Catalyst Schools Research Study:
Technical Report

West Virginia Department of
EDUCATION
Office of Research, Accountability, & Data Governance

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This research study was reviewed and approved by the West Virginia Department of Education Institutional Review Board (IRB-WVDE-027). Should you desire additional details about this study's approval status, you may contact the WVDE IRB co-chair, Amber Stohr (astohr@k12.wv.us).

Contents

Introduction

In January 2012, the West Virginia Governor's Office released an influential report, *Education Efficiency Audit of West Virginia's Primary and Secondary Education System,* written by Public Works (2012), a management consulting company headquartered in West Chester, PA. Based largely on this report, the West Virginia Legislature passed education reform legislation, which was signed into law by the Governor in spring 2013.

The Catalyst School Research Study examined the initial stage of an initiative that grew out of that reform. The Transforming Professional Learning initiative focused on changing the way the West Virginia Board of Education (WVBE) defined professional learning and the ways major providers involved themselves in the professional learning of educators in the state, especially the West Virginia Department of Education (WVDE) and regional education service agencies (RESAs).

The results of the study were reported in five brief reports, all available at http://wvde.state.wv.us/research/reports2016.html:

- *Catalyst Schools Research Study Report: Supporting Statewide Implementation of the Learning School Initiative,* May 2016
- *Catalyst Schools Research Study Report: Spotlight on RESA 2 - Regional Implementation of the Learning School Initiative,* May 2016
- *Catalyst Schools Research Study Report: Spotlight on RESA 6 - Regional Implementation of the Learning School Initiative,* May 2016
- *Catalyst Schools Research Study Report: Catalyst Schools' Implementation of the Learning School Approach,* July 2016
- *Catalyst School Research Study: The Learning School Approach and Student Proficiency in ELA and Math: Preliminary Findings,* September 2016

This report provides technical details about the research methods used in the first four reports in the study. The fifth report includes methods in the report itself.

Background

The WVBE High Quality Educator (HQE) Committee obtained funding from the Claude Worthington Benedum Foundation in mid-2013 to support the Transforming Professional Development project. The Board contracted with the National Commission for Teaching and America's Future (NCTAF) to lead it, with other consulting help from Learning Forward, the National Governors Association, and the U.S. Education Delivery Institute. The overarching principle of the project was to redefine educators' conception of schools as communities of learners, including students, staff, and parents. Further, the system of professional learning would shift from a provider-driven perspective—where state agencies, RESAs, and others developed a slate of offerings from which individual educators could make selections to fulfill their professional development requirements—to a system driven by a cycle of continuous improvement in which educators collaboratively determined their learning needs based on

the learning needs of students in their schools. RESAs' role in the system would be to provide technical assistance and training to support this shift to school- and district-based professional learning communities (PLCs).

To launch this new approach and to model various ways professional learning can be driven at the local level, leadership of the initiative identified two RESAs (2 and 3) to work in partnership with two or three schools in their regions as *catalyst schools*—that is, as prototypes with the added credibility of emerging in West Virginia's own schools. Catalyst schools were chosen based on their readiness to engage in the project, using the following criteria (Killion, 2014b, pp. 3-4):

- Strong school-level leadership support;
- Support from RESA and county leadership;
- Established and well-functioning PLCs;
- Understanding of elements of effective professional learning as documented in the research;
- Interest in exploring how to reallocate time and resources;
- Strong relationship with RESA leadership;
- Willingness to be transparent about the process, funding, challenges

Cohort 1 included five schools in three counties. A second cohort of schools included 23 schools, with one or more schools in each of the eight RESA regions. Cohort 2 began its participation during the summer of 2015 and continued, along with Cohort 1, through the 2015-2016 school year.

Rationale for the Study

The rationale for this study is grounded in its potential significance for informing RESAs, WVDE, and others about how a new, more cohesive and user-driven system of professional learning can be established across the state.

Relevant Scholarship

Professional development, as part of a reform strategy is only one element in creating an instructional system that improves both teacher and student learning. Based on their studies of improving mathematics instruction, Cobb and Jackson (2011, p. 12) propose the elements outlined below be included in a coherent instructional system. Many of these elements are being developed in West Virginia, especially as part of the statewide implementation of the West Virginia College and Career Ready Standards. Following each of the elements (shown in italics) recent West Virginia initiatives and reforms are listed.

- Explicit goals for students' learning—Adoption of the West Virginia College and Career Readiness Standards
- A detailed vision of high-quality instruction that specifies particular instructional practices that will lead to students' attainment of the learning goals—Instructional shifts and Standards for Mathematical Practice

- *Instructional materials and associated tools designed to support teachers' development of these practices*—The West Virginia TREE website (https://wvde.state.wv.us/apps/tree/)
- District teacher professional development that focuses on the specific practices, is organized around the above materials, and is sustained over time—Train-the-trainer events such as the Educator Enhancement Academies and 2016 institutes, which trained teachers and district central office staff in the West Virginia College and Career Ready Standards and instructional shifts
- *School-based PLCs* that provide ongoing opportunities for teachers to discuss, rehearse, and adapt the practices that have been introduced in district professional development—The Learning School initiative
- *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—New interim assessments aligned with the West Virginia College and Career Readiness Standards
- *Additional supports for struggling students* to enable them to succeed in mainstream classes—Supports for Personalized Learning and Supports for Personalized Instruction

The Learning School initiative—including its pilot-project catalyst schools which are the object of this study—focus largely on the fifth bullet in this list. See the discussion section of the fourth report in this series, *Catalyst Schools' Implementation of the Learning School Approach,* for additional discussion of the research literature on PLCs, and the Standards for Professional Learning.

Evaluation Questions

The purpose of the catalyst schools was to demonstrate and document a new, school-based, student-needs-driven approach to professional development that can then be scaled up and implemented broadly across the state. This evaluation created a framework for interpreting the experiences that unfolded at the catalyst schools, to provide insights and data for consideration in the broader implementation of this new system for professional learning. The evaluation focused on the following broad questions:

EQ1. What are feasible approaches for statewide implementation of the Learning School approach to professional learning?

EQ2. What services/products were provided to support implementation in the schools?

EQ3. How did implementation take shape in the schools, especially with regard to alignment with the Learning Forward Standards for Professional Learning?

EQ4. To what extent did the project support professional learning that improves educator effectiveness?

Methods

This evaluation study employed both quantitative and qualitative methods to provide useable information for leaders in the catalyst schools, as well as for planners and leaders involved in scaling up the program for statewide implementation. Stakeholders were involved in data collection and interpretation in order to maximize the usefulness and use of the study findings. All focus group and individual interviews were recorded and transcribed and read multiple times to identify themes related to the evaluation questions. Additional details are included in the descriptions of the individual reports below. For a brief timeline for the study, see Appendix A. The remainder of this technical report is organized by the four reports described earlier, which collectively address the evaluation questions listed above.

This study was approved by the WVDE Institutional Review Board (IRB-WVDE-027).

Supporting Statewide Implementation of the Learning School Initiative

This report examined three topics: funding decisions, scheduling time, and capacity building. Data sources and methods of analysis are described for each topic.

Funding decisions

- Information about funding, including restrictions on its use, was obtained in an interview with staff from the WVDE Office of Federal Programs on April 15, 2016 (see Appendix B).
- Information about variations among districts in their responsiveness to catalyst school funding requests was obtained during focus group interviews with Cohorts 1 and 2 catalyst school principals at all eight RESAs from November 30, 2015 through January 8, 2016 (see Items 5 – 7, Appendix C). Focus groups were recorded, transcribed, and coded using a qualitative analysis application, RQDA. Additional information was obtained in conversations with staff from RESAs 2 and 6 during the winter of 2016.

Scheduling time

- Information in this report about scheduling time was obtained in focus group interviews with Cohort 1 catalyst school teachers in the spring of 2015 (see Appendix D); and with Cohorts 1 and 2 principals at all eight RESAs from November 30, 2015 through January 8, 2016 (see Appendix C).

Capacity building

- As a member of the Transforming Professional Development Advisory Group beginning in 2013, I was able to provide this account based on my own notes about the progression of events from the beginning of the project. For a more detailed timeline, see Appendix E.

Spotlight on RESA 2: Regional Implementation of the Learning School Initiative

This case study examined the approach used by one of the RESAs, selected because of the observed, strong performance of its catalyst schools overall.

- RESA 2 supported three elementary schools in the first cohort of catalyst schools and added five more schools for the second cohort. Due to this early involvement, former Executive Director Dee Cockrille and Coordinator of Curriculum and Instruction Tammy Stowers made themselves available for multiple interviews and to answer questions beginning in May 2015 (see Appendix F) through to the end of data collection in the spring of 2016.
- Quotations from principals were drawn from two sources, a focus group interview conducted on December 18, 2015 at the RESA 2 facility (see Appendix C for the interview questions) and comments in response to an open-ended question on a PLC scheduling survey begun on March 2, 2016 (see Appendix G for the survey invitation and form).
- Dr. Cockrille and Ms. Stowers responded to a detailed questionnaire in early March 2016 (see Appendix H).

Spotlight on RESA 6: Regional Implementation of the Learning School Initiative

This case study examined the approach used by one of the RESAs, selected because of the observed, strong performance of its catalyst schools overall.

- RESA 6 joined the catalyst school pilot project in May 2015 with four catalyst schools. Data collection for this RESA began with the principals' focus group, conducted at RESA 6 on January 6, 2016. Similarly to RESA 2, quotations from principals were pulled from this interview (Appendix C) and from questions on a PLC scheduling survey mentioned above (Appendix G).
- Additionally, I participated in an extended discussion on February 26, 2016, during which RESA 6 Executive Director Nick Zervos, and staffers Marian Kajfez, Mary Kay Reisinger, Michelle Hogan, and Jon Pollack explained the RESA 6 school improvement process and provided me with catalyst school scheduling information and many other materials related to their approach to regional support and their work with school districts.
- I attended the March 2016 RESA 6 Regional Principals Institute, which featured presentations by catalyst school principals and teacher leaders explaining their implementation of the Learning School approach in their schools to a regional audience of principals and district administrators.

Catalyst Schools' Implementation of the Learning School Approach

To develop a clearer picture of the variation among catalyst schools in their implementation of the Learning School approach, I constructed a 5-point index using four measurements for each individual school. Using the four measurements—or in some cases three when all four were not available—I then calculated a "level of implementation rating" for each catalyst school. The measurements included

1. Time allotted in schedules for PLCs
2. Types of activities included in PLC agendas
3. Standard Assessment Inventory 2 (SAI2) scores
4. RESA and the WVDE assessments of each school's stage of implementation

Each of these measurements also used a 5-point scale, so the composite index score was calculated by taking the mean of the scores. Schools for which there were fewer than three of the measurements available, were not included in the analysis.

Focus group interviews with principals were also used to augment the SAI2 scores, for reasons explained below.

Time allotted in schedules for PLCs

In all of my interviews with principals and teachers, I asked about how much time they had for their PLCs and how they managed to schedule it. However, interview transcripts were difficult to use for determining, specifically, how much time each of the schools had scheduled for their individual PLCs to meet. Consequently, on March 2, 2016, I asked principals to send me their list of PLCs, and indicate how often each one typically met, for how many minutes, and a few details about how they scheduled the time (see Appendix G for the survey invitation and form). Twenty-five of the 28 catalyst schools responded to this request.

Standardized responses were set up to allow for the collection of data about frequency and duration of meetings, which could be compared across schools (see box for response options). Based on the frequency and duration questions and a 4-week month, I was able to calculate for each school, the average number of minutes per month each PLC typically met. Then I took the average for each school.

As described in the report of findings, I was able to compare this average to the number of minutes called for in the literature—about 60 minutes in an 8-hour day. The top of this scale (5 points) approaches this amount of time. I cut the number of minutes in half for each descending level on the scale, as follows:

5 = 720+ (minimum = 4 days/week @ 45 minutes/day or more)

4 = 360 - 719 (minimum = 2 days/week @ 45 minutes/day)

3 = 180 - 359 (minimum = 1 day/week @ 45 minutes/day)

Response Options for PLC Frequency and Duration Questions

Usual frequency of meetings (select one)

- 1 time/every 2 months
- 1 time/month
- 2 times/month
- 3 times/month
- 1 time/week
- 2 times/week
- 3 times/week
- 4 times/week
- 5 times/week

When are meetings held? (select one)

- During work day before students arrive
- During work day after students leave
- During work day with coverage by substitute(s)
- During work day with coverage by other staff
- During work day when students are off
- Outside of regular work hours
- Other

2 = 90 - 179 (minimum = 2 day/month @ 45 minutes/day)
1 = 0 - 89 (less than 2 day/month @ 45 minutes/day)

After each school was assigned a scale score for the amount of time scheduled for PLCs, the scores were aggregated and averaged by RESA and across the 25 catalyst schools that provided information.

Types of activities included in PLC agendas

Eighteen schools responded to a request for copies of their PLC agendas for the month of February 2016. Some catalyst schools reported weather-related cancellations of February PLCs, so they sent late January and early March agendas. Agendas from outside of this narrow window were not included in the analysis. Additionally, one school sent along two faculty meeting agendas, which also were not included in the analysis.

The agendas were anonymized and schools were randomly assigned pseudonyms. Then agenda items were numbered continuously by individual school. For example, School M sent agendas for its nine PLCs. The agenda items were numbered continuously, starting with the first item on the first agenda and continuing through the remaining agendas, reaching a total of 91 numbered items. The range of numbered items across the schools was from five to 91 items.

I developed in collaboration with the WVDE Office of Student and School Support, a coding scheme with definitions for categorizing the items on the agendas (for the complete list of codes and their definitions, see Appendix I). The three major coding categories were (a) administrative information sharing, (b) planning for learning, and (c) engaging in professional learning. The major categories had three or four subcategories, each with its own code.

A RESA allowed one of its school improvement coordinators to assist me with conducting the coding. After reviewing the codes and their definitions, the coordinator and I individually categorized the agenda topics for each school separately, entering the information into a spreadsheet with one worksheet for each school (see Appendix J). The columns on each worksheet were for the codes and the rows were for the numbered agenda items.Each agenda item was coded by entering a 1 in the column representing the appropriate code; agenda items were assigned only one code each. After independently coding each school, we compared our codes, item by item. Where our coding varied, we each described our reasons for assigning the codes we did, and then reached consensus on how to ultimately code the item. We proceeded this way through all 18 sets of school PLC agendas.

For each school, I tabulated raw counts for each of the three major categories, and calculated the major categories' percentages of the total agenda items. At this point, I was ready to convert the percentages into a quality scale score for each school's collection of agendas. I began by devising a weighting scheme that rewarded agenda items categorized as "engaged in professional learning" because they are the most desirable activities to be taking place during PLCs (see the discussion section of the report in this series titled *Catalyst Schools' Implementation of the Learning School Approach* for an explanation of the research supporting this and other research-based assertions).

Methods

Agenda items focused on professional learning were weighted 1.5 points for each percentage point of agenda items. Based on the assumption that there is some degree of learning and sharing that takes place when collaborative teams get together to review student data and make plans for student learning, 1 point was assigned for each percentage point of planning items. A negative one quarter point (-.25) was assigned for administrative tasks more appropriately handled in staff meetings. Under this scheme, the lowest possible score was –25 points, which would represent 100% of agenda items falling in the Administrative category; the highest possible score would be 150 points, where 100% of the PLC agenda items fell into the "Engaged in professional learning" category. Actual results are shown in Table 1.

Table 1.   PLC Agenda Quality Measures

| | Percentage of agenda items | | | | |
	Administrative information sharing	Planning for learning	Engaged in professional learning	Weighted value	Scale score
School A	0.0	0.0	100.0	150.0	5
School C	45.9	37.8	16.2	73.6	2
School D-E	61.9	9.5	28.6	67.9	2
School F	26.3	57.9	15.8	88.2	3
School G	28.6	57.1	14.3	85.7	3
School H	3.3	93.3	3.3	99.2	3
School I	14.3	71.4	14.3	96.4	3
School J	0.0	62.5	37.5	118.8	4
School K	3.4	86.2	10.3	102.6	4
School L	0.0	100.0	0.0	100.0	3
School M	20.9	68.1	11.0	89.8	3
School N	13.2	86.8	0.0	90.1	3
School O	63.6	27.3	9.1	56.8	2
School P	14.3	71.4	14.3	96.4	3
School Q	39.0	57.6	3.4	72.5	2
School S	0.0	0.0	100.0	150.0	5
School T	46.2	50.0	3.8	67.3	2
School U	9.1	90.9	0.0	93.2	3

The final stage involved converting these weighted scores to a 5-point scale. The scale is based on ranges of the weighted values, as shown in Table 2. Scale scores for schools were aggregated and averaged by RESA and overall across the 18 schools.

Scale score	Weighted value range	Description
5	126 – 150	At least 90% of items focused on professional learning and planning for learning combined, with vast majority of items focused on professional learning
4	101 – 125	At least 90% of items focused on professional learning and planning for learning combined, with emphasis on planning
3	76 – 100	At least 70% of items focused on professional learning and planning combined, with emphasis on planning, and a growing number of items focused on administrative tasks
2	51 – 75	60% or less of items focused on professional learning and planning combined, with emphasis on planning and almost 40% of items focused on administrative tasks
1	-(25) – 50	4% or more of items focused on administrative tasks, with few or no items focused on professional learning

Table 2. Relationship of Scale Scores to Weighted Values

SAI2 scores

The SAI2 is a valid and reliable instrument developed by Learning Forward to measure the extent to which individual schools align their professional learning practices with the Standards for Professional Learning (Denmark & Weaver, 2012). Catalyst schools were invited to participate in the SAI2 for a pretest in the spring of 2015 and again for a posttest in the spring of 2016 (see Appendix G). Twenty-five of the 28 catalyst schools participated in the pretest, but only ten schools participated in the posttest survey by the end of June 2016. Because of the low level of participation and the lack of representation across all RESAs, I was not able to provide a growth analysis that would have been representative of the catalyst schools' experience overall. I did use the 2016 scores available for the 10 schools as one of four measures to construct the levels of implementation scale (see below).

Focus group interviews with principals

The focus group interviews with principals were conducted at all eight RESAs from November 30, 2015–January 8, 2016 (see Appendix C). I had previously drawn upon transcripts from the interviews to learn about how the catalyst schools were supported by districts and RESAs. These interviews proved useful, once again, in addressing the evaluation question, "How did implementation take shape in the schools, especially with regard to alignment with the Learning Forward Standards for Professional Learning?" Here I wanted to take a closer look at what the principals had to say about specific actions they have taken to address the seven Standards for Professional Learning (see box below).

To quantify their responses to my direct questions during the interviews about what actions they had taken to implement any of the seven standards, I used the rapid identification of themes from audio recordings (RITA), developed by Neal, Neal, VanDyke, and Kornbluh (2015). This method calls for coding the recorded interviews while listening to them, to identify themes. To do this I set up a spreadsheet (see Appendix K) with 3-minute increments as the columns, and the seven standards and subdomains as identified by Learning Forward

(2011) as the rows (see the accompanying box). To provide a more granular system of coding, I used the subdomains—three for each standard—instead of the standards themselves to do the coding, then summed the subdomains to obtain a total for each of the seven standards. As explained by Neal, Neal, VanDyke, and Kornbluh (2015), because the time segment is the recording unit, I only determined if the theme (subdomain) was mentioned within each particular time segment, and not how often it occurred.

Standards for Professional Learning With Subdomains

DATA—Uses to plan, assess, evaluate professional learning
- Student data (formal/informal assessments)
- Educator data (educator evaluation, SAI2, etc.)
- System data (OEPA, fiscal, HR, time, etc.)

IMPLEMENTATION
- Applies research on change
- Sustains support for long-term change
- Provide constructive feedback

LEADERSHIP--for professional learning, including
- Develops capacity
- Advocates
- Creates systems/structures (calendars, schedules, etc.)

LEARNING COMMUNITIES--committed to
- Continuous improvement

- Collective responsibility
- Goal alignment

LEARNING DESIGNS
- Aligns with teacher experience/needs
- Uses variety of forms
- Uses peer observation

OUTCOMES
- Explicitly links educator and student learning
- Focuses on curriculum and how students learn
- Builds on previous teacher learning

RESOURCES
- Allocates time for professional learning during school day
- Expenditures for professional learning openly discussed
- Provides technology and other professional learning resources

Adapted from Learning Forward (2011)

It should also be noted that because the interviews varied somewhat in length—from about 40 minutes to over an hour—I used mentions of each of the standards as percentages of all mentions, instead of as totals. I made this choice because principals at one RESA may have had more time to mention a theme (standard) than at another RESA.

This was important because I did want to make some comparisons across the interviews. The focus groups occurred at each of the eight RESAs and involved only the catalyst school principal(s) from the RESA where the interview occurred. Consequently, I could note differences in the themes across the RESAs.

 I did not attempt to convert this analysis into the 5-point scale I used for the others because it was essentially measuring the same thing as the SAI2—alignment of professional learning practices with the Standards for Professional Learning—and the SAI2 is a more precise measure. However, due to the lack of participation in the SAI2 in spring of 2016 (only 10 of the 28 schools), this seemed a useful supplement to those data. The results were presented

as prevalence of themes by RESA and overall, which gave some indication of standards that are well established and those that may need more attention.

RESA and WVDE assessments of each school's stage of implementation

The fifth analysis drew upon implementation research, especially the seminal research synthesis of this body of research conducted by Fixsen, Naoom, Blase, Friedman, and Wallace (2005). These scholars identified five stages of implementation that interventions tend to pass through (see box below).

I drew upon the familiarity of the RESA staff associated with each of the catalyst schools during the 2015-2016 implementation period, and the WVDE staff member who, beginning in January 2016, had made at least one daylong site visit with each of the schools to observe classrooms, attend PLCs, and meet with principals.

I provided the stages-of-implementation definitions to RESA staff and asked them to assign the appropriate stage of implementation to each of their catalyst schools (see Appendix L). I made a similar request of the WVDE staff member on June 7, 2016.

The WVDE ratings tended to run about 40% higher than the RESA scores overall. Also the WVDE ratings were frequently out of alignment with the other data points (SAI2, PLC agenda quality, and PLC duration). Further, in most cases, RESAs had more contact with the catalyst schools and training in the Learning School approach and in the Standards for Professional Learning. Consequently, I adjusted for this lack of inter-rater reliability by giving more weight to the RESA ratings. I multiplied WVDE scores by .75 and the RESA scores by 1.25. I then took the average of the two scores.

The five stages of implementation converted easily to the 5-point scale I had employed in three of the other analyses.

Composite rating

The final analysis in this study combined the four scale scores—that is (a) time allotted in schedules for PLCs, (b) types of activities included in PLC agendas, (c) SAI2 scores, and (d) RESA and WVDE as-

> ## Stage of Implementation
>
> Stage 1.   **Exploration**—identifying the need, acquiring information, assessing the fit between the need and intervention program, and preparing the organization by mobilizing information and support
>
> Stage 2.   **Installation**—making preparations, such as human resource strategies (e.g., scheduling time), policy development, reporting frameworks, outcome expectations, staff training, and needed technology/resources
>
> Stage 3.   **Initial implementation**—beginning to use and monitor new practices, developing and applying new skills, creating a supportive organizational culture, and overcoming inertia and resistance
>
> Stage 4.   **Full implementation**—proceeding with innovation as accepted practice and routine, and seeing evidence of expected impacts/improvements
>
> Stage 5.   **Sustainability**—maintaining the effectiveness of the innovation as staff come and go, and other changes that take place in the organization and its environment
>
> *Adapted from Fixsen, Naoom, Blase, Friedman, and Wallace (2005).*

sessments of the stage of implementation in each of the catalyst schools—into an index score by taking average scores at the RESA level and across all catalyst schools. I had at least three scores

for 18 of the catalyst schools, which happened to be distributed across all eight RESAs, allowing me to provide an average implementation score for every RESA and for the catalyst schools statewide.

This composite, or index score removed some of the variation found in the individual analyses. As noted in the report, the two top scorers on the index were the two RESAs that were highlighted in the earlier case study reports, *Spotlight on RESA 2* and *Spotlight on RESA 6*. The catalyst schools in these two regions were among the highest scorers on multiple qualitative measures.

Limitations of the Study

The SAI2, an instrument that was validated by a third party research organization (Denmark & Weaver, 2012) was used in this study because it has been shown to be predictive of student performance at the school level. The other measures used relied on qualitative methods that work best in combination with each other when making an assessment of the level of implementation at the school or RESA level.

The results of this research study as reported in the four reports (Hammer, 2016a; 2016b; 2016c; and 2016d) should not be used summatively, however. The purpose of the study was to provide feedback to the WVBE, WVDE, and RESAs about the successes and challenges in the implementation of the Standards for Professional Development as they have played out during the first two years of the implementation of the Learning School initiative.

Appendixes

Appendix A. Timeline for Study

The evaluation of the implementation and outcomes of the catalyst school project took place according to the following brief timeline:

2015 Activities

February–March   Data collection at catalyst schools using interview and focus group protocols for teachers and principals, SAI2 survey of teachers

April–May   Data analysis, writing

July   Administration of SAI2 pretest for teachers in Cohort 2 catalyst schools

                                    Participation in three Cohort 2 orientations for district staff and catalyst school leadership teams (northern and southern orientations)

                                    Individual school reports and aggregate reports, prepared as Power-Point presentations for Cohort 1

July–November   Reports of preliminary findings and brief handouts for the WVBE High Quality Educator Committee and Professional Learning Advisory Committee

November–December Data collection at six RESAs using focus group methodology

2016 Activities

January   Data collection at the remaining two RESAs using focus group methodology

February–June   Ongoing data collection from catalyst school principals, including PLC schedules, PLC agendas, and SAI2 post-test

Appendix B. Interview Questions: Funding for Professional Learning

April 15, 2016, Office of Federal Programs

1. How much of a district's budget for professional learning is typically made up of Title II funds?
2. What other funds are available for the support of professional learning?
3. The High Quality Educator Committee initiated the Transforming Professional Learning project, one purpose of which was to decentralize responsibility and authority for professional learning and push both back to local decision-making—especially schools.
4. Can you think of a pathway that would allow funds to be assigned directly to a school, or must they be requested and approved by local districts?

Appendix C. Interview Protocol and Questions for Focus Groups with Principals, November 2015- January 2016

Informed Consent for Participation in a Focus Group as Part of the WVDE Evaluation Study of the Catalyst School Program

By participating in this focus group, you are agreeing to take part in a research study. The purpose of the study is to evaluate the effectiveness of the catalyst school program. What we learn from this study may help improve this program and help guide planners in scaling up the program in the future. Your current participation in the study is limited to completing a survey (conducted separately) and participating in this focus group, which should not take more than 45 minutes of your time. You will be presented with a series of questions and asked for your views in 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. Participating in the focus group 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 catalyst school program, you may contact Teresa Hammond at the West Virginia Department of Education (phone 304-558-9994; email thammond@k12.wv.us. Additionally, if you have questions about this research study or the survey, you may contact Patricia Hammer (phone 304-558-7881; email phammer@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 co-chair, Andy Whisman (phone 304-558-7881; email swhisman@k12.wv.us).

Thank you for taking part in this important effort.

Focus group interview questions (Principals)

1. What sorts of arrangements have you and your staff made for collaborative learning time?
2. What other steps have you taken so far this school year toward becoming a Learning School?
    a. Using the SAI2 results
    b. Examining student data
    c. Identifying teacher learning needs
3. How have you used, if at all, the SAI2 results in your planning?
4. What sorts of supports, if any, has your school received from RESAs?
5. What sorts of supports, if any, has your school received from your district in becoming a Learning School?

6. How well do you think the district central office staff understands the Learning School approach?
7. How supportive is the district in having schools define their own learning needs?
8. Have you had a chance to request specific training or technical assistance based on your teachers' learning needs as they defined them? If so, who did you ask and how did that go?
9. If you have been called upon by the district to implement a new program, were you able to engage in the professional learning it entailed within your PLCs to any extent? How did that work?
10. What type of additional support do you need to improve the implementation of the Learning School approach?
11. What role do you see for your school in helping to implement the Learning School approach at other schools in your district or region?
12. What would you change, if anything, about the catalyst school program?
13. Is there anything else you would like to add?

Appendix D. Questions for Focus Groups With Cohort 1 Teachers, March – April 2015

Following informed consent (see Appendix C), the following questions were asked:

1. What does the Catalyst School program in your school involve?
2. How has your role changed as a result of the implementation of the pilot?
    a. Have you taken on new responsibilities?
    b. How has the pilot affected other aspects of your work?
3. What benefits are you seeing as a result of the Catalyst School program in your school?
    a. On students?
    b. Other school staff?
    c. Overall school climate?
4. What part of the Catalyst School program is having the most positive effect so far?
5. What challenges are you facing by participating in the Catalyst School program? What are your concerns?
    a. Is it specific to a particular strategy or general?
6. Would you like to continue with the catalyst school program?
7. What type of additional support do you need to improve the implementation of the program?
8. What would you change about the Catalyst School program?
9. Is there anything else you would like to add?

Appendix E. Implementation of the Transforming Professional Learning Initiative

Fixsen and colleagues (2005) describe in their research synthesis of the literature on implementation science, six stages of the implementation process: (a) exploration and adoption, (b) program installation, (c) initial implementation, (d) full operation, (e) innovation, and (f) sustainability.

This account described the stages of implementation at the state level.

The High Quality Educator Committee (HQE) of the West Virginia Board of Education (WVBE) formed the Transforming Professional Learning initiative in fall 2013, in response to calls for more effective use of the large sums of state and federal dollars being spent each year on professional development of teachers, seemingly with little to show for it. The initiative, funded by a grant from the Claude Worthington Benedum Foundation, was initially supported by the National Commission on Teaching and America's Future (NCTAF), which was charged with developing an action plan to redesign how professional learning was planned and implemented across the state. Since that time, the WVBE, West Virginia Department of Education (WVDE) and regional educational service agencies (RESAs) with additional support from the professional learning association, Learning Forward, have gone through several stages of implementation, as described in the timeline below:

Exploration and adoption

September–December 2013

- Procured planning grant from Claude Worthington Benedum Foundation
- Contracted with NCTAF to develop action plan
- Formed Transforming Professional Learning Advisory Committee, which included representatives of RESAs, Center for Professional Development, WVDE, WVBE, higher education, National Governors Association, Learning Forward, NCTAF, West Virginia Teacher of the Year, teachers' unions, principals, district superintendents, and West Virginia Parent-Teacher Association
- Planned two meetings of advisory committee for February and March of 2014

January–March 2014

- Convened two meetings of advisory group
- Conducted statewide survey of teachers and principals to collect data about current views of professional learning experiences and professional learning needs
- Developed white paper outlining four outcomes to be achieved and work groups to achieve outcomes:
  - Coherent and transparent (WVBE)
  - Goal-directed and improvement-oriented (Standards and Improvement Work Group)

- o *Quality, efficient, and balanced* (Professional Development Work Group)
- o Needs-based, responsive, flexible, and inclusive (Stakeholder Engagement Work Group)

April–May 2014

- WVDE adopts Learning School approach as implementation model for Transforming Professional Learning initiative at the school level

Program installation

June–July 2014

- Obtained <u>approval</u> for a coordinator position to oversee project at WVDE
- Identified five schools to serve as *catalyst schools*, located in two RESAs, to pilot a new way for RESAs and schools to work together, using the *Learning School* approach developed by Learning Forward, based on the Learning Forward Standards for Professional Learning.
- Contracted with Joellen Killion of Learning Forward to lead orientation sessions for catalyst schools.

Initial implementation

July–November 2014

- Held two-day orientation with principals and leadership teams from five catalyst schools (three elementary, one middle school, and one high school)
- RESA staff began ongoing work with catalyst schools to implement Learning School approach

December 2014

- Hired professional learning coordinator to oversee project in December 2014
- Tasked the WVDE Office of Research, Accountability, and Data Governance to conduct an evaluation of the catalyst school project

January–March 2015

- Developed and obtained approval for evaluation plan, including logic model (OR)
- Conducted data collection activities, including teacher and principal interviews, and Learning Forward's Standards Assessment Inventory 2 (SAI2) at all schools (OR)

April–August 2015

- Identified and invited a second cohort of 25 catalyst schools located in all eight RESAs
- Administered SAI2 to new cohort as pretest and data source for them to use (short timeline, only partial participation)

- Provided critical feedback to Joellen Killion (Learning Forward) and professional development coordinator about first cohort orientation training, based on teacher and principal interviews
- Based on feedback, held a separate, daylong orientation for RESA and district staff (from districts that had at least one catalyst school) and made other adjustments to training
- Conducted 2-day orientation for Cohort 2 principals and teacher leaders in two sessions (northern and southern counties)
- Professional learning coordinator transfers to a new position
- Drafted and obtained approval for WVBE 2015-2016 Master Plan for Statewide Professional Development (PD Master Plan) to reflect statewide implementation of Transforming Professional Learning initiative, including developing structures and policies to support the Learning School approach
- Selected members and convened first meeting of a new Professional Learning Advisory Council

September–December 2015

- Professional Learning Advisory Council drafts new professional learning policy (Policy 5500), which is based on supporting the PD Master Plan and objectives of the Transforming Professional Learning initiative
- Data collection begins for implementation of the new PD Master Plan and Cohort 2 catalyst schools

Appendix F. Interview Questions for RESA Directors, Spring 2015

1. What are your general thoughts about the catalyst school program?

   a. Intent—teachers taking the lead in planning their own professional development

   b. Actual implementation

2. What would you change about the catalyst school program next year?
3. What sorts of assistance were you able to provide to the catalyst schools in your region?

   a. Training

   b. Technical assistance

   c. Resource procurement

   d. Other

4. How did you work things out with the districts to coordinate your efforts?
5. How has your role changed as a result of the implementation of the program?
6. What part of the catalyst school program is having the most positive effect so far?
7. How have you integrated or leveraged other related programs or initiatives?

   a. LDC or MDC

   b. School climate

   c. SPL/SPI approaches

   d. Others

8. What challenges are you facing by participating in the program? What are your concerns?

   a. Cost

   b. Adequate number of staff

   c. Other

9. What type of additional support do you think RESAs need to improve the implementation of the program?
10. Is there anything else you would like to add?

Appendix G. Survey of Catalyst School Principals About PLC Scheduling

Message to Catalyst School Principals

Dear Catalyst School Leaders,

It was a pleasure to meet with catalyst school principals and teacher leaders in the past few months. Thanks so much for taking the time to meet with me at your RESA and share your experiences. I have nearly finished going through the transcripts to discover themes about what sorts of supports you have received from RESA staff and others, as well as your recommendations for improving the implementation experience for schools newly entering into the Learning School approach. I think we are getting a clearer picture about how to move forward with statewide implementation beginning next year.

I have two requests:

1. Please let me know if and when you would like to have your teachers take the Standards Assessment Inventory 2 (SAI2) survey later this year. Taking the survey again will give you an indication of gains you have made in aligning professional learning at your school with the Learning School approach and the Standards for Professional Learning. This survey will be available next year, too, so even if you think you have not made as much progress as you would like, it may be useful to take the survey again this spring to set a baseline for next year. Survey results are strictly confidential.

2. To give me more specific information about the array of learning communities in your school and how you carved out time for them, I have created a quick survey asking you to list PLCs in your building, and give me a few other quick pieces of information about each. The survey is the Word document attached. To fill it out, make sure you are in editing mode (not viewing), and where there are drop-down menus, just click on "Choose an item" and an arrow will appear to the right, which you can click on to select your response. I'm told this takes about 5-10 minutes to fill out.

Thanks so much for taking the time!

Best regards,

Pat Hammer

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School				County
Professional learning community or collaborative learning team name	Number of members	Usual frequency of meetings (select one)	Usual meeting duration (minutes)	When are meetings held? (select one)
		Choose an item.		Choose an item.
		Choose an item.		Choose an item.
		Choose an item.		Choose an item.
		Choose an item.		Choose an item.
		Choose an item.		Choose an item.
		Choose an item.		Choose an item.
		Choose an item.		Choose an item.
		Choose an item.		Choose an item.
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		Choose an item.		Choose an item.
		Choose an item.		Choose an item.
		Choose an item.		Choose an item.
		Choose an item.		Choose an item.
		Choose an item.		Choose an item.
		Choose an item.		Choose an item.
		Choose an item.		Choose an item.
How did you free up time for meetings held during the regular work day? (e.g., adopting an 8-hour day, student late arrival, etc.)				
Is there anything else you would like to share about scheduling time for professional learning?				

Appendix H. RESA 2 and RESA 6 Staff Questionnaire, Spring 2016

1. Approximately how many FTEs do you estimate you will have focused on supporting catalyst schools in your region between July 1 of 2015 and June 30 of 2016?
2. Since the orientation last summer, how often have you met with your catalyst schools as a group?
3. Since the orientation last summer, about how times and for what purpose have you visited each of the catalyst schools in your region?

Name of school	Approxi-mate num-ber of times	Usual purpose(s)

4. Since orientation last summer, please briefly describe any regular communications you may have had with district central office staff about the Learning School approach or the Standards for Professional Learning in the following settings:
   a. Regional meetings
   b. Individual districts
   c. Other
5. Based on your experience with catalyst schools,
   a. Have you been able to integrate your work with catalyst schools with other programs—for example, focus schools? If so, please describe.
   b. Which aspects of becoming a Learning School have come most easily to the schools you have worked with?
   c. Which aspects have been most difficult for principals and teachers to commit to and incorporate into the way they approach professional learning?
   d. What is the range in the level of effort required to support implementation of the Learning School approach?
      o Time commitment for <u>most</u> responsive, adaptive schools? (frequency of visits, monthly time commitment)
      o Time commitment for <u>least</u> responsive, adaptive schools? (frequency of visits, monthly time commitment)

- o Time commitment for more typical schools (frequency of visits, monthly time commitment)
  - e. What do you project as the duration (number of years) of the intervention effort—either by RESA or trained district central office staff—that will be required for most schools?
  - f. What are effective ways your RESA has developed for supporting districts' work with their own catalyst schools?
  - g. How do you see the role of RESAs in supporting implementation of the Learning School approach shifting during the next three years, if at all?
  - h. Have you found ways to integrate the Standards for Professional Learning with the Standards for High Quality Schools, Teaching Standards, or principal standards? If so, please describe.

6. What progress would you say you have made in helping districts and schools take advantage of the flexibility allowing in reimagined time? Have any of your counties applied for waivers?

7. One of the goals of the Transforming Professional Learning initiative, was to allow the flow of funding for professional learning directly to schools so they can decide how to use it.
   a. What is your experience in entering into that conversation with district staff?
   b. Please describe any changes you may have seen in how the districts you have worked with have treated professional learning funding decisions?

8. Do you have suggestions for accountability mechanisms to support implementation of the Standards for Professional Learning—for example in OEPA monitoring visits, principal or teacher evaluations?

9. Do you have suggestions for some kind of statewide communications and recognition program?

10. Do you have suggestions for how the WVDE might support the statewide implementation effort?
    a. Resources? (e.g., grants to support school participation in SAI2)
    b. Technical assistance or professional development

Appendix I.   Category Codes for Activities Included in Catalyst School PLC Agendas

Administrative information sharing

- **Logistics/schedules**—Field trips, school events, bus schedules, etc.
- **Procedures**—Management, GSA testing, WVEIS reporting, fire drills, and other related topics
- **News/info**—Change from NCLB to ESSA, school board decisions, etc.
- **Other**—Additional administrative topics

Planning for learning

- **Student learning**—Reviewing individual and group-level student academic and early warning data, making adjustments, monitoring progress, planning PBL projects, and other related topics
- **Professional learning**—Planning for teacher learning needs based on student needs and based on educator evaluation, IPI, SAI2, OEPA data and other data
- **Other planning for learning**—Additional planning topics

Engaging in professional learning about . . .

- **Student behavior/school climate/parent involvement**—PBIS, school climate and culture, parent involvement, attendance matters, using the early warning data, and other related topics
- **Content/pedagogy**—Content area, instruction, formative assessment, how to use student data, using new curriculum materials, etc.
- **Professional learning systems**—Becoming a Learning School, effective PLCs, IPI training, etc.
- **Other**—Professional development on other topics

Appendix J. Agenda Item Coding Spreadsheet

	A	B	C	D	E	F	G	H	I	J	K	L
1		ADMINISTRATIVE INFORMATION SHARING				PLANNING FOR LEARNING			PROFESSIONAL LEARNING			
2		Logistics and schedules	Procedures	News/info	Other	Student learning	Professional learning	Other planning for learning	Student behav./ school climate	Content and pedagogy	Professional learning systems	Other professional
3	Total	0	0	0	0	0	0	0	0	5	0	0
4	1									1		
5	2									1		
6	3									1		
7	4									1		
8	5									1		
9	6											
10	7											
11	8											
12	9											
13	10											
14	11											
15	12											
16	13											
17	14											
18	15											
19	16											
20	17											
21	18											
22	19											
23	20											

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Appendix K. Rapid Identification of Themes From Audio Recordings (RITA) Coding Sheet for Principal Focus Group Interviews

Coding form for principal interviews - Excel

	Sum	Percent	00-03	04-06	07-09	10-12	13-15	16-18	19-21	22-24	25-27	28-30	31-33	34-36	37-39	40-42	43-45	46-48	49-51	52-54	55-57	58-60	61-63	64-66	67-69
DATA--Uses to plan, assess, evaluate PL	7	17.1																							
Student data (formal/informal assessmts.)			1				1			1		1			1	1									
Educator data (Educ. eval, SAI2, etc.)					1																				
System data (OEPA, fiscal, HR, time, etc.)																									
IMPLEMENTATION	0	0.0																							
Applies research on change																									
Sustains support for longterm change																									
Provide constructive feedback																									
LEADERSHIP--for PL, including	10	24.4																							
Develops capacity								1				1			1								1		
Advocates								1				1		1									1		
Creates systems/structures (calendars, schedules, etc.)			1	1																					
LEARNING COMMUNITIES--committed to	11	26.8																							
Continuous improvement								1			1												1		
Collective responsibility							1	1			1								1		1				
Goal alignment				1		1																	1		
LEARNING DESIGNS	3	7.3																							
Aligns with teacher experience/needs								1																	
Uses variety of forms				1																					
Uses peer observation			1																						
OUTCOMES	5	12.2														1		1						1		
Explicitly links educator and student learning															1		1						1		
Focuses on curriculum and how students learn					1																		1		
Builds on previous teacher learning																									
RESOURCES	5	12.2																								
Allocates time for PL during school day			1	1																			1		
Expenditures for PL openly discussed																									
Provides technology and other PL resources											1													1	
		100.0																								

Appendix L. Message to RESA Directors Request Stage-of-Implementation for Catalyst Schools

Friday, June 3, 2016

Subject: Quick assessment of the catalyst schools in your region

Dear RESA Director,

Which of the following necessary stages do you think each of your **catalyst** schools have reached in implementing the Learning School approach? NOTE: Schools, depending on their prior experiences and culture, will move at their own pace, so there could be a wide range in your region. I will use your ratings in combination with several other data points I have collected for each school. As always your responses will be kept confidential.

Definition of stages (adapted from Fixsen et al., 2005)

1. **Exploration**—identifying the need, acquiring information, assessing the fit between the need and intervention program, and preparing the organization by mobilizing information and support
2. **Installation**—making preparations, such as human resource strategies, policy development, reporting frameworks, outcome expectations, staff training, and needed technology/resources
3. **Initial implementation**—beginning to use and monitor new practices, developing and applying new skills, creating a supportive organizational culture, overcoming inertia and resistance
4. **Full implementation**—proceeding with innovation as accepted practice and routine, and seeing evidence of expected impacts/improvements
5. **Sustainability**—maintaining the effectiveness of the innovation as staff come and go, and other changes that take place in the organization and its environment
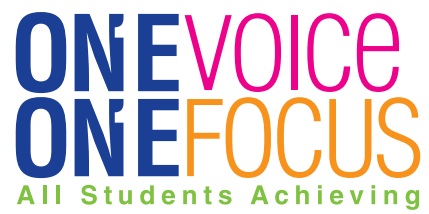
Please place an "X" in the appropriate column for each school.

Name of school	Exploration 1	Installation 2	Initial imple-mentation 3	Full imple-mentation 4	Sustainability 5

Thanks for this quick assessment!

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