

Improving Outcomes for Students with Disabilities: Identifying Characteristics of Successful Districts

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Abstract

The common characteristics among Arizona districts and charters with high academic outcomes for student disabilities were identified in a qualitative study involving site visits and interviews. In 2014, the Arizona Department of Education examined over three years of state testing data to identify districts and charter schools that closed the academic achievement gap between students with disabilities and their non-disabled peers. These local education agencies (LEAs) had 30% higher proficiency rates for students with disabilities than the state average. Six clearly identifiable systemic trends were detected to increase academic achievement for all students. These LEAs were implementing systemic frameworks to improve schools not only for students with disabilities but for all children. The good news is that these systems can be replicated at other sites to improve outcomes for all students and provide evidence that every student can succeed academically.

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Driven by Federal Changes

Influenced by the No Child Left Behind Act, Race to the Top initiative and the newly signed Every Student Succeeds Act (ESSA), the federal government has focused its efforts on raising the academic achievement of students in the United States. These initiatives and others have endeavored to decrease the achievement gap between various groups of students while holding schools accountable, promoting the creation of rigorous standards, and encouraging the use of research-based programs. While the push from the U.S. Department of Education has been to find ways to address this problem, overall, the achievement gap between students with disabilities and their nondisabled peers has continued to grow nationally (Albus & Thurlow, 2015).

The Office of Special Education Programs (OSEP) has held states accountable through the annual state determination process for meeting procedural requirements, more often called compliance, under the Individuals with Disabilities Education Act (IDEA). Although these compliance indicators remain an important piece of accountability evidence, alone they are not sufficient. Since 2012, OSEP has reexamined the practice of focusing primarily on compliance in an effort to improve the educational outcomes for students with disabilities and has developed a new accountability framework for states known as Results-Driven Accountability (RDA). Former U.S. Secretary of Education Arne Duncan highlighted the importance of adequate accountability when in 2014 he stated that “Every child, regardless of income, race, background, or disability can succeed if provided the opportunity to learn. . . . We know that when students

with disabilities are held to high expectations and have access to the general curriculum in the regular classroom, they excel. We must be honest about student performance, so that we can give all students the supports and services they need to succeed.”

Compliance Necessary, but Not Sufficient

Over the years, state departments of education have been tasked to work actively with their districts and charters, also called Local Education Agencies (LEAs), to meet compliance indicator goals set forth by OSEP. Arizona as a state has been doing well with OSEP compliance indicators but under RDA needed assistance in areas of student outcomes (U.S. Department of Education, 2014). In order to understand where to focus attention as a state to correct this, in 2014 researchers from the Arizona Department of Education (ADE), which included the authors, had to first examine the proficiency levels of Arizona students with disabilities.

Digging into the Data and Research

Nationally, students with disabilities score from 32 to 41 percentage points lower than their nondisabled peers (Albus & Thurlow, 2015). Arizona’s scores on the National Assessment of Educational Progress (NAEP), an assessment given to a representative sample of more than 700,000 students across the country, showed Arizona students with disabilities scoring the same as their national peers except in grade 4 reading, where Arizona students with disabilities lagged (NAEP, 2015). As seen in Figure 1, there is also a continuing gap between the academic proficiency of Arizona students with disabilities and their general education peers on Arizona’s Instrument to Measure Standards (AIMS) test. Although the achievement gap between students with disabilities and their nondisabled peers in math and reading proficiency rates has decreased slightly in Arizona, the gap between their proficiency rates is still alarming.

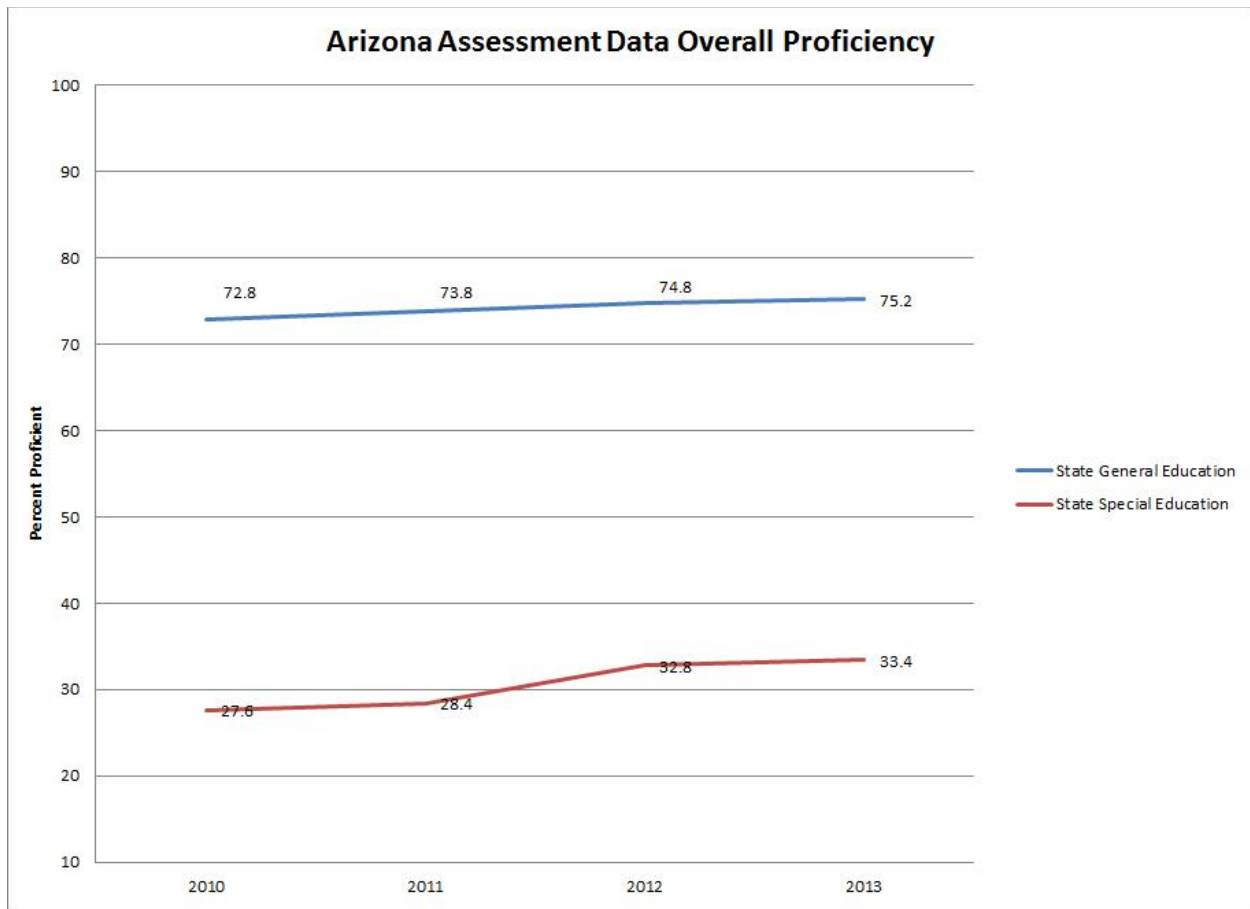


Figure 1. All Grades Mathematics and Reading Proficiency

In reviewing the research, very few studies exist of state departments of education attempting to identify the common characteristics among districts and charters having academic success with students with disabilities, the authors of this report could only identify two (Huberman, Navo, & Parrish, 2012; Sanders, Jurich, Mittapalli, & Taylor, 2013). Due to the lack of research and related studies, there was little in place for Arizona to replicate.

Although many Arizona LEA's have struggled to reach proficiency on state exams with their students with disabilities, in digging down into the data the authors were able to identify LEAs who have made progress. We hypothesized that if we could determine what was happening within these successful districts and charters then perhaps we could learn how to best assist low-performing LEAs to raise student achievement for all students with disabilities.

In Arizona's approach to identify highly performing districts and charters that demonstrated continual academic successes for students with disabilities, ADE's Research and Evaluation Division pulled three years of data from the state AIMS assessment. These data was analyzed to find districts and charters that were performing significantly higher than the state average on the state assessment. Sites were required to have a good cross-sampling of disability categories; those schools that only served one primary disability category were eliminated. LEAs with a

small testing pool (less than 10 students) and those that did not have three years of significantly higher data were not included in the high-performing group.

A one-way ANOVA was run with correction to determine whether statistical differences existed to select LEAs that were significantly higher performing than others in Arizona. To be selected as a high performer, a LEA needed a substantially higher proficiency rate for its students with disabilities than that of the state average (see Figure 2). Overall, when scores were averaged, the 32 high-performing sites had 27.3% higher proficiency rates for students with disabilities than the state average for students with disabilities. These high-performing sites had a smaller gain in proficiency for general education students, exceeding the state average by 14.35%. These high-performing sites were able to close the achievement gap by 12.7%, with the four-year state achievement gap being 43.4% and the high-performing sites being 30.7%.

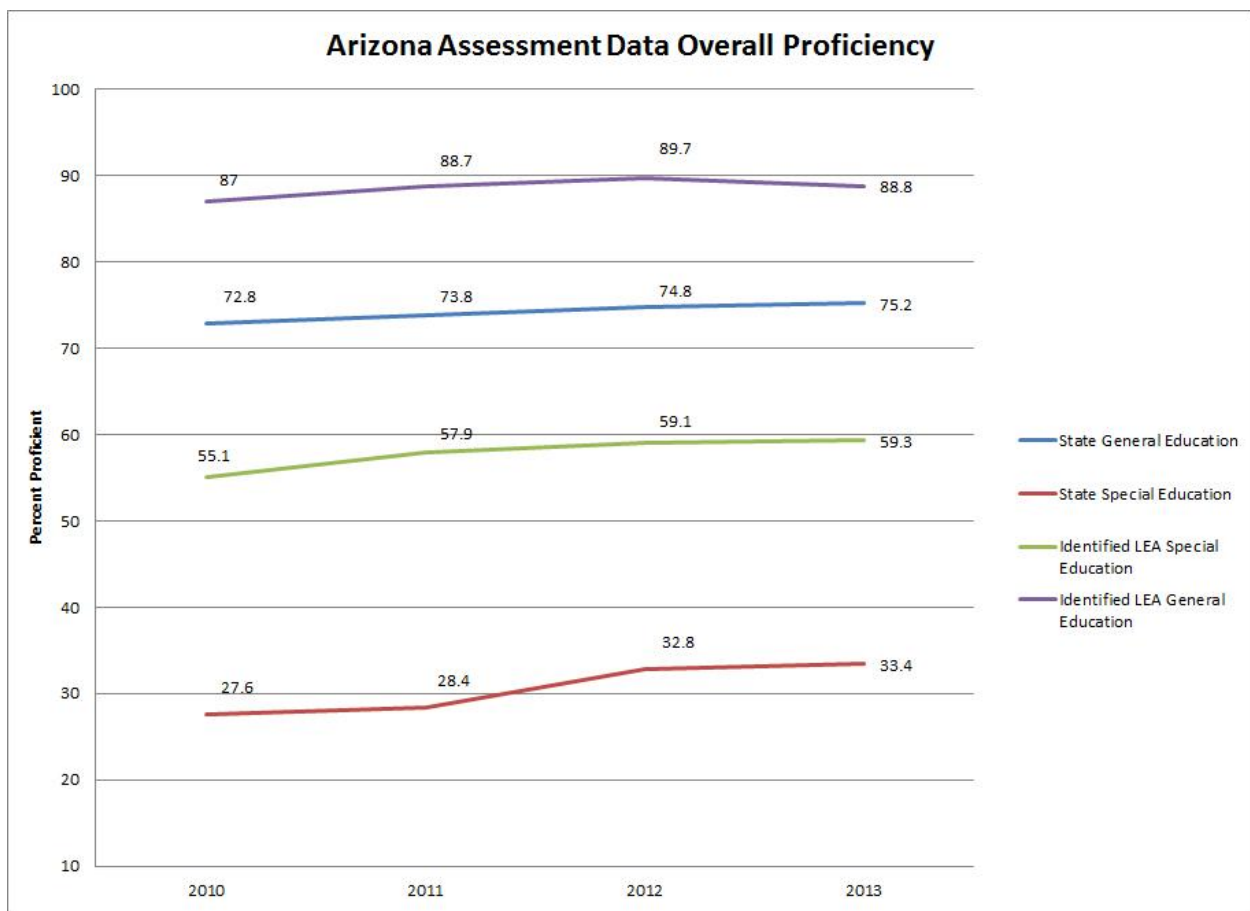


Figure 2

High performing LEAs were divided into four groups:

- those that tested less than 100 students with disabilities annually on AIMS were considered small districts and charters,
- those that tested more than 100 but less than 300 students with disabilities tested were considered medium,
- those that tested more than 300 but less than 1,000 students with disabilities tested were considered large, and

- those that tested over 1,000 students with disabilities were considered extra-large.

The highest performers in each of these four categories were selected and included a mix of both charter schools and districts. In narrowing the list further, we looked at geographic information, picking the top performers in both rural and urban areas across the state. Finally, ADE's Exceptional Student Services (ESS) leadership team checked school records to make sure that there were no complaints or allegations of testing misconduct filed against any of these LEAs. In total, 32 districts and charters met all of the criteria. Among the 32 highest performing sites included urban Phoenix and Tucson LEAs, the largest cities in the state, and extremely rural sites. More than half of the sites listed were identified as serving a population of students of whom more than 50% qualified for free and reduced lunch. More than half of the sites listed were identified as Title I schools. The sites varied in student populations and even in the types of educational approaches (i.e., some were Montessori schools, some were "back to basics," some were traditional districts, and a few were science and math magnet schools). The final 32 high performing sites were composed of approximately 2/3 charter sites and 1/3 school districts, which is comparable to Arizona's charter to district ratio.

To delve into what was making these sites such high performers, all 32 districts and charters were contacted. The goal was to find out what these highly effective LEAs deemed essential for their success and if any trends were prevalent across these identified LEAs which could then be replicated statewide. When contacted, the LEAs were provided the goals to be achieved by the interviews and asked to participate in our study. Twenty-nine of the 32 LEAs provided their consent to participate. Each site was asked to assemble a team that would include a sample of representatives who were responsible for making the educational decisions within their district or charter. Most teams included the superintendent or charter holder, the curriculum director, the special education director, building principals, and instructional coaches.

Members of the ESS leadership team prepared materials and made in-person visits to meet with LEAs' leadership teams asking a series of questions developed by ADE to investigate the LEAs' performance factors. The questions were sent to the charters and districts ahead of time with instructions that these questions were intended to be discussion starting points. Participants were encouraged to discuss factors outside of the given questions if they felt that the questions did not address their whole success story.

Discussion Questions

1. Talk about your school's or district's mission and vision for education. How does this relate to your students' progress on Arizona's state assessment?
2. What does it mean to be a leader in your school or district? What responsibilities, expectations, and resources are involved in the role of leadership?
3. Talk about your use of data. What systems are in place to collect and evaluate data (computer software used, collection manuals employed, data quality guidelines, etc.)?
4. How do you make decisions about placing students in different classroom environments? Discuss your culture of inclusion and how it affects your placements of special education students.
5. Explain the various roles of stakeholders both inside and outside the school that may be factors in your success (special education director, administrators, outside agencies, staff,

parents, etc.). Are there programs outside the sponsorship of your school that contribute to academic improvement?

6. For students with disabilities, what instructional supports are in place to improve instruction, strengthen curriculum, reinforce student learning, and encourage professional collaboration (grade-level meetings, professional learning communities, professional development, pre-service training, after-school tutoring programs, etc.)? How are instructional decisions made?
7. Discuss your current use of educational funding to support students with disabilities. What additional grants or resources other than basic entitlement grants are also used?

During a six-week period, all of the sites selected were visited by two members of the ESS leadership team, and the interview results were transcribed and placed in a database. Once all 29 visits were concluded, the data from the interviews were reviewed. As mentioned above, although these sites varied in student populations and types of educational approaches, data showed clearly identifiable characteristics seen within all the interviewed high performing LEAs. Identifiable characteristics were grouped into six categories:

1. A culture of high expectations for ALL students and a student-first mentality
2. Highly effective teaching strategies in the general education classroom
3. Frequent data collection for use in decision making
4. The use of data analysis to provide interventions and enrichment
5. Core instruction in the general education classroom as much as possible
6. Effective leadership

A Culture of High Expectations for ALL Students and a Student-First Mentality

A common theme across each charter and district visited was a student-first mentality and the belief that all children, with the right support from teachers, can achieve academically. One of the charter schools visited simply said, “If the bar is raised high they will surpass it.” School leaders, general education teachers, special education teachers, and other staff spoke of “our kids,” not “their kids,” when discussing high expectations for students with disabilities. One district stated, “All students means all students, we are dedicated to every child, every day, we walk the talk and have genuine concern for every student.” This collegial team mentality created a strong system of supports between general education and special education teachers. The collegial support system prepared teachers to instruct children assigned to their classrooms; students first was an accepted and nonnegotiable construct.

This theme of educators holding high expectations for themselves and taking responsibility for student performance can be identified in many studies regarding effective learning systems (Blackburn, 2008; Tomlinson and Javious, 2012; Howell and Gengel, 2005; Newman, 2006; Blackburn and Armstrong, 2011; and Williams and Williams, 2014). Having high expectations for all students is a theme that is validated in other research, most recently in John Hattie’s 2009 meta-analysis, which ranked various influences according to their effect sizes. Hattie studied six areas that contribute to learning: the student, the home, the school, the curricula, the teacher, and

teaching and learning approaches. His research showed that developing high expectations for each student had an effect size of 1.44, and developing high expectations for teachers had an effect size of .43. As he states in his book *Visible Learning for Teachers*, “making the learning intentions and success criteria transparent, having high, but appropriate, expectations, and providing feedback at the appropriate levels is critical to building confidence in taking on challenging tasks” (Hattie, 2012).

This findings are not new. In the book *Fifteen Thousand Hours* (1979), researchers concluded that schools that promote “social and scholastic success reduce the likelihood of emotional and behavioral disturbance” (Rutter, Maughan, Mortimore, Ouston, & Smith, 1979). Even as early as 1948, researchers discussed the concept of “self-fulfilling prophecy” in which the opportunities presented to a certain group of people will dictate the achievements the group produces (Merton, 1948). Also called the Pygmalion effect, this phenomenon shows that “one’s expectations about a person can eventually lead that person to behave and achieve in ways that confirm those expectations” (Tauber, 1997).

High-performing LEAs also adopted hiring practices that identified individuals who supported the philosophy of the school. Those who could not adhere to the standard of high expectations and who did not put the needs of children before the needs of adults were asked or directed to find other employment.

Highly Effective Teaching Strategies in the General Education Classroom

The majority of Arizona students with disabilities spend at least 80% of the time in the general education classroom. In the LEAs visited, instruction in the general education classroom was effective and based on research. Although the teaching styles and curricula varied immensely in the districts and charters visited, spanning traditional direct instruction models to Montessori exploration curricula, a common theme was an emphasis on “hands-on” instruction (i.e., the use of manipulatives, assistive technology, learning centers, and other modes of learning that differentiated instruction and engaged learners in the educational experience). Instruction was intentional and purposeful, with lesson plans and activities written in advance and based on data that could continually advance students to mastery of concepts and skills taught. Students were not just “receiving” an education; they were actively pursuing and participating in it. Ensuring that students are engaged and active in learning is a widely established and researched best practice (Archer & Hughes, 2011).

Standards-based grade-level instruction with modifications and accommodations as needed was provided in each classroom, but was continuously linked to the rigor and content described in the grade-level standards. One of the medium sized districts said, “We have the philosophy of assumed competence – we assume the student can do it instead of ‘oh, they can’t do this.’ We teach the grade level standard and fill in the gaps.” Instruction time was considered sacred with minimal disruptions occurring while class was in session. To support continuity of instruction time school wide, policies were established to refrain from announcements over the intercom once class started and limited school assemblies during core instruction time. This practice is reinforced by research suggesting that the quality of instruction is equally as important as the quantity of time spent learning (Silva, 2007). Pull-out for related services also did not take place during core instruction or for the entirety of core instruction.

Frequent Data Collection for Use in Decision Making

Within the LEAs visited, data-based decision making was essential to the success of all students. One district said that they “conducted a data retreat at the beginning of each year to really dig down into the data, then it is gathered and used throughout the school year to design enrichment and re-teaching.” Continually using data allowed staff to monitor student progress and flexibly group students accordingly, depending on student strengths and weaknesses. As one district stated, “we have skills based flexible groupings.” These groupings of all students (both with and without IEPs) could constantly change, depending on the data, so that each child could get the supports needed to master content and move on to new learning.

Although the LEAs visited did not always label their use of data to create groupings response to intervention (RTI) or multi-tiered system of supports (MTSS), each did contain several key tenets stated in research as effective in RTI systems. The structure of beginning with a solid system of instruction and a validated curriculum to meet the needs of the majority (80% or more) of students is the backbone of RTI. The first tier of instruction, Tier I, comprised of three elements: a core curriculum based on validated research, screening and benchmarking assessments, and ongoing professional development for teachers to ensure they are delivering quality instruction (Vaughn, Wanzek, Woodruff, & Linan-Thompson, 2007). Each LEA visited had a system or “safety net” in place for students identified as not meeting standards/expectations in Tier I instruction, as well as a system to track student progress. In general, the majority of LEAs visited provided quarterly benchmark testing for all students, which varied depending on the school year schedule. Progress monitoring occurred more frequently (approximately every two weeks) for struggling students or students with disabilities. Assessment for learning, also called formative assessment, formally and informally occurred within classrooms, and teachers built opportunities for students to respond and produce within the classroom, allowing them to continually monitor students’ content mastery. Multiple data sources, including observational data, were used to understand where each student was performing and how teams could spotlight strengths and support weaknesses.

This use of formative assessment provides a “steady stream of data about how learning is progressing while it is in the process of developing” (Heritage & Chang, 2012). Formative assessment during instruction assists teachers in checking for progress, detecting learning gains, checking for misconceptions, and using this data to adapt instruction (Gallagher & Worth, 2008). The data collected by the LEAs met certain criteria established by research about data quality (Marsh, Pane, & Hamilton, 2006). First, data were accessible and timely for those who used the results. Second, the data were reliable. Third, there was motivation to use the data to improve student performance. Lastly, educators were supported in data use. Sites visited provided time for data collection and analysis, professional development on how to use data, and a data system with filtering capabilities to assist educators in making data-based decisions.

The Use of Data Analysis to Provide Interventions and Enrichment

Each LEA visited had a method to create ability-based groupings to help students reach mastery in reading and mathematics. Methods varied from site to site. In some cases, it was a time of day during which students were regrouped based on data and sent to different teachers depending on the intervention/enrichment activity. In some situations, time was built into the lesson plan and

the teacher and co-teacher, or teacher and paraprofessional, worked with students in the same classroom either in small groups, one-on-one, or in other arrangements based on the student data (formative and summative) for that lesson. These intervention and enrichment opportunities were targeted toward specific skills needed to master a lesson or based on individual needs for learning, not just on participation in the activity. On charter school explained that they “used data formatively to decide who needs intervention support, we use present levels and data to drive individual instruction.”

Each LEA visited had established tutoring opportunities for students—one or more after-school, before-school, or mid-day tutoring times for students who needed more assistance. In some cases, all teachers were expected to come in early, stay late, or tutor during their prep time one day a week to assist students; in other cases, grants paid for the additional staff needed. These after-school, before-school, or midday opportunities tied directly to the grade-level curriculum being taught in classrooms.

There is a strong correlation between interventions and student success. For example, providing intensive, systematic reading instruction in small groups has been strongly supported by evidence from the Institute of Education Sciences (IES, 2009). Other research on interventions, specifically for students with learning disabilities, has found the following teaching practices to be effective (the list below only includes a few):

- Combining direct instruction (i.e., teacher-directed instruction and discussion) with strategy instruction, such as study skills instruction, note-taking strategies, self-questioning strategies, self-monitoring, and summarization (Scruggs, Mastropieri, Berkeley, & Graetz, 2010)
- Employing mnemonic instruction (Scruggs, et al., 2010)
- Using concept diagrams, concept comparison routines, and other graphic organizers (Scruggs et al., 2010)
- Using repeated reading to increase oral reading fluency (Rasinski & Padak, 2013)

It is important not to forget the role of enrichment in this finding. It is as crucial to create activities for students who understand the content (including those with disabilities) to further explore the subject as it is to create interventions for those who do not. Examples include the following enrichment activities:

- Learning centers with more challenging activities, such as applying the learning to a different environment
- STEM (science, technology, engineering, and mathematics) and cultural activities
- Academic competitions and clubs
- Community partnerships and internships
- Expanded school day with “0 hour” activities (before or after the regular school day)

Core Instruction in the General Education Classroom as Much as Possible

With the student-first mentality as a foundational belief, decisions about an individual student’s least restrictive environment (LRE) placement began with consideration of full inclusion in the general education classroom with necessary accommodations and/or modifications. A larger district visited said, “Inclusion is huge, teachers meet to discuss problems, data, what skills were

missed, then how to reteach those skills.” Only when data showed that the current placement was not in the best interest of the child did the IEP team carefully and methodically look at the continuum of placements available. When placements were changed, the team always ensured the student was spending as much productive time in the general education setting as possible. Research (and legal mandates) supports this inclusive decision-making process. Studies have shown that in many cases, separate classrooms and separation of students with disabilities from their nondisabled peers does not increase student gains (McLeskey, Rosenberg, & Westling, 2012; Salend, 2010; Valle & Connor, 2010). Other studies show that including students with disabilities in the general education classroom does not disturb the learning gains of nondisabled peers (Idol, 2006; Sermier & Bless, 2013; Ruijs, Van der Veen, & Peetsma, 2010). The high performing LEAs saw special education as a service children receive, not a physical place or a label identifying students. One district said, “Special education is the last resort not the first stop. It is a service, not a destination.”

In the visited LEAs, time was provided for collaboration between general and special education teachers. How and when the time was set aside was different at each charter and district. Some used professional learning communities; others scheduled common planning time. Most importantly, the school leaders understood that collaboration takes time, and teachers were provided time within the school day or week to meet and discuss student achievement. Whenever barriers or successes occurred, this partnership between general education and special education teachers occurred organically, with constant, spontaneous meetings taking place as needed outside scheduled collaboration time. Studies on teacher collaboration have shown that schools have higher achievement in reading and mathematics when higher levels of teacher collaboration occur (Goddard, Goddard, & Tschannen-Moran, 2007).

In line with the student-first belief, identified LEAs created or changed their campuses’ programs and supports based on the needs of the students that were being served. Students were not expected to fit into programs that were already in place. According to the location and needs of students, districts and charters ensured that proper services were available. In larger districts, this meant changing the location of certain programs throughout the district to better meet the needs of the children being served.

Special education supports consisted of more “push-in” services (with the special education teacher joining the general education classroom) than “pull-out” services (with the child being removed from the class to receive special education services). A charter school stated, “We support the teacher, and we want kids to be in the regular classroom as much as possible. Teachers look for modifications and adaptations. We use a resource room to help support what is happening in regular classroom. We are using the same curriculum, filling in and supplementing.”

In most cases, when pull-out services did occur, they were strategically scheduled. Strategic scheduling meant that to the maximum extent possible, services did not occur during core instruction. Interference with core instruction was considered harmful and kept to a minimum. Students were sent immediately back to the general education classroom when the special education services for that lesson were no longer needed. This practice supported the emphasis on sacred learning time using highly effective teaching strategies because it ensured that students

receiving services encountered as few distractions as possible when teaching and learning were taking place. Any pull-out services were aligned to skills needed to support the learning and high expectations of grade-level content being taught in the general education classroom.

To allow special education teachers more time in classrooms, some districts and charters creatively scheduled and reassigned job responsibilities to cope with compliance aspects of special education. In two cases, the special education directors personally took on additional paperwork as part of their job duties. In other cases, staff were repurposed or hired to assist with the paperwork or the periodic review of paperwork.

As suggested in research, certain structural/procedural accommodations were made by these LEAs for students with disabilities to achieve in the general education environment. These included:

- Differentiating instruction by using flexible grouping, varying learning-style preferences and student choices, and creating alternative activities and assessments (Tomlinson & Javrus, 2012).
- Using universal design for learning (UDL) when planning instruction. This included multiple ways students can view, express, and engage in the content (Meyer, Rose, & Gordon, 2014).
- Creating student-centered collaboration time between general education teachers, special education teachers, and related services personnel.
- Using effective teaching practices in both general education and special education settings.

Although current research has shown that the addition of students with disabilities in the general education classroom is a win-win situation for all involved (Allodi, 2009; Downing, 2008; and Teigland, 2009; Theoharis & Causton-Theoharis, 2010), other studies have found inconclusive results, causing some experts in the field to remain divided over the issue of placement for students with special needs (e.g., Kavale, 2002; Villa & Thousand, 2003). Research has not shown that the addition of peers with disabilities in a classroom has a negative effect on the learning of nondisabled students (Kalambouka, Farrell, & Dyson, 2007; Sermier, Dessemontet, & Bless, 2013; Ruijs, Van der Veen, & Peetsma, 2010). Research also fails to provide evidence that exclusion from the general education classroom is beneficial to all students with disabilities (Falvey, 2004).

The issue of inclusion remains a significant trend in special education. In the Arizona LEAs visited, tactically placing students with disabilities in the general education classrooms with support (e.g., co-teaching, accommodations, and modifications) was found to have positive effects on student outcomes.

Effective Leadership

The LEA leaders (i.e., superintendents, principals, special education directors, and lead teachers) ensured a culture of high expectations for all students and a student-first mentality were taking place in their schools. In most cases, the principals were “in the trenches,” visiting classrooms regularly and participating in the data meetings regarding all students, including those with disabilities.

The leadership valued their employees; all staff were considered valued members of the school team and were supported as such. One district said “We specifically and carefully select our staff on the basis of their ability to carry out our mission and guiding principles. We hire the best people suited for the task. We respect their expertise and depend on them to work with parents to make our vision for a community of learners a reality.”

Principals had significant involvement in keeping the school’s focus on the achievement of all students. To ensure that all staff understood what was expected to occur in classrooms, school leaders provided planned and specific professional development for all staff, including paraprofessionals.

Often the school’s leadership was consistent, with leaders remaining at the district or school for numerous years. Many principals and district leaders were promoted from the teaching ranks within the LEA. Most locations embraced shared leadership in which the superintendents and principals systematically shared responsibility with the entire staff; the role of the leader was to stay focused on academic achievement and remove any barriers that prevented staff from achieving these goals.

The leadership at the districts and charters visited were all continually seeking to improve. One larger district said it very well, “We are never content with the status quo in our operations or in our curriculum methods. We recognize that we live in a changing world and we respond to those changes. We are constantly looking for better and more efficient ways to accomplish our mission.” The tone and expectation set by the leaders included the mantra of “these are all our students.” Most leaders indicated that their position was more than a job, it was also a passion, with some work weeks taking 60 or more hours of their time.

Various research studies on effective leadership support our observations during these visits. Some examples from other studies about traits of effective leaders are given below:

- A strong leader shapes a vision of academic success for all students, creates a climate hospitable to education, cultivates leadership in others, improves instruction, and manages people, data, and processes to foster school improvement (Wallace Foundation, 2013).
- An educational leader has consistent, high expectations, constantly demonstrates that disadvantage need not be a barrier to achievement, relentlessly focuses on improving teaching and learning, guides assessment and tracking progress as an expert, demonstrates inclusiveness, and develops individual students through promoting rich opportunities for learning both within and outside the classroom (Morrison, 2013).

Other Factors

Although not prevalent enough among these schools to be considered trends, other factors that may have contributed to success in many of the districts and charters were discussed during our visits. These include:

- High retention rates for staff
- Positive school climate in which teachers feel supported

- Quality parent involvement

Limitations

Although Arizona took many items into consideration when beginning this study, it is not without limitations. These limitations should be taken into consideration when other state departments of education conduct research on effective characteristics among the state's highest performing LEAs and their outcomes for the academic achievement of their students with disabilities.

The lack of collaboration with an institute of higher education was a limitation in that the ESS leadership team, although containing people who have been previously published, were charged with creating the study design. The input from an institute of higher education when designing the study could provide a more robust approach at finding the information needed to make changes at a state level.

The development of the interview protocol and questions began as a brainstorm among the ESS leadership team regarding what information we wanted to find out during these interviews. This brainstorm resulted in over 25 questions, which ESS leadership pared the questions down to seven, which was an arbitrary number that was decided to not be overwhelming. Although ESS leadership did review the limited literature in this area, input from an Institutional Review Board regarding formal research protocols could have provided additional benefits.

Conclusions

The six characteristics found in the 2014 Arizona study support findings from other state-level studies that focus on effective educational systems for children with disabilities (Sanders, Jurich, Mittapalli, & Taylor, 2013; Huberman, Navo, & Parrish, 2012).

Based on the findings, researchers, practitioners, and policy makers should emphasize an analysis of effective practices and supports to assist LEAs in replicating the characteristics found in successful districts and charters. As stated in current research, many general education teachers and leaders do not feel prepared to teach students with disabilities, and many efforts at creating a more inclusive environment for students with disabilities fail due to lack of leadership support or system being in place to support increased collaboration between general and special education teachers (Billingsley, McLeskey, & Crockett, 2014; Crockett, Billingsly & Boscardin, 2012; Rosenzeig, 2009; Yell & Katsiyannis, 2004). These lack of supports include planning time, lack of instructional responsibility, and lack of communication between what is being taught in the general education classroom and pullout services.

Because the identified characteristics include areas that may not fall under the purview of state and county agencies responsible for special education outcomes, such as leadership and curriculum, agencies need to commit to collaborating around a comprehensive system of support that builds the capacity of LEAs to improve outcomes; they need to analyze existing infrastructure to identify the supports that align to the six characteristics. In addition, agencies can identify supports that do not align with the six characteristics and reconsider their necessity. Although each state needs to be compliant with the laws and regulations stated in ESSA and IDEA, each state has different political, educational, legal and financial mechanisms that create

unique opportunities and roadblocks. For example, Arizona is a local control state and does not require all LEAs to use a certain curriculum or textbook, which is different from other states such as New York or Texas. Because of these differences, it is important for individual state departments of education to conduct studies to identify characteristics of successful LEAs and share with LEAs how these successful characteristics have been implemented.

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