary (University of Redlands), Cindy Grutzik (California State University, Long Beach), Laurie Hansen (University of California, Irvine), Alan Jones (CCTE Executive Secretary), Karen Lafferty (Poway Unified School District), Carolyn Lindstrom (Brandman University), Sharon Russell (CalStateTEACH), Mona Thompson (California State University, Channel Islands, and Susan Westbrook (California Federation of Teachers. Others interested in helping plan and implement the Fall Conference are encouraged to contact any of the current planning committee members.

A formal announcement of the Fall Conference will be distributed via e-mail to the CCTE membership in late June or early July, along with the registration form, hotel information, and the call for proposals for concurrent and poster sessions. The deadline for proposals for concurrent and poster sessions is August 15. Information for submitting proposals is available on the CCTE website: www.ccte.org

Additional information about Fall Conference speakers and programming appears on the next page of this issue of *CCNews*, along with the tentative program on page 15 and a registration form on page 16. Registrations will be accepted by mail and on line any time from now until the conference in San Diego.

### Jon Snyder Will Keynote CCTE Fall 2016 Conference

The keynote speaker at the opening session of the California Council on Teacher Education Fall 2016 Conference on Thursday, October 20, will be Jon Snyder of Stanford University. Jon is the Executive Director of the Stanford Center for Opportunity Policy in Education (SCOPE). He began his career as a primary grades schoolteacher in Vancouver, Washington. He has also worked in curriculum development and as a staff developer.

Since receiving his doctorate from Teachers College, Columbia University, Jon has worked as a researcher and a teacher/educator at Teachers College; the National Center for the Restructuring of Education, Schools, and Teaching; the National Commission on Teaching and America's Future; the University of California, Santa Barbara; and as Chief Academic Officer/Dean of the College at Bank Street College of Education in New York City. He remains engaged in researching teacher learning, conditions that support teacher learning, and the relationships between teacher and student learning.

Jon has written extensively on issues related to teacher preparation practice and policy. Much of his work has been focused on teacher development—from preparation and induction through retirement—performance assessment, and progressive pedagogy. Jon served for five years as a commissioner on the California Commisison on Teacher Credentialing and as a consultant to several states and national organizations on their teaching policy agendas. While at UC Santa Barbara Jon also served as an elected member of the CCTE Board of Directors and as a member of the Editorial Board for *Teacher Education Quarterly*.



Jon Snyder

### Education Deans to Meet at CCTE Fall 2016 Conference

Education deans from the California State University, University of California, and private independent college and university campuses across the state will meet again during the California Council on Teacher Education Fall 2016 Conference in San Diego. The deans' meeting is being planned by a special committee drawn from the three higher education sectors, and is being co-sponsored by CCTE and the Commission on Teacher Credentialing.

While specific plans for the meeting are still being developed, it is expected that it will be similar to last fall with a lunch on Wednesday, October 19, meetings that afternoon, attendance at the associated organization meetings on Thursday morning, October 20, and a working luncheon on Thursday prior to the start of the CCTE Conference.

Registration for the deans' meeting is available on the registration form for the CCTE Fall Conference, and can be paid by check or using the on-line registration form on the CCTE website.

### Update from ICCUCET

By **Christine Zeppos** *ICCUCET President Brandman University* 

The Independent California College and University Council on the Education of Teachers (ICCUCET) held its semi-annual general assembly meeting on March 31, 2016, at the Westin Sainte Claire Hotel in San Jose on the first day of the CCTE Spring Conference.

At the meeting, the membership received the results of a survey of high priority areas members feel ICCUCET should prioritize and focus on during the upcoming year. Those areas are: (1) Communication, dissemination, and advocacy of issues affecting California independent teacher preparation units; (2) Fostering professional development opportunities for faculty, staff, and leadership between institutions; and (3) Providing opportunities for networking and active communication between member institutions.

Erica Romero, AICCU Vice President of External Relations, and Dean Shane Martin, AICCU CTC Commissioner, and Diane Fogarty, ICCUCET AICCU Representative, provided legislative and Commission updates and highlights from recent meetings including the AICCU deans meeting.

The March 31 meeting concluded with CTC's Cheryl Hickey, Administrator of Accreditation, and Teri Clark, Director, sharing Commission updates, policy changes, and strengthening and streamlining implementation details as they are unfolding.

We are looking forward to seeing the ICCUCET membership at the Fall 2016 meeting in San Diego on October 20, again on the first day of the CCTE Conference.

# Tentative Fall 2016 CCTE Conference Program

#### Wednesday, October 19:

9:00 a.m. to 3:00 p.m. - Meeting of the California State University Field Coordinators Forum. 10:00 a.m. to 5:00 p.m. - Meeting of Board of Directors of the California Council on Teacher Education. Noon to 6:00 p.m. - Meeting of California Education Deans (starting with Luncheon). Thursday. October 20: 8:00 a.m. to 6:00 p.m. - Conference Registration & Exhibits Room Is Open. 8:00 a.m. to 9:30 a.m. - Meeting of the California Association of Bilingual Teacher Educators. 9:00 a.m. to 11:30 a.m. - Meeting of the California Association of Professors of Special Education/Teacher Education Division. 9:00 a.m. to 11:15 a.m. - Meeting of the Independent California Colleges and Universities Council on the Education of Teachers. 11:00 to 11:30 a.m. - Newcomers' Meeting (for first-time or recent new attendees). 11:15 a.m. to Noon - Pick up box lunches (for those who ordered them). 11:30 a.m. to 12:45 p.m. - Lunch Meeting of California Education Deans. 11:30 a.m. to 12:45 p.m. - First Set of Special Interest Groups: Arts & Education, Coordinators of Credential Programs, RAIN (Respect, Alliance, & Identity Network), Lives of Teachers, & Special Education. 12:45 to 1:00 p.m. - Break. 1:00 to 3:00 p.m. - Opening Session: Introductions with CCTE President Sharon Russell (CalStateTEACH) presiding. Conference Orientation by Jo Birdsell, Eric Engdahl, and Karen Lafferty, Co-Chairs of Fall Conference. Keynote Address by Jon Snyder (Stanford University). Response Panel of California Educators Involved in Collaborative Programs. 3:00 to 3:15 p.m. - Break. 3:15 to 4:15 p.m. - First Policy Session, featuring a conversation with California State Senator Carol Liu. 4:15 to 4:30 p.m. - Break. 4:30 to 5:45 p.m. - First Set of Concurrent Research and Practice Sessions. 5:45 to 6:00 p.m. - Break. 6:00 to 7:00 p.m. - Joint Presidents' Reception & Social Hour Sponsored by CABTE, CAPSE, ICCUCET, & CCTE. 7:00 to 9:00 p.m. - Conference Banquet featuring educators from Sweetwater Union High School District speaking about a local collaborative effort, followed by Songfest. Friday, October 21: 7:30 to 8:30 a.m. - Teacher Education Quarterly Editorial Board Meeting. 7:30 to 8:30 a.m. - Issues in Teacher Education Editorial Board Meeting. 8:00 a.m. to 6:00 p.m. - Conference Registration and Exhibits Room Is Open. 8:00 to 8:30 a.m. - Coffee, tea, juices, and pastries. 8:30 to 11:45 a.m., - Morning Session featuring Lena Rodriguez (National University) and other presenters, with Jon Snyder as respondent Opportunty for table conversations and dialogue around conference theme. 11:45 a.m. to Noon - Break. Noon to 1:30 p.m. - Conference Luncheon. 1:30 to 1:45 p.m. - Break 1:45 to 3:00 p.m. - Second Set of Concurrent Research Session. 1:45 to 3:00 p.m. - Special Program for Graduate Student Caucus (all students welcome). 3:00 to 3:15 p.m. - Break. 3:15 to 4:15 p.m. - Second Policy Session, featuring presentations by the CCTE Policy Committee and the Commission on Teacher Credentialing. 4:15 to 4:30 p.m. - Break. 4:15 to 5:30 p.m. - Second Set of Special Interest Groups: BTSA & Induction; Equity and Social Justice, Pedagogies for College and Career Readiness, Technology and Teacher Education, & Undergraduate Teacher Preparation. 5:30 to 5:45 p.m. - Break.

5:45 to 7:45 p.m. - Poster Session for Research and Practice Topics, with wine and cheese.

Saturday, October 22:

8:00 a.m. to noon - Conference Registration.

8:00 to 9:00 a.m. - Coffee, tea, juice, and pastries.

9:00 to 10:15 a.m. - CCTE Quest Institute featuring research reports, comments from mentors, and discussion of implications.

10:15 to 10:30 a.m. - Break.

10:30 to 11:45 a.m. - Interactive discussion featuring representatives of all CCTE SIGs and Associated Organizations, providing comments on their sessions at Conference and goals for the future involving collaboration and partnerships.

11:45 a.m. to Noon - Closing session with conference summary and brief preview of Spring 2017 Conference.

Noon - Adjournment.

California Council on Teacher B	Education Fall 2016 Conference Registration
	TE Conference and return by mail with payment by check; form in the "Conferences" page of the CCTE website (www.ccte.org).
Name	
Preferred Mailing Address	
Telephone	(include ZIP code)
E-Mail	—
Institutional Affiliation	
Registration Category (check the appropriate one): Basic Pre-Registration - \$275 (will be \$300 o Special for First-Time Registrants - \$175 (will Special for Retired Educators - \$150 (will be Special for P-12 Educators - \$150 (will be \$1 Special for Students - \$50 (will be \$75 on site Special for 4 or more registrants from the same	ll be \$200 on site) \$175 on site) 75 on site)
<ul> <li>Special Events (check those desired):</li> <li>Thursday SIG Time (includes box lunch) - \$2</li> <li>Thursday Evening Session (includes un-banq</li> <li>Friday Awards Session (includes luncheon) - 5</li> <li>Check here if you wish vegetarian options.</li> </ul>	uet buffet) - \$45
California State University Field Coordinators Forum Special Fee for Those Attending - \$25	n Meeting and Refreshments (Wednesday)
Meeting of California Education Deans (Wednesday Special Fee for Those Attending - \$125	Afternoon & Thursday Morning, including 2 lunches)
CABTE Meeting and Refreshments (Thursday morn Special Fee for Those Attending - \$25	ing)
CAPSE Meeting and Refreshments (Thursday morni Special Fee for Those Attending - \$25	
ICCUCET Continental Breakfast and Meeting (Thur Special Fee for Those Attending - \$25	rsday morning)
Total from above (please enclose check for this amount	unt payable to California Council on Teacher Education): \$
<ul> <li>SIGs meeting on Thursday:</li> <li>Arts in Education</li> <li>Credential Program Coordinators/Directors</li> <li>RAIN</li> <li>Lives of Teachers</li> <li>Special Education</li> </ul>	<ul> <li>G of their choosing during each time slot (check those you may attend):</li> <li>SIGs meeting on Friday:</li> <li>Equity and Social Justice</li> <li>BTSA and Induction</li> <li>Pedagogies for College and Career Readiness</li> <li>Technology and Teacher Education</li> <li>Undergraduate Teacher Preparation</li> </ul>
Please mail completed form with check payable to " Alan H. Jones, CCTE Executive Secretary, 3145	California Council on Teacher Education" to: 6 Geary Boulevard PMB 275, San Francisco, CA 94118

Pre-registration deadline is September 23, 2016. No refunds after that date. Registration after that date and on-site at the Conference will be available at the on-site rate. For on-line registration and payment via credit card, access the form on the "Conferencees" page of the CCTE website: www.ccte.org

# **Retrospective on CCTE Spring 2016 Conference** "Shared Goals, Shared Dreams: Teaching Students with Disabilities"

By Virginia Kennedy

Co-Chair of CCTE Spring 2016 Conference and CCTE President Elect California State University, Northridge

Inspiration and strength of purpose were in the air at CCTE's Spring 2016 Conference, entitled "Shared Goals, Shared Dreams: Teaching Students with Disabilities."

### Highlights

• The California State University Field Coordinators Forum, the California Association of Bilingual Teacher Education (CABTE), the California Association of Professors of Special Education/ Teacher Education Division (CAPSE/ TED), and the Independent California Colleges and Universities Council on the Education of Teachers (ICCUCET) met prior to the conference.

• Ten Special Interest Groups met during the Conference, as well as the CCTE Graduate Student Caucus.

• Special guests from AACTE Sungti Hsu (Director of State Affiliates and Partnership Support) and Mark LaCelle-Peterssn (Senior Vice President for Policy and Programs) participated in the conference.

• The opening session on Thursday featured the keynote presentation by Dr. Marleen Pugach on "Imagining the Next Generation of Teacher Education for Inclusion." Dr. Pugach spoke of building robust PK-12 collaborations for preparing all educators for inclusion, and envisioning teacher education as a professional learning community. Her proposed Checklist for Teacher Education for Inclusion Program Redesign provided stimulus and direction.

• The response panel of California teacher educators from the CEEDAR programs (Collaboration for Effective Educator Development, Accountability, and Reform) described the innovations being made at their campuses.

• Two Policy Sessions were held during the Conference, the first featuring legislative news from CCTE's Policy Committee and updates from the Commission on Teacher Credentialing. The second on Friday served as the inaugural focus group for the CTC Validation Study of the draft TPE's (Teaching Performance Expectations), gathering feedback about their applicability to general education and special education teachers as part of a "common trunk" of preparation for all teachers.

• The Concurrent Research and Practice Sessions on Thursday and Friday were comprised of nine very interesting presentations, many directly related to the theme of the conference. • The Research and Practice Interactive Poster Session on Friday late afternoon and early evening showcased 27 posters on a wide range of projects and research, accompanied by refreshments.

• Friday morning featured Scot Danforth's (Chapman University) talk on "Provocative Notions about Disability and Inclusion: Pushing the Teacher Education Agenda Forward" followed by a panel on "High Quality Access for All" moderated by Lou Denti (California State University Monterey Bay) that involved the inclusion perspectives of Matt Navo, Superintendent of Saugus Unified School District and Dr. Dorothy Raab and her son, Eric.

• Saturday morning's program focused on research and innovative resources in educator preparation. Several of CCTE's Quest for Teacher Education Research participants reported on their research studies. The IRIS Center had everyone on their devices, exploring all the teacher education curriculum materials and program development components available on their website. A presentation by Dr. Sally Spencer on the TeachLive teaching simulation program completed the Saturday program.

### CCTE Planning a Move to Sacramento for Spring 2017 Semi-Annual Conference

As indicated in Sharon Russell's "Message from the President" (see pages 2-3), the California Council on Teacher Education is currently planning a move of our Spring 2017 Confernce to Sacramento. The primary motivation for such a move is to have greater proximity to state government in order to enhance our policy-related activities, while a secondary goal is to attempt some new approaches to our semi-annual conferences while reducing costs if possible.

A survey has been e-mailed to all CCTE delegates and members seeking input on several questions related to the move to Sacramento, and all of you are urged to respond so that the CCTE officers and Board of Directors will know the membership's desires as further planning takes place.

The dates and specific location in Sacramento of the Spring 2017 Conference are also still at the planning stage and the membership will be informed as soon as those arrangements are made.

The Conference Planning Committee's co-chairs for the Spring 2017 event are Cindy Grutzik of California State University, Long Beach, Karen Lafferty of San Diego State University and Claremont Graduate University, and Pia Wong of California State University, Sacramento. If you are interested in serving on the planning committee please let CCTE Executive Secretary Alan Jones know.



**CCNews** 

### Newsletter of the California Council on Teacher Education

Volume 27, Number 2, Summer Issue, June 2016, Section 3 Jo Birdsell, Editor (National University) Prepared for CCTE by Caddo Gap Press, 3145 Geary Boulevard, PMB 275, San Francisco, CA 94118

# CCTE New Faculty Support Program Invites Applications

Each academic year the California Council on Teacher Education (CCTE) will, through its New Faculty Support Program, assist new faculty to become CCTE members, to attend CCTE semi-annual conferences, and to receive mentorship about the teacher education community from experienced members of the CCTE organization.

For purposes of this support program, a new faculty member is defined as a person who is in the first five years of employment as a teacher educator at a CCTE member institution and who has not previously received support from the CCTE New Faculty Support Program. The purpose of the program is for new faculty to become a member and a participant in CCTE during any membership year, which run from July 1 through June 30. We are currently seeking participants for the 2016-2017 academic year.

Applications and nominations are encouraged from or on behalf of new faculty, and those who are selected for the program will receive the following benefits and will commit to the associated responsibilities:

Participants in this program will receive a CCTE individual membership for the 2016-2017 year at a 50% discount, so that the individual dues are reduced to \$60.

Participants in this program will attend at least one CCTE Conference during the year and the registration fee will be discounted 50%. Participants will be responsible for all other costs involved in attending the Conference.

Participants will submit a proposal for a research or poster session at the Conference they decide to attend.

Participants will each be linked with CCTE veterans who will meet with and mentor the participants prior to and at the Conference.

To be considered for this program, please use the application/nomination form on the following page.

### **CCNews Call for Articles and News**

*CCNews* continues to evolve with the inclusion of sections that feature CCTE news, semi-annual conferences, organizational activities, reports from the field, and other brief articles. The goal continues to be to create a forum for CCTE members to share information and celebrate our successes.

We are also encouraging all SIG chairs and concurrent session and poster session presenters at CCTE semi-annual conferences to write about their sessions and presentations for the newsletter. Just e-mail your submissions as an attachment to the editor:

### jbirdsell@nu.edu

The deadline for materials for the Fall 2016 issue is August15.

-Jo Birdsell, National University, Editor of CCNews

### Application or Nomination Form for Support from the CCTE New\* Faculty Grant Fund for the 2016-2017 CCTE Membership Year

The purpose of the CCTE New Faculty Support Program is to provide support for new faculty and to encourage them to become members and participants in CCTE. The organization is currently seeking interested participants for the upcoming membership year, which runs from July 1 through June 30.

\* For this special support program, a new faculty member is defined as a person who is in the first five years of employment as a teacher educator at a CCTE member institution and who has not previously received support from this program.

Please complete all information as requested below				
Name of New Faculty Member:				
College, University, or Other Place of Employment:				
School or Department Affiliation:				
Preferred Mailing Address:				
Telephone Number:				
E-mail Address:				
Please sign below indicating that you are applying to: A have your CCTE individual membership fee for a year				

Please sign below indicating that you are applying to:  $\diamond$  have your CCTE individual membership fee for a year reduced by 50%;  $\diamond$  that you will attend at least one CCTE Conference during the year for which your registration will be reduced by 50%;  $\diamond$  that you will be responsible for your other costs in attending that Conference;  $\diamond$  that you will submit a proposal for a research or poster session at the Conference you decide to attend;  $\diamond$  and that you will be assigned to a CCTE veteran who will meet with and mentor you at that Conference. Your signature here will commit you to fulfilling the above if you are granted support from the CCTE New Faculty Grant Fund.

New Faculty Member's Signature:

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

Please mail completed and signed form to: Alan H. Jones, CCTE Executive Secretary 3145 Geary Boulevard PMB 275, San Francisco, CA 94118

Applications may be submitted at any time.

### Page 19

### CCTE Seeking Applications for Graduate Student Support Program for 2016-2017

Graduate students at any CCTE member institution interested in the field of teacher education are encouraged to apply for support from the CCTE Graduate Student Program for the upcoming academic year.

The CCTE Graduate Student Support Program has been established to provide financial assistance to encourage greater involvement of graduate students in CCTE activities. The program operatyes along the following guidelines:

1. Each year the opportunity to apply for support from the CCTE Graduate Student Fund is disseminated to all CCTE members and delegates, with the request that such information be shared with graduate students at all institutional member campuses. Applications will be accepted at any time throughout the membership year until all available and appropriate awards have been made.

2. Students seeking support from the CCTE Graduate Student Fund will submit their application to the CCTE Executive Secretary, accompanied by an endorsement from their graduate advisor. In making application the student will commit to attending one of the CCTE semi-annual Conferences during the coming year and submitting a proposal for a research or poster session at that conference.

3. The only limitations on students wishing to make application are that they be doctoral or masters candidates at a CCTE member institution, that they are considering the field of teacher education as a career goal, and that they be endorsed by a faculty advisor on their campus. An application form follows on the next page of this newsletter. Students will be asked to indicate their graduate field of concentration, the degree they are pursuing, and the expected date when they will complete that degree.

4. To the extent that money is available each year from the CCTE Graduate Student Fund, applicants will be awarded the following benefits: (a) The applicant will become a CCTE student member for the year, with 50% of the \$60 membership dues waived; and (b) The student registration fee for the Conference the applicant chooses to attend will be reduced 50%. Other expenses related to attending the Conference will remain the responsibility of the student. In years when more students apply than there are funds available for support in the CCTE Graduate Student Fund, priority will be given to doctoral students over masters students, and additional preferences will be based on how close students are to completing their degree program.

5. No more than five students will be awarded per year from any given institution, again with preferences among applicants based on level of degree sought and closeness to completion of their degree programs. The limit of five students per institution may be waived if there are not enough applicants from other institutions to fill the number of awards available from the Fund in any given year.

6. It is not guaranteed that all of the Conference research or poster proposals submitted by recipients of CCTE Graduate Student Fund awards will be accepted, but all participants in the program will still be committed to attend the Conference of their choice even if their proposal is rejected. However, it is assumed that most if not all graduate students will be submitting proposals that meet the expectations of the CCTE Research Committee for inclusion in the Conference poster session, and the Research Committee is asked to make every effort to include all proposals from awarded graduate students in the relevant poster session.

Please use the form on the following page to submit a nomination/application for participation in the CCTE Graduate Student Program.

	Please complete all information as requested below
Name of Graduate S	Student Applicant:
Preferred Mailing A	ddress:
Telephone Number:	
E-mail Address: —	
College or Universit	ty Where You Are a Graduate Student:
Graduate Field of St	udy:
Degree You Are Purs	suing:
Expected Date When	n You Will Receive Degree:
that you will attend a by 50%, that you will a proposal for a post	dicating that you are applying to have your CCTE student membership fee reduced by 50%, at least one CCTE Conference during the next year for which your registration will be reduce ll be responsible for your other costs in attending that Conference, and that you will submit ter session at the Conference you decide to attend. Your signature here will commit you to f you are granted support from the CCTE Graduate Student Fund.
Student's Signature:	
Date:	
Date:	Endorsement by Faculty Advisor
Name of Faculty Ad	Endorsement by Faculty Advisor
Name of Faculty Ad Telephone Number:	Endorsement by Faculty Advisor
Name of Faculty Ad Telephone Number: E-mail Address:	Endorsement by Faculty Advisor
Name of Faculty Ad Telephone Number: E-mail Address: Signature of Faculty Student Fund:	Endorsement by Faculty Advisor
Name of Faculty Ad Telephone Number: E-mail Address: Signature of Faculty Student Fund: Faculty Signature: _	Endorsement by Faculty Advisor  visor (please print):
Name of Faculty Ad Telephone Number: E-mail Address: Signature of Faculty Student Fund:	Endorsement by Faculty Advisor  visor (please print):

### New Participants Invited for the CCTE Quest for Teacher Education Research for 2016-2017 Year

With support from a State Chapter Grant from the American Association of Colleges for Teacher Education, the California Council on Teacher Education first embarked on the "Quest for Teacher Education Research" during the 2014-2015 academic year. CCTE originally issued a call in the summer of 2014 for proposals for the Quest, and the response was excellent, as we had 37 participating studies involving 85 individual researchers from 32 different college and university campuses, two government agencies, one school district, and one county office of education during that first year. Each of the projects also received guidance from a mentor appointed by CCTE.

Those initial Quest studies proceeded during the 2014-2015 year, with each study submitting an initial interim report that December, most of the studies participating in a special institute on the Saturday of the Spring 2015 CCTE Conference, and all studies submitting either a final report or additional interim report in May of 2015. Some of the studies then continued into the 2015-2016 year, while others were completed at the end of the 2014-2015 academic year.

In addition to the continuation of some of the original Quest projects into the 2015-2016 academic year, a call was issued in the summer of 2015 for new studies ultimately a total of 42 research studies were involved during the 2015-2016 year.

All of the studies during the first two years of Quest have been asked to provide brief reports, many of which have been published in recent issues of *CCNews* to inform the membership of the research that has taken place. Several of those reports appeared in the Summer and Fall 2015 issues, another was published in the Winter 2015 issue, and yet another appeared in the Spring 2016 issue. It is anticipated that further such reports will appear in future issues of the newsletter. The researchers in each study are also being encouraged to prepare articles for submission to and consideration by either of the CCTE journals or other scholarly journals in the field, and the CCTE mentors assigned to the various studies are assisting with advice related to publication.

Once again some of the current Quest projects will extend into the 2016-2017 academic year, while an invitation is now open for new participants for the upcoming year. Any CCTE members, delegates, or friends at campuses which are institutional members of CCTE who have a research study related to teacher education either underway or about to begin are encouraged to submit a proposal to join the Quest. The benefits of involvement are several. Once again each participating study will be assigned an experienced CCTE researcher as a mentor, the researchers involved in each study will receive regular communications from CCTE, all of the participating researchers will be invited to attend and present at Quest institutes at the two CCTE semi-annual conferences during the year, and encouragement and advice will be given with respect to preparing a final research report on each study as well as developing a journal-quality article once the study is complete.

To participate in the CCTE Quest for Teacher Education Research, please e-mail a description of your research plans to CCTE Executive Secretary Alan H. Jones along with an indication that you wish to be included in our Quest efforts during the 2016-2017 year. The description should include the title of your study, the names and affiliations of the researchers involved, a paragraph outlining the purpose and anticipated methodology of the study, the expected timeframe for the research, and the potential contribution to practice and policy in teacher education that will result from the study. Please e-mail your information to:

alan.jones@ccte.org

### Be Sure to Check the CCTE Website Regularly

#### www.ccte.org

The CCTE website offers information and background on all of our activities. All delegates, members, and friends of the organization are encouraged to visit the site regularly. You will find news, announcements, membership information, previews and retrospectives on our semi-annual conferences, policy updates, and invitations for participation in such programs as the CCTE New Faculty Support Program, CCTE Graduate Student Support Program, and the CCTE Quest for Teacher Education Research. The latest feature of the website is a listing of teacher education position openings and special events at our member institutions. Be sure to check it all out regularly.

# Announcing the CCTE 2016 Outstanding Dissertation Award Competition

The California Council on Teacher Education has since 2012 offered an award to honor authors of outstanding doctoral dissertations in the field of teacher education. The deadline for nominations for the award in 2016 is August 1. Following are specifics related to this award:

(1) CCTE has established the annual "CCTE Outstanding Dissertation Award" to recognize the authors of dissertations in the field of teacher education which have been accepted for the doctoral degree at a member institution of CCTE.

(2) This award will be made annually (when appropriate) as part of the CCTE awards luncheon at the Fall Conference.

(3) A special sub-committee of the CCTE Awards Committee has been created to review nominations for this award and to make an annual selection, with the understanding that such selection will be made only if the sub-committee views a nomination to be worthy of the award. Members of the sub-committee are faculty at doctoral granting institutions in California who work with candidates for doctoral degrees related to the teacher education field.

(4) The criteria for the award include: (a) the dissertation must have been prepared at a member institution of CCTE; (b) the dissertation must have resulted in the awarding of a doctoral degree during the most recent academic year (i.e., for an award at the Fall 2016 Conference, the degree would have been awarded during the 2015-2016 academic year); (c) the dissertation must be nominated for the award by a faculty member at a CCTE member institution; (d) the author of the dissertation must be or must become a paid student member of CCTE; (e) the topic of the dissertation must be directly related to teacher education; and (f) the dissertation must be of such potential quality that it may be considered by the subcommittee to be a significant contribution to the knowledge base of teacher education.

(5) The current nomination deadline is August 1, 2016. Those nominations received will be reviewed for potential selection of an awardee at the Fall 2016 Conference. Similar annual deadlines will occur on August 1 of each future year, again with potential presentations at the Fall Conference each year.

(6) Nominations for the award are to be made via e-mail with the following attachments: (a) a cover letter from the faculty member making the nomination with background information on the author and dissertation topic, including a rationale of why the dissertation meets the above award criteria, and (b) the full dissertation text as a Word file. Nominations are to be submitted to Alan H. Jones, CCTE Executive Secretary, by e-mail at: alan.jones@ccte.org.

(7) Each recipient of the award will be honored at a CCTE Conference awards luncheon, will be reported on in the next issue of *CCNews* following the Conference, will be offered the opportunity to present information about the dissertation during one of the research presentation or poster session slots at the Conference when the award is presented, and will receive an award plaque from CCTE. The faculty member who served as adviser and chair for the dissertation will also be recognized by CCTE at the awards luncheon.



### Newsletter of the California Council on Teacher Education

Volume 27, Number 2, Summer Issue, June 2016, Section 4 Jo Birdsell, Editor (National University) Prepared for CCTE by Caddo Gap Press, 3145 Geary Boulevard, PMB 275, San Francisco, CA 94118

# Reports on Presentations from CCTE Research and Poster Sessions

Presenters at concurrent research sessions and the poster session at each California Council on Teacher Education semi-annual conference are invited to prepare reports or articles for inclusion in *CCNews* as a way to share their information more widely with the CCTE membership.

On the following pages are three articles:

**CCNews** 

"What's Missing? Understanding Best Practices When Teaching Students with Disabilities" by Carolyn Lindstrom, Brandman University A poster presentation at the Spring 2016 CCTE Conference. (see pages 25-29)

"Influences of Co-Teaching in Student Teaching on Pre-Service Teachers' Teacher Efficacy" by Robin Perry, Fresno Pacific University A poster presentation at the Spring 2016 CCTE Conference. (see pages 30-33)

"SmartPens: Assistive, But Not Intuitive, Technology" by Ben Seipel & Tal Slemrod, California State University, Chico A concurrent presentation at the Spring 2016 CCTE Conference. (see pages 34-37)

Other reports and articles will appear in future issues of the newsletter.

Page 25

### What's Missing? Understanding Best Practices When Teaching Students with Disabilities

By Carolyn Lindstrom Brandman University

#### Abstract

A study of Title 1 schools in Southern California was conducted in 2014 to determine if best practices in instruction and/or inclusion contributed to schools exiting Program Improvement in 2012-2013. The results of the research were not expected. Instead of determining which best practices teachers implemented, the research showed not all teachers were aware of the best practices nor how to implement them when instructing students with disabilities. Therefore, the research presented will highlight what the best practices are and explain what actions need to be taken so teachers can teach all students effectively.

### **History of Special Education**

From the 1960s through 2000s, a series of laws were enacted to improve the quality of education for all students, including students with disabilities. In 1965, Lyndon B. Johnson signed the *Elementary and Secondary Education Act*, which provided federal funding for primary education in public schools. Special education advocates saw this as a way to expand education to students with disabilities. Using the Supreme Court case *Brown v. Board of Education* as a catalyst for equality, these advocates pushed for less segregation and more integration of all students (Winzer, 2006).

In 1975, federal law PL 94–142, the *Education for All Handicapped Children Act* (EAHCA) was passed. This law guaranteed free and appropriate education for all students, including students with disabilities. The law stated that students with disabilities should be taught in the least restrictive environment. Then in 1997, "...the EAHCA was reauthorized as the *Individuals with Disabilities Education Act* (IDEA), which stated that students with disabilities should have access to the general education curriculum" (Donavan, 2011, p. 3). With this reauthorization, a new standard of academic achievement was required for students with disabilities.

The reauthorization came on the heels of new California State Content Standards and the requirement that all students be assessed every year, with each school district reporting student achievement, by school ranking, using Adequate Yearly Progress (AYP). Schools were also required to monitor student progress through the administration of California Standards Tests (CST). Given these new requirements, when *No Child Left Behind* (NCLB) was signed into law in 2002, it was considered the next major boost to special education.

#### **Overview of Study**

The issue addressed in the study focused on No Child Left Behind Act of 2001 (NCLB). The purpose of NLCB was to "...demand an increase in the quality of education in America's public schools as determined by yearly assessments of student progress" (Rentschler, 2006, p. 637). At the core of the issue was NCLB requiring all students be proficient in English and math, as demonstrated by state assessment and accountability tests, by the year 2014, including the subgroup of students with disabilities. If any subgroup within a school could not meet proficiency, the school was classified as "in need of improvement" or after continuous attempts, deemed a failure (Allbritten, Mainzer, & Ziegler, Winter 2004). Many schools, especially schools with subgroup of students with disabilities, failed to meet minimum requirements that showed their students were academically proficient and were placed in Program Improvement.

Schools with a subgroup of students with disabilities were more likely to miss their target goals for Adequate Yearly Progress (AYP) and therefore fell into Program Improvement status (Rentschler, 2006). In 2012, only 11 percent of schools, with the subgroup of students with disabilities, met their federal AYP benchmark goal (Ehlers, 2013).

Given students with disabilities begin school at least one to two years behind their general education peers academically, there was a question of how schools made gains in AYP, or exit Program Improvement, with this subgroup. By looking at elementary schools, with a subgroup of students with disabilities, that had exited Program Improvement, one might be able to determine which instructional strategies and inclusionary practices worked best for this subgroup, as well as promote academic success to allow the students to achieve proficiency.

#### **Purpose Statement**

The purpose of this mixed methods study was to identify which instructional strategies and/or inclusionary practices Special Education teachers implemented when teaching students with disabilities. The study was to determine if these strategies/practices contributed to a school exiting Program Improvement.

#### **Research Questions**

What best instructional practices are reported in research for students with disabilities?

What instructional practices are used by Special Education teachers when teaching students with disabilities?

-continued on next page-

### (continued)

What best inclusionary practices are reported in research for students with disabilities?

What inclusionary practices are used by Special Education teachers when teaching students with disabilities?

#### **Population and Sample**

The study population was K-8 special education teachers, in elementary schools, from four Southern California coungties, designated Title 1, with subgroup of students with disabilities, and identified as either in Program Improvement (PI) or had exited Program Improvement in the 2012-2013 school year.

### Instrumentation

The instrument, or survey, was delivered using an online format. Special Education teachers from randomly selected school sites within the study population were identified to take the survey. The survey contained 29 questions. Five teachers volunteered for phone interviews for clarification of responses. There were two groups identified for the study teachers at schools that had exited Program Improvement in 2012-2013 (Group B) and teachers from schools that did not exit Program Improvement in 2012-2013 (Group A). The two groups of teachers received the same survey with the same set of questions.

#### Major Findings

What best instructional strategies are reported in research for students with disabilities?

Based on current educational research, there were seven instructional strategies determined to be the most effective when teaching students with disabilities. These were Universal Design for Learning, Differentiated Instruction, Formative Assessment, Co-Teaching/Cooperative Teaching, Cooperative Learning, Peer Tutoring, and Technology.

What instructional strategies are used by Special Education teachers when teaching students with disabilities?

Special Education teachers were surveyed to determine if they implemented the identified instructional strategies when teaching students with disabilities. The survey asked teachers to rate how often they implemented the instructional strategy on a Likert scale 1-6; 1 being "Never" to 6 being "All the time." For each instructional strategy, a definition was provided for teachers to have a common understanding of the term in the question. By providing the definitions, all teachers had the same background of information provided to them. This was to lessen the possibility of misunderstanding or misinterpreting the strategies. The survey results indicated that some teachers did misinterpret the definitions given or already had a preconceived understanding of the strategy, affecting the way they responded to the questions. Although each strategy was reportedly implemented, the scaled responses did not correlate to the open-ended answers given at the end of the survey. Nor did the results coincide with best practices identified in the research.

For example, Universal Design for Learning (UDL) was stated as the most effective means of providing access to general education curriculum for students with disabilities (Rose, 2014). In the survey, both groups reported implementing UDL, however, in the open-response answers, not one teacher, from either group, reported implementing UDL.

There were answers reflecting differentiated instruction, or modification of curriculum, but not a specific reference to UDL. UDL was never referenced as a teaching strategy. Yet, in the interview questions, three of the five teachers interviewed responded they were aware of the three principles of UDL and implemented the principles. Yet, when probed further, three of the five teachers, in the phone interviews, explained they did not implement all the principles to each student consistently. This example reflects the inconsistency of implementation of UDL and the teachers misunderstanding of the strategy entirely.

This result was the same for Formative Assessment. The survey results showed that it was implemented 100% of the time, yet the open-responses did not provide a mention of Formative Assessment as an instructional strategy. In the interviews, four of five teachers acknowledged being aware of the strategy, however they responded they were not consistent with the implementation. Therefore, with survey responses so high and interview questions being inconsistent, the data indicates that there was a misunderstanding of either what Formative Assessment was or how to implement it properly.

This pattern of inconsistency continued with three more strategies. Co-Teaching, according to the survey, indicated Group B (teachers at schools that had exited Program Improvement in 2012-2013) was more inclined to implement this strategy than Group A. However, Group A identified more opportunities of Co-Teaching in the open-responses. The survey responses for Co-Teaching were in contrast to the interview questions which had four of the five teachers responding they did not participate in Co-Teaching. One teacher identified a particular type of Co-teaching, Parallel Teaching, but the other four stated they were either not supported or did not have time for planning with other teachers. With such a contrast in answers, the data indicates that teach-

—continued on next page—

#### (continued)

ers either think they are participating in a form of Co-Teaching when they are not, or they are willing to participate and are unable due to either having no support, no planning time or not understanding how to implement Co-Teaching.

The findings for implementation of Cooperative Learning were consistent with two of the data collection strategies. The survey results and the interviews indicated both groups were equal in their implementation. In the interviews, four of the five teachers indicated they did implement Cooperative Learning in their classrooms, and were able to identify specific forms for Cooperative Learning. However, Cooperative Learning was not mentioned by any teacher in the Open Response section when asked about additional instructional strategies. This could indicate that, although teachers implement this strategy in their classroom, it is not considered an instructional strategy for students with disabilities, but more of a peer interaction strategy utilized in the classroom.

Peer Tutoring was another strategy where the findings differed between the groups. The survey results showed equal implementation between the groups. However, in the open-response section, only one teacher in Group A indicated implementing Peer Tutoring, yet referring to "peer buddies" and "a 6th grade requirement." Two teachers in Group B referred to "book buddies." This is consistent with the interview questions, which had two teachers responding YES and three responding NO to implementing. Given the inconsistency of answers within the different data collection strategies, it is clear that teachers have different interpretations of Peer Tutoring and therefore, may not have a clear understanding of what or how to implement it as an instructional strategy for students with disabilities.

The results for Technology as an instructional strategy were consistent in both groups. In the survey and interview, it was clear that teachers understood the purpose of using technology by both students and teachers to gain access to the curriculum. In the open-responses, technology was not specifically stated, but many of the forms of curriculum mentioned required use of technology to access it, so it can be concluded that technology was used in the class for instructional purposes and therefore consistent with the other forms of data collection.

The data regarding Differentiated Instruction showed the two groups to be statistically equal in implementation and was the only instructional strategy mentioned in the survey that was also mentioned in the open-response section. All five teachers interviewed reported implementing Differentiated Instruction on a consistent basis. These three forms of data collection indicate a clear understanding of Differentiated Instruction by teachers and its benefit when teaching students with disabilities. What best inclusionary practices are reported in research for students with disabilities?

Based on current educational research, there are 5 inclusionary practices that are best when teaching students with disabilities. These inclusionary practices are Full Inclusion, Mainstreaming, Integration, Pull-Out/Resource and Self-Contained/SDC classes.

What inclusionary practices are used by Special Education teachers when teaching students with disabilities?

Special Education teachers were surveyed to determine if they implemented the identified inclusionary practices when teaching students with disabilities. For each inclusionary practice, a definition was provided for teachers to have a common understanding of the term in the question.

When surveyed on the implementation of Full Inclusion, the two groups differed in their results. Group A reported implementing it *some of the time* and Group B reported implementing it *hardly ever*. This result coincides with the open-response questions. Group A reported many students being included in general education for most or part of the day. These students were from general education classes and being pulled out for Resource, but also, students from the SDC classes were being included in general education classes for some portion of the academic day. Some were partially included for a class or two, or minutes in a day. Yet, a few schools did report students being fully included all day. Group B however, had limited responses addressing Inclusion. One response stated that none of their students participated in Full Inclusion.

The interviews confirmed the inconsistent implementation of Full Inclusion. Of the five teachers interviewed, three said they did not implement Full Inclusion. This coincides with the survey findings and the data indicates that although there is an attempt to implement Full Inclusion, teachers were not implementing as defined due to lack of understanding of practice or insufficient support from other teachers or administration. Partially implemented Full Inclusion is not an accurate implementation of the practice, which indicates teachers did not understand the term as defined in the survey.

For Mainstreaming, the survey results also indicated that Group A was more likely to implement this than Group B. The open-responses supported this finding. Some of the responses, however, described Mainstreaming as either Full Inclusion or Integration. In contrast, the interviews showed that all teachers implemented Mainstreaming appropriately. Therefore, again, there is a misunderstanding of the correct definition of Mainstreaming.

The findings for Integration revealed a contrasting result. The survey results revealed that Group B was more inclined

### (continued)

to implement Integration than Group A. However, these results did not coincide with the open-response questions or the interview responses. The open-response answers revealed Group A was more invested in Integration on their campuses, and identified greater means of integrating students with disabilities into the general education classroom. Group B, although stating that Integration took place on their campuses, did not reveal an acceptance to this practice as much as Group A. However, the interview answers showed that both groups implemented Integration appropriately and consistently.

As for the findings for Pull-Out/Resource, the survey results shifted the trend with Group B being more likely to implement Pull-Out/Resource practices than Group A. However, the difference was only in how often to implement the practice. The open-response questions revealed that students were frequently pulled out from general education classes for intervention or SAI purposes.

The final practice, SDC/Self-Contained classrooms, was shown to be implemented by Group B more than Group A within the survey. However, in the open-responses questions, again, Group A had a greater commitment to SDC/Self-Contained implementation than Group B. This is in contrast to the interview questions which revealed Group B to be implementing SDC/Self-Contained more often than Group A.

#### Conclusions

The purpose of this study was to determine what instructional strategies or inclusionary practices schools, with subgroups of students with disabilities, when implemented, allowed the schools to exit Program Improvement in the last full assessment school year, 2012-2013. Prior to the study, the hypothesis was that schools that had exited Program Improvement, with a subgroup of students with disabilities, would show evidence of successful implementation of some or all best practices of instructional strategies and/or inclusionary practices. The intent of this study was to validate this hypothesis. However, the study did not prove the hypothesis. What the study did determine was that teachers need professional development to understand and implement best practices of instructional strategies and inclusionary practices for students with disabilities."

Although given the definition in the survey, it became evident through this study that teachers do not have an accurate understanding of the different types of instructional strategies and inclusionary practices available. For students to be successful, teachers need to know what they are teaching. The study was conducted with the assumption that teachers would fully understand and be able to identify instructional strategies and inclusionary practices already occurring within their school sites. The results showed something different. Too many contradicting responses clearly indicated that teachers did not have a complete understanding of practices they are responsible for and are expected to implement when teaching students with disabilities.

The results from this study will benefit Institutions of Higher Education (IHEs) in recognizing the need for a variety of strategies and practices that are necessary when teaching students with disabilities. IHEs must ensure that teachers are provided adequate instruction, training and professional development opportunities to be able to understand the difference between strategies and curriculum implementation.

But more importantly, all educators must understand what these strategies and practices are and how they are to be implemented. There is great need for ongoing professional development, as well as opportunities for teachers to work together, general and special education teachers, in planning and collaboration, to be able to provide quality instruction for all students with disabilities. By working together, with a common, understood vocabulary, we can begin to provide learning opportunities for all student to achieve.

#### References

- A brief history of education. (2010). Retrieved from http://cblpi. org/ftp/School%20Choice/EdHistory.pdf
- Allbritten, D., Mainzer, R., & Ziegler, D. (Winter 2004). NCLB: Failed schools—or failed law? Will students with disabilities be scapegoats for school failures? *Educational Horizon*, 82(2), 153–160.
- Bremer, C. D., Clapper, A. T., Hitchcock, C., Hall, T., & Kachgal, M. (2002). Universal design, a strategy to support students' access to the general education curriculum. *Information Brief: Addressing Trends and Developments in Secondary Education and Transition*, 1(3), 1–4.
- Broderick, A., Mehta-Parekh, H., & Reid, D. K. (n.d.). Differentiating instruction for disabled students in inclusive classrooms. *Theory Into Practice*, 44(3).
- Browder, D. M. (2001). *Curriculum and assessment for students* with moderate and severe disabilities (p. 338). New York, NY: Guilford.
- Browder, D. M., & Cooper-Duffy, K. (2003). Evidence-based practice for students with severe disabilities and the requirement for accountability in "no child left behind." *The Journal of Special Education*, 37(3), 157-163.
- California Department of Education (2013). Adequate yearly progress school report. Los Angeles, CA: Sage. Retrieved from http://data1.cde.ca.gov/dataquest/
- Common Core Standards Initiative. (2014). *Application to students with disabilities*. Retrieved from http://www.corestandards.org/assets/application-to-students-with-disabilities.pdf
- Donavan, F., Director, E., & Greater Anaheim SELPA. (2011, Summer). Raising the bar for students with disabilities. *The Special EDge*, 24(3).
- Drew, M., Richard, & Zeigler, D. (Winter 2004). Will students

### (continued)

with disabilities be scapegoats for school failures? *Education Horizon*, *82*(2).

- Drolet, B., & Turner, D. (2010). *Building a bridge to success: From program improvement to excellence*. Baltimore, MD: Rowan & Littlefield Education.
- Eckes, S. & Swando, J. (2009). Special education subgroups under nclb: Issues to consider. *Teachers College Record*, 111(11).
- Edyburn, D. L. (Winter 2010). Would you recognize universal design for learning if you saw it? Ten propositions for new directions for the second decade of UDL. *Learning Disability Quarterly*, 33, 33–41.
- Ehlers, R. (2013, January 3). Overview of special education in California. Retrieved from http://www.lao.ca.gov/reports/2013/ edu/special-ed-primer/special-ed-primer-010313.aspx
- Huberman, M., & Parish, T. (2011). Lessons from California districts showing unusually strong academic performance for students in special education. San Francisco, CA: California Comprehensive Center at WestEd.
- Idol, L. (March/April 2006). Toward inclusion of special education students in general education; A program evaluation of eight schools. *Remedial and Special Education, 27*(2).
- Jimenez, T. C., & Victoria, L. (2007, Fall). Gaining access to general education: The promise of universal design for learning. *Issues in Teacher Education*, 16(2).
- Martin, P. C. (2011). Selecting one story and hiding others: How AYP chooses the portrayal of a school. *Current Issues in Education*, 14(1), 1–32.
- No Child Left Behind (NCLB) requirements for schools. (2013). Retrieved from http://www.greatschools.org/definition/nclb/ nclb.html
- Obiakor, F. E., Harris, M., Mutua, K., Rotatori, A., & Algozzine, B. (2012). Making inclusion work in general education classrooms. *Education and Treatment of Children*, 35(3).
- Odom, S., Brantslinger, E., Gersten, R., Horner, R. H., Thompson, B., & Harris, K. R. (2005). Research in special education: Scientific methods and evidence-based practices. *Exceptional*

Children, 71(2), 137-148.

- Rentschler, T. (2006). No Child Left Behind: Admirable goals, disastrous results. *Widener Law Review, 12*, 637–663.
- Rose, D., Meyer, A., & Gordon, D. (Winter-Spring 2014). Reflections: Universal design and the common core. *The Special EDge*, 27(2), 3–5.
- Shavelson, R. J., Young, D. B., Ayala, C. C., Brandon, P. R., Erin Marie Furtak, Maria Araceli Ruiz-Primo, & Tomita, M. K. (2008). On the impact of curriculum-embedded formative assessment on learning: A collaborative between curriculum and assessment developers. *Applied Measurement in Education*, 21.
- Simon, M., & Black, W. R. (2011). Differentiated accountability policy and school improvement plans: A look at professional development and inclusive practices for exceptional students. *International Journal of Special Education*, 26(2), 160-184.
- Smarick, A. (Winter 2010). The turnaround fallacy. *Education Next*, *10*(1).
- Steiner, L., & Emily Ayscue Hassel abd Bryan Hassel. (2008). School turnaround leaders: competencies for success, part of the school turnaround collection from public impact. *Public Impact*.
- Suzanne, E. E., & Swando, J. (2009). Special education subgroups under NCLB: Issues to consider. *Teacher College Record*, 11(11).
- Thurlow, M. L. (2012, Summer). The promise and the peril for students with disabilities. *The Special EDge, 25*(3).
- Winzer, M. A. (2006). Confronting difference: An excursion through the history of special education. *The SAGE Handbook for Special Education*, 21-33.
- Yell, M. L., Katisiyannas, A., & Shiner, J. G. (2006, March 11). The No Child Left Behind act, adequate yearly progress, and students with disabilities. Retrieved from http://www.redorbit. com/news/education/424129
- Zigmond, N. (2003a). Where should students with disabilities receive special education services? Is one place better than another? *The Journal of Special Education*, *37*(3), 193–199.

# Influences of Co-Teaching in Student Teaching on Pre-Service Teachers' Teacher Efficacy

### By **Robin K. Perry** Fresno Pacific University

The context and design of field experiences, specifically student teaching, are important factors in pre-service teacher learning and teaching practice (Clift & Brady, 2005; Darling-Hammond, 2006; Grossman, 2010; Hammerness & Darling-Hammond, 2005; Hollins & Guzman, 2005). In 2010, the National Council for Accreditation of Teacher Education (NCATE) called for "programs that are fully grounded in clinical practice and interwoven with academic content and professional courses" (p. ii). However, there is a lack of consensus regarding the characteristics of field experiences that have the greatest influence on a pre-service teacher's development (Ronfeldt, 2012).

The use of a co-teaching model of student teaching has been touted as a promising innovation in teacher education (Bacharach, Heck, & Dahlberg, 2008; Clarke, Triggs, & Nielsen, 2014; Grossman, 2010; Friend, Embury & Clarke, 2014; Urban Teacher Residency United, 2015). In a co-teaching model of student teaching, the cooperating teacher and student teacher plan and deliver instruction collaboratively throughout the duration of the field experience. The model emphasizes the development of a strong professional relationship between cooperating teacher and student teacher and the implementation of specific teaching strategies (Bacharach et al., 2008).

Initial studies of the co-teaching model of student teaching report positive outcomes for student teachers as well as increases in K-12 student achievement (Bacharach et al., 2008; Bacharach & Heck, 2012; Bacharach, Heck, & Dahlberg, 2010; Kamens, 2007). Co-teaching in student teaching has been reported to increase collaboration between cooperating teachers and student teachers, provide student teachers with more teaching opportunities, and better prepare student teachers for classroom management and instruction (Bacharach & Heck, 2012).

To date, studies on co-teaching in student teaching have been primarily qualitative case studies conducted by researchers at individual institutions that prepare teachers; limiting the generalization of findings. The outcomes for preservice teachers across teacher education programs have not been widely studied or reported. In addition, previous studies of the co-teaching model of student teaching have examined the model as a whole.

There has been little discussion of the variation of implementation of specific elements of co-teaching across field experience classrooms. There is a general need for more studies linking features of field experiences to observable outcomes for pre-service teachers (Ronfeldt & Reininger, 2012; Ronfeldt, Schwartz, & Jacob, 2014). Furthermore, additional research is needed to substantiate the co-teaching model of student teaching as an exemplary practice in teacher education program design.

The purpose of this study was to examine the relationship between elements of the co-teaching model of student teaching and teacher efficacy outcomes for student teachers. A series of research questions was used to determine the relationship between teacher efficacy outcomes for student teachers at the conclusion of their field experiences and the prevalence of elements of the co-teaching model during their field experience as reported by the student teachers.

### Theoretical Framework: Teacher Efficacy

Teacher efficacy served as the theoretical framework of the study. Theories of teacher efficacy grew out of Bandura's (1977) conceptualization of self-efficacy which theorizes that efficacy expectations are "a major determinant of people's choice of activities, how much effort they will expend, and of how long they will sustain effort in dealing with stressful situations" (p. 194). Teacher efficacy is thus defined as a teacher's beliefs in his or her capacity to affect student performance through selected, sustained efforts. "In assessing self-perceptions of teaching competence, the teacher judges personal capabilities such as skills, knowledge, strategies, or personality traits balanced against personal weaknesses or liabilities in this particular teaching context" (Tschannen-Moran, Woolfolk Hoy, & Hoy, 1998, p. 228).

Teacher efficacy has increasingly received attention in education research (Klassen, Tze, Betts, & Gordon, 2011; Kleinsasser, 2014). Research suggests that teacher efficacy positively affects a teacher's behaviors and influences student achievement and motivation (Klassen et al., 2011). Student teachers with a higher sense of efficacy have been found to do a better job presenting lessons, conducting discussions, and managing their classrooms as independent teachers; resulting in increased student learning (Bandura, 1997). Correlates between higher levels of teacher efficacy and increases in student performance as measured by standardized tests have been widely researched (Gibson & Dembo, 1984; Goddard, Hoy, & Woolfolk Hoy, 2000; Tschannen-Moran & Barr, 2004; Tschannen-Moran et al., 1998).

A positive association between teacher efficacy and pre-service teachers' commitment to the teaching profession has also been reported (Chesnut & Burley, 2015; Chesnut & Cullen, 2014). However, there has been less research on the sources of teacher efficacy than on the outcomes of it (Klassen et al., 2011; Kleinsasser, 2014; Moulding, Stewart, & Dunmeyer, 2014; Oh, 2011). The development of efficacy beliefs among pre-service teachers is of particular interest

—continued on next page—

### Page 31

# Influences of Co-Teaching in Student Teaching on Pre-Service Teachers' Teacher Efficacy

because once established efficacy beliefs are somewhat resistant to change (Woolfolk Hoy & Spero, 2005).

### Methodology

This quantitative study employed a nonexperimental, correlational design. Ten teacher education programs that have adopted a co-teaching model of student teaching in partnership with K-12 school districts in California agreed to participate. The sample (n=75) was comprised of student teachers from participating programs who voluntarily responded to an electronic survey. The subjects provided demographic information including gender, credential type (multiple subjects or single subject), and teacher education program. Results of a chi-square goodness of fit test supported the assumption that the sample was representative of the population of student teachers in California in terms of gender and type of credential program completed (public versus private).

Subjects completed a two-part survey. The co-teaching part of the survey consisted of 32-items adapted from Bacharach, Heck, and Dahlberg (2008) measured on a Likert-type scale. It measured the prevalence of the co-teaching model overall and with specific items addressing the elements of communication, relationship, classroom applications, and knowledge base as reported by the student teachers. The other part of the survey consisted of the Teacher Sense of Efficacy Scale (TSES) which measured perceived student teacher outcomes at or near the end of their student teaching experience. The TSES provided an overall score as well as scores for each of three subscales: student engagement, instructional strategies, and classroom management (Tschannen-Moran et al., 1998). The TSES instrument is widely used in teacher effectiveness research as it has been validated and found to be reliable when used to measure both in-service and pre-service teacher outcomes (Duffin, French, & Patrick, 2012; Kleinsasser, 2014).

A series of multiple regression analyses was conducted to investigate the nature of the relationship between teacher efficacy among student teachers and the elements of the coteaching model as delineated in the research questions. Assumptions of multiple regression statistical analysis were attended to using a series of diagnostic graphs and tests (Huck, 2012). Attention to internal and external validity strengthened the study's design. Limitations of the study include the use of a convenience sample and self-report data (McMillan & Schumacher, 2010).

### **Overview of Results**

Descriptive statistics for the co-teaching and teacher ef-

ficacy variables as well as statistical analyses in response to each research question were presented and interpreted. Mean scores for the co-teaching section of the survey indicate that the communication (M = 4.24, SD = .87) and relationship (M = 4.26, SD = .78) elements of the co-teaching model were more prevalent than the classroom applications (M =3.77, SD = .89) and knowledge base (M = 3.72, SD = .89) elements within the subjects' student teaching experiences. On average, subjects agreed with the statements regarding the co-teaching model of student teaching with a score of 3.99 on a 5-point scale. The mean total TSES score was 7.50 (SD = 1.07) out of 9, where a rating of seven meant subjects thought they could influence the given teaching situation quite a bit. Higher levels of efficacy in instructional strategies (M = 7.71) than efficacy in classroom management (M= 7.46) and efficacy in student engagement (M = 7.32) were found among student teachers in the sample.

Twenty-four multiple regression statistical tests were conducted to respond to all parts of the research questions. A positive and statistically significant relationship between teacher efficacy overall, efficacy in student engagement, efficacy in instructional strategies, and efficacy in classroom management and the co-teaching model of student teaching, after controlling for gender and credential program, was found. Co-teaching had a greater effect on the teacher efficacy outcomes than did either of the control variables on its own that were included in the models. Apart from the variance explained by gender and credential program, co-teaching (based on the overall score) accounted for variance in teacher efficacy outcomes ranging from 15% to 20%.

Similar associations between the communication, relationship, and classroom applications elements of the coteaching model of student teaching and teacher efficacy overall, efficacy in student engagement, efficacy in instructional strategies, and efficacy in classroom management were found with co-teaching elements accounting for 11% to 23% of the variance in teacher efficacy outcomes with two exceptions. The knowledge base element of co-teaching did not have a significant effect on efficacy in classroom management and accounted for only 7% of the variance in efficacy in classroom management, apart from other variables in the model. A summary of the results is presented in Table 1.

### Discussion

Two lines of inquiry in the field of teacher education are informed by this study. First, the study provides a description of practice and related outcomes for pre-service teachers in field experiences where the co-teaching model of student

-continued on next page-

# Influences of Co-Teaching in Student Teaching on Pre-Service Teachers' Teacher Efficacy

### (continued)

teaching has been implemented across ten teacher education programs in California. This description of practice can inform university-based teacher education programs and their school-based partners as they seek to educate cooperating teachers, student teachers, and university faculty about the co-teaching model of student teaching. Moreover, a cross-program description of the co-teaching model of student teaching provides a common language and approach for teacher educators who seek to focus on practice within the field experience context as a centerpiece of learning to teach. Second, the study identifies the relationship between sources of pre-service teacher efficacy and characteristics of field experiences. As the prevalence of co-teaching increased teacher efficacy increased. These results indicate that implementation of the co-teaching model of student teaching provides opportunities for student teachers to experience some of the sources that contribute to the development of efficacy beliefs among pre-service teachers.

The findings of this study substantiate teacher education policy makers' support for the co-teaching model of student teaching as a research-based approach to field experiences that enhance outcomes for pre-service teachers. Accrediting agencies are revising standards for field experience and are increasingly requiring teacher education programs to provide input and outcome data assessing pre-service teacher performance in clinical settings. The Co-Teaching in Student Teaching Survey and the results of this study could be used as a basis for comparison of the implementation of the co-teaching in student teaching model within and between teacher education programs. Individual programs could use results of the instrument to target areas for on-going professional development of faculty and cooperating teachers and to track changes in implementation over time for purposes of program evaluation and improvement. Research in the areas of (1) implementation and outcomes of the co-teaching model of student teaching and (2) sources of pre-service

teacher efficacy beliefs remain fertile ground for future inquiries. Policy makers and university faculty would benefit from a more complete description of the co-teaching model of student teaching as implemented across teacher education programs. Future teacher efficacy research can inform teacher educators about the sources of pre-service teacher efficacy and the contexts in which these beliefs are developed.

#### References

- Bacharach, N., Heck, T. W., & Dahlberg, K. (2008). What makes co-teaching work? Identifying the essential elements. *College Teaching Methods & Styles Journal*, 4(3), 43-48.
- Bacharach, N., Heck, T. W., & Dahlberg, K. (2010). Changing the face of student teaching through coteaching. *Action in Teacher Education*, 32(1), 3-14.
- Bandura, A. (1977). Self-efficacy: Toward a unifying theory of behavioral change. *Psychological Review*, 84, 191-215.
- Bandura, A. (1997). Self-efficacy: The exercise of control. New York, NY: W. H. Freeman and Company.
- Chesnut, S. R., & Burley, H. (2015). Self-efficacy as a predictor of commitment to the teaching profession: A meta-analysis. Educational Research Review, 15, 1-16.
- Chesnut, S. R., & Cullen, T. A. (2014). Effects of self-efficacy, emotional intelligence, and perceptions of future work environment on preservice teacher commitment. *The Teacher Educator*, 49(2), 116-132.
- Clarke, A., Triggs, V., & Nielsen, W. (2014). Cooperating teacher participation in teacher education: A review of the literature. *Review of Educational Research*, 84(2), 163-202.
- Clift, R., & Brady, P. (2005). Research on methods courses and field experiences. In M. Cochran-Smith & K. Zeichner (Eds.), *Studying teacher education: The report of the AERA panel on research and teacher education* (pp. 37-68). Washington, DC: American Educational Research Association.

—continued on next page—

#### Table I

Summary of the Squared Semipartial Correlations between Co-teaching Elements and Teacher Efficacy Outcomes Across Regression Models

	Teacher Efficacy Overall			Efficacy in Student Engagement		Efficacy in Instructional Strategies		Efficacy in Classroom Management	
	$\mathbb{R}^2$	sr <sup>2</sup>	$\mathbb{R}^2$	sr <sup>2</sup>	$\mathbb{R}^2$	sr <sup>2</sup>	$\mathbb{R}^2$	sr <sup>2</sup>	
Co-teaching Total	.47	.20	.43	.15	.41	.18	.45	.19	
Communication	.47	.20	.42	.14	.39	.16	.49	.23	
Relationship	.48	.21	.44	.16	.39	.15	.48	.23	
Classroom applications	.44	.17	.42	.14	.39	.15	.38	.15	
Knowledge base	.37	.09	.35	.07	.35	.11	.32 <sup>ns</sup>	.06 <sup>ns</sup>	

Notes: sr<sup>2</sup> indicates the proportion of the variation in the teacher efficacy outcome accounted for by the co-teaching model (or element) beyond that explained by gender and credential program. <sup>ns</sup> indicates non-significant value; all other values are significant, p<.01.

Bacharach, N., & Heck, T. W. (2012). Voices from the field: Multiple perspectives on a co-teaching in student teaching model. *Educational Renaissance*, 1(1), 49-61.

# Influences of Co-Teaching in Student Teaching on Pre-Service Teachers' Teacher Efficacy

- (continued)
- Darling-Hammond, L. (2006). Constructing 21st-century teacher education. *Journal of Teacher Education*, *57*(3), 300–314.
- Duffin, L. C., French, B. F., & Patrick, H. (2012). The teachers' sense of efficacy scale: Confirming the factor structure with beginning pre-service teachers. *Teaching and Teacher Education*, 28(6), 827-834.
- Friend, M., Embury, D. C., & Clarke, L. (2015). Co-teaching versus apprentice teaching: An analysis of similarities and differences. Teacher Education and Special Education: *The Journal of the Teacher Education Division of the Council for Exceptional Children*, 38(2), 79-87.
- Gibson, S., & Dembo, M. H. (1984). Teacher efficacy: A construct validation. *Journal of Educational Psychology*, 76(4), 569-582.
- Goddard, R. D., Hoy, W. K., & Hoy, A. W. (2000). Collective teacher efficacy: Its meaning, measure, and impact on student achievement. *American Educational Research Journal*, 37(2), 479-507.
- Grossman, P. (2010). Learning to practice: The design of clinical experience in teacher preparation. *Partnership for Teacher Quality*. Washington, DC: American Association of Colleges for Teachers Education.
- Hammerness, K., & Darling-Hammond, L. (2005). The design of teacher education programs. In J. Bransford & L. Darling-Hammond (Eds.), *Preparing teachers for a changing world: What teachers should learn and be able to do* (pp. 390-441). San Francisco, CA: Jossey-Bass.
- Hollins, E., & Guzman, M. T. (2005). Research on preparing teachers for diverse populations. In M. Cochran-Smith & K. Zeichner (Eds.), *Studying teacher education: The report of the AERA panel on research and teacher education* (pp. 37-68). Washington, DC: American Educational Research Association.
- Huck, S. W. (2012). *Reading statistics and research* (6th ed.). Boston, MA: Pearson Education.
- Kamens, M. W. (2007). Learning about co-teaching: A collaborative student teaching experience for pre-service teachers. *Teacher Education and Special Education: The Journal of the Teacher Education Division of the Council for Exceptional Children*, 30(3), 155-166.
- Klassen, R. M., Tze, V. M., Betts, S. M., & Gordon, K. A. (2011).

Teacher efficacy research 1998–2009: Signs of progress or unfulfilled promise?. *Educational Psychology Review*, 23(1), 21-43.

- Kleinsasser, R. C. (2014). Teacher efficacy in teaching and teacher education. *Teaching and Teacher Education*, 44, 168-179.
- McMillan, J. H., & Schumacher, S. (2010). *Research in education: Evidence-based inquiry* (7th ed.). Boston, MA: Pearson.
- Moulding, L. R., Stewart, P. W., & Dunmeyer, M. L. (2014). Preservice teachers' sense of efficacy: Relationship to academic ability, student teaching placement characteristics, and mentor support. *Teaching and Teacher Education*, 41, 60-66.
- National Council for Accreditation of Teacher Education. (2010). *Transforming teacher education through clinical practice: Executive summary*. Retrieved from http://www.ncate.org/Link-Click.aspx?fileticket=zzeiB1OoqPk%3D&tabid=715
- Oh, S. (2011). Preservice teachers' sense of efficacy and its sources. *Psychology*, 2(03), 235-240.
- Ronfeldt, M. (2012). Where should student teachers learn to teach? Effects of field placement school characteristics on teacher retention and effectiveness. *Educational Evaluation and Policy Analysis*, 34(1), 3-26.
- Ronfeldt, M., & Reininger, M. (2012). More or better student teaching? Teaching and Teacher Education, 28(8), 1091-1106.
- Ronfeldt, M., Schwartz, N., & Jacob, B. (2014). Does pre-service preparation matter? Examining an old question in new ways. *Teachers College Record*, 116(10), 1-46.
- Tschannen-Moran, M., & Barr, M. (2004). Fostering student learning: The relationship of collective teacher efficacy and student achievement. *Leadership and Policy in Schools*, 3(3), 189-209.
- Tschannen-Moran, M., Woolfolk Hoy, A, & Hoy, W. K. (1998). Teacher efficacy: Its meaning and measure. *Review of Educational Research*, 68(2), 202-248.
- Urban Teacher Residency United. (2015). *Clinically oriented teacher preparation*. Retrieved from http://nctresidencies.org/ research/clinically-oriented-teacher-preparation/#
- Woolfolk Hoy, A., & Spero, R. B. (2005). Changes in teacher efficacy during the early years of teaching: A comparison of four measures. *Teaching and Teacher Education*, 21(4), 343-356.

### **SmartPens:** Assistive, But Not Intuitive, Technology

By **Ben Seipel & Tal Slemrod** *California State University, Chico* 

ADA affords students with IEPs accommodations in the classroom. For some students these accommodations merely facilitate learning (e.g., pencil grips); for other students these accommodations make learning and communication possible (e.g., Braille, sound boards). Additionally, assistive technology (AT) has proven or perceived to improve student outcomes across curriculum and across classrooms (Newton & Dell, 2011). School districts across the U.S. have rapidly increased the use of various forms of AT in the classroom, sometimes without research-based evidence to back up the realistic utility of such technology (Newton & Dell, 2011). Part of the responsibility of a special education teacher is to identify and use various forms of AT, not only to assess and evaluate their students' abilities, but also to determine appropriate accommodations to benefit the individual needs of their students (IDEA 2004; Ludlow, 2001).

AT has the potential to improve both the behavioral and academic outcomes for students. Concurrently, the potential of AT supporting students in the classroom has frequently been cited (e.g., Cafiero, 2012; Christ, 2008; Alper & Raharinirina, 2006). Research shares that there are many advantages towards using AT to provide access to curriculum to struggling students. AT can be used as a tool to support the learning for all students, especially for struggling learners with disabilities (Derer, Polsgrove, & Rieth, 1996). Just as importantly, technologies may have the capability to foster increased attention on tasks for students (Schneps, O'Keeffe, Heffner-Wong, Sonnert, 2010) and has the potential to increase both behavioral and cognitive engagement (Fredricks, Blumenfeld, & Paris, 2004).

Success in the classroom, however, is dependent on teachers and students being able to both access and engage in the curriculum. While the benefits of implementing AT in the classroom are clear, a challenge has been repeated in the literature. There is a deficiency of training and professional development for teachers in AT, as well access to the AT itself (Okolo & Diedrich, 2014; Flanagan, Bouck, & Richardson, 2013). These deficiencies are a barrier between instruction and learning.

Research has shown that technology, in any form, serves no valuable educational purpose without teachers and staff who (1) have proper knowledge and experience working with it and (2) use their proper knowledge to teach K-12 students appropriate and productive uses for the technology (Flanagan, Bouck, & Richardson, 2013; Ludlow, 2001). A teacher's willingness to teach their K-12 students various technologies will often depend on their own ability to use the technology and their perceptions of the utility of the technology within their classrooms (Marino, Sameshima, & Beecher, 2009). For example, Edyburn (2013) explains that professionals have been caught unprepared as they are now being asked to support technology in the classroom without training, including AT that is privately owned by a student. Moreover, educators believe that the best method for learning how to use any form of technology is the direct use of the technology itself (Marino et al., 2009). So, during our pilot study teacher candidates had the unique opportunity to acquire first-hand knowledge of using one form of educational technology known as a Livescribe SmartPen.

### Smart Pens

Smart pens (also written as smartpens or known as pentop computing; SmartPen is product name) are a paperbased computing system that includes special paper and pen (Hannon, 2008). A smart pen is an actual ink-based pen that has an infrared camera, microphone, speaker, and memory storage built in. Some smart pens also have an LCD screen. Smart pen paper is specially designed with dot patterns that the infrared camera "reads" to determine a location in a notebook and position on a page. The paper also has special features that can start/stop audio recording and playback. The recordings and notes can be uploaded (via Wi-Fi or USB cable) to an Evernote (or similar) account. These notes are searchable and shareable.

This commercial product was initially designed and marketed toward college students for lecture settings. The device has potential to meet the needs of students who do not have adequate note-taking skills in a lecture-heavy environment (Boyle, 2012). It could also be used for note-taking interventions or address the cognitive load of lectures (Belson, Hartmann, & Sherman, 2013; Boyle, Forchelli, & Cariss, 2015) or used to meet the needs of students with other disabilities (Bouck, Bassette, Taber-Doughty, Flanagan, & Szwed, 2009).

Smart pens have also been used to help students with math (Bouck, Flanagan, Miller, & Bassette, 2012). Smart pens have empowered both classroom teachers and students to improve writing skills (Bouck, Doughty, Flanagan, Szwed, & Bassette, 2010; Grande & Kurtzworth-Keen, 2015). Although there is a clear use for the device in special education settings, there is need for more research on how the device can be effectively used by both teachers and students (Belson, Harmann, & Sherman, 2013; Grande & Kurtzworth-Keen, 2015).

#### Purpose of the Study

The aims of our study were (1) to teach pre-service and student teachers how to use this form of AT, (2) to measure attitudes about the use of smart pens as AT, (3) determine —continued on next page—

### SmartPens: Assistive, But Not Intuitive, Technology (continued)

how useful the technology can be in various settings based on teacher candidate feedback, and (4) to identify future areas of use of smart pens as AT.

#### Methods

#### Course

"Assessment and Evaluation in General and Special Education" at California State University, Chico is a core requirement for the special education credential. This course was selected for inclusion in the study for three main reasons. First, all students in the program would have the opportunity to participate in the study and use the device. Second, there were two sections of the course that could be used for pseudo-treatment and control grouping. Third, the course content is not focused on assistive technology; implementation would provide ecological validity to the uses of the device.

#### Participants

Twenty-eight students (22 intervention, 6 control) completed a survey for extra credit. Given the nature of the study and limited participation from the control group, only results from those students in the intervention will be presented. Participants (17 female, 3 male, 2 did not report; average age 27.48 years, sd = 5.84) were representative of the program's diversity (15 Caucasian, 3 mixed race, 2 Hispanic, 2 did not report). All participants had a special education placement as a part of their practicum experience.

#### Procedures

Participants were instructed on the basic uses of the Livescribe Sky 2GB Wi-Fi SmartPen and were provided with individual smart pen devices for the remainder of the semester. Participants were encouraged to use the devices in their courses and within their K-12 placements.

#### Survey

All participants completed an online survey via Survey-Monkey. The survey included items about demographics, general AT use, smart pen use, and smart pen knowledge. The survey was a mix of qualitative and quantitative items.

### Results

Despite initial excitement over the Liverscribe Smart-Pens, the use of the smart pens was limited. Participants used the pens infrequently in class and rarely outside of class. Additionally, enthusiasm for the SmartPen diminished over the semester (91% agreed) and use dropped rapidly (average total use 4.09 weeks, sd = 3.34 weeks). Table 1 indicates reasons for diminished enthusiasm of SmartPen. Of those reasons, participants indicated that the pen was hard to hold (see Table 2). Table 3 indicates perceptions of use, and Table 4 indicates useful and not useful attributes of the pens.

Participants were asked to identify potential uses of the

—continued on next page—

### Table I

### Reason and Count for Diminished Enthusiasm

Count	Percent
2	9.1
6	27.3
1	4.5
1	4.5
2	9.1
10	45.5
	2 6 1 1 2

### Table 2

#### Count of Participants Who Found the Pen Difficult to Hold

Hard to hold?	Count	Percentage
Yes	17	77.3
No	5	22.7

### Table 3

#### **Results Regarding Participants' Perception and Pen Use**

(Note: Likert scale: 1 = always/completely agree/extremely positive to 5 = never/completely disagree/extremely negative)

Scale	Mean	SD
Easy to use?	3.00	.82
Useful to use?	3.59	.73
Safe to use?	3.14	1.04
Positive about?	2.36	1.00
Confident? (Reversed Anchor)	3.05	1.00
Effective K-12?	1.73	.77
Effective SPED?	2.55	.67
Recommend?	3.64	1.00

### Table 4

#### List of Most Frequently Selected Useful and Not Useful Attributes and Percentage of Participants Who Selected That Attribute

Useful attributes	%	Not useful attributes	%
Calculator	36.4	Bulky	72.7
Recording	31.8	Features (calculator,	
Calculator & Recording	18.2	piano)	13.6
Visual Display	4.5	Poor digital note quality	4.5
Not useful/Generic		Poor audio quality	4.5
comment	9.1	Multiple	4.5

### SmartPens: Assistive, But Not Intuitive, Technology (continued)

smart pens in their placements of in a special education setting. Participants indicated that the pens would be useful for note taking, for IEP meetings, for basic math (built in calculator), to aid phonemic awareness and spelling, and for use by students with working memory issues. However, participants also indicated the need for a quiet classroom in order for the recording functions to be beneficial. Participants also indicated that there is a need for additional training, especially for uploading notes to third party services like Evernote.

In addition to the issues identified by the participants, others have identified potential problems. There may be issues of intellectual property or recording in classrooms (Hannon, 2008). Students may need to get permission from teachers/professors prior to use. Additionally, the pens record all sound. If students participate in discussion, students may need to seek permission from other students. Additionally, the audio recordings are only as clear as the initial input. If a student or teacher does not articulate loudly or clearly, the recording quality will suffer. Some have experienced difficulty with the search features in the notes (Parton, Hancock, & Maurin, 2010). Finally, smart pens may actually decrease active note taking (Williams, Johnson, & Bouck, 2010) due to the perception that the audio recording will suffice.

### Discussion

Ultimately, we found that perceptions and experience matter when it comes to working with smart pens. Teachers need sufficient training with a tool to incorporate it into their practice. Simply training teachers how to use the technology was insufficient. We found that we had to be explicit in training teachers how to use the technology with their own students. If teachers do not feel comfortable and experienced with technology, even if it makes learning possible for their students, they will not try to use it in their own classroom. Additionally, for individuals without a special need, AT becomes a burden instead of a benefit. The concern is that this burden may become an obstacle to implementation when the AT is actually needed in a classroom setting. However, further research is needed in this area.

With the move for more inclusion in the regular education classroom, there is a need to increase AT training. There is also and need to supply this and other AT for teachers to use and try. This training needs to be specific and ongoing for teachers to effectively implement AT into practice.

#### References

Alper, S., & Raharinirina, S. (2006). Assistive technology for individuals with disabilities: A review and synthesis of the literature. *Journal of Special Education Technology*, *21*(2), 47.
Belson, S. I., Hartmann, D., & Sherman, J. (2013). Digital note

taking: The use of electronic pens with students with specific learning disabilities. *Journal of Special Education Technology*, 28(2), 13-24.

- Bouck, E. C., Bassette, L., Taber-Doughty, T., Flanagan, S. M., & Szwed, K. (2009). Pentop computers as tools for teaching multiplication to students with mild intellectual disabilities. *Education and Training in Developmental Disabilities*, 44(3), 367-380.
- Bouck, E. C., Doughty, T. T., Flanagan, S. M., Szwed, K., & Bassette, L. (2010). Is the pen mightier? Using pentop computers to improve secondary students' writing. *Journal of Special Education Technology*, 25(4), 33-47.
- Bouck, E. C., Flanagan, S., Miller, B., & Bassette, L. (2012). Technology in action: Rethinking everyday technology as assistive technology to meet students' IEP goals. *Journal of Special Education Technology*, 27(4), 47-47.
- Boyle, J. R. (2012). Note-taking and secondary students with learning disabilities: Challenges and solutions. *Learning Disabilities Research & Practice*, 27(2), 90-101.
- Boyle, J. R., Forchelli, G. A., & Cariss, K. (2015). Note-taking interventions to assist students with disabilities in content area classes. *Preventing School Failure: Alternative Education for Children and Youth, 59*(3), 186-195.
- Cafiero, J. M. (2012). Technology supports for individuals with autism spectrum disorders. *Journal of Special Education Technology*, 27(1), 64-76.
- Christ, T. (2008). Technology support services in postsecondary education: A mixed methods study. *Technology and Disability*, 20(1), 25-35.
- Derer, K., Polsgrove, L., & Rieth, H. (1996). A survey of assistive technology applications in schools and recommendations for practice. *Journal of Special Education Technology*, 13(2), 62-80.
- Edyburn, D. L. (2013). Critical issues in advancing the special education technology evidence base. *Exceptional Children*, 80(1), 7-24.
- Flanagan, S., Bouck, E. C., & Richardson, J. (2013). Middle school special education teachers' perceptions and use of assistive technology in literacy instruction. *Assistive Technology*, 25, 24-30.

Fredricks, J. A., Blumenfeld, P. C., & Paris, A. H. (2004). School engagement: Potential of the concept, state of the evidence. *Review of Educational Research*, 74(1), 59-109.

Grande, M., & Kurtzworth-Keen, K. (2015, November). Livescribe SmartPen: What we learned about action research, student achievement, and assistive technology. Paper presented at the annual meeting of the Teacher Education Division of the Council for Exceptional Children, Phoenix, AZ.

- Hannon, C. (2008). Paper-based computing. *Educause Quarterly*, 31(4), 15-16.
- Ludlow, B. L. (2001). Technology and teacher education in special education: disaster or deliverance? *Teacher Education and Special Education: The Journal of the Teacher Education Division of the Council for Exceptional Children, 24*(2), 143-163.

-continued on next page-

### SmartPens: Assistive, But Not Intuitive, Technology (continued)

- Marino, M., Sameshima, P., & Beecher, C. (2009). Enhancing TPACK with assistive technology: Promoting inclusive practices in pre-service teacher education. *Contemporary Issues in Technology and Teacher Education*, 9(2), 186-207.
- Newton, D. A., & Dell, A. G. (2011). Mobile devices and students with disabilities: What do best practices tell us? *Journal of Special Education Technology*, 26(3), 47-49.
- Okolo, C. M., & Diedrich, J. (2014). Twenty-five years later: How is technology used in the education of students with disabilities? Results of a statewide study. *Journal of Special Education Technology*, 29(1), 1-20.
- Parton, B. S., Hancock, R., & Maurin, K. (2010). Digitizing traditional notes into searchable documents: Implications for university students who are disabled. *Ubiquitous Learning: An International Journal*, 2(3), 1-6.
- Schneps, M. H., O'Keeffe, J. K., Heffner-Wong, A., & Sonnert, G. (2010). Using technology to support STEM reading. *Journal of Special Education Technology*, 25(3), 21–32.
- Williams, S., Johnson, E., & Bouck, C. (2010, July). Livescribe Pulse SmartPen: Reflections of college students with learning disabilities. Poster presentation at the annual conference of the Association on Higher Education and Disability. Denver, CO.

### Page 37