Common Core Expertise
for Special Education Teachers
What Do Special Education Administrators
Think Is Important?

Joanne M. Van Boxtel

The Common Core State Standards (CCSS) have been described as the next chapter in American education with the promise to deliver "fewer, clearer, and higher" standards aimed at preparing *all* students for college *and* career (Roth-man, 2013). Though CCSS articulates minimum expectations for what college- and career-ready students should know and be able to do in the 21st century, it is beyond the scope of the standards to identify specific interventions and supports needed for students who are performing below grade-level expectations (National Governors Association Center for Best Practices & Council of Chief State School Officers, 2010). Students with disabilities represent a heterogeneous group of stu-dents whose instruction has always been guided by the Individualized Education Program (IEP) (California Department of Education [CDE], 2014a; McLaughlin, 2012). Thus, a clear path to providing rigorous access to CCSS for students with disabilities remains challenging.

In preparation for CCSS implementation for students with disabilities, practices such as aligning IEP goals to CCSS, implementing Universal Design for Learning

Joanne M. Van Boxtel is an assistant professor in the College of Education and Integrative Studies at California State Polytechnic University, Pomona, California. Email address: jmvanboxtel@cpp.edu

(UDL), and utilizing evidence-based practices in English language arts (ELA) and mathematics have been advised by experts in the field (Graham & Harris, 2013; McLaughlin, 2012; Powell, Fuchs, & Fuchs, 2013; Rose, Meyer, & Gordon, 2014). School leaders have also been urged to support practices such as collaboration between special education and general education teachers (McLaughlin, 2012). What is also recommended for immediate implementation is that teachers align curriculum and instruction with the "instructional shifts" of CCSS to ensure instruction is matched to the more rigorous expectations of the new standards (Alberti, 2013). Thus this study sought to investigate recommendations for CCSS and special education proposed in the research and those proposed by field-based sources to analyze the presence of or lack of alignment between recommended practices. Findings have implications for preservice teacher education and in-service teacher professional development (PD).

Conceptual Framework

An implicit assumption guiding this research was that special education administrators would have relevant perspectives for teacher education programs because of their roles and responsibilities for special education programs and services as conceived in Crockett's (2002) conceptual framework for leadership in special education. According to Crockett, a central tenet of special education administration is "providing and ensuring programming that makes a difference" (p. 162). The foundational pillars undergirding these principles are: (a) ethical practice that advocates for informed decisions and full educational opportunity; (b) individual consideration that attends to exceptional need, requiring extraordinary response of specialized instruction; (c) equity under law that provides child benefits through law, finances, and public policy; (d) effective programming that provides and ensures that programs produce positive student outcomes; and (e) productive partnerships with families formed by negotiating and collaborating on behalf of learners with exceptionalities. Thus special education administrators are instructional and programmatic leaders in implementing school reforms such as Common Core that impact special education teachers and students with disabilities. With limited research available on the implementation of CCSS and special education, teacher educator programs may glean insight into the current status of preservice and in-service special education teacher needs from leaders in the field with direct responsibility for ensuring that CCSS is implemented effectively for special education.

Review of the Literature

CCSS and Instruction

In terms of general recommendations for CCSS and special education instruction, some are designed for school leaders and some are geared more toward

educators. To effectively implement CCSS-aligned instruction, leaders are advised to recognize the heterogeneity of students with disabilities by implementing UDL (McLaughlin, 2012; Rose, Meyer, & Gordon, 2014). Teachers are also urged to be skilled at unpacking the CCSS to create accessible learning targets, which can be achieved by discovering the "core purpose" of a standard (Konrad et al., 2014; Rose et al., 2014). Similar to prioritizing standards for instruction to create learning targets, Haager and Vaughn (2013) suggested that teachers examine standards to determine the critical, most important elements to equip students with essential skills in ELA. For mathematics instruction, Powell et al. (2013) recommended that teachers focus on CCSS core clusters at students' grade levels and assess for "base camp" standards applicable to individual students.

To accomplish the goals of CCSS instruction for ELA, teachers are also advised to have a thorough understanding of grade-level expectations and curriculum to adapt appropriately. In addition to creating targeted ELA instruction based on assessment of student needs with the foundational skills of CCSS, another endorsed strategy is to provide students with disabilities with experiences developing essential ELA skills using accessible materials in the general education environment (Haager & Vaughn, 2013).

Likewise, prioritizing instruction through a solid understanding of the CCSS math standards is advocated for teachers working with students with disabilities, who may be performing well below grade-level expectations. To target math interventions for elementary students with disabilities, teachers must become familiar with CCSS math standards to better understand foundational skills (Powell et al., 2013). Within literature on practices effective for elementary CCSS math instruction is also the recommendation to strengthen students' mathematical reasoning and ability to perform mental math (Burns, 2013).

CCSS and Collaboration

Collaboration between general education and special education teachers is nothing new to the field; however, it could be argued that this practice is more urgent due to this sweeping change in standards-based instruction that applies to *all* students. School leaders are charged to create collaboration and coteaching opportunities so that general and special education teachers might complement each other in areas of expertise and learn together. In the area of ELA, Haager and Vaughn (2013) suggested that special education teachers should plan collaboratively with general education teachers to determine CCSS instruction in ELA and appropriate interventions.

Collaboration and joint responsibility for student achievement as implementation of evidence-based practices are also recommended to ensure that students with disabilities are receiving appropriate CCSS instruction (Graham & Harris, 2013; McLaughlin, 2012). Finally, in terms of capacity building and shared responsibility of student achievement, the provision of PD opportunities and ensuring an in-depth

understanding of the standards are also suggested by experts in special education and educational leadership research and practice (Graham & Harris, 2013; Haager & Vaughn, 20130; McLaughlin, 2012; Mercado & Britt, 2013; Powell et al., 2013).

CCSS and IEP Alignment

In light of providing meaningful access to the general curriculum and general context (Courtade & Browder, 2011), it is likely that no other expertise is more critical for special education teachers in the Common Core era than is the art and craft of designing a meaningful IEP. Along with understanding the differences between accommodations and modifications, McLaughlin (2012) suggested a six-step process to develop a CCSS-aligned IEP. The steps are as follows: (a) Consider the student's grade-level content standards, (b) examine collected data to determine students' level of functioning in relation to the standards, (c) identify present levels of academic and functional performance, (d) develop measurable goals aligned with the grade-level standards, (e) assess and report progress, and (f) identify specially designed instruction that includes appropriate accommodations and modifications necessary to access the general curriculum and make progress. Moreover, assessing students' current knowledge and skills related to grade-level CCSS and comparing them to grade-level CCSS expectations enables educators to design goals that "fill in the gap" (CDE, 2014a).

Teacher Preparation and CCSS

Alignment of practices between general education and special education has been cited as an increasingly important trend for teacher preparation in a Core Standards–based area (Leko, Brownell, Sindelar, & Kiely, 2015). Though this line of research is still emerging, some studies have examined educator perceptions of the CCSS as well as CCSS preparation in special education teacher education. Results of these studies have investigated factors such as in-service teacher knowledge and perceptions of CCSS and current knowledge and perceived ability of preservice teachers to implement CCSS (Murphy & Marshall, 2015; Nadelson, Pluska, Moorcroft, Jeffrey, & Woodard, 2014). Nadelson et al. (2014) found that hours of PD are correlated with CCSS knowledge and that K–12 teachers are more likely to turn to their districts and district leaders for sources of CCSS information than they are to colleges of education. Murphy and Marshall (2015) discovered that (a) professors report varying levels of confidence in their preparation and knowledge in CCSS, (b) preservice general and special education teachers reported limited training in CCSS, and (c) the need for better preparation depends on preservice teachers' experiences with CCSS implementation in K–12 settings.

Given the growing body of research guiding best practice for CCSS and special education and the reality that many urban districts have been focusing on the implementation of the "instructional shifts" (Council of Great City Schools, n.d.),

this researcher was interested in exploring recommendations for CCSS and special education found in the literature and their impact on current practice in the field. Four research questions guided this research:

1. How frequently is professional development and collaboration regarding CCSS occurring for general and special education teachers as reported by administrators?

2. What are the perceptions of the instructional expertise needed for special education teachers in regard to implementing the ELA CCSS as reported by administrators?

3. What are the perceptions of the instructional expertise needed for special education teachers in regard to implementing the mathematics CCSS as reported by administrators?

4. What are the perceptions of the professional development needs of special education teachers in regard to implementing CCSS-aligned IEPs as reported by administrators?

Methods

An exploratory survey was employed to answer the research questions (Creswell, 2015). The self-administered, Web-based survey was crafted by incorporating both closed- and open-ended questions, and responses were collected over a 5-month period. Because this study was exploratory in nature, only descriptive results were collected and analyzed to describe the characteristics of the sample of administrators (Mertens, 2015). First, results of the forced-choice questions were analyzed. Next, open-ended responses were analyzed to further explain data based on cultural and social experiences of the administrators instead of the researcher's experiences (Neuman, 2000).

Participants

Participants in this study represent a purposive sample in order to yield deeper information and unique perspective (Collins, 2010), as they represent administrators with direct responsibilities related to special education programs and teachers. Moreover, based on Crockett's (2002) conceptual framework for special education administration, an implicit best practice assumption of the researcher was that participants would be those who "ensure that beneficial specialized programming and supports are provided for individuals with disabilities" (p. 162).

Administrators were recruited via e-mail using a combined homogenous, snowball sampling technique (Mertens, 2015). The researcher first began by contacting five local special education and district administrators within her personal

network. The purpose of the study and implications of the study were explained in the e-mail, and the e-mail included a hyperlink to the survey, which was administered via SurveyMonkey. A request to forward the e-mail to other relevant special education or district administrators who may have been within the network of the initial participant was also included in the e-mail. Additional participants were recruited at random through contact information posted on local southern California district Web sites.

A total of 18 administrators participated, with a response rate of 23.5%, which included partial responses from the 61 administrators recruited. Of those 18, all answered the forced-choice survey questions, 16 answered open-ended questions 21–24, and 13 answered the final question regarding additional recommendations. Nine participants identified as special education directors, 3 identified as special education local plan area (SELPA) directors (i.e., a consortium of districts that provides special education services), 4 identified as district-level administrators, and 2 identified as other administrator/coordinator, specialist. Participant identities were not obtained, and no other demographics about the administrators were collected.

District Demographics

Of the 1,022 school districts in California, this sample is representative of elementary school districts, a high school district, K–12 school districts, a SELPA office, and 2 county offices of education. Locations of the districts were predominantly within the southern California region, and two were from northern California. District size ranged from approximately 3,000 total students enrolled to nearly 80,000 total students enrolled. Reported demographics in Table 1 were collected through the California Department of Education's (CDE) DataQuest Web site using 2014–2015 data.

Instruments and Procedures

A self-administered survey was created using SurveyMonkey. It consisted of 26 questions, with 20 required-response items and 1 optional item. The first item was consent to participate in the research. Items 2–4 obtained demographic information about the participants, which included administrative role, district type, and name of the district, so that special education and English language learner data could be obtained. Items 5–9 were forced-choice, Likert-type scale ranging from 1 (*never*) to 6 (*always*) to examine frequency of collaboration and PD. A quantified range of occurrences was not specified for the choice options as there was no existing literature available to draw from regarding suggested frequency of collaboration and PD. However, a 6-point scale was selected over a 5-point scale to allow for "never" and "always" extremes, given the varying roles of administrators in the sample and the varied contexts of the districts represented. Items 6–20 were forced-choice Likert-type scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*) to examine agreement

about implementation of CCSS. The last five questions were intentionally open ended to probe and illuminate more specific recommendations regarding Common Core expertise for special education and general education teachers.

The self-administered instrument was designed using development principles

Table 1
District Demographics

District	Region in California	District type	Total enrollment	Students receiving special education services (%)	Students identified as English learners (%)
1	South	County office	5,306	17.2	27.6
2	North	K–12	18,610\	10.5	22.2
3	North	County office	140	n/a**	26.4
4	South	K–8	6,124	13.9	19.4
5	South	K–12	29,028	11.4	16
6*	South	K–12	29,028	11.4	16
7	South	Elem. & middle	22,521	10.2	40
8	South	K–12	14,532	8.3	11.3
9	South	High school	16,343	10.0	8.9
10	South	Elem.	6,305	9.1	12.8
11	South	K–12	3,074	9.6	4.3
12	South	K–12	9,914	9.0	2.6
13	South	Elem.	4,491	11.6	34.8
14	South	K–12	34,170	12.6	23.1
15	South	K–12	31,392	9.0	17.0
16	South	SELPA	n/a**	n/a**	n/a**
17	South	K–12	42,339	11.0	17.2
18	South	K–12	79,709	11.8	23

Note. SELPA = special education local plan area.
*Participant also from District 5.
**Data not obtainable from CDE DataQuest.

set forth by Fowler (2014). Survey length was also a consideration in item development to be mindful of participants' time. Draft items were field tested among colleagues to obtain critical feedback regarding wording of the questions.

Analytic Techniques

Quantitative data obtained from the forced-choice questions were analyzed first using basic descriptive statistics including mean and standard deviation. All 18 respondents completed all of the forced-choice options on the survey. Because Items 5 and 6 did not include specific reference to CCSS, they were omitted from the internal consistency reliability calculation. Internal consistency reliability was calculated using the split-half method of even and odd items 7–20 as a subscale of the instrument, because all of these items were related to CCSS-specific practices. Split-half reliability yielded a correlation coefficient of .87, which indicates good reliability of items measuring CCSS-specific practices. Cronbach's alpha was .76 for all items, which is acceptable.

Of the six open-ended questions, 16 respondents completed Items 21–25, and 10 respondents completed Item 26. Items 21–23 probed for further, specific suggestions regarding PD needs of special education and general education teachers. Items 24 and 25 probed further regarding essential CCSS instructional expertise, and Item 26 concluded with any other general recommendations regarding CCSS and special education. Mean and standard deviation were calculated for the forced-choice responses. Because forced-choice options included a mix of frequency scale items and level of agreement scale items, no further statistical analysis was performed.

Qualitative data obtained from the open-ended responses to three questions were analyzed second. Each response was first analyzed for in vivo codes from each respondent (Creswell & Clark, 2011). In vivo codes were then tallied for similarities and transformed into a table constructed by the researcher. Tallies were totaled and in vivo codes were analyzed for redundancies to develop general themes for each research question (e.g., ELA PD, math PD, IEP PD). To establish reliability, the researcher invited a peer to examine the original responses and the coded tables and themes developed by the researcher. Level of agreement on coding themes between this researcher and the second scorer was 100%. Member checks of the major themes for the three research questions were also communicated to 17 of the 18 participants via e-mail. Participants were invited to respond to the e-mail if they did not agree with the general themes and were asked to provide feedback if the themes were not an accurate representation of their comments. No administrators reported that the themes were inaccurate.

Results

Professional Development and Collaboration

The first research question asked, "How frequently is professional development

and collaboration regarding CCSS occurring for general and special education teachers as reported by administrators?" Items examining PD were Items 7 (PD in ELA), 8 (PD in Math), and 9 (PD in CCSS-aligned IEPs). Analysis of the means and standard deviations for these items revealed that special education teachers are receiving more PD in ELA and math content than they are receiving PD in developing CCSS-aligned IEPs, with means and standard deviations for these items at 3.83 (*SD* = 0.96), 3.56 (*SD* = 0.90), and 3.28 (*SD* = 1.10), respectively. Administrators rated PD in ELA as the most frequent topic of PD for special education teachers. These data suggest that, overall, administrators perceive that special education teachers are *sometimes* receiving PD related to CCSS.

Regarding collaboration with general education teachers, analysis of means and standard deviations of Items 5 and 6 also revealed that collaboration between general education and special education teachers in ELA is occurring *sometimes* with a mean of 3.67 (*SD* = 1.25) and that collaboration between general education teachers and special education teachers in mathematics is also occurring *sometimes* with a mean of 3.44 (*SD* = 1.34). Results of these data suggest that collaboration between special education and general education teachers occurs slightly more frequently in ELA. A summary of results is presented in Table 2.

Common Core Instructional Expertise

Research Questions 2 and 3 explored Common Core instructional expertise in ELA and math. Several items were designed to answer these question to examine recommendations in the literature and level of agreement by current administrators. The items included those examining proficiency in (a) implementing the "instruction shifts" of ELA and math (Items 10 and 11), (b) *teaching* the CCSS standards in ELA and math (Items 12 and 13), (c) *adapting* the CCSS standards (Items 14 and 15), (d) implementing response to intervention (RTI) in ELA and math (Items 16 and 17), (e) implementing evidence-based practices (Item 18), and (f) constructing learning targets for CCSS-based instruction (Item 20).

Lowest scoring items regarding CCSS expertise were items regarding proficiency in implementing RTI in ELA (Item 16) and math (Item 17). Both items averaged 3.89 (SD = 1.05). These results reveal that administrators in the sample *neither agree nor disagree* that special education teachers need to be proficient in RTI for both content areas.

Two additional items with the same mean of 4.28 were Items 12 and 13, which explored proficiency in *teaching* CCSS in ELA and math. Analysis of these items reveals agreement that special education teachers need to be proficient in teaching CCSS in ELA and math. When it comes to proficiency in *adapting* the grade-level CCSS in ELA and math, there is even stronger agreement with both Items 14 and 15 among the highest scoring items with means at 4.72 (SD = 0.93).

Regarding constructing learning targets for CCSS-based instruction, adminis-

trators agreed that special education teachers need to be proficient with a mean of 4.33 (SD = 0.94) for Item 20. Among the highest scoring items were those exploring implementing the "instructional shifts" of CCSS in ELA and math. Administrators agreed that special education teachers need proficiency in these practices with both items averaging 4.72 (SD = 0.93). Finally, administrators in the sample also agreed that special education teachers need to be proficient in implementing evidence-based practices for students with disabilities, which was examined with Item 18 (mean 4.72, SD = 0.93).

CCSS-Aligned IEPs

The item that examined proficiency in developing CCSS-aligned IEP goals yielded a mean of 4.30 (SD = 1.06). This suggests that administrators *agree* that special education teachers need to be skilled in this area. These results are presented in Table 3.

Table 2
Means and Standard Deviations for Items Examining Frequency
of Professional Development and Collaboration: Low to High Scoring

Item	M (SD)
9. Considering professional development aligning IEPs to CCSS for your special education teachers, how often are special education teachers receiving professional development in developing CCSS-aligned IEPs?	3.28 (1.10)
6. Taking into account collaboration between general education teachers and special education teachers in your school/district, where both general and special education teachers are working together in the same classroom, how often is collaboration currently occurring in mathematics?	3.44 (1.34)
8. Considering professional development in CCSS for your special education teachers, how often are special education teachers receiving professional development in math content?	3.56 (.90)
5. Taking into account collaboration between general education teachers and special education teachers in your school/district, where both general and special education teachers are working together in the same classroom, how often is collaboration currently occurring in English language arts (ELA).	3.67 (1.25)
7. Considering professional development in CCSS for your special education teachers, how often are special education teachers receiving professional development in ELA content?	3.83 (.96)

Note. 6-point scale ranging from 1 (never) to 6 (always).

Overall, administrator answers to open-ended questions about PD needs with content (Research Questions 2 and 3) and PD needs for aligning IEPs to CCSS (RQ4) yielded consistent themes. When asked to identify the "greatest area of need" for ELA PD, commonalities emerged. Common themes in the specific recommendations were (a) CCSS ELA specific instructional strategies, (b) understanding the CCSS and instructional shifts, (c) alignment of instruction and IEPs to CCSS, and (d) adaptation techniques, including UDL, accommodations, modifications,

Table 3
Means and Standard Deviations for Items Examining Level
of Agreement Regarding CCSS Instructional Expertise: Low to High Scoring

Item	M (SD)
16. Special education teachers need to be proficient in implementing Response to Intervention (RTI) in ELA.	3.89 (1.05)
17. Special education teachers need to be proficient in implementing Response to Intervention (RTI) in math.	3.89 (1.05)
12. Special education teachers need to be proficient in teaching the grade-level Common Core ELA standards.	4.28 (.87)
13. Special education teachers need to be proficient in teaching the grade-level Common Core math standards.	4.28 (.80)
20. Special education teachers need to be proficient in constructing learning targets for CCSS-based instruction.	4.33 (.94)
19. Special education teachers need to be proficient in developing Common Core aligned IEP goals.	4.39 (1.06)
11. Special education teachers need to be proficient in implementing the instructional shifts of the Common Core math standards.	4.39 (.95)
10. Special education teachers need to be proficient in implementing the instructional shifts of the Common Core ELA standards.	4.44 (.96)
14. Special education teachers need to be proficient in adapting grade-level Common Core ELA standards.	4.72 (.93)
15. Special education teachers need to be proficient in adapting grade-level Common Core math standards.	4.72 (.93)
18. Special education teachers need to be proficient in implementing evidence-based practices for students with disabilities (e.g., direct/explicit instruction, phonological awareness training, word problem solving instruction, etc.).	4.72 (.93)

Note. 5-point scale ranging from 1 (strongly disagree) to 5 (strongly agree).

and differentiation. One administrator commented about PD in ELA as follows: "Ensuring that those teachers exhibit mastery in teaching CCSS ELA. That means, what happens after the PD occurs?"

Likewise, there was general consensus with administrators regarding the PD needs related to teaching CCSS math. Themes emerging from administrator responses were almost identical to the themes culled from responses about ELA expertise. When asked to identify the "greatest area of need" for PD in CCSS math, response themes were (a) teaching and assessing higher level/complex math tasks, (b) alignment of instruction and IEPs to CCSS, (c) designing interventions, and (d) adaptation techniques, including UDL, accommodations, modifications, and differentiation. For mathematics, the notion of teaching and assessing higher level/complex math tasks was a specific divergence from ELA strategies recommended. One administrator commented as follows: "Moving away from route [*sic*] memorization towards complex math problem solving and understanding that students can access higher-level math when provided with the correct supports."

Lastly, when asked to identify the "greatest area of need" in PD to create CCSS-aligned IEPs (Research Question 4), recommendations centered around IEP-specific skills. Four themes were (a) writing IEP goals aligned to standards, (b) aligning IEP goals to present levels/unique needs, (c) role of assessment and progress monitoring in the IEP, and (d) understanding the CCSS/selecting appropriate standards (e.g., trellising). The notion of trellising was explained as follows: "Goal writing: learning how to start with grade level CCSS and trellis back to the student's ability level." This ability to prioritize standards supports what was recommended in the literature (Haagar & Vaughn, 2013; Konrad et al., 2014).

Discussion

This study was designed to examine CCSS expertise for preservice and in-service special education teachers from the perspective of special education administrators in the field. As CCSS and special education is an emerging area of research, this study sheds some light on the degree of transfer between recommended best practices found in the current literature and implementation in practice. An implicit assumption guiding this study is that administrators would have both a unique perspective and a key role in bringing best practice recommendations to fruition. Using Crockett's (2002) conceptual framework, it was also assumed that the administrator perspectives warranted discussion in informing teacher education programs of immediate needs in the field regarding CCSS and special education because they have a vested interest in ensuring that CCSS is implemented with fidelity for students with disabilities. Therefore the perspectives represented in this study may begin to move the conversation forward about priorities for special education teacher training, PD, coaching, and support.

A surprising finding of this study is that RTI did not rate as high a priority as

one might have expected. This is somewhat contradictory to the spirit of CCSS recommendations for special education teachers in both ELA and math, which allude to the importance of prioritizing standards for instruction and designing appropriate, targeted instruction around those standards (Haager & Vaughn, 2013; Powell et al., 2013). One might assume RTI would be even more critical in terms of filling gaps between student knowledge and grade-level expectations.

Another finding that was interesting was that special education teachers seem to be receiving more PD in ELA than in mathematics. Proficiency in the implementation of the instructional shifts in ELA also slightly outranked math for this sample of administrators. However, it is notable to point out that this sample of administrators agree that special education teachers need to be skilled with adapting *both* the ELA and math standards (see Items 14 and 15). Adapting ELA and math CCSS and implementing evidence-based practices ranked within the highest scored items. A need for more sophisticated mathematics instruction and deeper understanding of the standards for students with disabilities was implied in a specific PD recommendation of one administrator: "I think for all, just re-tooling of our methodology for how math is taught. Many teachers are struggling with the content, specifically in grades 5–6, so providing strategies to assist teachers." This comment affirms the recommendation that teachers have a deeper understanding of the standards, as suggested by Haager and Vaughn (2013) and Powell et al. (2013).

Based on qualitative results of the open-ended questions and general recommendations, UDL appears to be gaining traction in the field, at least in terms of acknowledgment of this practice as a needed skill for new and veteran special education teachers. This is promising given that this practice was not specifically named in any of the quantitative items. When asked about recommendations for general education teachers, one administrator commented:

> Finding opportunities to weave in Universal Design for Learning and Multi-Tiered Systems of Support [MTSS] training and also weave into as many trainings as possible the theme of UDL/MTSS are for all students and that it is not just one more thing you "have to do" for students in special education.

Understanding how to deconstruct standards to craft IEP goals aligned with students' unique needs continues to be a key goal of PD and a desired expertise based on both the quantitative and qualitative results. Within the quantitative items, aligning IEP goals to CCSS did out rank several other content area–related items, yet it did not rate as highly as one might have expected given the available explicit models for how to do so found in the literature, such as McLaughlin's (2012) six-step process for crafting a CCSS-aligned IEP.

Implications for Research

As noted previously, this study is exploratory, and both quantitative and qualita-

tive items were designed to elicit general impressions based on special education administrator roles and familiarity with district-based and school-based practices. Further investigation into CCSS implementation in specific settings for students with disabilities (e.g., inclusive classrooms, self-contained classrooms, nonpublic schools) would provide a more robust understanding of recommendations based on contexts in which students with disabilities receive instruction. Moreover, an exploration of the specific PD topics that special education teachers have been exposed to in the field would be of equal value in providing a more contextualized interpretation of recommendations for in-service teachers.

Another area suggested for further study is to explore the foundational CCSS expertise for special education teacher preparation programs based on an analysis of the new CCSS summative assessment results. It is clear from this sample of administrators that the implementation of evidence-based practices is a highly valued skill for new and veteran special education teachers. However, given that evidence-based practices, such as those reviewed by the What Works Clearinghouse, are interventions linked to student outcomes, how do we ensure that future special education teachers are prepared with evidence-based practices for both intervention and content delivery if they are solely responsible for Tier I, CCSS instruction in self-contained or noninclusive settings?

Implications for Practice

As suggested by much of the CCSS literature on special education and implied by comments of administrators in this sample, collaboration between general and special education teachers continues to be a shared value and vision for teaching CCSS. This sample of administrators also articulated a need for general and special education teachers to be proficient in UDL and adapting the standards based on their respective roles and perspectives. This sort of specialized instruction is also in alignment with the individual consideration tenet of Crockett's (2002) conceptual framework for administrators. Thus, ensuring that preservice and in-service general and special education teachers are trained in UDL, as well as in differentiating and deconstructing standards, is a way that colleges of education can model this sort of collaboration and equip our candidates with a highly desired skill set for students with disabilities. Utilizing vetted and research-based resources and tools such as Innovation Configurations and Course Enhancement Modules published by the center for Collaboration for Effective Educator Development, Accountability, and Reform can assist in this effort (Collaboration for Effective Educator Development and Reform, n.d.).

Special education teachers also need opportunities to practice unpacking the CCSS to align IEPs and craft specific, measurable, attainable, realistic, and timely (SMART) IEP goals. IEP goal writing is a proficiency that district-level administrators recognize as vital to the job of the special education teacher. Teacher

education programs might partner with districts to engage in strategic planning and the leveraging of expertise and resources to determine minimum proficiency expectations for preservice and in-service special education teachers regarding writing CCSS IEP goals. Sample CCSS-aligned IEP goals and other instructional resources available in the Goalbook (n.d.) Toolkit is one tool that might be utilized in this endeavor.

Finally, math content mastery and more sophisticated CCSS-aligned math instruction is an area of expertise that appears to be somewhat lacking for current special education teachers. Using what we know about evidence-based practices in mathematics intervention, math methods courses for preservice special education teacher candidates might be augmented with a deeper learning of foundational mathematics concepts and skills. In-service special education teachers would also benefit from CCSS math content courses and modules offered through state and federal agencies, by reviewing practice guides and webinars vetted by the What Works Clearinghouse, or through modules created by other technical assistance and development centers, such as the IRIS Center.

Limitations

Though this study adds to the literature base on CCSS and special education, the sample of administrators represents a heterogeneous, small, and highly contextualized group from northern and southern California, within a pool of widely diverse districts and student populations. A survey of a larger, national sample of administrators would enable more comparisons between groups of similar districts and student demographics. Moreover, a larger national sample may yield more statistically significant findings for matched districts that might be more generalizable in nature.

Another limitation of this research is validity of the construct. Tests of validity were not performed on the survey instrument due to the exploratory nature of this study and no experimental research findings available on CCSS instruction for special education at the time of this study. Undoubtedly, CCSS instructional expertise is a fairly loaded construct. It encompasses numerous content areas and may be interpreted very differently depending on one's familiarity and depth of understanding of the CCSS and instructional shifts.

Conclusion

CCSS represents a challenge and an opportunity. Expectations for all students to achieve at college- and career-ready levels underscore the outcomes toward which special education has been striving for many years. New and veteran special education teachers have the distinct privilege of leading in raising expectations for students with disabilities by aligning their instruction to rigorous standards while implementing collaborative and best practices aimed at meaningful results

for students with disabilities. One administrator conveyed a thought-provoking recommendation and fitting final reflection:

> It is my understanding that one of the goals of the CCSS is to teach students to work collaboratively, play to each student's strengths, and teaching dialogue, problem solving and discourse. It is now more important than ever to convey the idea that all students require these opportunities and the requisite instruction to allow them to meaningfully participate.

References

Alberti, S. (2013). Making the shifts. *Educational Leadership, 70*(4), 24–27.

Burns, M. (2013). Go figure: Math and the Common Core. *Educational Leadership, 70*(4), 42–46.

California Department of Education. (2014a). Getting ready for the Common Core: Individualized education programs. In *The Special EDge: The Common Core State Standards* (pp. 11–13). Napa, CA: CalSTAT.

California Department of Education. (2014b). School administrators and the Common Core: Supporting students with disabilities. In *The Special EDge: The Common Core State Standards* (pp. 4). Napa, CA: CalSTAT.

Collaboration for Effective Educator Development and Reform. (n.d.). *CEEDAR Center*. Retrieved from http://ceedar.education.ufl.edu/

Collins, K. M. T. (2010). Advanced sampling designs in mixed research. In A. Tashakkori & C. Teddlie (Eds.), *Sage handbook of mixed methods in social science and behavioral research* (2nd ed., pp. 353–377). Thousand Oaks, CA: Sage.

Council of Great City Schools. (n.d.). *Common Core works*. Retrieved from http://www.cgcs.org/Page/239

Courtade, G., & Browder, D. (2011). *Aligning IEPs to Common Core State Standards for students with moderate to severe disabilities*. Verona, WI: Attainment Company.

Creswell, J. (2015). *Educational research: Planning, conducting, and evaluating quantitative and qualitative research*. Upper Saddle River, NJ: Pearson.

Creswell, J. W., & Clark, V. L. P. (2011). *Designing and conducting mixed methods research* (2nd ed.). Thousand Oaks, CA: Sage.

Crockett, J. B. (2002). Special education's role in preparing responsive leaders for inclusive schools. *Remedial and Special Education, 23*, 157–168.

Fowler, F. J. (2014). *Survey research methods* (5th ed.). Thousand Oaks, CA: Sage.

Goalbook. (n.d.). *Goalbook Toolkit*. Retrieved from https://goalbookapp.com/toolkit-info/

Graham, S., & Harris, K. R. (2013). Common Core State Standards, writing, and students with LD: Recommendations. *Learning Disabilities Research & Practice, 28*(1), 28–37. doi:10.1111/ldrp.12004

Haagar, D., & Vaughn, S. (2013). The Common Core State Standards and reading: Interpretations and implications for elementary students with learning disabilities. *Learning Disabilities Research & Practice, 28*(1), 5–16.

Konrad, M., Keesey, S., Ressa, V., Alexeeff, M., Chan, P., & Peters, M. (2014). Setting clear learning targets to guide instruction for all students. *Intervention in School and Clinic, 5*(2), 76–85. doi:10.1177/1053451214536042

Leko, M. M., Brownell, M. T., Sindelar, P. T., & Kiely, M. T. (2015). Envisioning the future of special education personnel preparation in a standards-based era. *Exceptional Children, 82*(1), 25–43.

McLaughlin, M. (2012, September/October). Access for all: Six principles for principals to consider in implementing CCSS for students with disabilities. *Principal*. Retrieved from http://www.naesp.org/principal-septemberoctober-2012-common-core/access-common-core-all-0

Mercado, E., & Britt, S. (2013). How ASCD supports the common core. *Educational Leadership, 70*(4), 78–79.

Mertens, D. M. (2015). *Research and evaluation in education and psychology: Integrating diversity with quantitative, qualitative, and mixed methods*. Thousand Oaks, CA: Sage.

Murphy, M. R., & Marshall, K. J. (2015). Common Core preparation in special education teacher education programs: Beginning the conversation. *Teacher Education & Special Education, 38*(3), 167–185. doi:10.1177/0888406415577453

Nadelson, L. S., Pluska, H., Moorcroft, S., Jeffrey, A., & Woodard, S. (2014). Educators' perceptions and knowledge of the Common Core State Standards. *Issues in Teacher Education, 22*(2), 47–66.

National Governors Association Center for Best Practices & Council of Chief State School Officers. (2010). *Common Core State Standards*. Retrieved from http://www.corestandards.org /

Neuman, W. L. (2000). *Social research methods: Qualitative and quantitative approaches* (4th ed.). Boston: Allyn & Bacon.

Powell, S., Fuchs, L., & Fuchs, D. (2013). Reaching the mountaintop: Addressing the Common Core Standards in mathematics for students with mathematics difficulties. *Learning Disabilities Research & Practice, 28*(1), 38–48.

Rose, D., Meyer, A., & Gordon, D. (2014). Reflections: Universal Design for Learning and the Common Core. In *The Special EDge: The Common Core State Standards* (pp. 3-5). Napa, CA: CalSTAT.

Rothman, R. (2013). *Fewer, clearer, higher: How the Common Core standards can change classroom practice*. Cambridge, MA: Harvard Education Press.