Educator Enhancement Academies Evaluation Study

Phase 1—Preparation of RESA-Based, Next Generation CSO Trainers

West Virginia **Department of** **EDUCATION**
Office of Research

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March 2014

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This research study was reviewed and approved by the West Virginia Department of Education Institutional Review Board (WVDE-IRB-014). Should you desire additional details about this study's approval status, you may contact the WVDE IRB chairperson, Patricia Cahape Hammer (phammer@access.k12.wv.us).

Executive Summary

This is the first of three evaluation reports on the effectiveness of a regional train-the-trainer strategy to support classroom implementation of the Next Generation Content Standards and Objectives (NxGen CSOs). This report focuses on six regional Educator Enhancement Academies (EEAs) hosted by the eight regional education service agencies (RESAs) in the spring of 2013. The EEAs prepared RESA-based NxGen trainers who would provide professional development for educators—primarily teachers—in schools across the state. Later phases of this study will examine the extensiveness and quality of training offered by the RESA-based NxGen trainers during the subsequent months (Phase 2), and the ultimate impacts of those training experiences on teachers' instructional practices and student performance (Phase 3).

The six EEAs focused on the NxGen CSOs for elementary school (Grades 2-3), middle school (Grades 6-8), and high school (Grades 10-12).[1] They had durations of 2 to 3 days. The WVDE supplied content expert trainers for four of the EEAs. Corwin Press provided trainers for the remaining two (see Table 1).

Table 1.   2013 Regional Educator Enhancement Academy Schedule

RESAs	Dates	Location	Source of trainers
RESA 3	April 15-17	Charleston, WV	Corwin Press
RESA 7	April 15-17	Morgantown, WV	Corwin Press
RESA 2	May 17, 18, and 28	Huntington, WV	WVDE
RESAs 5 and 6	May 20 and 22	Wheeling, WV	WVDE
RESAs 1 and 4	May 29-31	Beckley, WV	WVDE
RESA 8	June 3-5	Shepherdstown, WV	WVDE

In all, 953 participants were prepared to be RESA-based trainers on NxGen instructional shifts. Slightly more than a third attended Corwin-led with remainder attending WVDE-led EEAs. Attendance at the academies ranged from 140 to 215. All 55 counties were represented, and the largest group of attendees was regular education classroom teachers.

Methods

An initial evaluation survey, the Event Survey, was conducted using two different methods. At WVDE-led academies, participants filled it out onsite either with paper and pencil copies or online. Participants at Corwin-led EEAs were contacted via e-mail and responded online. A second survey (Follow-up Survey) was administered to all 953 participants online in September 2013; it was intended to collect participants views, after they conducted their own training during the summer.

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[1] During the two previous school years, the remaining grade levels had been the focus of NxGen training provided through centralized Teacher Leadership Institutes (TLIs) conducted by the West Virginia Department of Education (WVDE).

Results

The overall response rate for the EEA Event Survey was 78%. Response rates for the Corwin-led EEAs were considerably lower (54.4%) than for WVDE-led EEAs (89.6%), probably due to the challenges posed by the need to collecting data from them through e-mail communications during the summer months. Both groups were surveyed together in September for the EEA Follow-Up Survey; 62.9% responded overall, with WVDE-led EEA participants' response rate (61.6%) slightly exceeding Corwin's (56.4%).

We approach the discussion of findings from two perspectives: first in relationship to a review of the research literature published by the WVDE Office of Research (Hammer, 2013; see a summary in the Introduction of the full report); and second in response to six research questions.

Findings and Recent Research

Two major components must be in place for professional development to result in greater teacher and student learning: (a) a coherent instructional system, and (b) design features that research has shown to be effective (Hammer, 2013). Each of these major components is discussed below.

Cobb and Jackson (2011) describe what constitutes a *coherent instruction system*—that is, one where various elements work together to raise student achievement. Elements especially relevant to this study include the following: (a) explicit goals for students' learning; (b) a detailed vision of high-quality instruction that specifies particular instructional practices that will lead to students' attainment of the learning goals; (c) instructional materials and associated tools designed to support teachers' development of these practices; (d) district teacher professional development that focuses on the specific practices, is organized around the above materials, and is sustained over time; (e) classroom assessments aligned with the goals; (f) school-based professional learning communities; and (g) additional supports for struggling students.

The EEAs focused strongly on the first four of the elements described by Cobb and Jackson (2011)—that is, participants spent time learning about the NxGen standards for their content areas and grade levels (a, above). They also learned about shifts in instructional approaches that will be needed to teach to the new standards (b, above) and materials and tools to help them implement the new approaches in their classrooms (c, above). Participants indicated they greatly valued the time spent learning about the instructional shifts and related resources, and would like more of both. As for (d) above, the purpose of the EEAs was to prepare RESA-based trainers who could lead professional development for educators in schools and districts. The extent to this was a successful effort is the focus of this three-phase evaluation. Some preliminary evidence is presented later in this summary. The remaining elements in Cobb and Jackson's system (e–g, above) were not taken on explicitly in the EEAs, but could be the focus of future training.

Turning now to *research-based approaches to professional development*, consensus has developed around the need to include the following five design elements: (a) content and content pedagogy focused; (b) coherence with school and district goals, as well as partici-

pants level of knowledge and need for training; (c) active learning including time for planning implementation of newly learned practices; (d) collective participation of educators from the same school or district; and (e) duration (at least 30 hours) and time span (a year or more).

Evidence from the Phase 1 study supports at least the first three practices being present during the 2- or 3-day EEAs. The academies were strongly focused on content and approaches to teaching that content (a, above). Further, participants generally agreed that the training was tied to their school and district goals, although a small group of participants suggested that the content of the training was a mismatch with their needs (especially grade or programmatic level) or that the content had already been covered in previous training (b, above). As for active learning (c, above), in open-ended comments participants expressed appreciation for the discussions and information sharing that took place, as well as the opportunities for collaboration and planning. Participants in WVDE-led EEAs also indicated strong agreement that the EEA they attended included opportunities to practice. Participants at both Corwin- and WVDE-led sessions agreed that they had opportunities to collaborate. Phase 2 of this study may provide evidence of the final two design elements (d and e, above).

Findings in Response to the Research Questions

This part of the discussion directly addresses six research questions that guided the Phase 1 study. In doing so, we must address the differences between the two main providers—Corwin and WVDE—because the findings were notably different.

EQ1. To what extent did the EEAs deliver high quality professional development? When asked if the session they attended included six different research-based practices, participants in WVDE-led EEAs had mean scores that fell solidly in the agreed or strongly agreed range. On the other hand, for three of the six indicators, participants in Corwin-led sessions had mean scores in the neutral range, with the other three indicating weak agreement.

EQ2. To what extent did the EEAs employ appropriate logistic procedures including the amount of time spent on the professional development? Participants from both groups agreed that the trainers adhered to the schedule. However, there was stronger agreement that the WVDE-led sessions had clear objectives and were well organized. Phase 2 will investigate whether the duration of the training met the 30 or more hours called for in research.

EQ3. To what extent did the EEAs prepare attendees to effectively train others regarding the NxGen CSOs? Participants at the WVDE-led trainings were much more likely than those at Corwin trainings to indicate that the training had been a good start and they were looking forward to training others or that the training had provided everything they needed to train—by a margin of about 2.5 to 1. Conversely, attendees at Corwin-led events were about 12 times more likely to indicate they did not feel ready to train others. When asked about the quality of the training materials they were provided for use in their own trainings, there was agreement in both groups that they had received adequate quantities and that the materials were high quality and evidence based—although the WVDE-led par-

ticipants agreed more strongly. The Corwin-led participants, however, were neutral about the materials being relevant to their training needs and useable for their own trainings, while WVDE-led participants quite strongly agreed they were relevant and useful.

EQ4. To what extent did the EEAs build sufficient knowledge of the NxGen CSOs and of critical shifts from the previous standards? The knowledge test included in the EEA Event Survey showed comparable results for both providers except in one area: Individuals who attended WVDE-led elementary-level English/language arts sessions performed significantly better than those who attended Corwin-led sessions. In no case did the average raw score correspond to less than 58% correct. However, it is important to understand the inverse as well. In the worst case (i.e., middle school mathematics), the average respondent answered 42% of scenario items incorrectly. In the best case (i.e., elementary mathematics), the average respondent answered 22% incorrectly.

EQ5. To what extent did the EEAs use qualified and knowledgeable personnel to deliver content? On all of the quantitative measures of trainer quality, the WVDE trainers received extremely high mean ratings—at least 4.6 on a 5-point scale. Corwin trainers, on the other hand scored at least a full point lower. Corwin trainers' lowest score was for "Trainers modeled desired training techniques." Participants at the WVDE-led academies were almost three times more likely to mention the high quality of the presenters. In response to an open-ended question about what had been least useful, nearly 13% of participants in the Corwin-led academies thought the quality of the trainers was inadequate; about 5% thought none of the training was useful; and another 5% thought there was too much marketing of materials taking place.

EQ6. To what extent did the EEAs provide a better experience as regionally based academies, compared with the previous state-based professional development models? Although just under 40% of both groups thought their experiences had been *about the same* as in previous events, about 56% of WVDE-led EEA attendees thought their EEA experience was more useful, compared with 16% for Corwin—a 40-point difference. Conversely, about 46% of Corwin attendees thought it was less useful than previous events, compared with 5% of WVDE attendees who held that view, which is another 40% gap.

With the exception of the knowledge test items, the differences between the two groups was important and consistent across nearly all measures, with WVDE-led EEAs getting very high marks on nearly every measure, and Corwin receiving notably lower ratings. Evidence from comments supports possible explanations for these differences:

- *Lack of preparation on the part of the Corwin trainers*—Trainers lacked knowledge about NxGen standards and were often unable to answer participants' questions.

- *Lack of experience in a train-the-trainer setting*—Participants' gave the trainers relatively low marks for the materials they provided in terms of their usefulness and relevance, and indicated a lack of modeling of training techniques they would be able to use. Further, only about a quarter of the participants in the Corwin sessions were looking forward to training others or felt they had everything they needed compared with two thirds of the participants in the WVDE-led sessions.

- *Mismatched expectations between the RESAs who contracted with them and Corwin Press*—The Corwin trainers did not seem to understand their role in training RESA-based trainers. Participant complaints about trainers' efforts to sell their books suggest they may have viewed the sessions more as a marketing opportunity than as a critical component in West Virginia's implementation of the NxGen CSOs.

- *Duration of the training*—The Corwin-led sessions were significantly briefer than the WVDE-led sessions; that is, 12–15 hours compared with 24 hours.

Limitations of the Study

Participants from the two RESAs that used Corwin Press were surveyed more than two months after their training; participants at trainings provided by the remaining RESAs were surveyed immediately, onsite—which poses a risk of temporal bias. Response bias may also have played a role in the EEA Event Survey. Due largely to the way the survey was administered, about 90% of WVDE-led EEA attendees responded to the survey compared with only about 54% of attendees—perhaps the most vocal ones—in the Corwin-led sessions. The six knowledge tests were developed by WVDE staff, tested by at least two outside educators working in the appropriate grade level and content area, vetted by members of the WVDE Office of Assessment and Accountability, and tested using factor analysis to cull out ineffective items. The tests were not normed, however, or subjected to rigorous statistical validity and reliability testing, so these results should be viewed as indicative and not summative.

Recommendations

Based on what we learned in Phase 1, we have the following recommendations (additional recommendations will likely follow as we learn more in later phases:

- Develop additional materials and associated tools to support teachers' use of instructional practices to help students meet the new NxGen standards. Consider using this development process as a professional learning opportunity for teachers who would create and vet new resources.

- Sustain the commitment to professional learning among the RESA-based trainers and the educators whose learning about the NxGen standards and instructional shifts they will guide. Thirty contact hours over the course of a year should be the minimum, more should be provided if at all possible.

- Settle on standards for professional development, such as the Learning Forward standards adopted by the West Virginia Board of Education, or the components and qualities outlined in this report.

- Develop standards for train-the-trainer events that clearly specify what should be provided, for example, adaptable PowerPoint presentations, activity descriptions, and modeling of effective training practices.

- Include standards and clear objectives for training in contracts with vendors and other providers, and hold them accountable.

- Evaluate the success of the training based on the trainers' effectiveness in meeting the standards and objectives. Publish the results to motivate providers to align their offerings to state goals, priorities, and standards for professional learning.

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Introduction

This is the first of three evaluation reports on the effectiveness of a new regional strategy for driving classroom implementation of the Next Generation Content Standards and Objectives (NxGen CSOs) through high quality professional development. This report focuses on the first phase, regional Educator Enhancement Academies hosted by the eight regional education service agencies (RESAs) in the spring of 2013, which using a train-the-trainer model prepared RESA-based NxGen trainers to provide professional development for educators—primarily teachers—in schools across the state. Later phases of this study will examine the extensiveness and quality of training offered by the RESA-based NxGen trainers, and the ultimate impacts of those training experiences on teachers' instructional practice and student performance.

Background

For two years, the West Virginia Department of Education (WVDE) conducted state-sponsored professional development opportunities, the Teacher Leadership Institutes (TLI), to roll out the West Virginia NxGen CSOs to districts and schools. The NxGen CSOs are West Virginia's equivalent to the Common Core State Standards (CCSSs). The TLIs were a residency-based professional development opportunity that took place in a central location over the course of a full week, with participants receiving 35-40 hours of training. Counties sent teams of teacher leaders to participate in TLI and, in a traditional train-the-trainer model, these teacher leaders were then responsible for returning to their school districts and sharing what they had learned with other teachers. In 2011, the TLI focused on kindergarten and in 2012 it focused on Grades 1, 4, 5, and 9.

In response to recommendations in a study, the *Education Efficiency Audit of West Virginia's Primary and Secondary Education System*, conducted at the request of the Governor by a private consulting firm, Public Works (2012), the West Virginia Board of Education (WVBE) called for decentralization of such statewide professional development offerings. The WVBE called for future professional development opportunities to be conducted regionally as part of an effort to diffuse responsibility to local boards of education and regional education service agencies (RESAs). Accordingly, the roll-out of the NxGen CSOs for the remaining grade levels was reconceptualized and conducted regionally, beginning with a series of six Educator Enhancement Academies (EEAs) intended to prepare RESA-based trainers to work with educators in schools and districts across the state. See Table 2 below for details about the dates and locations of the EEAs.

The 2013 EEAs focused on the NxGen CSOs for elementary (Grades 2-3), middle (Grades 6-8), and high school (Grades 10-12). The six EEAs had a duration of 2 to 3 days as opposed to the 5-day residency model used for TLI. The WVDE supplied expert trainers for four of the six EEAs. The remaining two (RESAs 3 and 7) worked with a private vendor, Corwin Press, to provide expert trainers.

Table 2.   2013 Regional EEA Schedule

RESAs	Dates	Location
RESA 3	April 15-17	Charleston, WV
RESA 7	April 15-17	Morgantown, WV
RESA 2	May 17, 18, and 28	Huntington, WV
RESAs 5 and 6	May 20 and 22	Wheeling, WV
RESAs 1 and 4	May 29-31	Beckley, WV
RESA 8	June 3-5	Shepherdstown, WV

Teachers, district central office staff, administrators, and other educators who would serve as RESA-based trainers attended the six EEAs to build their capacity to understand the NxGen CSOs in English/language arts (ELA) and mathematics. Once the EEAs concluded, these RESA-based trainers were expected to provide additional training on the NxGen CSOs to county and school staff during the summer of 2013. A variety of delivery models were expected to be used during this professional development depending on local needs, including professional development delivered at the school and county levels, or centrally for a whole RESA region. Regardless of the locale of the training, a typical train-the-trainer model was used, which begins by selecting and preparing RESA-based NxGen trainers (Phase 1), continues by NxGen trainers providing professional development to classroom teachers (Phase 2), and ultimately impacts both teacher practice and student performance (Phase 3), as illustrated in Figure 1.
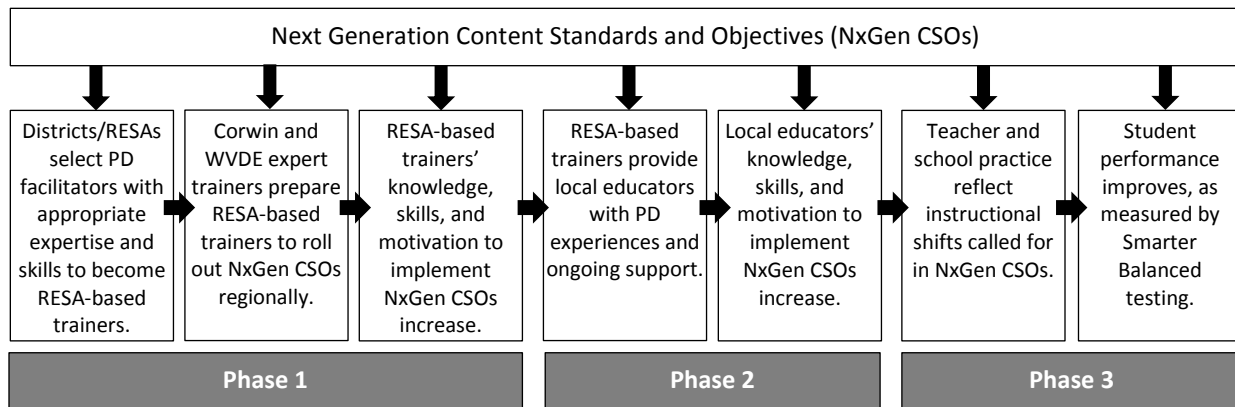
Figure 1.   Educator Enhancement Theory of Action
The Educator Enhancement Academies employed a train-the-trainer model for the delivery of professional development regionally through the eight RESAs. The delivery model begins with the selection of local educators, who receive training, which increases their ability to train others back in their schools or districts, with the ultimate goal of improving teacher practice and student performance.

The EEA delivery model had six primary objectives:

1. Deliver high quality professional development that results in significant positive changes in teachers' knowledge, skills and behavior, and attitudes and beliefs.
2. Employ appropriate logistic procedures including the amount of time spent on the professional development.
3. Prepare attendees to effectively train others regarding the NxGen CSOs.

4. Build sufficient knowledge of the NxGen CSOs and of critical shifts from the previous standards.

5. Utilize qualified and knowledgeable personnel to deliver content.

6. Provide a better experience as regionally based academies, compared with the previous state-based professional development model.

Relevant Scholarship

Train-the-trainer models for professional development have been used in various professions to bring innovations to scale. Research and evaluation studies have provided evidence, albeit somewhat limited, that such train-the-trainer models can support the development of knowledge and skills, and change practice in professional and community settings, such as in the following examples:

- teaching resilience skills to sergeants and training them in how to teach those skills to soldiers (Reivich, Seligman, McBride, 2011);

- promoting evidence-based practices in the education and treatment of children with autism and other disabilities (Bryson et al., 2007; LaVigna, Christian, & Willis, 2005; Thomas, 2005);

- training trainers to work with parents of children with disabilities or behavior challenges (Hester, Kaiser, Alpert, and Whiteman, 1995; Kaiser, Hester, Alpert, & Whiteman, 1995; Kuhn, Lerman, & Vorndran, 2003);

- developing first aid and risk-reduction skills among teenagers (Carruth et al., 2010); and

- supporting the adoption of positive behavior supports and behavior management interventions in schools and classrooms (Marchant, Christensen, Womack, Conley, & Fisher, 2010; Noell, Duhon, Gatti, & Connell, 2002).

Pearce and colleagues (2012) conducted a systematic review of the research literature examining train-the-trainer programs in health and social care fields, and identified 18 studies that met criteria for inclusion. The train-the-trainer interventions varied greatly in their approaches, making it impossible to do a meta-analysis of the findings; however, their narrative review found that of the 18 train-the-trainer interventions, 13 helped to increase knowledge, improve clinical behavior, or produce better patient outcomes. Another three found possible positive effects, one found no effects, and another, comparing the effect of the train-the-trainer program with the use of a CD-ROM-based program, found the latter produced a stronger effect. Looking across the studies, the researchers concluded that there is evidence to support using a blended learning approach to deliver training for trainers—that is, using techniques such as interactive, multifaceted methods and accompanying learning materials—to effectively disseminate and implement guidelines and curricula among health and social care professionals. Pearce and colleagues also noted that the study designs varied in that some measured impacts on trainers while others examined impacts on those the trainers trained. They urged more research on the topic.

We were unable to locate a systematic review of train-the-trainer models in education. However, there has been considerable research, including systematic reviews of the literature about professional development in elementary-secondary education more generally, especially for teachers. A review of the research on teacher professional development identified an emerging consensus on important contextual and implementation characteristics that can promote or inhibit teachers' use of new knowledge and skills in their classroom practice.

First, teachers' professional development does not happen in a vacuum and should not be a purely individual pursuit (Desimone, Porter, Garet, Yoon, & Birman, 2002; Desimone, Smith, & Ueno, 2006). Research suggests that professional development is best viewed as one component in an overall system that also requires alignment among tests, policy, and curriculum. Further, when curriculum for improving teaching overlaps with curriculum and assessment for students, teaching practice and student learning are more likely to improve. On the other hand, when policies and implementation do not meet these conditions—for example, by introducing new assessments or curriculum without offering teachers adequate opportunities to learn them or by offering professional development that is not well aligned—the chances for success are greatly reduced (Cobb & Jackson, 2011; Cohen & Hill, 1998).

Within this context, research has shown that effective professional development tends to have the following elements:

- *Content and content pedagogy focus*—This element includes both deepening teachers' knowledge of the subject matter they are teaching and the pedagogical approaches that have been shown to be successful in helping students learn that subject matter. Effectiveness is improved if the professional development uses the curriculum materials that teachers will later use with their students (Blank, de las Alas, & Smith, 2008; Carpenter et al., 1989; Clewell et al., 2004; Cohen & Hill, 1998, 2001; Desimone, Porter, Garet, Yoon, & Birman, 2002; Desimone, Smith, & Phillips, 2013; Doppelt et al., 2009; Garet et al., 2001; Kennedy, 1998; McCutchen et al., 2002; Penuel, Fishman, Yagamuchi, & Gallagher, 2007).

- *Coherence*—This element involves providing professional development experiences in a progression that builds on previous experiences and aligns with school goals and with state standards, curriculum, and assessments. Coherent professional development programs encourage continuing professional communication among teachers, either in their own school or with others in the district who teach similar subject matter or students (Cohen & Hill, 1998; Desimone et al., 2002; Garet et al., 2001; Grant, Peterson, & Shojgreen-Downer, 1996; Lieberman & McLaughlin, 1992).

- *Active learning*—Opportunities for active learning can include reviewing student work, practicing a new skill and obtaining feedback, planning how new curriculum materials and new teaching methods will be used in the classroom, and engaging in discussions and in written work (Desimone et al., 2002; Garet et al., 2001; Penuel, Fishman, Yagamuchi, and Gallagher, 2007).

- *Collective participation*—Professional development that has collective participation of teachers from the same school, department, or grade helps increase opportunities to discuss concepts, skills, and problems that arise when teachers work to integrate what they have learned into their classroom practice (Desimone et al., 2002, p. 102; Desimone, Smith, & Ueno, 2006; Johnson, Kahle, & Fargo, 2007; Penuel, Fishman, Yagamuchi, & Gallagher, 2007; Saunders, Goldenberg, & Gallimore, 2009). Over time, it can lead to a professional culture in which teachers in a school or teachers who teach the same grade or subject develop a common understanding of instructional goals, methods, problems, and solutions—an understanding that is sustained over time, even when some teachers leave and others join the group (Garet et al., 2001).

- *Duration, including time span and contact hours*. Depending on the complexity and difficulty of the knowledge and skills teachers are learning, the number of contact hours may vary, but research suggests that at least 30 hours are needed to impact teacher practice and/or student achievement (Blank et al., 2008; Clewell et al., 2004; Yoon, Duncan, Lee, Scarloss, & Shapley, 2007). Sustaining the experience over one or more school years is also important, allowing for more opportunity for teachers to try out new practices and benefit from additional feedback and communication with trainers, coaches, or colleagues in professional learning communities in their schools (Johnson, Kahle, & Fargo, 2007; Grigg, Kelly, Gamoran, & Borman, 2013).

Goals of the Full Evaluation

This report will examine the first of the three phases illustrated in the EEA logic model (Figure 1, page 2); two additional reports will focus on the remaining two phases. Briefly, each of the phases will include the following areas of inquiry.

Phase 1. Preparation of RESA-based, NxGen trainers. This phase of the study examines the initial training provided in the six EEAs hosted by the RESAs during the spring and early summer of 2013. We will report (a) the number of RESA-based, NxGen trainers prepared statewide and by region; (b) the results of a knowledge test that assesses the extent to which the newly prepared trainers have the knowledge they need about the critical shifts represented by the NxGen CSOs; (c) trainers' immediate perceptions of the quality of the training and materials they received; and (d) their retrospective insights about the same after conducting their own training. We will compare WVDE and non-WVDE vendor-led trainings to assess any important differences.

Phase 2. Training provided by RESA-based, NxGen trainers. In late spring of 2014, we will report (a) how many of the RESA-based NxGen trainers followed through by providing their own NxGen CSO training and details about how many educators attended, from which content areas and programmatic levels; (b) the context of the rollout in the eight regions, including challenges trainers faced; (c) what additional supports they could use from RESAs; (d) their plans for follow up; and (e) the perceptions of teachers about the training they received from the RESA-based trainers and the impact of that training on their knowledge, practice, and beliefs.

Phase 3. *Teacher practice and student performance*. This phase of the study, scheduled for the fall of 2016 will report on data collected from a representative sample of educators and administrators statewide about (a) the ongoing presence and quality of training, (b) local implementation of NxGen CSOs-based instruction, and (c) external support provided to educators. We will create regression models that estimate individual and combined impacts of these factors on student achievement data.

Goals of the Phase 1 Study

This study addresses the following evaluation questions to examine the extent to which the new EEA delivery model accomplished six primary objectives outlined above.

EQ1.　To what extent did the EEAs deliver high quality professional development?

EQ2.　To what extent did the EEAs employ appropriate logistic procedures including the amount of time spent on the professional development?

EQ3.　To what extent did the EEAs prepare attendees to effectively train others regarding the NxGen CSOs?

EQ4　To what extent did the EEAs build sufficient knowledge of the NxGen CSOs and of critical shifts from the previous standards?

EQ5.　To what extent did the EEAs use qualified and knowledgeable personnel to deliver content?

EQ6.　To what extent did the EEAs provide a better experience as regionally based academies, compared with the previous state-based professional development models?

Methods

Population Characteristics

Participants in the Educator Enhancement Academies (EEAs) were members of various role groups, including academic coaches, district central office staff, instructional support teacher/specialist (non-special education), principals/assistant principals, regular and special education teachers, and regional education service agency (RESA) staff. They worked in schools, districts, and RESAs across the whole state.

Sampling Procedures

Trainers at each of the EEAs maintained sign-in logs of all attendees, which included the following information (a) the attendee's name, (b) the region in which he or she attended the EEA, and (c) an email address that could be used for follow-up during the summer months and early fall. We used the full contact list from all six EEAs to comprise our sampling frame for the surveys.

Measures and Covariates

To address the evaluation questions, we used a two-stage survey. We conducted an initial survey (Event Survey) at the conclusion of each of the Educator Enhancement Academies (EEAs). A second survey (Follow-up Survey) was sent to the same individuals in September 2013. All survey items were developed by the Office of Research in consultation with the Office of Early Learning and the Office of Secondary Learning. The latter two offices spearheaded the development of the 12 vignettes and related questions used to measure the extent to which EEA attendees finished the academy with sufficient knowledge of the instructional shifts called for in the Next Generation Content Standards and Objectives (NxGen CSOs). Staff from the Office of Assessment and Accountability checked the quality of the knowledge test items, and all items were pilot tested by at least two individuals working in the grade level and content areas targeted. Most of the other items in both surveys were derived from previous surveys or were easy-to-interpret, open-ended questions. Survey administration was organized and coordinated by the Office of Research. Both survey instruments are included in Appendix A (page 35).

Event Survey

The initial (event) survey included items to assess each of the six evaluation questions noted above. For four of the EEAs—those where West Virginia Department of Education staff provided the training—this survey was administered at the end of the event itself, either online or with a paper-and-pencil version, when internet connectivity was limited. We provided WVDE staff conducting the training a protocol for data collection at the events. Participants in the remaining two EEAs led by trainers from Corwin Press, were invited to respond to the survey via an automated SurveyMonkey series of invitations and reminders.

The majority of items were attitudinal in nature and assessed participants' perceptions regarding the professional development using Likert type response options and a small number of open-ended questions. Additionally, we developed items to serve as a knowledge test. Each respondent was asked to read two short scenarios (approximately 100 words) related to their content area (e.g., middle school English/language arts (ELA) or elementary school mathematics) and then respond to a corresponding set of knowledge test items. Respondents also had the opportunity to provide a brief open-ended response that explained their answer choices. Responses to the knowledge test items were scored by the Office of Research and summaries of right/wrong responses provide an indicator of how effectively the EEAs addressed critical concepts. We considered this method to be superior to assessing content knowledge using perceptual data.

Follow-up Survey

The second (follow-up) survey collected perceptual data from EEA participants, after they had trained teachers back in their home districts and schools during the late spring and summer. This survey was conducted from September 9–October 7, 2013. Survey items asked participants how well prepared they were to deliver the training, how many teachers they trained, the duration of their training, any follow-up they have planned, and other related questions. Open-ended questions solicited information about what aspects of the EEAs proved, in retrospect, to have been the most and least useful to prepare them for their own trainings, and what other supports they could use from their RESAs going forward. This report will summarize findings from only a portion of this survey. The remainder will be included in the Phase 2 report, along with additional data collected in the spring of 2014.

Research Design

Table 3 displays the evaluation questions, including which items in the surveys and other data sources were used to address each. We used descriptive statistics and qualitative methods to analyze data gathered from the surveys. We analyzed survey responses in aggregate for all EEAs, for each EEA, and in some cases, by provider group—that is, Corwin Press and the West Virginia Department of Education (WVDE).

For the knowledge tests included in the Event Survey, we conducted our analysis of EEA scenario data in two phases. Phase 1 included verification of the quality of the items included in each scenario. Specifically, we examined two facets of item quality, difficulty and discrimination. We utilized the percentage of correct responses for each item as a measure of item difficulty. Our goal was to identify any items that were either too difficult or too easy for respondents. We defined "too easy" as any item where more than 85% of participants responded correctly and "too difficult" as any item where less than 15% of participants responded correctly. Items meeting these criteria were flagged. We next examined item discrimination, an estimate of the extent to which a correct response on a given scenario item is related to successful performance on the overall scenario instrument. For these analyses we used the point biserial correlation between test takers' right/wrong responses for each item and their total score for the scenario excluding the item under examination. We defined poor item discrimination as a point biserial correlation of .20 or lower. If any item

was flagged for both difficulty and poor discrimination, we removed that item from our analyses before proceeding to phase two.

Table 3. Summary of Evaluation Questions and Data Collection Methods Used

Evaluation question	Data collection method employed
EQ1. To what extent did the EEAs deliver *high quality professional development?*	*Delivery of high quality professional development* • Event Survey items 2.1.1–2.1.6.
EQ2. To what extent did the EEAs employ *appropriate logistic procedures* including the *amount of time spent* on the professional development?	*RESAs use of appropriate logistic procedures* • Event Survey items 2.1.7–2.1.9 *RESAs provision of appropriate amount of time* • Personal communications with trainers and RESA staff
EQ3. To what extent did the EEAs *prepare attendees to effectively train others* regarding the NxGen CSOs?	*Attendees are well trained to train others* • Event Survey item 4.1 • Follow-up Survey items 2.10-2.12 (qualitative feedback) *Attendees are well supplied/equipped to train others* • Event Survey items 3.1.1-3.1.4 • Follow-up Survey items 2.10 and 2.12
EQ4. To what extent did the EEAs build *sufficient knowledge of the NxGen CSOs* and of critical shifts from the previous standards?	*Attendees are knowledgeable about critical shifts in NxGen CSOs* • Event Survey scenarios
EQ5. To what extent did the EEAs use *qualified and knowledgeable personnel* to deliver content?	*Trainers were qualified and knowledgeable* • Event Survey items 3.2.1–3.2.6 • Follow-up Survey items 2.10-2.11
EQ6. To what extent did the EEAs provide a *better experience* as regionally based academies, compared with the previous state-based professional development models?	*Quality of experience provided by regional versus state-based professional development* • Event Survey item 4.2

Phase 2 of the knowledge test involved examining respondents' performance on the overall scenarios. For these analyses, we first calculated a total scenario score for each respondent. This was defined as the sum of correct responses across both scenarios to which they responded (hereafter referred to as "raw score"). Any respondent who did not complete both scenarios did not receive a raw score. We then analyzed raw scores for all respondents, and by training sponsor (WVDE, Corwin/WVDE). We conducted descriptive analyses including the average raw score for participants and percentage of the total possible score represented by this number (e.g., percent correct). We also conducted independent samples *t* tests to test for differences in average raw scores by provider.

Results

We begin with response rates and demographic information about respondents to the survey, and proceed with findings for each of the research questions, drawing from data sources as outlined in Table 3 (page 9).

Recruitment

There were six Educator Enhancement Academies (EEAs) held from mid-April through early June; all were sponsored by regional education service agencies (RESAs). RESAs 3 and 7 hosted the two EEAs held in April, which featured trainers supplied by Corwin Press. These RESAs opted to provide lists of email addresses of attendees, which the Office of Research used to invite participants to respond to the Event Survey. There was considerable lag time, however, before the Office of Research received those lists, so attendees at these two events were not contacted until June, extending into July 2013. The other six RESAs sponsored the remaining four EEAs, which featured trainers from the West Virginia Department of Education (WVDE). The WVDE trainers administered the Event Survey onsite at the end of the training, either online or in paper and pencil form, depending on the availability of adequate internet connectivity.

The overall response rate for the EEA Event Survey was 78%. Response rates for the Corwin-led EEAs were considerably lower (54.4%) than for WVDE-led EEAs (89.6%), probably due to the challenges posed by collecting data from school and district personnel during the summer, when many were away from school or vacationing (see Table 4 for numbers of respondents and rates of response). This factor must be taken into consideration when weighing responses from this group. Both groups were surveyed together in September for the EEA Follow-Up Survey; 62.9% responded overall, with WVDE-led EEA participants' response rate (61.6%) slightly exceeding Corwin's (56.4%). Ta-

Table 4.   Number of Participants in Event and Follow-Up Surveys and Response Rates by Provider and EEA Event

Participants	Participants (N)	Event survey		Follow-up survey	
		Respondents (N)	Response rate (%)	Respondents (N)	Response rate (%)
By Provider					
All EEAs	953	743	78.0	599	62.9
Corwin-led EEAs	349	190	54.4	197	56.4
WVDE-led EEAs	604	541	89.6	372	61.6
NR*		12		30	
By EEA					
All	953	743	78.0	599	62.9
RESAs 1 & 4 EEA	215	182	84.7	132	61.4
RESA 2 EEA	140	140	100.0	77	55.0
RESA 3 EEA	140	75	53.6	86	61.4
RESAs 5 & 6 EEA	106	102	96.2	75	70.8
RESA 7 EEA	209	115	55.0	111	53.1
RESA 8 EEA	143	115	80.4	88	61.5
NR*		12		30	

* Respondents did not indicate which RESA provided their training.

ble 4 also displays the breakdown by the six EEA events. In all cases, the majority of partici-pants responded to the surveys.

Statistics and Data Analysis

This section begins with demographic information about the survey respondents, then provides results to the surveys by evaluation question, as outlined in Table 3 (page 9).

Demographic information about respondents

In all, 953 individuals were trained in the six EEAs, with slightly more than a third attending Corwin-led events and a little less than two thirds attending WVDE-led events. The numbers at each of the events ranged from 140 to 215 (see Table 4).

By far, the largest group of respondents to both surveys was general classroom teach-ers, making up about two thirds of both groups of respondents, followed in descending order by district central office staff (10%), instructional support teachers/specialists (8%), other role groups (6%), and with less than 5% each, principals, special education teachers, and RESA staff (Table A - 1, page 43 in the Appendix). Respondents to the EEA Event Survey—the survey with the highest response rate (78% overall) and, therefore, the most complete picture of the attendees of the EEAs—originated from all 55 counties. So, these findings indi-cate that there was good representation across the state at the academies, and that the peo-ple being trained were, for the most part, teachers and district central office staff who would return to their schools and districts to provide training to their colleagues.

EQ1. To what extent did the EEAs deliver high quality professional development?

Six items on the EEA Event Survey—each designed to measure some aspect of what research has shown to be effective professional development practice—solicited data about participants' experiences at the academies (see Figure 2 for items). The mean score for all six items together make up a composite PD Quality Index score. The PD Quality Index score based on all participants at all six academies was high—about 4.2 on a 5-point scales. How-ever, when looking at responses of participants at academies where Corwin provided the training (N = 184) versus where WVDE provided it (N = 531), WVDE-led training scored about 1 point higher on the PD Quality Index score (4.4) compared with Corwin (3.4), as shown in Figure 2 and in Table A - 2 (page 45).
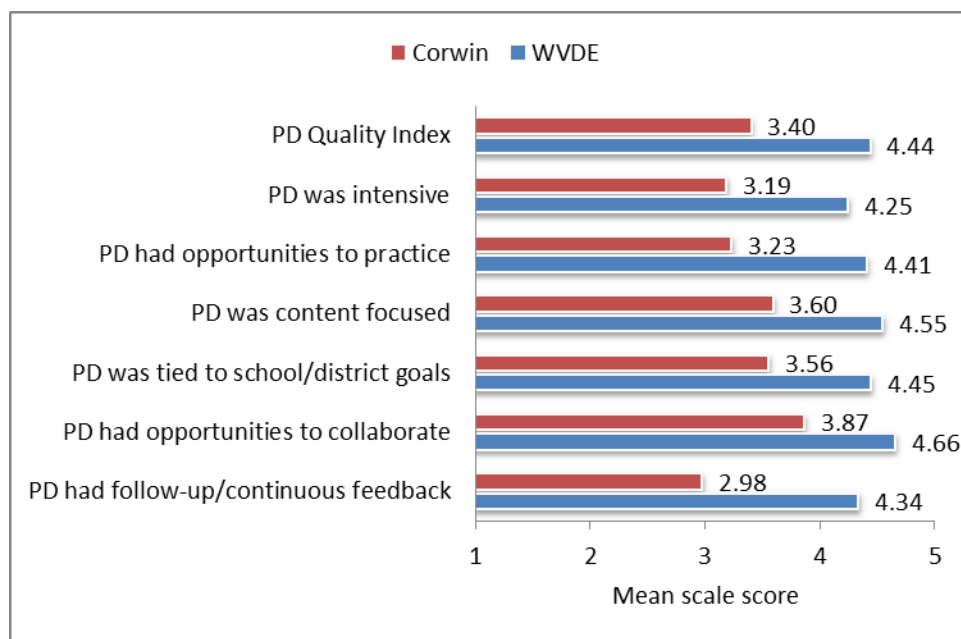
Figure 2.   Perceived Quality of Professional Development Provided at the Educator Enhancement Academies by Source of Trainers

Overall, academies with WVDE trainers received higher mean scores than those with Corwin trainers on all six measures in the PD Quality Index. Both providers scored highest on opportunities to collaborate and on their content focus. Data source: EEA Event Survey.

EQ2. To what extent did the EEAs employ appropriate logistic procedures including the amount of time spent on the professional development?

With regard to logistical aspects of the academies, an overall Logistics Quality Index mean score—made up of three items in the EEA Event Survey covering the level of organization, clarity of objectives, and adherence to a schedule—was high at 4.3 on a 5-point scale. WVDE again outscored Corwin, although by a narrower margin, 4.5 versus 3.7 respectively (see Figure 3 and Table A - 3, page 45 in the Appendix).

As for the appropriateness of the amount of time, this question can only be partially answered in the Phase 1 report, which uses data collected during the spring and early fall of 2013, before RESAs would have had an opportunity to provide any follow-up training they may have planned for the participants trained in their respective EEAs. The duration of the EEAs themselves varied, however. The sessions led by Corwin included 12-15 contact hours over two days; those led by WVDE included 24 contact hours, over three days. Depending upon what we learn about possible follow-up, these numbers may fall short of the minimum of 30 hours that research has shown are needed to impact teacher practice and/or student achievement (Blank et al., 2008; Clewell et al., 2004; Yoon, Duncan, Lee, Scarloss, & Shapley, 2007). The EEAs were of shorter duration than the 35 to 40 hours of training provided in the summer Teacher Leadership Institutes in previous years.
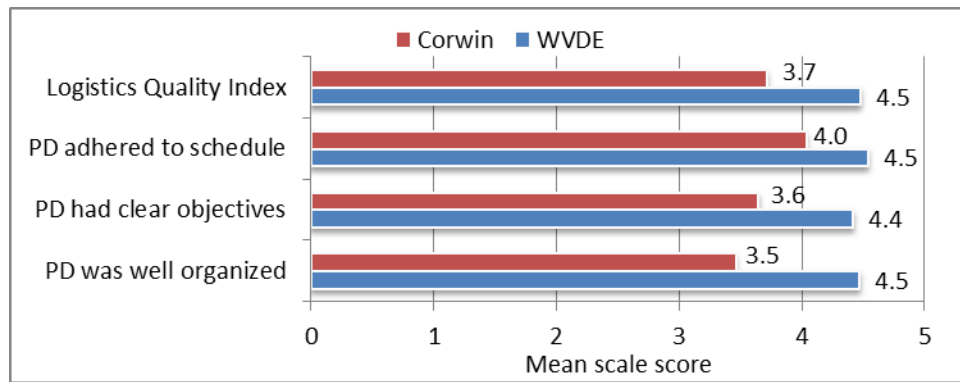
Figure 3. Perceived Quality of Logistics at the Educator Enhancement Academies by Source of Trainers

Overall, academies with WVDE trainers received higher mean scores than those with Corwin trainers on the three measures in the Logistics Quality Index. Both providers scored highest on opportunities to collaborate and on their content focus. Data source: EEA Event Survey.

EQ3. To what extent did the EEAs prepare attendees to effectively train others regarding the NxGen CSOs?

To examine this question, we looked both at participants' perceptions about how ready they thought they were to train others as a result of their participation in the EEA, and at how well supplied and equipped they were to conduct their own trainings, using items in the Event Survey. In early fall 2013, after most EEA participants had conducted their own training, our Follow-up Survey asked in open-ended questions what aspects of the EEAs had been the most and least helpful to prepare them.

Participants' views about their own readiness to train others diverged greatly between the two groups. Participants at the WVDE-led trainings were much more likely than those at Corwin trainings to indicate that the training had been a good start and they were looking forward to training others or that the training had provided everything they needed to train—by a margin of about 2.5 to 1 (see Figure 4 and Table A - 4, page 45). Conversely, attendees at Corwin-led events were about 12 times more likely to indicate they did not feel ready to train others.
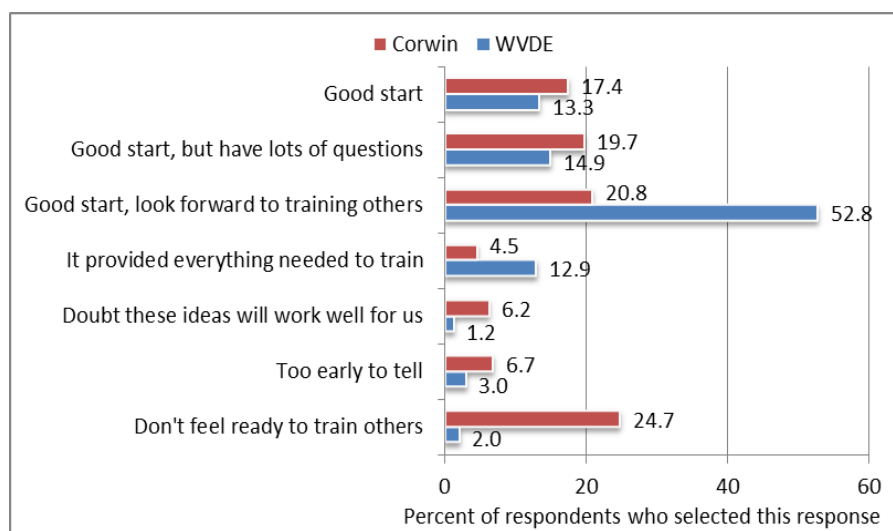
Figure 4. The Extent to Which the Attendees Believed the Educator Enhancement Academies Prepared Them to Train Others by Source of Trainers

Nearly two thirds of attendees at WVDE-led EEAs were looking forward to training or thought the academy had provided them everything they needed to train others. Just over a quarter of attendees at the Corwin-led academies felt similarly. On the other hand, a quarter of Corwin-trained attendees indicated they did not feel ready to train, compared with only 2% of WVDE-led attendees who considered themselves unready. Data source: Event Survey.

Looking at participants views of materials provided at the academies, there was remarkable agreement among the participants at the WVDE-led academies that the materials were provided in adequate quantities; were high quality and evidence-based; and were relevant, and useable for their own upcoming trainings. Participants in the Corwin trainings, however, were neutral about the relevance and usability of the materials for their own trainings, but held slightly more favorable views about the quality and supply of the materials (see Figure 5 and Table A - 5, page 46). Turning now to responses to open-ended questions
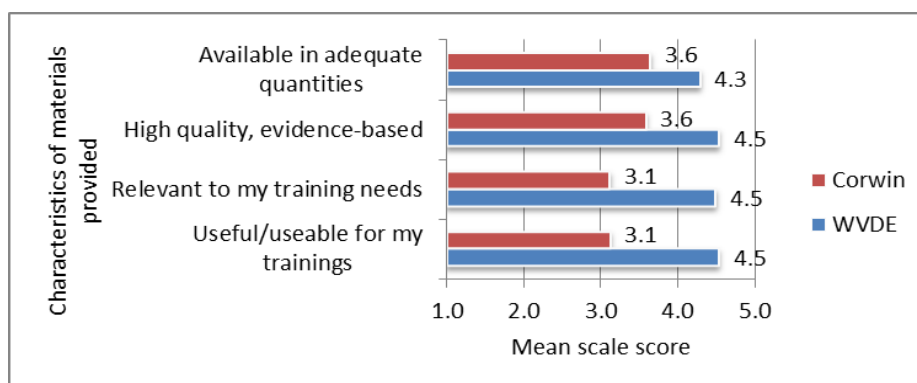
Figure 5. Perceived Adequacy of Training Materials by Source of Trainers

Participants were asked on the Event Survey to what extent they agree or disagree that the materials provided at the EEA had the qualities shown above, with *1* = strongly disagree, *2* = disagree, *3* = neutral, *4* = agree, and *5* = strongly agree. Data source: EEA Event Survey

in the early fall (2013) follow-up survey, participants were asked their views, after conducting their own trainings, about what had been the most helpful aspect of the EEA they attended. Respondents provided 874 comments, which we categorized and rank-ordered by the frequency with which each category was mentioned (see summary in Table 5 and full details in Table A - 6, page 46). The differences between the two training providers are less notable than in other analyses. Participants most valued the time spent learning about the Common Core/Next Generation standards, instructional shifts, mathematic standards, and other aspects of using and teaching to the new standards; followed by their introduction to various resources (i.e., lessons, examples, resources for classroom use); training materials; and discussions and information sharing. One notable difference bears mentioning: Participants at the WVDE-led academies were almost three times more likely to mention the high quality of the presenters.

Turning to comments about what was least useful (N = 422), there were certain activities and content considered not useful, especially (in descending order) reading the standards/appendices, the rationale for and history of standards, Smarter Balanced assessment, the lectures and reading of PowerPoints (see summary in Table 6 and full details in Table A - 7, page 48). Some participants also suggested there were useful topics that were missing, especially sample lessons, units, and practice information; training guidance, and NxGen standards by grade level. A smaller portion made comments suggesting that the content of the training was a mismatch with participants' needs, especially information about programmatic level in content areas; others thought the content was redundant with previous training. Nearly 13 percent of participants in the Corwin-led academies thought the quality of the trainers was inadequate; about 5% thought none of the training was useful and another 5% thought there was too much marketing of materials taking place. Nearly 9% of the comments about the WVDE-led academies were complaints about the facilities, especially the lack of air conditioning and internet connectivity.

Table 5.   Retrospective View (After Conducting Own Training) of Most Helpful Aspects of EEA: Summary of Responses to Open-Ended Question by Source of Trainers

	Percent of comments		
Category of comments	All	Corwin	WVDE
Focus on standards and instructional shifts	26.8	31.3	25.2
Lessons/examples/resources for classroom/training use	16.5	13.5	17.5
Training materials	12.2	10.0	13.0
Discussions/information sharing	9.8	9.1	10.1
Quality of presenters	7.1	3.0	8.5
Opportunities for collaboration/planning	5.8	6.1	5.7
Little or nothing	1.5	5.2	0.2
Miscellaneous (each with <5.0% of total)	20.3	21.8	19.8
Source: Follow-up survey conducted early fall, 2013.			

Table 6.   Retrospective View (After Conducting Own Training) of Least Helpful Aspects of EEA: Summary of
            Responses to Open-Ended Question by Source of Trainers

	Percent of comments		
Category of comments	All	Corwin	WVDE
Specific activity/content not useful	26.8	27.3	26.5
Specific content missing	11.4	13.3	10.3
Content mismatched with participants' needs	7.8	6.7	8.5
Inadequate quality of trainers	6.2	12.7	2.6
Facilities/food/internet connectivity	5.7	0.0	8.8
Time wasted/schedule could have been shortened	5.2	4.0	5.9
None of it was useful	2.4	5.3	0.7
Too much focus on marketing materials	2.1	5.3	0.4
All aspects useful	3.8	1.3	5.1
Miscellaneous (each with <5.0% of total)	28.6	24.0	31.3
Source: Follow-up survey conducted early fall, 2013.			

EQ4. To what extent did the EEAs build sufficient knowledge of the NxGen CSOs and of critical shifts from the previous standards?

To address this question, we conducted knowledge tests of participants who attended all academies. In all there were six tests covering English/language arts (ELA) and mathematics at all three programmatic levels, elementary (Grades 2-3), middle (Grades 7-8), and high school (Grades 10-11). Results of each of the six tests follow.

Elementary ELA

For the elementary school ELA scenarios, we found two items did not meet item quality standards. As a result, items 5 and 6 of scenario one were removed from subsequent analyses (see Table A - 8, page 50). Overall performance on the scenarios was quite good with respondents answering 9.91 of 14 items correctly (approximately 71%, see Table 7 below). When testing for differences among providers, we found that those individuals who attended WVDE-led sessions performed significantly better than those who attended Corwin-led sessions. The difference of 2.11 points on average corresponds to an effect size of .62, a moderate effect (see Table A - 9, page 50).

Middle school ELA

For the middle school ELA scenarios, all items met item quality standards. As a result, none were removed from subsequent analyses (see Table A - 10, page 51). Overall performance on the scenarios was again quite good with respondents answering 7.95 of 11 items correctly (approximately 72%, see Table 7 below). When testing for differences among providers, we found no significant differences among the scores of those individuals who attended WVDE-led sessions and those who attended Corwin-led sessions (see Table A - 11, page 51).

Table 7.   Knowledge Test Performance by Provider

Provider	Items	N	M	SD	% Correct
		Elementary ELA scenarios			
ALL	14	90	9.91	3.01	70.8
Corwin	14	21	8.42	2.74	60.1
WVDE	14	66	10.43	2.92	74.5
		Middle school ELA scenarios			
ALL	11	68	7.95	1.88	72.3
Corwin	11	10	8.20	1.75	74.5
WVDE	11	56	7.96	1.91	72.4
		High school ELA scenarios			
ALL	11	78	7.60	1.92	69.1
Corwin	11	34	7.44	1.69	67.6
WVDE	11	44	7.72	2.10	70.2
		Elementary school mathematics scenarios			
ALL	11	85	8.65	1.35	78.6
Corwin	11	27	8.74	1.43	79.5
WVDE	11	58	8.62	1.32	78.4
		Middle school mathematics scenarios			
ALL	9	115	5.30	1.47	58.9
Corwin	9	9	5.55	1.42	61.7
WVDE	9	105	5.27	1.49	58.6
		High school mathematics scenarios			
ALL	9	96	5.52	1.20	61.3
Corwin	9	14	5.42	1.08	60.2
WVDE	9	80	5.51	1.20	61.2

High school ELA

For the high school ELA scenarios, all items met item quality standards. As a result, none were removed from subsequent analyses (see Table A - 12, page 51). Overall performance on the scenarios was again quite good with respondents answering 7.60 of 11 items correctly (approximately 69%, see Table 7 above). When testing for differences among providers, we found no significant differences among the scores of those individuals who attended WVDE-led sessions and those who attended Corwin-led sessions (see Table A - 13, page 52).

Elementary school mathematics

For the elementary school mathematics scenarios, all items met item quality standards. As a result, none were removed from subsequent analyses (see Table A - 14, page 52). Overall performance on the scenarios was very good with respondents answering 8.65 of 11 items correctly (approximately 79%, see Table 7 above). When testing for differences among providers, we found no significant differences among the scores of those individuals who attended WVDE-led sessions and those who attended Corwin-led sessions (see Table A - 15, page 52).

Middle school mathematics

For the middle school mathematics scenarios, one item did not meet quality standards (i.e., item 3 on scenario 2). As a result, this item was removed from subsequent analyses (see Table A - 16, page 53). Overall performance on the scenarios was the lowest of all scenarios. Respondents answered 5.30 of 9 items correctly (approximately 59%, see Table 7 above). When testing for differences among providers, we found no significant differences among the scores of those individuals who attended WVDE-led sessions and those who attended Corwin-led sessions (see Table A - 17, page 53).

High school mathematics

For the high school mathematics scenarios, one item did not meet quality standards (i.e., item 3 on scenario 1). As a result, this item was removed from subsequent analyses (see Table A - 18, page 53). Overall performance on the scenarios was the second lowest of all scenarios. Respondents answered 5.52 of 9 items correctly (approximately 61%, see Table 7 above). When testing for differences among providers, we found no significant differences among the scores of those individuals who attended WVDE-led sessions and those who attended Corwin-led sessions (see Table A - 19, page 54).

Summary of Evaluation Question 4 findings

Figure 6 provides a high level overview of the results presented above. On the surface it appears performance was quite good on most scenarios. In fact, in no case did the average raw score correspond to less than 58% correct. However, it is important to understand the inverse as well. Put another way, in the worst case (i.e., middle school mathematics), the average respondent answered 42% of scenario items incorrectly. In the best case (i.e., elementary mathematics), the average respondent answered 22% incorrectly. These results indicate that there is undoubtedly still work to do in building understanding of the shifts represented by the Next Generation Content Standards and Objectives among front line trainers. If these individuals are not trained to a sufficient level of expertise, it is unlikely they will be able to effectively impart the intended knowledge to teachers and leaders in the field.
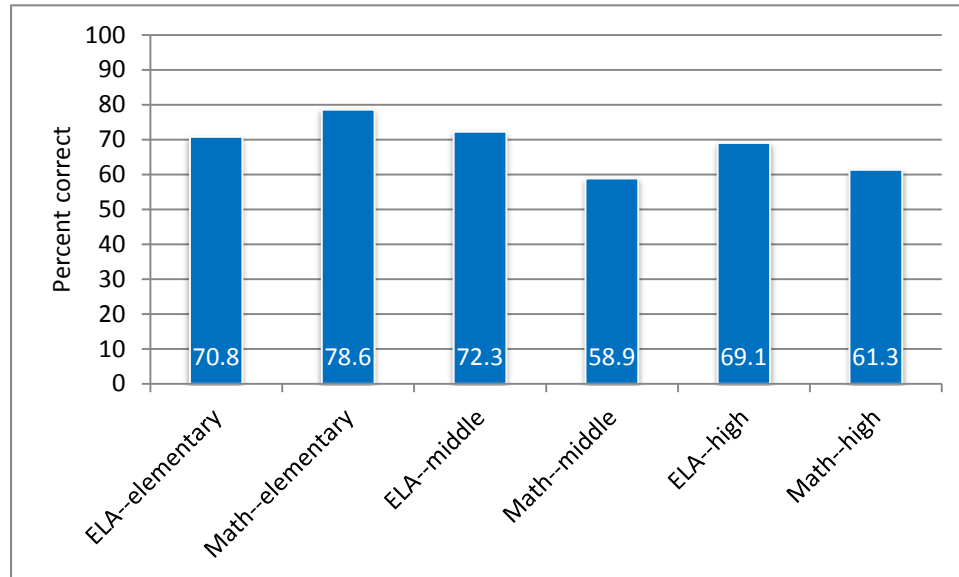
Figure 6. Overall Findings of Knowledge Tests by Content Area and Program Level
Based on the knowledge test component of the EEA Event Survey, there is room for improvement in the knowledge of trainers who will be providing training in schools and districts across the state.

EQ5. To what extent did the EEAs use qualified and knowledgeable personnel to deliver content?

With mean scores all at 4.6 or above on a 5-point scale, there was strong agreement among attendees at WVDE-led EEA sessions that the trainers were knowledgeable, well organized, clear, effective presenters, and that they managed discussions well, answered questions adequately, and modeled desired training techniques. The ratings for the WVDE trainers were the highest received of any of the categories of questions in the Event Survey (i.e. use of research-based approaches, appropriate logistic procedures). Participants at the Corwin-led events were far less satisfied, with mean ratings that were 0.9 to 1.3 points lower on a 5-scale, although still on the positive side of the midpoint 3 (neutral) rating (Figure 7).

As mentioned earlier (see EQ3 above), in the follow-up survey, many participants commented on the quality of the presenters when asked to give a retrospective view (after conducting their own training) about what was most useful and least useful in the EEA they attended. About 7.1% of attendees at WVDE-led training specifically mentioned the high quality of the trainers as having been the most useful aspect, while 3.0% of attendees at Corwin-led training made similar comments. On the other hand, nearly 12.7% of attendees at Corwin-led training mentioned the inadequate quality of trainers as being the least helpful aspect of the EEA they attended, while only about 2.6% of attendees at WVDE-led training made similar comments.
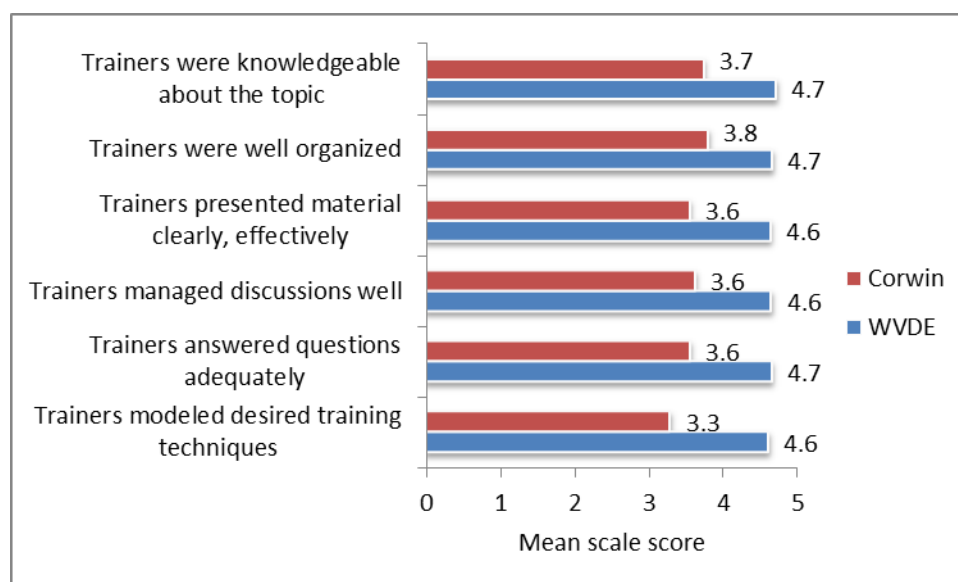
Figure 7.   Attendee Ratings of Trainers by Source of Trainers
Participants were asked on the Event Survey to what extent they agree or disagree
that the EEA trainers had the qualities shown above, with 1 = strongly disagree, 2 =
disagree, 3 = neutral, 4 = agree, and 5 = strongly agree.

EQ6. To what extent did the EEAs provide a better experience as regionally based academies, compared with the previous state-based professional development models?

The intent of this question was to get a sense of participants' perceptions about how well the RESA-based EEA format compared with previous centralized models offered by the WVDE, especially the Teacher Leadership Institutes (TLI). The TLIs for the previous two years had also provided training in the Next Generation Content Standards and Objectives (NxGen CSOs), although for different programmatic levels. As mentioned earlier, the TLIs were a residency-based professional development opportunity that took place over the course of a full week, with participants receiving 35-40 hours of training. The EEAs were of shorter duration whether offered by Corwin (12–15 hours over two days) or WVDE (24 hours over three days).

The Event Survey included a question that asked, "Which of the following statements best describes how the training in this academy compares with other train-the-trainer professional development you have participated in during the past three years?" Response options included that the professional development was *more useful, about the same,* or *less useful*; or two options for not expressing an opinion—that is, *no opinion* or *no basis for comparison.* Overall about 31% chose the latter responses (i.e., 25% Corwin-led and 33% WVDE-led EEAs). Looking only at those who *did* express an opinion, similar percentages of attendees for both providers thought the EEA was about equal to previous train-the-trainer events (i.e., 40% for WVDE and 39% for Corwin); however, the similarity stops there. About 56% of WVDE-led EEA attendees thought their EEA experience was more useful, compared with 16% for Corwin—a 40-point difference—while about 46% of Corwin attendees thought it was less useful compared with previous events, compared with 5% of WVDE attendees, which is another 40% gap (Figure 8).
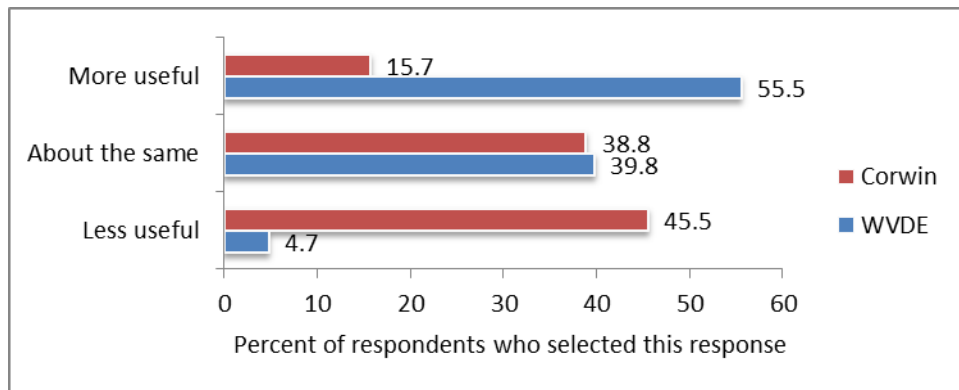
Figure 8.   Perceived Usefulness of EEA Professional Development Compared With Previous Train-the-Trainer Events by Source of Trainers

Data in this figure represent only attendees who expressed a view in response to a question that compared the EEA they attended to other train-the-trainer events they had participated in the previous three years. About 31% of the sample, overall, indicated they had no opinion or no basis for comparison. See Table A - 21, page 54, for full details.

Discussion

Our discussion of findings in this study will be approached from two perspectives: first we will discuss the findings in relationship to a review of the research literature published by the WVDE Office of Research (Hammer, 2013; see a summary in the Introduction of this report). Second we will report on findings in response to six research questions we set out to answer in our study.

Findings and Recent Research

The literature review previously mentioned (Hammer, 2013) found two major components must be in place for professional development to result in greater teacher and student learning: (a) a coherent instructional system, and (b) design features based on research and effective practice. Each of these major components is discussed below.

Professional Learning Within a Coherent Instructional System

Cobb and Jackson (2011) describe what constitutes a *coherent instruction system* that can lead to improved student achievement. Professional learning is one important element, but its success will be limited if other elements are absent. Those elements are outlined next, along with findings from this study that provide some evidence of the presence or absence of each element.

- *Explicit goals for students' learning* (Cobb & Jackson, 2011). With the adoption of the NxGen standards, based on the Common Core State Standards, West Virginia took a major step forward in developing a more rigorous and coherent system of instruction.

- *A detailed vision of high-quality instruction that specifies particular instructional practices that will lead to students' attainment of the learning goals* (Cobb & Jackson, 2011). A major focus of the EEAs was to help the participants learn about the instructional shifts that will be required to teach to the NxGen CSOs in English/language arts and mathematics. There is evidence from the EEA Phase 1 study—which included a knowledge test focused on measuring participants' grasp of the instructional shifts—that there is more work to be done in preparing these front line, RESA-based trainers to better understand the instructional shifts themselves, so that they, in turn, can guide teachers in their home schools and districts through the challenge of employing the new approaches to their daily planning and practice. That participants would be receptive to additional training in these areas is evident in their comments indicating they most valued the time spent learning about the Common Core/Next Generation standards, instructional shifts, mathematic standards, and other aspects of using and teaching to the new standards.

- *Instructional materials and associated tools designed to support teachers' development of these practices* (Cobb & Jackson, 2011). After learning about the instructional shifts, participants indicated they most valued their introduction to various resources (i.e., lessons, examples, resources for classroom use); training materials;

and discussions and information sharing. Some participants also thought there were useful topics in short supply at the training session they attended, including sample lessons, units, and practice information; training guidance; and NxGen standards by grade level. While WVDE has begun development of a Digital Library of materials, it is clear that this element is crucial in the statewide effort to create a coherent instructional system based on the NxGen CSOs and that these materials must be used in the training participants receive.

- *District teacher professional development that focuses on the specific practices, is organized around the above materials, and is sustained over time* (Cobb & Jackson, 2011). The EEAs were the final phase of the roll-out of the NxGen CSOs to all grade levels, a rollout that began in 2011 at the Teacher Leadership Institutes (TLI), focusing first on kindergarten, and then continuing in 2012 with the focus on Grades 1, 4, 5, and 9. The WVDE then shifted from this centralized approach, which brought in teams from schools, to a train-the-trainers approach at the EEAs, which prepared RESA-based trainers to work in districts and schools over time. Sustaining this effort will be crucial, and will be a focus of the Phase 2 and 3 reports.

- *School-based professional learning communities (PLCs) that provide ongoing opportunities for teachers to discuss, rehearse, and adapt the practices that have been introduced in district professional development* (Cobb & Jackson, 2011). It is beyond the scope of the Phase 1 study to investigate the extent to which PLCs are in place and have become an important setting for professional learning leading to the implementation of the NxGen CSOs. The WVDE Office of Research does have another study underway, however, that will shed light on the level and nature of participation of principals and teachers in PLCs statewide. Information from that study will be included in the Phase 2 report.

The final two elements Cobb and Jackson (2011) identified as being critical to the creation of a coherent instructional system include the following:

- *Classroom assessments aligned with the goals for students' learning that can inform the ongoing improvement of instruction and the identification of students who are currently struggling.*

- *Additional supports for struggling students to enable them to succeed in mainstream classes.*

Although these last two elements were neither mentioned by participants as being topics they valued from the EEAs they attended nor valuable topics that were missing, including them here fills out the picture, and may point to future directions for RESAs and others to consider as priority topics for future professional learning leading to the successful implement of the NxGen CSOs.

Professional Learning Aligned With Research-Based Practices

As mentioned earlier, our review of the research literature (Hammer, 2013) noted that within a coherent instructional system (as outlined above), professional development experiences should be structured based on five practices that researchers consistently identi-

fy as correlated with improved instructional practice and/or greater student learning. Evidence from the Phase 1 study is presented here to provide a sense of trainers' use of those practices during the 2- or 3-day academies. Phase 1 of this study covers only the academies themselves; follow-up activities will be studied as part of Phase 2.

- *Content and content pedagogy focused.* The EEAs purpose was to prepare RESA-based trainers to train others in their schools and districts on instructional shifts required to teach to the NxGen CSOs. Participants generally agreed with the Event Survey item that suggested the professional development was content focused.

- *Coherence.* This quality includes coherence with participants training needs and with school and district goals. A small segment (about 8% overall) made comments suggesting that the content of the training was a mismatch with participants' needs, especially information pertinent to their programmatic level in content areas; some others thought the content was redundant with previous training. Participants generally agreed that the training was tied to their school and district goals.

- *Active learning.* Open-ended comments revealed that many participants greatly valued the discussions and information sharing that took place, as well as the opportunities for collaboration and planning. Participants in WVDE-led EEAs also indicated strong agreement that the EEA they attended included opportunities to practice. Participants at both Corwin- and WVDE-led sessions agreed that they had opportunities to collaborate.

- *Collective participation.* The Phase 1 study did not collect data about the extent to which teams of educators from the same school, content area, or specialization attended the EEA together; however, the EEAs were intended to help prepare educators to collectively implement the NxGen CSOs in their schools and districts.

- *Duration, including time span and contact hours.* Depending upon what we learn about possible follow-up, the contact hours of professional development that RESA-based trainers received—and the time span over which they received them— may fall short of the minimum of 30 hours delivered over the course of a year or more, which research has shown are needed to impact teacher practice and/or student achievement. The duration of the academies ranged from 12 to 24 hours over 2 to 3 days.

Findings for Research Questions

In this part of the discussion we will directly address the six research questions that guided the Phase 1 study. In doing so, we must address the differences between the two main providers—Corwin and WVDE—because the outcomes were notably different.

EQ1. To what extent did the EEAs deliver high quality professional development?

Participants in WVDE-led EEAs had mean scores that fell solidly in the agreed or strongly agreed range, when asked if the session they attended included six different research-based practices (i.e., was intensive, included opportunities to practice, was content focused, was tied to school/district goals, had opportunities for follow-up discussion and collaboration, and included embedded follow-up and continuous feedback). On the other hand,

for three of the six indicators, participants in Corwin-led sessions had mean scores in the neutral range, with the other three indicating weak agreement.

EQ2. To what extent did the EEAs employ appropriate logistic procedures including the amount of time spent on the professional development?

Participants from both groups agreed that the trainers adhered to the schedule. However, there was stronger agreement that the WVDE-led sessions had clear objectives and were well organized. We will not know until we finish data collection for Phase 2, whether the duration of the training met the 30 or more hours called for in research.

EQ3.To what extent did the EEAs prepare attendees to effectively train others regarding the NxGen CSOs?

Participants at the WVDE-led trainings were much more likely than those at Corwin trainings to indicate that the training had been a good start and they were looking forward to training others or that the training had provided everything they needed to train—by a margin of about 2.5 to 1. Conversely, attendees at Corwin-led events were about 12 times more likely to indicate they did not feel ready to train others. When asked about the quality of the training materials they were provided for use in their own trainings, there was agreement in both groups that they had received adequate quantities and that the materials were high quality and evidence-based—although the WVDE-led participants agreed more strongly. The Corwin-led participants, however, were neutral about the materials being relevant to their training needs and useable for their own trainings, while WVDE-led participants quite strongly agreed they were relevant and useful.

EQ4. To what extent did the EEAs build sufficient knowledge of the NxGen CSOs and of critical shifts from the previous standards?

The knowledge test included in the EEA Event Survey showed comparable results for both providers except in one area, individuals who attended WVDE-led elementary-level English/language arts sessions performed significantly better than those who attended Corwin-led sessions. In no case did the average raw score correspond to less than 58% correct. However, it is important to understand the inverse as well. In the worst case (i.e., middle school mathematics), the average respondent answered 42% of scenario items incorrectly. In the best case (i.e., elementary mathematics), the average respondent answered 22% incorrectly. These results indicate that there is likely still work to do in building understanding among front line, RESA-based trainers of the shifts represented by the NxGen standards. If these individuals are not trained to a sufficient level of expertise, it is unlikely they will be able to effectively impart the intended knowledge to teachers and leaders in the field.

EQ5. To what extent did the EEAs use qualified and knowledgeable personnel to deliver content?

On all of the quantitative measures of trainer quality, the WVDE trainers received extremely high mean ratings—at least 4.6 on a 5-point scale. Corwin trainers, on the other hand scored at least a full point lower. The lowest score was for *Trainers modeled desired training techniques*, which may help explain why participants in those sessions felt so ill-prepared to conduct their own training (see EQ3). In response to open-ended questions

about what they had found most helpful in preparing them to conduct their own training, participants at the WVDE-led academies were almost three times more likely to mention the high quality of the presenters. In response to an open-ended question about what had been least useful, nearly 13 percent of participants in the Corwin-led academies thought the quality of the trainers was inadequate; about 5% thought none of the training was useful and another 5% thought there was too much marketing of materials taking place.

EQ6. To what extent did the EEAs provide a better experience as regionally based academies, compared with the previous state-based professional development models?

The two groups held starkly different views about how their EEA experience compared with previous, state-based models. Although just under 40% of both groups thought their experiences had been *about the same* as in previous events, about 56% of WVDE-led EEA attendees thought their EEA experience was more useful, compared with 16% for Corwin—a 40-point difference. Conversely, about 46% of Corwin attendees thought it was less useful than previous events, compared with 5% of WVDE attendees who held that view, which is another 40% gap.

Possible factors for Corwin Press's comparatively poor performance

The differences between the two groups was important and consistent across nearly all measures, with WVDE-led EEAs getting very high marks on nearly every measure, and Corwin receiving notably lower assessments in leading the EEAs for which they were responsible. Some possible explanations came to the surface for these differences, including the following:

- *Lack of preparation on the part of the Corwin trainers*—Evidence to support this possibility can be found in multiple participant comments indicating trainers' lack of knowledge about NxGen standards and the inability of trainers to answer many of the questions participants asked.

- *Lack of experience in a train-the-trainer setting*—Participants' gave the trainers relatively low marks for the materials they provided in terms of their usefulness and relevance, and indicated a lack of modeling of training techniques they would be able to use. Ultimately, the strongest argument is in the outcome—only about a quarter of the participants in the Corwin sessions were looking forward to training others or felt they had everything they needed compared with two thirds of the participants in the WVDE-led sessions.

- *Mismatched expectations between the RESAs who contracted with them and Corwin Press*—The Corwin trainers did not seem to understand their role in training RESA-based trainers. They may have viewed the sessions more as a marketing opportunity than as a critical component in West Virginia's implementation of the NxGen CSOs (note the complaints about trainers' efforts to sell their books).

- *Duration of the training*—The Corwin-led sessions were significantly briefer than the WVDE-led sessions; that is, 12–15 hours compared with 24 hours, respectively. If Corwin had more time, some of their ratings might have improved.

Limitations

Temporal bias may have played role in the data we collected with the EEA Event Survey. The two RESAs that used Corwin Press as the source of their trainers did not administer the survey at the end of their trainings as did the RESAs who partnered with WVDE. Further, these RESAs did not supply the e-mail addresses of their attendees to the Office of Research until more than two months had passed, so participants responded to the survey up to three months after they attended the EEAs.

Response bias may also have played a role in the EEA Event Survey. Due largely to the way the survey was administered, about 90% of WVDE-led EEA attendees responded to the survey compared with only about 54% of attendees in the Corwin-led sessions.

The six knowledge tests—for English/language arts and mathematics at all three programmatic levels (elementary, middle, and high school)—were developed by staff, tested by at least two outside educators working in the appropriate grade level and content area, vetted by members of the WVDE Office of Assessment and Accountability, and tested using factor analysis to cull out ineffective items. The tests were not normed, however, or subjected to rigorous statistical validity and reliability testing. Consequently, comparisons cannot be made among the different content areas/programmatic levels—that is, a mean rate of 75% correct for the middle school mathematics test may not be comparable to a 75% rate for the middle school English/language arts. Further, these results should be viewed as indicative and not summative.

Recommendations

- Continue to develop materials and associated tools to support teachers' development of instructional practices to help students meet the new NxGen standards. Consider using this development process as a professional learning opportunity for teachers who would create and vet new resources.

- Continue to develop the cadre of RESA-based trainers, by focusing on weak areas in the knowledge test results.

- Sustain the commitment to professional learning about the NxGen standards among the RESA-based trainers and the educators whose learning they will guide. Thirty contact hours over the course of a year should be the minimum, more should be provided if at all possible.

- Settle on a set of standards for professional development, such as the Learning Forward standards adopted by the West Virginia Board of Education, or the components and qualities outlined in this report.

- Develop standards for train-the-trainer events that clearly specify what should be provided, for example, adaptable PowerPoint presentations, activity descriptions, and modeling of effective training practices.

- Include both standards and clear objectives for training in contracts with vendors and other providers, and hold them accountable.

- Evaluate the success of the training based on the trainers' effectiveness in meeting the standards. Publish the results to motivate providers to align their offerings to state goals, priorities, and standards for professional learning.

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Appendix A. Survey Instruments

Educator Enhancement Academy Regional Event Survey (WVDE-CIS-119)

Welcome to the 2013 Educator Enhancement Academy Survey

By filling out this survey, you are agreeing to take part in a research study. The purpose of the study is to evaluate the effectiveness of the Educator Enhancement Academies. What we learn from this study may help improve this program or other professional development programs in the future. Your current participation in the study is limited to completing a brief survey, which should not take more than 20 minutes of your time. You will be presented with a series of items and asked to indicate your responses by either providing a rating or a short written response.

Taking part in this study will put you at no more risk than you would experience during any normal day. Although you may not benefit directly by taking part in the study, it is possible that because of what we learn, the program may improve to better meet your needs or the needs of students. Your responses to this survey will be protected and will never be revealed as coming from you. All responses will be combined and reported as a group.

You will receive no monetary or other reward for taking part in this research study. Filling out the survey is completely voluntary. If you decide not to take part or to stop at any time, there will be no penalties or loss of benefits to you. For more information about the Educator Enhancement Academies, you may contact Clayton Burch, executive director of the WVDE Office of Early Learning (wburch@access.k12.wv.us) or Carla Williamson, executive director of the WVDE Office of Instruction (cljwilli@access.k12.wv.us). Additionally, if you have questions about this research study or the survey, you may contact Patricia Hammer, coordinator, in the WVDE Office of Research (phammer@access.k12.wv.us).

This research study has been reviewed and approved by the West Virginia Department of Education (WVDE) Institutional Review Board (IRB). If you want to know more about the review of this study, you may contact the WVDE IRB chairperson, Nathaniel Hixson (nhixson@access.k12.wv.us).

You may take this top sheet with you in case you would like to follow up. Thank you for taking part in this important effort.

PART 1: Tell us about yourself

1.1. Which Educator Enhancement Academy did you attend? (Check one.)

- ○ RESA 3 (April 15–17) in Charleston
- ○ RESA 7 (April 15–17) in Morgantown
- ○ RESA 2 (May 17, 18, and 28) in Huntington
- ○ RESAs 5 and 6 (May 20 and 22) in Wheeling
- ○ RESA 1 and 4 (May 29–31) in Beckley
- ○ RESA 8 (June 3–5) in Shepherdstown

1.2. In which district do you currently work?

1.3. What is your current role? (Check the one role that is the best fit.)

- ○ RESA staff
- ○ District central office staff
- ○ Principal/assistant principal
- ○ Classroom teacher
- ○ Special education teacher
- ○ Instructional support teacher (non-special education)
- ○ Paraprofessional/aide
- ○ Other (please specify)

PART 2: Evaluation Questions—Event Characteristics

Please indicate to what extent you agree or disagree with the following statements about the professional development.

2.1. The professional development. . .		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
2.1.1. was intensive in nature.	EQ1	○	○	○	○	○
2.1.2. included opportunities to practice new skills and receive feedback.	EQ1	○	○	○	○	○
2.1.3. was specific and content focused.	EQ1	○	○	○	○	○
2.1.4. was tied to school and district goals for student learning.	EQ1	○	○	○	○	○
2.1.5. included opportunities for collaboration.	EQ1	○	○	○	○	○
2.1.6. included embedded follow-up and continuous feedback.	EQ1	○	○	○	○	○
2.1.7. was well organized.	EQ2	○	○	○	○	○
2.1.8. included clearly stated objectives at the beginning of each session.	EQ2	○	○	○	○	○
2.1.9. followed a clear schedule with sessions beginning and ending on time.	EQ2	○	○	○	○	○

PART 3: Evaluation Questions—Quality of Materials and Facilitators						
Please indicate to what extent you agree or disagree with the following statements about materials, resources, and facilitators at the academy.						
3.1. Materials and resources provided are/were. . .		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
3.1.1. available in adequate quantities.	EQ3	○	○	○	○	○
3.1.2. relevant to my training needs back in my home school or district.	EQ3	○	○	○	○	○
3.1.3. high quality and based on recent research and evidence.	EQ3	○	○	○	○	○
3.1.4. useful and useable for my upcoming trainings.	EQ3	○	○	○	○	○
3.2. At the academy I attended, facilitators. . .		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
3.2.1. were knowledgeable about the topic.	EQ5	○	○	○	○	○
3.2.2. were well organized.	EQ5	○	○	○	○	○
3.2.3. presented the material clearly and effectively.	EQ5	○	○	○	○	○
3.2.4. managed discussions well.	EQ5	○	○	○	○	○
3.2.5. answered questions raised during the session adequately.	EQ5	○	○	○	○	○
3.2.6. modeled the training techniques they encouraged us to use in our own training.	EQ5	○	○	○	○	○

PART 4: Evaluation Questions—Event Usefulness	
EQ3	4.1. Which of the following statements best describes the usefulness of the academy in preparing you to train other teachers? (Check one.) ○ It was a good start. ○ It was a good start, but I have a lot of questions. ○ It was a good start, and I look forward to using what I learned to train other teachers. ○ It provided everything I will need to use when I train other teachers. ○ I don't think these ideas will work very well in my school or district. ○ It's too early to tell. ○ I don't feel ready to train other teachers at this point. (If you checked this box, briefly describe what you think you would need to be ready.)
EQ6	4.2. Which of the following statements best describes how the training in this academy compares with other train-the-trainer professional development you have participated in during the past three years? (Check one.) ○ The professional development was MORE USEFUL. ○ The professional development was ABOUT THE SAME. ○ The professional development was LESS USEFUL. ○ I don't have an opinion. ○ I haven't participated in any other train-the-trainer professional development in the past three years.

EQ1	4.3. Which three aspects of the academy were MOST useful? (Briefly describe.) 4.3.1.
EQ1	4.3.2.
EQ1	4.3.3.
EQ1	4.4. Which three aspects of the academy were LEAST useful? (Briefly describe.) 4.4.1.
EQ1	4.4.2.
EQ1	4.4.3.
EQ3	4.5. About which three topics (if any) do you need more information or assistance to conduct your own training? (Briefly describe.) 4.5.1.
EQ3	4.5.2.
EQ3	4.5.3.
PART 5. Evaluation Questions: Scenarios	
	5. For which programmatic level and content area will you be training teachers? ○ English/language arts at the primary/elementary school level ○ English/language arts at the middle school level ○ English/language arts at the high school level ○ Mathematics at the primary/elementary school level ○ Mathematics at the middle school level ○ Mathematics at the high school level ○ I will not be training teachers (Participants choosing this option do not need to respond to the scenarios.)

Educator Enhancement Academy Follow-Up Survey

Welcome to the 2013 Educator Enhancement Academy Follow-Up Survey

By filling out this survey, you are agreeing to take part in a research study. The purpose of the study is to evaluate the effectiveness of the Educator Enhancement Academies. What we learn from this study may help improve this program or other professional development programs in the future. Your current participation in the study is limited to completing a brief survey, which should not take more than 10-15 minutes of your time. You will be presented with a series of items and asked to indicate your responses by either providing a rating or a short written response.

Taking part in this study will put you at no more risk than you would experience during any normal day. Although you may not benefit directly by taking part in the study, it is possible that because of what we learn, the program may improve to better meet your needs or the needs of students. Your responses to this survey will be protected and will never be revealed as coming from you. All responses will be combined and reported as a group.

You will receive no monetary or other reward for taking part in this research study. Filling out the survey is completely voluntary. If you decide not to take part or to stop at any time, there will be no penalties or loss of benefits to you. For more information about the Educator Enhancement Academies, you may contact Clayton Burch, executive director of the WVDE Office of Early Learning (wburch@access.k12.wv.us) or DeWayne Duncan, executive director of the WVDE Office of Secondary Learning (ddduncan@access.k12.wv.us). Additionally, if you have questions about this research study or the survey, you may contact Patricia Hammer, coordinator, in the WVDE Office of Research (phammer@access.k12.wv.us).

This research study has been reviewed and approved by the West Virginia Department of Education (WVDE) Institutional Review Board (IRB). If you want to know more about the review of this study (IRB-WVDE-014), you may contact the WVDE IRB chairperson, Nathaniel Hixson (nhixson@access.k12.wv.us).

Thank you for taking part in this important effort.

PART 1: Tell us about yourself

1.1. What is your current role?

☐   RESA staff

☐   District central office staff

☐   Principal/assistant principal

☐   General classroom teacher

☐   Special education teacher

☐   Instructional support teacher/specialist (non-special education)

☐   Other

1.2. In which context did you attend the Educator Enhancement Academy (Select the one that is the best fit.)

☐   As a member of a training cadre that will provide support for implementing Next Generation Content Standards and Objectives (NxGen CSOs) ACROSS THE REGION.

☐   As a member of a training cadre that will provide support for implementing NxGen CSOs ACROSS MY DISTRICT.

☐   As a school staff member who will provide training and support for implementing NxGen CSOs IN MY SCHOOL.

☐   Other [please describe]

1.3. Have you conducted trainings in your school or district based on the NxGen CSOs since attending the Educator Enhancement Academy?

☐ Yes [SKIP to PART 2]   ☐ No [SKIP To PART 1A]

PART 1A

1.4. Please provide information about what prevented you from providing training.

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1.5. What other supports would have made it possible for you to provide trainings, had you received them?

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[Exit survey]

PART 2: Evaluation Questions

2.1 In which district(s) did you hold training(s)?

[drop-down list of school districts]

[drop-down list of school districts]

[drop-down list of school districts]

Others (please list in box below)

[insert text box]

2.2. Which of the following role groups attended your training? Check all that apply.

☐ RESA staff

☐ District central office staff

☐ Principal/assistant principal

☐ Regular classroom teacher

☐ Special education teacher

☐ Instructional support teacher/specialist (non-special education)

☐ Other

2.3. For which programmatic level(s) and content area(s) did you train individuals? Check all that apply.

☐ English/language arts at the primary/elementary school level

☐ English/language arts at the middle school level

☐ English/language arts at the high school level

☐ Mathematics at the primary/elementary school level

☐ Mathematics at the middle school level

☐ Mathematics at the high school level

2.4. In all, how many individuals attended trainings that you facilitated? [insert number box]

2.5. How many training events did you facilitate? [insert number box]

2.6. What was the duration of the training event you provided (in hours)? (If you facilitated more than one event, indicate the typical [average] duration). [insert number box]

2.7. Have you or do you plan to provide additional follow-up training or support for the individuals you trained this summer?   ☐ Yes   ☐ No

2.7.1 If yes, in what form? (Check all that apply.)

☐ Additional face-to-face trainings.

☐ Webinars or other online training.

☐ Coaching or mentoring

☐ Other [please describe]

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2.7.2. How many additional hours of training or support do you anticipate you will provide during the school year to a typical participant who attended your initial summer training? [insert number box]

2.8. What barriers (if any) are you finding most challenging, in providing your own training?

2.9. What specific areas/topics from the NxGen CSOs were most difficult for participants to understand?

2.10. In retrospect, which three aspects of the academy were MOST useful in preparing you to train others in your school or district? (Briefly describe)

1.
2.
3.

2.11. Which three aspects of the academy were LEAST useful? (Briefly describe)

1.
2.
3.

2.12. About which three topics (if any) could you have used more information or assistance to conduct your own training? (Briefly describe)

1.
2.
3.

2.13.1. Are there others ways that your RESA could help you in your work with educators related to the NxGen CSOs this school year?   ☐ Yes   ☐ No

2.13.2 If yes, please describe:

[Exit Survey]

Appendix B. Demographic Information About Respondents

Table A - 1. Role Groups of Survey Respondents

Role group	Overall		Event survey		Follow-up survey	
	N	%	N	%	N	%
All	1,342	100.0	743	100.0	599	100.0
General classroom teacher	889	66.2	508	68.4	381	63.6
District central office staff	132	9.8	68	9.2	64	10.7
Instructional support teacher/specialist (non-special education)	108	8.0	44	5.9	64	10.7
Other	81	6.0	56	7.5	25	4.2
Principal/assistant principal	56	4.2	29	3.9	27	4.5
Special education teacher	55	4.1	27	3.6	28	4.7
RESA staff	17	1.3	8	1.1	9	1.5
No response	4	0.3	3	0.4	1	0.2

Appendix C. Results of EEA Event Survey and Follow-up Survey

Table A - 2.   The Extent to Which the Educator Enhancement Academies Delivered High Quality Professional Development by Source of Trainers

	All		Corwin		WVDE	
	Number responses	Mean response	Number responses	Mean response	Number responses	Mean response
PD Quality Index Score		4.18		3.40		4.44
PD was intensive	715	3.98	184	3.19	531	4.25
PD had opportunities to practice	713	4.11	183	3.23	530	4.41
PD was content focused	714	4.31	184	3.60	530	4.55
PD was tied to school/district goals	713	4.22	183	3.56	530	4.45
PD had opportunities to collaborate	708	4.46	181	3.87	527	4.66
PD had follow-up	709	3.99	183	2.98	526	4.34

NOTE: Data in this table were collected in the EEA Event Survey.

Table A - 3.   The Extent to Which the Educator Enhancement Academies Used Appropriate Logistic Procedures by Source of Trainers

	All		Corwin		WVDE	
	Number responses	Mean response	Number responses	Mean response	Number responses	Mean response
Logistics quality index		4.28		3.71		4.47
PD was well organized	712	4.21	183	3.46	529	4.47
PD had clear objectives	710	4.22	182	3.64	528	4.42
PD adhered to schedule	712	4.41	182	4.03	530	4.54

NOTE: Data in this table were collected in the EEA Event Survey.

Table A - 4.   The Extent to Which the Educator Enhancement Academies Prepared Attendees to Train Others by Source of Trainers

	All		Corwin		WVDE	
Response options	Number responses	Percent	Number responses	Percent	Number responses	Percent
All responses	682	100.0	178	100.0	504	100.0
Good start	98	14.4	31	17.4	67	13.3
Good start, but have lots of questions	110	16.1	35	19.7	75	14.9
Good start, look forward to training others	303	44.4	37	20.8	266	52.8
It provided everything needed to train	73	10.7	8	4.5	65	12.9
Doubt these ideas will work well for us	17	2.5	11	6.2	6	1.2
Too early to tell	27	4.0	12	6.7	15	3.0
Don't feel ready to train others	54	7.9	44	24.7	10	2.0

NOTE: Data in this table were collected in the EEA Event Survey.

Table A - 5. The Extent to Which the Educator Enhancement Academies Provided Adequate Training Materials by Source of Trainers

Materials resources provided were . . .	All		Corwin		WVDE	
	Number responses	Mean response	Number responses	Mean response	Number responses	Mean response
Available in adequate quantities	700	4.12	181	3.64	519	4.29
Relevant to my training needs	701	4.14	181	3.12	520	4.49
High quality, evidence-based	699	4.29	181	3.59	518	4.53
Useful/useable for my trainings	698	4.17	181	3.12	517	4.53

NOTE: Data in this table were collected in the EEA Event Survey

Table A - 6. Detailed Summary of Retrospective Comments About Most Useful Aspects of EEA by Source of Trainer

Category comment	All respondents			Corwin-trained respondents			WVDE-trained respondents		
	Subcat. (N)*	Category N	%	Subcat. (N)*	Category N	%	Subcat. (N)*	Category N	%
Total		874	100.0		230	100.0		644	100.0
Specific content		234	26.8		72	31.3		162	25.2
• Learning about NxGen CSOs/ CCSS	(78)			(33)			(45)		
• Participating in Instructional practice activities	(53)			(11)			(42)		
• Learning about strategies for implementation	(32)			(6)			(26)		
• Learning about Instructional shifts	(24)			(8)			(16)		
• Learning about Smarter Balance/assessment	(23)			(4)			(19)		
• Learning about Standards for Mathematics Practice	(15)			(7)			(8)		
• Nonspecific	(5)			(2)			(3)		
• Examining the Appendices	(4)			(1)			(3)		
Training materials		107	12.2		23	10.0		84	13.0
• PowerPoints	(65)			(8)			(57)		
• Nonspecific	(16)			(6)			(10)		
• Videos	(15)			(8)			(7)		
• Online/electronic	(11)			(1)			(10)		
Discussions/information sharing		86	9.8		21	9.1		65	10.1
Resources		83	9.5		19	8.3		64	9.9
• Online/electronic	(37)			(7)			(30)		
• Nonspecific	(26)			(4)			(22)		
• Handouts/booklets/binders	(20)			(8)			(12)		

Table A - 6 continues on next page

Table A - 6.   Detailed Summary of Retrospective Comments About Most Useful Aspects of EEA by Source of Trainer

Category comment	All respondents			Corwin-trained respondents			WVDE-trained respondents		
	Subcat. (*N*)*	Category *N*	%	Subcat. (*N*)*	Category *N*	%	Subcat. (*N*)*	Category *N*	%
Quality of presenters		62	7.1		7	3.0		55	8.5
Lessons/examples/resources for classroom use		61	7.0		12	5.2		49	7.6
• Nonspecific	(46)			(10)			(36)		
• Teach 21	(15)			(2)			(13)		
Opportunities for collaboration/ planning		51	5.8		14	6.1		37	5.7
Activities		40	4.6		13	5.7		27	4.2
• Nonspecific	(20)			(9)			(11)		
• Hands-on	(18)			(3)			(15)		
• Group	(2)			(1)			(1)		
Other non-EEA experiences		37	4.2		15	6.5		22	3.4
• Personal experience/ reading/research	(10)			(2)			(8)		
• District training/support	(8)			(4)			(4)		
• Other RESA training/support	(6)			(0)			(6)		
• TLI	(5)			(4)			(1)		
• Coaching class	(3)			(2)			(1)		
• Graduate coursework	(2)			(2)					
• Other WVDE training	(2)			(1)			(1)		
• Nonspecific	(1)			(0)			(1)		
Training guidance--Modeling strategies/activities		35	4.0		6	2.6		29	4.5
Miscellaneous		30	3.4		9	3.9		21	3.3
Little or nothing		13	1.5		12	5.2		1	0.2
Time factors/Scheduling-- Count		9	1.0		3	1.3		6	0.9
Time to explore/learn-- Count		8	0.9		**0**	0.0		8	1.2
Proximity to home/local context		7	0.8		0	0.0		7	1.1
All aspects		4	0.5		3	1.3		1	0.2
Positive attitudes of presenters/participants		4	0.5		1	0.4		3	0.5
Participating with colleagues		3	0.3		0	0.0		3	0.5

Subc. (*N*)= Comment subcategory frequency
NOTE: Data in this table were collected in the EEA Follow-up Survey

Table A - 7.   Detailed Summary of Retrospective Comments About Least Useful Aspects of EEA by Source of Trainer

	All			Corwin			WVDE		
	Subcat.	Category		Subcat.	Category		Subcat.	Category	
	(*N*)*	*N*	%	(*N*)*	*N*	%	(*N*)*	*N*	%
Total		422	100.0		150	100.0		272	100.0
Specific activity/content not useful		113	26.8		40	27.3		72	26.5
• Reading standards/ appendices	(25)			(9)			(16)		
• Miscellaneous/nonspecific	(19)			(5)			(14)		
• Rationale for/history of standards	(11)			(10)			(1)		
• Smarter Balanced assessment	(10)			(2)			(8)		
• Mathematics activities	(8)			(2)			(6)		
• Lecture	(8)			(6)			(2)		
• Large groups	(7)			(3)			(4)		
• Reading PowerPoints	(7)			(3)			(4)		
• Career-technical instruction	(6)						(6)		
• Ice breakers	(4)						(4)		
• Guidance on training	(3)						(3)		
• Miscellaneous/nonspecific	(2)						(2)		
• Drug prevention training	(2)						(2)		
Specific content missing		48	11.4		20	13.3		28	10.3
• Sample lessons/units/ practice information	(27)			(10)			(17)		
• Lack of training guidance	(9)			(3)			(6)		
• NxGen standards by grade level	(6)			(5)			(1)		
• Elementary math/RLA	(4)			(1)			(3)		
• Miscellaneous/nonspecific	(1)			(1)					
• Smarter Balanced assessment	(1)						(1)		
Miscellaneous		39	9.2		11	7.3		28	10.3
Content mismatched with participants' needs		33	7.8		10	6.7		23	8.5
• Content area/ programmatic level needs	(15)			(5)			(10)		
• Redundant	(14)			(3)			(11)		
• Miscellaneous/nonspecific	(2)			(1)			(1)		
• Over their heads	(2)			(1)			(1)		
Comment meaning unclear		28	6.6		8	5.3		20	7.4
Quality of trainers		26	6.2		19	12.7		7	2.6
Facilities/food/internet connectivity		24	5.7					24	8.8

Table A - 7 continues on next page

Table A - 7.   Detailed Summary of Retrospective Comments About Least Useful Aspects of EEA by Source of Trainer

	All			Corwin			WVDE		
	Subcat.	Category		Subcat.	Category		Subcat.	Category	
	(*N*)*	*N*	%	(*N*)*	*N*	%	(*N*)*	*N*	%
Time wasted/schedule could have been shortened		22	5.2		6	4.0		16	5.9
All aspects useful		16	3.8		2	1.3		14	5.1
Too much content for time allotted		14	3.3		1	0.7		13	4.8
Lack of discussion/sharing/ planning time		12	2.8		7	4.7		5	1.8
None of it was useful		10	2.4		8	5.3		2	0.7
Too much focus on marketing materials		9	2.1		8	5.3		1	0.4
Participant recruitment not adequate		8	1.9			0.0		8	2.9
Scheduling of training		8	1.9		1	0.7		7	2.6
Unclear distinctions between NxGen and CCSS		7	1.7		7	4.0		0	0.0
Lack of resources/materials to take away		6	1.4		2	1.3		4	1.5

Subc. (*N*)= Comment subcategory frequency
NOTE: Data in this table were collected in the EEA Follow-up Survey

Table A - 8.   Knowledge Test Item Statistics—Elementary ELA Scenarios

Item	Scenario	Number tested	% correct (difficulty)	PBS correlation (discrimination)	Difficulty flag[1]	Discrimination flag[2]
1	1	101	85.1	.124	Y	Y
2	1	101	42.6	.151		Y
3	1	101	91.1	.250	Y	
4	1	101	41.6	.155		Y
5	1	101	94.1	.113	Y	Y
6	1	101	96.0	.126	Y	Y
7	1	101	86.1	.265	Y	
8	1	101	66.3	.410		
1	2	92	80.4	.877		
2	2	92	82.6	.859		
3	2	92	84.8	.565		
4	2	92	80.4	.877		
5	2	92	78.3	.846		
6	2	92	81.5	.744		
7	2	92	41.3	.125		Y
8	2	92	77.2	.743		
9	2	92	58.7	.469		

[1] % Correct is < 15% or > 85%
[2] PBS ≤.20
NOTE: Data in this table were collected in the EEA Event Survey

Table A - 9.   Tests of Significance in Knowledge Test Score Differences by Provider—Elementary ELA Scenarios

Variable	Homogeneity of variance	T	DF	SIG	Mean difference	ES	Interpretation
Raw score S1S2_clean	.871	2.786	85	.007	2.01	.60	Moderate effect – WVDE

NOTE: Data in this table were collected in the EEA Event Survey

Table A - 10.   Knowledge Test Item Statistics—Middle School ELA Scenarios

Item	Scenario	Number tested	% Correct (difficulty)	PBS Correlation (discrimination)	Difficulty flag[1]	Discrimination flag[2]
1	1	68	58.8	.217		
2	1	68	88.2	.234	Y	
3	1	68	70.6	.249		
4	1	68	58.8	.428		
5	1	68	72.1	.339		
1	2	69	72.5	.321		
2	2	69	81.2	.152		Y
3	2	69	71.0	.233		
4	2	69	76.8	.048		Y
5	2	69	53.6	.263		
6	2	69	92.8	.274	Y	

[1] % Correct is < 15% or > 85%
[2] PBS ≤.20
NOTE: Data in this table were collected in the EEA Event Survey

Table A - 11.   Tests of Significance in Knowledge Test Score Differences by Provider—Middle School ELA Scenarios

Variable	Homogeneity of variance	T	DF	SIG	Mean diff	ES	Interpretation
Raw score S1S2	.985	.363	64	.718	-.235	.09	Small effect - no difference

NOTE: Data in this table were collected in the EEA Event Survey

Table A - 12.   Knowledge Test Item Statistics—High School ELA Scenarios

Item	Scenario	Number tested	% Correct (difficulty)	PBS Correlation (discrimination)	Difficulty flag[1]	Discrimination flag[2]
1	1	79	54.4	.134		Y
2	1	79	79.7	.247		
3	1	79	63.3	.217		
4	1	79	60.8	.524		
5	1	79	69.6	.126		Y
1	2	78	66.7	.083		Y
2	2	78	71.8	.196		Y
3	2	78	69.2	.147		Y
4	2	78	80.8	.339		
5	2	78	59.0	.243		
6	2	78	84.6	.323		

[1] % Correct is < 15% or > 85%
[2] PBS ≤.20
NOTE: Data in this table were collected in the EEA Event Survey

Table A - 13.   Tests of Significance in Knowledge Test Score Differences by Provider—High School ELA Scenarios

Variable	Homogeneity of variance	T	DF	SIG	Mean diff	ES	Interpretation
Raw score S1S2	.267	.647	76	.520	.286	.14	Small effect – no difference

NOTE: Data in this table were collected in the EEA Event Survey

Table A - 14.   Knowledge Test Item Statistics—Elementary School Mathematics Scenarios

Item	Scenario	Number tested	% Correct (difficulty)	PBS Correlation (discrimination)	Difficulty flag[1]	Discrimination flag[2]
1	1	93	60.2	.021		Y
2	1	93	33.3	.170		Y
3	1	93	58.1	.482		
4	1	93	72.0	.291		
5	1	93	24.7	.082		Y
1	2	87	80.5	.460		
2	2	87	82.8	.043		Y
3	2	87	81.6	.351		
4	2	87	96.6	.235	Y	
5	2	87	94.3	.436	Y	
6	2	87	90.8	.225	Y	
7	2	87	80.5	.294		

[1] % Correct is < 15% or > 85%
[2] PBS ≤.20
NOTE: Data in this table were collected in the EEA Event Survey

Table A - 15.   Tests of Significance in Knowledge Test Score Differences by Provider—Elementary School Mathematics Scenarios

Variable	Homogeneity of variance	T	DF	SIG	Mean diff	ES	Interpretation
Raw score S1S2	.307	.380	83	.705	-.120	.08	Very small effect – no difference

NOTE: Data in this table were collected in the EEA Event Survey

Table A - 16.   Knowledge Test Item Statistics— Middle School Mathematics Scenarios

Item	Scenario	Number tested	% Correct (difficulty)	PBS Correlation (discrimination)	Difficulty flag[1]	Discrimination flag[2]
1	1	116	56.9	.166		Y
2	1	116	31.0	.113		Y
3	1	116	78.4	.056		Y
4	1	116	75.0	.018		Y
5	1	116	74.1	.033		Y
1	2	117	82.9	.464		
2	2	117	24.8	.136		Y
3	2	117	90.6	.102	Y	Y
4	2	117	47.0	.480		
5	2	117	59.8	.241		

[1] % Correct is < 15% or > 85%
[2] PBS ≤.20
NOTE: Data in this table were collected in the EEA Event Survey

Table A - 17.   Tests of Significance in Knowledge Test Score Differences by Provider—Middle School Mathematics Scenarios

Variable	Homogeneity of variance	T	DF	SIG	Mean diff	ES	Interpretation
Raw score S1S2_CLEAN	.641	.541	112	.589	-.279	.10	Small effect – no difference

NOTE: Data in this table were collected in the EEA Event Survey

Table A - 18.   Knowledge Test Item Statistics—High School Mathematics Scenarios

Item	Scenario	Number tested	% Correct (difficulty)	PBS Correlation (discrimination)	Difficulty flag[1]	Discrimination flag[2]
1	1	95	69.5	.209		
2	1	95	46.3	.261		
3	1	95	89.5	.145	Y	Y
4	1	95	70.5	.208		
5	1	95	54.7	.225		
1	2	96	74.0	.462		
2	2	96	37.5	.016		Y
3	2	96	85.4	.214	Y	
4	2	96	46.9	.382		
5	2	96	69.8	.233		

[1] % Correct is < 15% or > 85%
[2] PBS ≤.20
NOTE: Data in this table were collected in the EEA Event Survey

Table A - 19.   Tests of Significance in Knowledge Test Score Differences by Provider—High School
Mathematics Scenarios

Variable	Homogeneity of variance	*T*	*DF*	*SIG*	Mean diff	*ES*	Interpretation
Raw score S1S2_CLEAN	.625	.244	92	.808	.343	.05	Very small effect – no difference

NOTE: Data in this table were collected in the EEA Event Survey

Table A - 20.   The Extent to Which the Educator Enhancement Academies Were Led by Qualified and
Knowledgeable Trainers by Source of Trainers

	All		Corwin		WVDE	
Facilitators	Number responses	Mean response	Number responses	Mean response	Number responses	Mean response
Q3.2.1. were knowledgeable about the topic	700	4.46	181	3.74	519	4.72
Q3.2.2. were well organized	700	4.44	182	3.80	518	4.66
Q3.2.3. presented material clearly, effectively	700	4.36	181	3.55	519	4.64
Q3.2.4. managed discussions well	701	4.38	182	3.63	519	4.65
Q3.2.5. answered questions adequately	700	4.37	181	3.56	519	4.66
Q3.2.6. modeled desired training techniques	699	4.27	182	3.29	517	4.61

NOTE: Data in this table were collected in the EEA Event Survey

Table A - 21.   Comparison of the Quality of Educator Enhancement Academies to Previous Train-the-Trainer
Experience(s) by Source of Trainers

How academy compares to previous train-the-trainer experience(s)	All		Corwin		WVDE	
	Number responses	Percent	Number responses	Percent	Number responses	Percent
All responses	680	100.0	178	100.0	502	100.0
More useful	208	30.6	21	11.8	187	37.3
About the same	186	27.4	52	29.2	134	26.7
Less useful	77	11.3	61	34.3	16	3.2
No opinion	23	3.4	9	5.1	14	2.8
No basis to compare	186	27.4	35	19.7	151	30.1

NOTE: Data in this table were collected in the EEA Event Survey