The Nitty-Gritty: Doing Case Study Research on School Improvement Programs

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Pub. Date: 2017
Access Date: June 7, 2017
Academic Level: Postgraduate
Publishing Company: SAGE Publications Ltd
City: London
Online ISBN: 9781526419705
DOI: http://dx.doi.org/10.4135/9781526419705

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Abstract
During the 2014-2015 academic year, WestEd hired us as research interns at the West Comprehensive Center in Phoenix, AZ. As PhD students, our task was to conduct a collective case study on two local education agencies in Arizona that participated in a 2-year school turnaround specialist program. The goal of the project was to gain a deeper understanding of the ways that the school turnaround specialist program influenced district, principal, and teacher practices; policies; school culture; and associated student outcomes uniquely in the Yuma Elementary District One middle schools in Yuma, AZ, and in the Whiteriver Unified School District on the White Mountain Apache Indian Reservation. To do this, we utilized a case study approach as a means to retrospectively understand the school turnaround experiences of the two purposively selected local education agencies. In this brief overview, we provide a description of the methodological choices we made in designing and executing data collection for this case study. Specifically, we aim to provide an insider’s perspective on the opportunities and challenges that the local education agencies presented as we engaged in data collection at both research sites.

Learning Outcomes
By the end of this case, students should be able to

- Understand the pros and cons of case study methodology as an approach to researching school improvement efforts
- Understand the role of multiple evidence sources in data triangulation
- Understand the challenges associated with conducting case study research on school improvement efforts
- Understand some of the issues surrounding participant selection, power, and method selection in case study research

Project Overview: School Turnaround Context
We began this project with the knowledge that the purpose of this study was to aid WestEd’s West Comprehensive Center (WCC) in their strategic interests. The overarching goal of the WCC is to provide both local education agencies (LEAs) and state education agencies (SEAs) in Arizona, Nevada, and Utah with research-based expertise, guidance, and services in eight key priority areas. The WCC asked us to develop a research project that supported its Priority Area 3: district and school improvement. The primary focus of this priority area as outlined on the WCC’s website is providing support to states and districts in turning around their lowest performing schools. To fulfill this objective, the WCC partnered with the Partnership for Leaders
in Education (PLE) program at the University of Virginia (UVA). The mission of the PLE program is to strengthen district and school leadership capacity to significantly improve student outcomes through an intensive 2-year leadership program. The program requires leadership teams (comprising district administrators, school principals, instructional coaches, and teachers) to participate in a series of professional development training sessions aimed at helping the leadership teams establish the goals, structures, and tools needed to produce positive and measurable improvements on their campuses. Given the diversity of LEAs that participated in this program, we were very deliberate in purposively selecting (see Daniel, 2012) LEAs for our case study.

The two LEAs identified for inclusion in this collective case study had unique contextual and sociocultural characteristics; therefore, we used the same methodology to collect data in both LEAs. The purpose was to understand where the LEAs converged and diverged in the policies, practices, and outcomes associated with their participation in the PLE program. After reviewing relevant school turnaround literature and understanding the overarching goals of the WCC–PLE partnership, we used the PLE program’s theory-of-action (see Kowal & Ableidinger, 2011) to guide the construction of our data collection tools. In the case report that follows, we provide an overview of the methodology we used to collect data and inform our findings followed by a description of the method “in action.”

Research Practicalities

Before starting this project, we spent the early part of our internship meeting with WCC staff to gain a better understanding of their expectations for the project. The research was sponsored by the WCC as a part of a larger grant they received from the U.S. Department of Education, so it was imperative to understand the expectations and requirements. Ultimately, we made the majority of decisions with close guidance from the WCC and decided to use a collective case study approach (i.e., a case study that involves more than one case). We made this decision for various reasons, but it was predominately driven by the WCC’s needs and the 9-month timeframe we had between September 2014 and May 2015 to complete this project.

There were several LEAs with whom the WCC worked in supporting school turnaround efforts across Arizona, Utah, and Nevada. Therefore, in an effort to limit the scope of our study, we chose to focus on LEAs that (a) were in rural Arizona, (b) had completed the PLE program curriculum at the time of data collection, and (c) were in areas with high percentages of culturally and linguistically diverse students. These criteria left us with two LEAs in the state of Arizona to examine as illustrative cases of school turnaround efforts underway in the region: Yuma Elementary District One (Yuma) and Whiteriver Unified School District (Whiteriver).
Yuma is a K-8 school district located in Yuma, AZ, about 15 miles from the U.S.–Mexico border. The district serves more than 10,000 students across 12 elementary and five middle schools. For the PLE program, Yuma chose to focus on its five middle schools. The five middle and junior high schools serve approximately 2,562 students who are taught by 134 certified teachers. The number of students who qualify for free and reduced lunch (which is an indicator of student poverty rates) at the five middle schools ranges from 55% to 94%, with an average of 70%. In this district, the student population is approximately 62% Hispanic or Latino, 26% White (non-Hispanic), 2% Black, 1% mixed race, 1% American Indian, 1% Asian or Asian American, and 7% other. In addition, approximately 10% of the student population is classified as English Language Learners (ELLs). As a part of the school turnaround initiative, Yuma sent all five middle school principals, 15 teachers or instructional coaches, and three district personnel through the 24-month PLE program starting in 2012.

Whiteriver is a K-12 school district located on the White Mountain Fort Apache Indian Reservation in Northeastern Arizona. The majority of students (more than 99%) who attend Whiteriver schools are members of the White Mountain Apache Tribe. The district oversees three elementary schools, one junior high, and one high school. Whiteriver participated in the PLE school turnaround program from 2011 to 2013. Due to the small size of the district, all five schools participated in the PLE program. This included three district level personnel, five principals, and approximately 15 teacher leaders or instructional coaches.

As the demographic statistics of the districts indicate, at a very basic level, there were numerous contextual factors that greatly differentiated the two LEAs. However, because both were rural Arizona districts that completed the PLE program within 1 year of each other and had five schools each participate in the PLE curriculum, we proceeded with the collective case study. As such, we sought to retrospectively understand the school turnaround process in Yuma and Whiteriver as instrumental cases (see Stake, 1995) that could illuminate the policies, practices, and outcomes associated with school turnaround in these LEAs.

We collected the bulk of the findings, which came from the interview and focus group sessions with administrators and instructional staff, during our 2-day site visits to the district offices and school sites. In total, we visited 10 schools, two district offices, and attended one PLE program retreat. During these visits, we interviewed or conducted focus groups with district administrators, principals, instructional staff, and a PLE program specialist to describe each LEA’s unique school turnaround experience and later compare the two LEAs. After each site visit, we followed up with teacher surveys and the collection of key documents related to the PLE program objectives. We constructed all data collection instruments and protocols with the
PLE theory-of-action and the key constructs that emerged from the school turnaround literature in mind. These were, broadly speaking: leadership, instructional improvement practices, school culture, and sustainability.

Given the emphasis placed on the leadership roles of principals and the role of the PLE program in guiding the schools toward positive change, we conducted one-on-one interviews with all school principals \((n = 10)\) and the PLE school turnaround specialist who coached both LEAs \((n = 1)\) during their time in the PLE program. All interviews were semi-structured to allow us the freedom to ask open-ended questions, probe participants with follow-up questions, and vary the order of the questions as needed (see Roulston, 2010).

Using similar guided questions, we conducted focus groups with district level administrators \((n = 5)\) and with instructional staff \((n = 23)\) in each LEA. The focus groups were open-ended and addressed topics similar to the guided interviews. The focus group was a fruitful avenue to gather administrator and instructional perspectives on the PLE experience in a format that allowed participants to interact among themselves and make the discussion a dynamic part of a larger group process (see Fitzpatrick, Sanders, & Worthen, 2011). Our role as researchers in these focus groups was to facilitate discussion, moderate the responses of more vocal members, encourage the responses of quieter members, and monitor the time to ensure that all critical questions were covered. In addition, to gain a broader understanding of instructor perspectives on the PLE experience, we sampled a larger group for our teacher survey \((n = 170)\) to compare the survey themes with those that emerged from the focus group and interview sessions with instructional staff.

In the midst of data collection, we were keenly aware of the challenges and limitations associated with attempting to retrospectively piece together the school turnaround puzzle in Yuma and Whiteriver, especially amid the multiple intersecting school programs, state and national reforms, and the ongoing challenges that concurrently influenced these LEAs. Therefore, despite developing research protocols, checklists, and questions to assist us in answering our research questions, we inevitably ran into methodological challenges. Here, we briefly summarize the key issues we experienced as we designed and implemented our vision for this collective case study.

**Focus Group Sampling and Setting**

Given that the school turnaround efforts were implemented at the school and classroom level, we were initially concerned about how we could ensure that the teachers and instructional coaches in our focus group sessions would be representative of the larger teaching staffs in the two LEAs. We requested participants through the district offices, so the LEAs had control over...
who participated in the sessions. This meant that the districts could open the sessions up to all interested instructional staff, or they could merely request the participation of specific individuals. Although we did request that the LEAs include only instructional staff who were present at the time that their schools went through the PLE program, we were not privy to how the district and school administrators requested or selected instructional staff to participate in these sessions. In the case of Yuma, we were provided with the names of the individuals who would be participating in the sessions the week before we arrived. However, in Whiteriver, we were uncertain who would be participating until we arrived at the district office the day of the focus group sessions.

Another challenge we faced during the focus group sessions was ensuring that the voices of all participating instructional staff would be heard. We set the participatory tone by establishing ground rules and explaining the purpose of the focus groups at the start. For example, we asked that only one person speak at a time, we emphasized how important it was that we hear all participants’ opinions and perspectives (whether positive or the negative), and we asked participants to turn off their cell phones if possible. Likewise, we clarified our role as facilitators of the discussion. However, in reflecting on the Whiteriver focus group session after the fact, we felt that there was a divide between dominant and non-dominant personalities. The Whiteriver session was also slightly larger and in a less intimate setting than the Yuma sessions (which were held at round tables in conference rooms). We believe that the setting and the slightly larger size of the Whiteriver group may have had an impact on participation and sharing patterns during the focus group session.

Survey Response Rates

To pursue broader representation of the instructional staff, we decided to develop and administer a teacher survey. In contrast with the open-ended interview and focus group questions, the survey was predominately composed of close-ended Likert-type scale items meant to gather teacher perspectives on the turnaround process, the implemented changes, and the leadership teams who led them through the school turnaround initiative. We hoped to use the survey to corroborate our findings from the focus group sessions with the instructional staff.

However, we were initially concerned about having low response rates, particularly in Whiteriver, who completed the PLE program 2 years prior to our visit and had well-documented issues with teacher turnover. We believe that by sending the survey out after we had conducted interviews with principals at each of the campuses, we were able to circumvent the response rate issue through having established prior connections with the principals, who sent the survey
out to their teaching staffs on behalf of our research team. Our response rates in both Yuma and Whiteriver were reasonably high and acceptable by research standards (67% in Yuma and 59% in Whiteriver). We were grateful for the support that the principals we interviewed showed us in distributing the survey to their staffs.

**The Retrospective Question**

The ways that we recount past events present interesting questions and challenges. First is the obvious reality that our memory is imperfect and influenced by our personal values, unique experiences, and often the desire for approval and acceptance. The social desirability question is particularly salient in a professional setting where the expectation was that administrators and instructional staff would execute schoolwide improvements that would positively affect student outcomes. Therefore, the challenge we faced as researchers was to develop questions and execute the interview and focus group sessions in such a way that would allow the participants to provide us with their honest accounts of the school turnaround experience.

**Researcher Trustworthiness and Power Dynamics**

As researchers, we were also aware of the impact that our organizational affiliations could have on participants’ perceptions of us. At the time, we were affiliated with both the largest university in the region and an organization that financially contributed to the costs associated with the school turnaround specialist program in both districts. Therefore, we were particularly sensitive to this dynamic. In fact, in both LEAs, participants openly joked with us that WestEd was coming to check-in on them. Therefore, to build trust and create an environment in which participants felt comfortable sharing their experiences, we emphasized our identities as former teachers, and in the case of one of the researchers, as an American Indian with community ties on the reservation.

**Research Design**

We designed the collective case study to provide diverse forms of evidence to aid us in better understanding and subsequently making sense of the ways the PLE school turnaround process influenced the LEAs. Therefore, it was critical to supplement the retrospective interview data with teacher surveys and documents that were designed for their potential to corroborate or contradict the interview and focus group data. By utilizing this approach, we were able to paint a more complete picture of the school turnaround efforts in each LEA.

As a part of this collective case study, we relied on multiple data sources, including semi-structured interviews, focus groups, documents, and a survey. Each instrument was designed to gather a cross-section of data related to our research questions. However, it is important to
note that although this project used multiple methods to inform the findings, our final write-up emphasized the qualitative interview and focus group data. The survey and documents collected (e.g., student achievement data, strategic plans) served more as supportive or supplementary data sources.

Once the data were collected, we transcribed the interview and focus group audio recordings verbatim. After transcription, we each individually coded, categorized, and analyzed the interviews and focus group sessions for emergent themes. The survey, which was administered only to teachers in the districts, had an overall response rate of 63%. After the survey collection period ended, we descriptively analyzed the item responses as they related to each of our research questions with the goal of identifying themes that converged, diverged, or supplemented the interview and focus group data.

The key documents collected served a similar end. Specifically, we looked at trends in student achievement, behavioral incidences, teacher turnover, and reported instructional practices to determine whether the statements shared with us in focus group and interview sessions about shifts in policy, practice, and school culture were evidenced in the collected documents. Reviewing the ongoing strategic plans developed across each district as a part of the school turnaround process was very useful in determining whether the memory of the interviewees matched up with each school’s specific goals, actions, and outcomes.

**What Constitutes the Case?**

To conduct a case study can mean many different things depending on the specific discipline and approach being taken. Broadly speaking, this means what a “case” is can vary depending on the research questions being asked and the phenomena of interest. As such, case studies may look at individuals, groups, organizations, programs, or events. For this project, the PLE program experience was our case.

Earlier we described our case study as a collective case study, which has been defined by Robert Stake (1995) as a case study in which multiple cases are analyzed to gain a broader understanding of the questions being studied. Stake further specified that there are generally three distinct reasons why a specific case may be selected for further study when he described intrinsic, instrumental, and collective cases. However, it is important to point out that these possibilities are often overlapping (i.e., a case study often does not neatly fit into one of the three “case” categories). This is demonstrated by the fact that the case of the PLE program is arguably both intrinsic and instrumental while also falling into the category of a collective case study.
Researchers pursue intrinsic case studies, or cases in which they have a natural or deep-seated interest, when the case of interest is unusual or unique in some justifiable way (see Stake, 1995). The unique case of the PLE program curriculum, goals, and participants is, in many ways, of intrinsic interest. Perhaps more convincingly, the PLE program is an instrumental case because it can help us better understand and illuminate the particular issue of school turnaround as an approach to school improvement in Yuma and Whiteriver (and as a part of a larger national trend in education). As previously mentioned, this meant that we took the PLE program description and desired program outcomes as a form of theory-of-action that guided our goal of understanding what the program looked like in practice for the participating LEAs.

Yet, at the same time, our case study project was collective because we selected multiple cases to provide insight into the school turnaround experience in distinct LEAs within the same state. We initially hoped to be able to include more than two LEAs that had been through the PLE program across the Southwestern United States. However, due to the time constraints of our internship and the fact that there were only two of us collecting all the data, we ultimately decided on comparing the two purposefully selected LEAs in Arizona as described earlier.

The Case Study Method in Action

In an effort to make sense of the LEAs’ school turnaround efforts, a case study approach was needed as a means to explore the ways that the PLE program experience influenced educational practices. Purely looking at narrow test achievement measures from before and after the schools participated in the PLE program was not enough to provide the stakeholders with an understanding of how the changes were implemented and the goals achieved (or not). It was also necessary to describe the why questions, such as why was the program useful and successful (or not) in helping the schools achieve their school improvement efforts. Moreover, a case study approach gave us the means to account for the ways that social context influenced the school turnaround initiatives in both districts. The goal was not to generalize our findings to other schools or districts, but rather to carefully consider the factors unique to the school turnaround experiences in each purposively selected LEA, and later compare and contrast them.

At the same time, this method presented us with a number of challenges particularly as they related to delineating the case of the PLE program and eliciting retrospective accounts of the experience. Robert Yin (2014), another eminent scholar of case study research, points this out in his working definition of case studies. Specifically, he indicates that often it is not entirely clear where, if at all, there is a way to distinguish between the context and the phenomena of
interest. This question became particularly relevant to our work in deciphering where the PLE program influenced the educational communities we were researching, and where the broader school and community contexts blurred the boundaries between the “case” we were looking at and the changes or outcomes that our participants were reporting. In both LEAs, but particularly on the White Mountain Apache Reservation, we noticed this dynamic when interviewing the stakeholders. For example, in Whiteriver, some lamented that they were not adhering closely to the tenets of the program, and others seemed to question its total relevance for their particular community at the time of our site visit. In this sense, the intersections of the context and phenomena of interest were inevitably blurred.

Now many months after the completion of this project, we have come to the conclusion that the case we set out to understand was ultimately different from the case that emerged. Based on our own retrospective experience as researchers, we argue that the sociocultural context and the program we sought to understand were, in fact, not distinguishable. Instead, both the context and the PLE program experiences made up the case we were looking at, which again indicates that the case we set out to look into (i.e., the PLE program) was only one piece of the case that we ultimately reported.

Another challenge we faced was the question of retrospective recall. We specifically chose to focus on two LEAs that had already completed the entire PLE training. This was both a strength and a weakness of the research project. It was a strength because it allowed us to assess how the changes implemented during the PLE experience were being maintained and sustained. It was also a weakness because interviewing the participants after their schools completed the program forced us to rely on reflective accounts of an experience that were in some cases over a year or two in the past. This again forces us to reflect upon the imperfect nature of our memories and the perpetual influence of our professional and personal affinities and aversions, although it is important to point out that we asked several questions about present practices as well.

Therefore, we sought to encourage our participants to focus on those aspects of the program that most significantly affected their classrooms, schools, and districts. We did this by asking our participants direct questions about the PLE program and its role in their work. We asked questions such as:

- What school improvement measures have been implemented at your school since going through the PLE program?
- What challenges have you and/or your school faced as a part of the PLE school turnaround efforts?
Has the way you use data to drive your decision making changed since your school went through the PLE program?

- How were students and parents engaged in the PLE school turnaround efforts?

Although direct questions like these were effective with most participants, we also recognized the limitations of the direct questions we asked. Therefore, we compensated for this limitation in a number of ways. First, we had prepared a number of probes for each question, so that if a question did not elicit a rich response, we would have follow-up questions that were grounded in our knowledge of the core components of the PLE program. For example, when asking about implemented school improvement measures, we had follow-up probes ready to ask for further details on the specifics related to classroom pedagogy, parent and student engagement, assessment practices, and student discipline.

At the same time, we set out to balance the retrospective accounts by relying on multiple sources of evidence in addition to the focus group and interview data. In this way, we sought to provide an account that was as comprehensive as possible of each LEA’s reported experiences. Specifically, we collected copies of each school’s ongoing strategic plans, which outlined its goals, actions, timelines, and progress evidence while a part of the PLE program (and in some cases into the present). Moreover, student achievement and discipline data were looked at over a 4-year period in both LEAs to understand the ways that school and district trends mapped onto the more anecdotal evidence provided in the interviews. Likewise, we conducted a large-scale teacher survey, which mapped onto many of the key constructs that we sought to understand through our teacher focus group sessions. This allowed us to compare and contrast the themes of the surveys and focus group sessions as a means to assess thematic convergence. As an example, we asked teachers in the focus groups about the ways that they believed the PLE school turnaround efforts influenced their schools and classrooms, whereas on the survey, we asked a similar question, but we phrased it in such a way that it could be measured on a 4-point, agree–disagree Likert-type scale.

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**Practical Lessons Learned**

There are a number of methodological resources on case study research that can and should be consulted by any individual prior to conducting a case study. The scholarship of both Robert Stake and Robert Yin is a good place to start. However, at this point, we would like to provide some practical tips on engaging your participants as a central component of any case study:

1. **Less is often more.** A part of our study’s goal was to gain a comprehensive understanding of the PLE experience in each LEA through the collection of multiple forms of evidence.
However, we now can see more clearly where less could have been more. For example, on the document collection checklist that we sent to each LEA, we asked for 12 different documents, all of which related to our research questions and some of which had multiple components. Yet, after hitting the send button and waiting for responses to roll in, we realized that the long document request list we used may have in fact overwhelmed our participants, who were already very busy with their day-to-day demands. Looking back now, we see where the “less is more” strategy could have been beneficial to our case study, both in collecting pertinent documents and in the construction of items on our teacher survey.

2. **Plan for the unknown.** As mentioned previously, prior to our site visits, little to no information was provided to us about the individuals who would participate in our focus groups. In Whiteriver, particularly, we could have better planned for the unknown by having more carefully considered the diverse possibilities of who would ultimately attend the teacher focus groups and how we might have broken them up in hypothetical scenarios. In retrospect, we would have broken the group up into smaller groups to allow for greater voice-participation balance in the session.

3. **Practice your interviews and/or focus group questions with colleagues beforehand.** As graduate students new to interviewing and conducting focus groups, we practiced our questions on one another beforehand. In addition, we practiced the focus groups with a small group of graduate student colleagues who were former educators. These colleagues then provided us with useful feedback on where our questions were unclear or stated awkwardly. However, we may have overly relied on equally inexperienced graduate student colleagues, and it may have benefited us to ask some of the more experienced researchers around us for practical tips on planning the sessions, overcoming common challenges, and engaging participants.

4. **Build rapport.** In all research, building relationships with stakeholders is essential. In case study research, it is vital to the success of the project. Building positive rapport with participants at the time of the site visits (be them one time or multiple) will make collecting multiple sources of evidence over the course of the project that much smoother. For instance, our relationship with the district leaders helped us gain institutional review board approval from the White Mountain Apache Tribe (which is often a complicated process). Furthermore, when we did not have quite enough survey responses on the teacher survey, we sent follow-up emails to the principals and district superintendent, who then strongly encouraged participation on our behalf. We believe that the relationships we had with all of the participants substantially improved our response rates.

5. **Bring snacks (if possible).** Interviews and focus group sessions can often vary in length depending on the participants. Not to mention that many participants in education have been on their feet all day by the time they stop to meet with you. Bringing some small treats
Conclusion: Case Study Research on School Improvement Programs

In this case, we reflected on the often messy, unexpected, and gray areas of conducting case study research on school improvement programs. The goal of the case study was to provide a nuanced and in-depth understanding of the ways that the PLE program influenced policies, practices, and school culture in the participating LEAs. To achieve this goal, we gathered the best available participant sample from each LEA and triangulated our data by collecting multiple sources of evidence. This meant that we recognized the limitations of our teacher focus group samples and sought to supplement that with a larger scale survey. Likewise, it meant that we identified diverse sources upon which to base our analyses, including interviews, focus groups, key documents, and the survey. These diverse sources allowed us to paint a picture of school turnaround that was common to the prior literature, yet unique to these districts. In fact, we found that some of our findings corroborated what the proponents of school turnaround claim, whereas some of it coincided more with the views of school turnaround critics.

Through this case, we hoped to highlight the ways that a collective case study approach can help illuminate the complexities and contradictions that may influence school improvement programs in practice. At the same time, the retrospective perspective allowed us to examine how school turnaround practices were sustained and incorporated into the cultures of each LEA’s schools (or alternatively dismissed). Thinking about the complexities associated with retrospectively understanding school improvement processes through collective case study work is essential to moving beyond raw numerical indicators of school success and toward a more nuanced understanding of the ways that educators pursue school improvement as a part of larger communities of practice. This is especially important given that the LEAs represented in our collective case study have been targeted historically for various school improvement programs.

Exercises and Discussion Questions

1. We discuss some of the pros of a case study research approach. Expand upon the pros and discuss any cons associated with choosing a collective case study research approach?
2. More specifically, what complications might a collective case study approach present, particularly when working with underprivileged schools?
3. We described the blurred boundaries of our “case.” How might researchers approach case study research with human participants when the boundedness of the case is difficult to
4. Why is it important to triangulate (i.e., use multiple sources of evidence) in conducting case study research?

5. In our focus groups, we had no control of the instructional staff who was and was not included in the sessions. What are the potential benefits of this? How is this a limitation to our data and findings?

6. What other methods may have been useful in capturing the school improvement efforts in each LEA that we did not use in our research?

Further Reading


Note

1. The work reported here was supported, in part, by grant number S283B120006 between the U.S. Department of Education and WestEd. The findings and opinions expressed in this case are those of the authors and do not necessarily reflect the positions or policies of WestEd or the U.S. Department of Education.

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