

A Tale of Two States:

Alignment and cohesion to close long-standing disparities in student outcomes

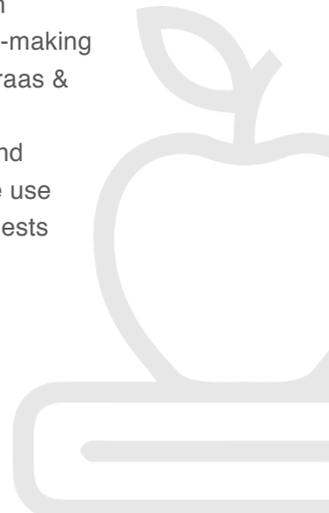
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Maya Angelou often said, “Once we know better, we need to do better” and Edgar Villanueva asks us to imagine, “What if?” (Decolonizing Wealth, 2018).

Effective implementation capacity is essential to improving education. The State Implementation & Scaling-up of Evidence-based Practices Center supports education systems in creating an implementation infrastructure for evidence-based practices benefiting students, especially those with disabilities.

The purpose of this brief is to provide examples from two state education agencies in the United States who took a different path to systemic change through the use of the Active Implementation Frameworks (Fixsen et al. 2013a; Metz & Bartley, 2012). Both states received intensive implementation-informed support from the [State Implementation and Scaling-up of Evidence-based Practices \(SISEP\) Center](#). The aim of the SISEP Center is to establish implementation and scaling capacity in a State Education Agency (SEA), its regional entities, its districts, and their schools to continuously support teacher practice and improve outcomes. Under optimal conditions, a simultaneous process of horizontal and vertical alignment occurs: horizontal alignment across the SEA to reduce duplication of efforts at the state level that often translates into burdensome duplication of efforts in districts and schools; vertical alignment as the state facilitates and resources a co-creative process with its regional entities, districts, schools, and stakeholders to design an implementation infrastructure. Everyone’s efforts, horizontally and vertically, are focused on supporting state, regional, district, and school leaders, who in turn support continuous improvement of teacher skills to maximize academic and behavioral outcomes for all students. The benefits and challenges inherent in the separate approaches will be presented to offer the field a deeper understanding of organizational readiness for change and the importance of co-creation to engage benefactors from every level of the system to implement, sustain, and scale-up a practice with evidence (Metz, 2016; Tommeraas & Ogden, 2015).

Using the mission-driven approach of the SISEP Center, organizations ask, “How?” five times (Blase, Fixsen, & Ryan Jackson, 2015); how will students benefit, how will teachers be supported, and how will school, district, and regional Implementation Teams be supported by the state? Across the globe governments and ministries, purveyors and practitioners, families and communities are asking, “What does it take, how do we effectively support use of a practice with evidence, and how do we do it?” Metz & Albers (2014) suggest it takes careful selection of a practice, use of stage-based activities, and the co-creation of an implementation infrastructure by teams with diverse perspectives and roles, so that data can be used for decision-making and continuous improvement across all levels of the system. Tommeraas & Ogden (2015) suggest it takes an active implementation approach (Fixsen et al. 2013a; Metz & Bartley, 2012), a stable infrastructure, and long-term governmental funding to sustain and take to scale effective use of a practice. Evidence from the field of implementation science suggests that systemic change of this magnitude requires careful attention to readiness and co-creation.



Developing readiness for change, or the developmental point at which an organization and its benefactors have the capacity and willingness to engage in system-wide change, can seem impassable at times (Fixsen et al. 2013b). Inversely, it is invigorating when ‘dense webs of relationships’ engage in a co-creative process to build trust and understand the needs of all benefactors (Metz, 2016). Use of a co-creative process is predicated upon an explicit focus on assessing and understanding how various benefactors across a system build pathways for the use of evidence to improve outcomes for the concerned population.

“This is where we find expertise and solutions, close to the ground, close to experience. The communities who have direct experience of an issue are by far the best experts on it.”

— Villanueva (2018)

State One: MID-SOUTH

In the fall of 2014, with the intensive support of the SISEP Center, state #1 began to assess readiness and capacity (knowledge, skills, abilities) to co-create its implementation infrastructure (common training, coaching, and data use systems) to improve students’ mathematics outcomes and engage in deep systemic change. The focus was vertical alignment from the state to the region, district, and school to effectively implement state systemic change efforts and increase the percentage of students with disabilities performing at or above proficient in middle school mathematics. The use of the Active Implementation Frameworks was supported by one SEA office and two divisions to blend special and general education efforts and resources. After four years there is evidence to suggest that the vertical implementation infrastructure is durable, scalable, and sustainable. The structure, roles, and functions of teams from one state office to the region, district and school level continually support effective teacher practice and are improving mathematics outcomes for every child and student. Yet, four years later there is minimal readiness for simultaneous alignment of the SEA’s own offices, divisions, and major initiatives; organizational readiness is still lacking for systemic change to create a stable infrastructure and long-term governmental funding for sustainability of a common implementation infrastructure.

Two State Transformation Specialists (STS) led the state’s implementation and scaling work in partnership with linked Implementation Teams comprised of state leadership, implementation workgroups, and implementation teams in two regions and two districts. This was the state’s first iteration of the Transformation Zone – a small slice of the state that will develop, use, study, improve, and then scale effective implementation efforts. Simultaneously, the state provided the resources for a team with diverse perspectives and roles to co-create a Usable Innovation for mathematics. The team began with the development of a Practice Profile, or the first three sections of a Usable Innovation (common philosophy, core components of the innovation, core components operationalized). This process ensured all educators and stakeholders could see themselves in the process and generate ownership for sustained use in districts. It defined a standard for mathematics practice in classrooms no matter what innovation (program, practice, etc.) a district selected, as long as it aligned with their Usable Innovation criteria for mathematics. Then, the state adopted the Observation Tool for Instructional Systems of Support (OTISS) developed by SISEP to measure high quality teacher practice at any grade level and within any content area (OTISS, 2014; Hattie, 2009). Adopting an evidence-based and research-validated fidelity measure completed the fourth and final section of a Usable Innovation. Teams collected and used fidelity data in aggregate to assess the implementation supports provided to teachers. The OTISS serves as an indicator of the extent to which the training, coaching, and other supports are sufficient, accessible, and in use by teachers. OTISS data is used to continuously improve these systems, rather than as a measure of evaluation. Once trust with teachers is developed, the data can be used with individual teachers to set professional goals. The protocol for collection and use of the fidelity data is developed with teachers who readily access the data ([NIRN-SISEP Data System](#)).

Once the Practice Profile was complete, some team members joined one of three workgroups responsible for developing the systems and measures for delivering training, coaching, and data use in schools. The goal was to clearly define what quality math instruction looked like, so it could be measured and fully supported in practice when the first schools and teachers were mutually selected for participation. Two Regional Education Agencies (REAs) and a large urban district mutually agreed to participate. The REA's Regional Implementation Teams (RITs) were the link between the state and its districts. They developed the readiness and capacity of their districts, schools, and teachers to use the best available evidence from implementation and improvement science and research on mathematics best practice. When a barrier was identified, the barrier was lifted to the team with the authority and resources to solve that barrier. For example, RITs knew that using multiple forms of implementation data would require the development of a robust data dashboard. The state responded and developed a data dashboard. In the summer of 2018, the infrastructure developed in Learning Lab #1 (two REAs) was replicated and scaled-up in Learning Lab #2 (three REAs) who selected their districts and schools for initial implementation in the fall of 2019. Learning Lab #3 is currently in development.

Teachers and school staff in the Transformation Zone make intentional use of data (implementation and outcome) monthly to report barriers to the team with the resources and authority to remove the barriers using Plan-Do-Study-Act Improvement Cycles (Deming, 1986). Central to this process is measuring capacity of the systems, activities, and resources required to initiate and sustain practitioner supports through action planning. State, regional, and district executive leadership commit to meeting every month to analyze capacity and implementation data in support of implementation teams and fidelity of teacher practice, in order to continuously improve the systems of support available to teams, school staff, and teachers. Figure 1 describes the capacity data from the state, one region, one of the region's districts, and the district's schools. The data suggests that the intentional development of a usable innovation and its implementation infrastructure (training, coaching, and data use systems) facilitated the district's and its schools' (1 elementary, 1 middle) use of effective implementation supports for their chosen math program within the first year of engagement, exceeding the year 3 goal of 80% capacity. The state's durable systemic change efforts from the state to the school are all in service to teachers who improve mathematics outcomes and close long-standing disparities.

FIGURE 1
State One Capacity data 2014-19
 (1 state, 1 region, 1 district, 2 schools, 15 teachers)

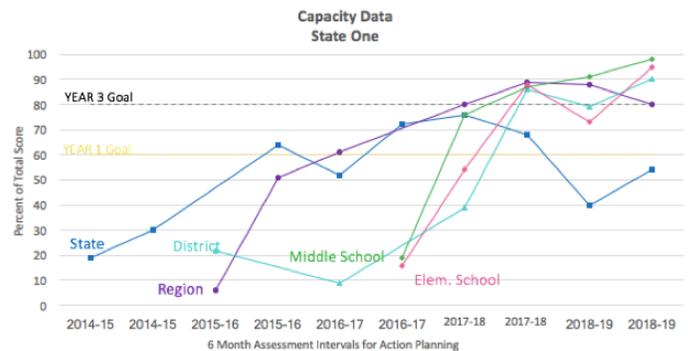


Figure 1 represents capacity data from one state, one region, one district, and their participating schools from 2014-2019. Baseline scores are typically low as Implementation Teams learn how to apply implementation and improvement science methods and tools. When the state's total score dipped to 52% in 2016-17 due to administrative turnover, the regional and district total score was not affected. The trajectory of the region is much steeper as they develop the capacity of their districts. District growth is steady but slower as they prepare to use their chosen mathematics innovation in schools (a program, curriculum, etc. that aligns with the components of the state Math Practice Profile). The capacity of the teams at the regional and district level pay big dividends to schools. The middle and elementary school capacity assessment scores went from an average baseline score of 18% at the first administration in 2016-17 to 88% at the third administration, moving from exploration to initial implementation in one year. Note the district and elementary score dipped in 2018-19, as it should, as they prepared to scale-up with additional teachers and schools. Also, note the second dip in the state score. After the third change in state leadership and a state restructure in 2018-19, the downward trajectory in state capacity did not affect the regional and middle school upward trajectory, suggesting the capacity of teams and the implementation infrastructure for mathematics may be durable and sustainable in the absence of the SEA horizontal alignment. Capacity to develop and sustain an implementation infrastructure horizontally across the SEA's major programs and initiatives is reflected in the state's total score; the total score never met the 80% three-year threshold due to low scores on items that measure SEA alignment.

Improved Student Math Outcomes

Using a math screening measure, school staff monitored student improvement three times per year and observed improvement in the percent of students meeting proficiency. This was encouraging, however it typically takes three to five years to see improvement in state summative assessment data. Yet, this district showed improvement on the state summative assessment in the first year of the middle school's implementation efforts. All students in this middle school increased Proficient performance on the state summative assessment from 2017 to 2018 by 3.7% as well as two sub-group populations: Students with Disabilities (.3%) and African American (3.9%). A reduction in the performance for All Students at the lower measure of performance was noted as well as for four sub-group populations. Our hypothesis is that if capacity increases so should fidelity, and if fidelity increases so should student outcomes.

State Two: MID-WEST

Two State Transformation Specialists (STS) led state #2's implementation and scaling work beginning in 2015, with the intensive support of the SISEP Center. The state initially focused on building horizontal alignment within the SEA to support the integration of federal identifications under two federal laws: the Individuals with Disabilities Education Act (IDEA, 2004) and Every Student Succeeds Amendment to the Elementary and Secondary Education Act (ESSA, 2015). Mirroring the federal structure, two separate teams within the SEA had traditionally ensured compliance with the requirements of each law. Under each law compliance-based reporting and monitoring requirements for districts and schools, including development of improvement plans, was operationalized by the two teams independently. The result of such an approach was a duplicative and burdensome compliance process for the states' districts and schools. The State leveraged intensive coaching supports from SISEP to align the state's continuous improvement process and requirements of ESSA and IDEA, grounded in the use of implementation science. The aim was to ensure that districts and schools would have more time to focus on developing capacity to support the use of evidence-based practices and improvement strategies to strengthen equitable outcomes for students, rather than navigating complex and duplicative compliance requirements.

Given recent changes in federal legislation regarding ESSA and IDEA, the state recognized that large numbers of schools and districts would be identified as 'needing improvement' and thus would require support to ensure the selection and implementation of effective practices. Capacity building to install an infrastructure to align work within the agency began with their Title I and Special Education teams. In 2016, this horizontal alignment created an opportunity to explore the integration of continuous improvement processes with teams in other divisions, resulting in the expansion of cross-divisional teams. These teams train districts on root cause analysis, selection of evidence-based practices, educator effectiveness, response to intervention, coaching process, and collection of fidelity data. Stakeholders representative of various perspectives and roles in the state co-developed a continuous improvement process and a rubric informed by the Active Implementation Frameworks that ensured compliance with IDEA and ESSA, and guided districts in effective implementation of their improvement and student outcome goals. The state aligned their state-funded regional technical assistance teams from Title I, Special Education, Educator Development and Supports, and Response to Intervention center. This aligned approach to technical assistance required a braided funding system. So, four divisions came together to create an integrated funding contract to provide resources to their regional TA providers, who in turn would support districts and schools. Simultaneously, the state engaged in continuous improvement of their state data dashboard to create one consistent process for districts and schools to report and use their data.



Another system of support developed by coaching stakeholders in the state was a consistent process for delivering and measuring coaching supports, no matter what coaching system a district used (i.e., a Coaching Competency Practice Profile and measures). With these resources and supports in place, state-funded technical assistance providers attended targeted training (4 hours, one time per month) to receive training on use of the continuous improvement process, grounded in the use of selected Active Implementation activities. All regional entities in the state were represented and attended monthly targeted training to develop the skills and competency to support districts in the selection and implementation of effective practices to meet ESSA and IDEA goals. The state anticipates that this targeted training for all regional entities will develop readiness and capacity of REAs to mutually agree to participate in future iterations of the Transformation Zone.

Beginning in 2017, or in year two, the state began exploring with regional entities to mutually agree to participate in a Transformation Zone and develop the capacity of two Regional Implementation Teams (RIT). The goal was development of a vertical linked teaming structure that leveraged existing regional technical assistance support systems funded by the SEA. The primary focus of the RIT was to provide intensive support to districts and schools to use the Active Implementation Frameworks to select and implement an effective practice to improve outcomes for all students and meet ESSA/IDEA goals. Two regions engaged in the work. Through the limited vertical slice of the system, the state began to use capacity data at the regional and state level to develop an enabling context. Unfortunately, mutual agreement to terminate the partnership in one region was reached in 2018 because of challenges associated with resource allocation and competing priorities within the organization. The SEA used the information learned to inform the capacity building in the remaining region and its two districts.

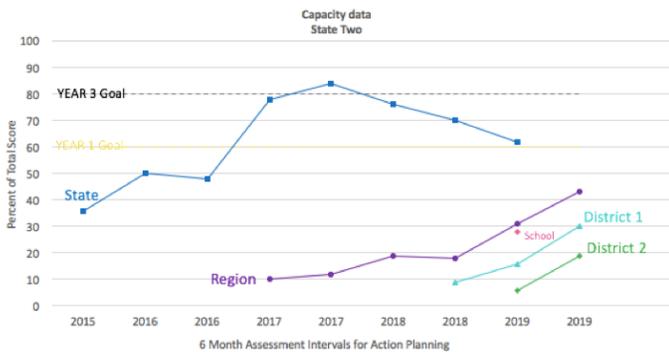
The SEA used feedback from the remaining region in the Transformation Zone and capacity data to identify barriers and facilitators at the state and regional level. State leadership attended regional implementation team meetings to listen deeply and visibly demonstrate their commitment to systemic change in their districts and schools. When a barrier was identified, it was lifted up to the team with the authority and resources to solve the

barrier – then, solutions were developed and put into action. A capacity report was developed monthly using multiple forms of data: qualitative feedback from regions and districts regarding barriers and facilitators, training effectiveness data on the understanding and use of the Active Implementation Frameworks, and training evaluation data. Data was used to strengthen capacity, competence, and confidence in the use of the Active Implementation Frameworks at the regional and district level. STSs delivered the capacity report to SEA cabinet members who were champions for the work every month. In turn, state updates were communicated to regions and their districts. The state and regional teams studied the Active Implementation Frameworks and began to put into use critical implementation practices in their Transformation Zone (e.g., mutual selection process for selecting districts, using the state Coaching Competency Practice Profile). Now the state is using lessons learned to scale the continuous improvement process to additional regions and districts in the Transformation Zone.

Capacity Data for Action Planning

Change at the SEA level takes time. “It is deviously difficult work” (Casciaro, Edmondson, & Jang, 2019). The SEA is learning that if simultaneous attention to the development of vertical regional-district-school structure is delayed, so too is valuable implementation data in the form of fidelity, training, coaching, and proximal student outcomes. In the initial two years of capacity building, the state capacity grew significantly, achieving the year 3 goal of 80% capacity at its fifth assessment administration. From that point forward, however, there were steady declines in the state-level capacity score. The successive capacity dips reflect the reduction in the number of regions contributing to the development of the regional structure, as well as fidelity to the use of the Active Implementation Frameworks to develop an implementation infrastructure for a usable innovation. Each district is responsible for the development of their Usable Innovation and training system for effective use of their selected EBP.

FIGURE 2
State Two Capacity data 2015-2019
(1 state, 1 region, 2 districts)



In 2018, the remaining RIT supported and coached the first districts in selection of a focus (e.g., literacy at the elementary level) and a specific program that would meet the identified need of students in the district. It became clear to the regions and districts that this was a very heavy lift and that it would take considerable time to select a program, ensure its usability, identify an evidence-based fidelity measure, and develop the associated training, coaching, and data systems for the district to effectively support their first schools. After months of deliberation, the region agreed upon use of effective teacher practice (Hattie, 2009) no matter what the area of focus, program, or grade level the district selected to study in their Transformation Zone. Now, the first districts could define and operationalize what they expected to see in any classroom and measure the practice for fidelity using their chosen fidelity measure. This decision resulted in an upward trend in the district capacity data at the second and third administration (2019), meaning the region is beginning to develop increased skills in their use of implementation practices at the district level to effectively support their schools and teachers. Due to the initial focus on horizontal alignment at the SEA, the state had limited district capacity data and no school capacity data. However, qualitative feedback from the region provided evidence of a barrier that had to be solved – regions and districts needed a common agreed-upon usable innovation.

Outcomes

Student outcomes are yet to be realized at the school level through intentional vertical alignment. We anticipate an upward trend in proximal outcomes at the end of the 2019-2020 school year in the first district. In the meantime, the first school is using baseline fidelity data to examine and strengthen the systems of training and coaching available to teachers. Simultaneously, the RIT is supporting the first districts in the development of a Practice Profile that clearly defines and operationalizes effective teacher practice, and they are preparing for Exploration with an additional district. The SEA is also preparing for Exploration with additional REAs to establish the next iteration of the Transformation Zone that will benefit from the capacity developed in the current RIT, including systems, practices, and products aligned with the five Active Implementation Frameworks.

Discussion

The goal of the SISEP Center is to establish large-scale, sustainable, high-fidelity use of effective education practices in a state's regions, districts, and schools while aligning and cohering the State Education Agency (SEA) offices and divisions. Research suggests that a simultaneous approach to systemic change from the lead organization to the practitioner and a decentralized strategy to effectively use a practice with evidence can reduce, if not completely eliminate, what is known as a scale-up penalty. Tommeraas & Ogden (2017) describe the scale-up penalty as a reduction of behavioral change (or end user outcomes) when attempting to scale-up a practice on a large-scale. They suggest organizations can eliminate the scale-up penalty if they use the Active Implementation Frameworks (Fixsen et al. 2013a; Metz and Bartley, 2012), establish a sustainable implementation infrastructure, and commit to long-term governmental funding by several ministries (or SEA offices in the US) who systematically evaluate practice (Ogden, Forgatch, Askeland, Patterson & Bullock, 2005). In this brief we presented two very different approaches to systemic change in two State Education Agencies supported by the SISEP Center.

State One

State One established vertical alignment from the state to the school. Stakeholders co-created an implementation infrastructure so regions and their districts were ready to fully support teachers' and coaches' use of mathematics innovations in classrooms and produce evidence of improved mathematics outcomes. Yet, inattention to horizontal alignment creates fragmentation and duplication of SEA efforts. When multiple approaches to systemic change of a department's major initiatives are presented without evidence of how they fit and complement one another, confusion manifests in regions and districts. The focus on implementation at the state remains in one Office. Horizontal alignment of the state department was not established in years one through four. This narrow focus creates siloed work and begs the asking of several questions: can use of a common language and way of work be scaled across the SEA to reduce duplication and fragmentation? Will a common way of work and language reduce confusion and undue burdens on regions and districts resulting from a layered history of best intentions?

State Two

State Two developed significant capacity and commitment among state-level staff and leadership to align SEA major offices, divisions, and initiatives as they move away from previously siloed work to aligned data, teams, communication structures, and implementation processes. It has promoted an intentional alignment of the state's strategic priorities and ways of work with a coordinated and aligned system of tiered supports for regions and districts using the Active Implementation Frameworks. There are also significant vulnerabilities. Namely, regional capacity development has been extremely slow due to a lack of focus on specific practices or innovations, where the onus of defining an effective innovation rests on the shoulders of regional, district, and school teams, thus requiring more time. State Two is four years into the active implementation journey with limited data to engage in practice-policy feedback loops to inform the SEA's actions. This creates slow and limited scalability, and missed opportunities to co-create systems that are scalable with stakeholders.



Questions remain for careful study and potential mid-course correction for both SEAs. First, will a focus on horizontal alignment facilitate the use of a common implementation approach at the SEA and also in its regions, districts, and schools? Will the presence of horizontal alignment and financial commitment across major SEA offices facilitate a greater rate of scaling with the creation of optimal conditions? Second, will a focus on vertical alignment create the conditions and lessons learned to sustain a stable vertical infrastructure with long-term governmental funding to take to scale a common implementation approach and effective use of any evidence-based practice? Will regions and districts have the capacity to develop and maintain an infrastructure for their identified effective instructional practices without SEA horizontal alignment? Third, will the SEA take the opportunity to learn and take action from the implementation efforts regionally and locally to make use of the AIFs as an approach for supporting strategic alignment both horizontally and vertically? Finally, fourth, will use of implementation and improvement science be de-scaled for another promising approach to systemic change?

Conclusion

When considering readiness for systemic change, some organizations may find they do not have the capacity to transform the entire system simultaneously. The purpose of this paper was to provide two different examples of an SEA's path to systemic change, and the facilitators and barriers to consider. Take a moment to reflect on three questions and consider your organization's readiness for systemic change.

- » First, if the approach taken in State One (vertical alignment) and State Two (horizontal alignment) were simultaneous, how would that change the collective capacity and efficacy of educators at all levels of the system?
- » How would this affect the ability of an SEA to scale an innovation with a 0% scale-up penalty in a reasonable amount of time at the regional, district, and school level?
- » How would this affect the ability of the SEA's offices and major initiatives to leverage, align, and cohere, resulting in the reduction of duplication at the state to benefit regions, districts, and schools?

What would it take to imagine a different future for education, to ask, “What if?” and to say, “Once we know better, we need to do better”?



Acknowledgements

The State Implementation and Scaling-up of Evidence-based Practices (SISEP) Center, a project of the National Implementation Research Network (NIRN), began in October 2007. The purpose of the SISEP Center is to help establish implementation and scaling capacity in state, regional, and district educational systems. The goal is to maximize academic and behavioral outcomes for all students, especially students with disabilities.

The sciences of implementation and improvement continuously improve from the efforts of partners in the field who share their improvement stories and data, the successes to replicate, and the barriers to solve. NIRN and SISEP wish to acknowledge and extend heartfelt gratitude to the educators in the states described in this paper, who continue to participate and commit to the work of deep systemic change in their state education systems, all in service of supporting the continuous improvement of educators' capacity to improve student outcomes and close long-standing disparities.

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Your questions, comments, ideas and resources are invited. Please direct all correspondence to sisep@unc.edu.



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