



CHINLE CASE STUDY

Arizona Department of Education



Prepared by: Randolph A. Ottem, Ph.D. in cooperation with the
Office of Indian Education

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Case Study of Chinle Unified School District #24

Introduction

This report presents a case study of the Chinle Unified School District (CUSD). Over recent years, the academic performance of students in CUSD improved, resulting in a reduction in the gap between the average performance of CUSD students compared to the average performance of all students in Arizona. This mixed-mode study examines the question: *How has Chinle Unified School District supported improving student outcomes and academic performance since 2016?*

About Chinle Unified School District

CUSD is located on the Navajo Nation in Apache County, Arizona. The Navajo Nation spans more than 27,000 square miles over three states, Arizona, New Mexico, and Utah. According to the U.S. Census Bureau, Apache County had a population of 66,021 inhabitants in 2020, which equates to a population density of approximately 5.9 people per square mile. As of the 2024-25 school year, CUSD serves more than 3,000 rural students in the towns of Chinle, Cottonwood, Luckachukai, Many Farms, Nazlini, Tsaile, Tselani, and Wheatfields, and covers approximately 2,300 square miles in area. Approximately 98 percent of the CUSD student population is Navajo.

CUSD has three schools serving kindergarten through grade 6, two schools serving kindergarten through grade 8, one junior high school serving grades 7 and 8, one high school serving grades 9 through 12, and one online school.¹ Approximately 80 percent of

¹ https://www.chinleusd.k12.az.us/apps/pages/index.jsp?uREC_ID=432788&type=d

the teachers in CUSD are Navajo. The student-teacher ratio among elementary schools is approximately one teacher for every 17 students, while the student-teacher ratio at the junior high school is about one teacher for every 16 students.

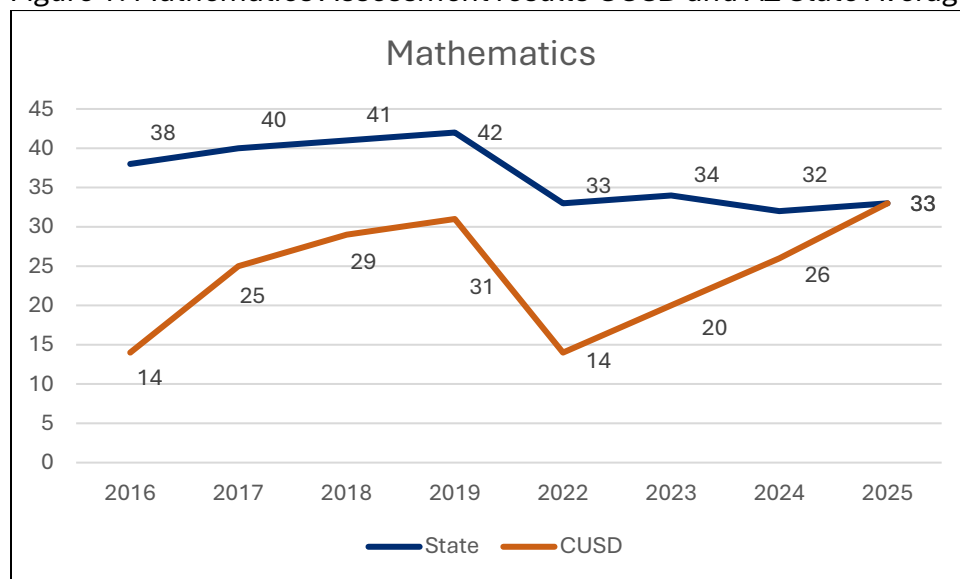
Closing the Achievement Gap

All Arizona public and charter school students in grades 3–8 are required to take an end-of-year standardized assessment of their skills in mathematics and English language arts (ELA). Students who take the assessments are assigned a proficiency level of minimally proficient, partially proficient, proficient, or highly proficient, which is based on the raw score that a student achieves. A student is considered to have “passed” the mathematics or ELA assessments if they achieve a proficiency rating of “proficient” or “highly proficient.”

Since 2016, CUSD has made progress in closing the gap between the percentage of CUSD students passing the mathematics and ELA assessments and the percentage of all Arizona students passing the mathematics and ELA assessments. In 2016, the percentage of students in CUSD who passed the mathematics assessment was approximately 24 percentage points lower than the statewide average (see figure 1) and 27 percentage points below the statewide average on the ELA assessment (see figure 2).

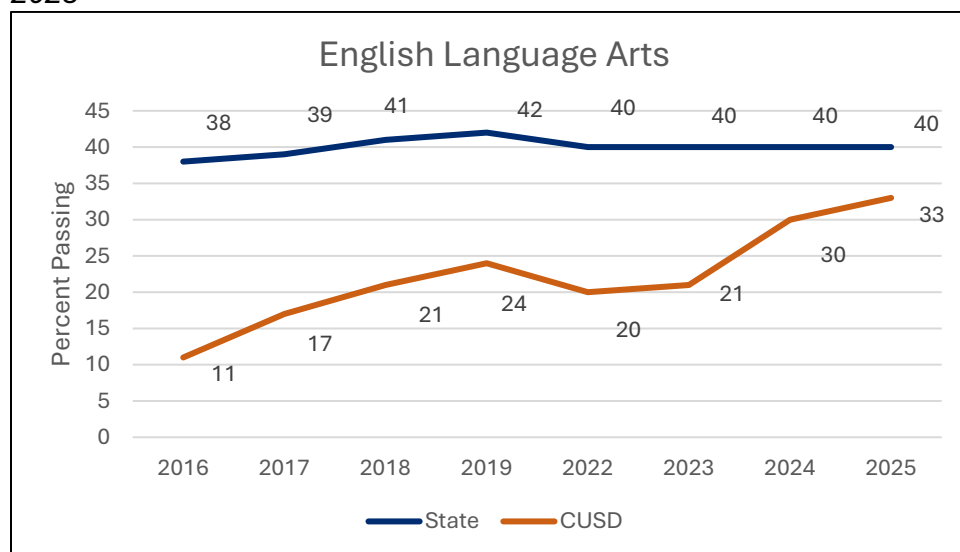
By the end of the 2024–25 school year, CUSD closed the gap between CUSD students and the statewide average in mathematics and was 7 percentage points below the statewide average in ELA.

Figure 1: Mathematics Assessment results CUSD and AZ State Average: 2016 to 2025



NOTE: Assessment data not collected in 2020 or 2021 due to the COVID-19 pandemic.

Figure 2: English Language Arts Assessment results CUSD and AZ State Average: 2016 to 2025



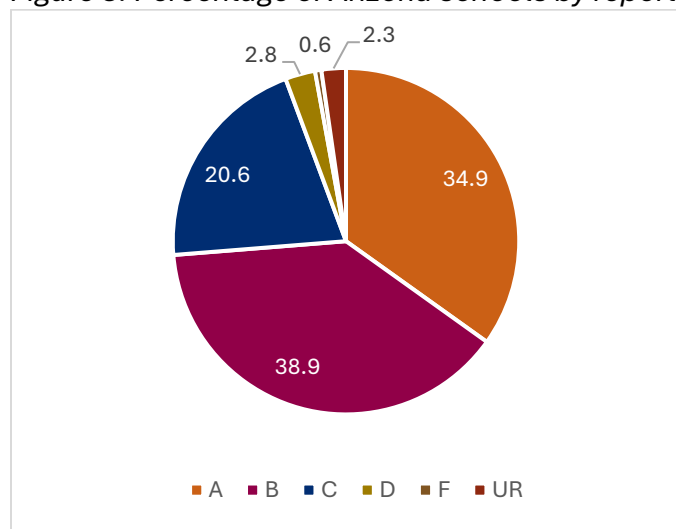
NOTE: Assessment data not collected in 2020 or 2021 due to the COVID-19 pandemic.

In addition to standardized assessments, each school in Arizona also receives a letter grade akin to a scholastic letter grade. Arizona law (ARS § 15-241, <https://azleg.gov/ars/15/00241.htm>) instructs the Arizona Department of Education (ADE)

to report an achievement profile for all public schools in the state.² The foundation of this report is a letter-grade scale. ADE’s Accountability and Research business unit calculates a letter grade for each public school in the state. The A through F scale designates schools as high performing (i.e., those receiving an “A” letter grade) or as failing (i.e., those receiving an “F” letter grade), or somewhere in between.

The metrics used to calculate the school letter grades include student assessment performance, student growth on assessments, English language learners’ proficiency and growth towards English proficiency, as well as readiness for college and career. As shown in figure 3 below, after the 2024–25 school year, approximately 35 percent of schools received an “A,” 39 percent received a “B,” and 21 percent received a “C.” Almost three percent of schools in Arizona received a letter grade of “D,” and roughly 0.6 percent a letter grade of “F” during the same school year. Another 2.3 percent of schools were unrated at the time of publication.

Figure 3: Percentage of Arizona schools by report card grade after 2024–25 school year.



² For more information about the Arizona’s A-F letter grade system, see the AZ School Report Cards website at <https://azreportcards.azed.gov/state-reports>.

As of the 2024–25 school year, Canyon de Chelley Elementary School and Tsaille Public School each received a letter grade of “A” while the remainder of the elementary schools and the junior high school earned a letter grade of “B” (see table 1). The 2024–25 school year represents the second year in a row that all CUSD schools have received either an “A” or a “B.”

Table 1: Arizona State Letter Grades by school between FY17 and FY25

School	2016- 2017	2017- 2018	2018- 2019	2019- 2020 ¹	2022- 2023	2023- 2024	2024- 2025
Canyon de Chelly Elementary	B	C	D	D	B	B	A
Chinle Elementary	B	B	B	B	B	A	B
Mesa View Elementary	C	C	C	C	B	B	B
Many Farms Elementary School	D	C	C	C	C	B	B
Tsaille Elementary School	B	B	B	B	B	A	A
Chinle Junior High	D	C	D	D	B	B	B

¹School letter grades carried over from the 2018–2019 school year

NOTE: In accordance with A.R.S. § 15-741 Section 2, individual components within A-F Letter grades were calculated and published without an overall letter grade for the 2020–2021 school year due to COVID-19. CUSD schools did not receive letter grades for the 2021–2022 school year because they did not meet the minimum requirements for reporting a letter grade.

Given that these two markers of achievement—the percentage of students passing state assessments and the AZ State Letter Grades—suggest that student achievement has been increasing, this paper seeks to create a better understanding of this increase in student achievement to potentially support additional similar districts in Arizona.

Literature Review

The following sections review a portion of the literature that covers how student achievement may be impacted by factors within the school environment, such as overall school climate, data-driven decision making, teacher professional development, and

teacher collaboration. The literature here was used in part to develop the administrator interview protocol and the teacher questionnaire.

Climate

School climate is defined as “the quality and character of school life and the experiences of students, teachers, and other staff within a physical school or online learning environment” (Aspen Institute, 2021, p.2). A school’s climate has been shown to be closely related to the academic outcomes and engagement of the students at that school (González, Bacon, & Kearney, 2022). Brookover, et al., (1978) suggest that a favorable school climate is “the necessary condition for high achievement” (p. 316). Further, research has also shown that a positive climate mitigates the negative effect of poverty on academic achievement (Berkowitz, Moore, Astor, & Benbenishty, 2017); although, the school climate must be “extremely supportive to reduce negative effects of poverty” (Berkowitz, 2022, p. 388). Despite the correlation between school climate and student achievement, the direction of that relationship is unknown as Benbenishty, Astor, Roziner, and Wrabel (2017) suggest that improvements in academic achievement may predict improved school climate.

Data-Driven Decision-Making

Research has found an indirect relationship between the use of data to drive instruction and student achievement. Hargreaves and Braun (2013) note that, among the many uses of data in education, two of the primary uses are improvement and accountability. Research suggests that understanding student data does not directly affect

student achievement; rather, “schools must actually take action to change teaching and learning” (Slavin, et al., 2013).

Van Geel, Keuning, Visscher, and Fox (2016) found that data-driven decision-making can improve student achievement and may be particularly effective at schools with a high proportion of low socioeconomic status students. Carlson, Borman, and Robinson (2011) reported that a data-driven reform initiative resulted in statistically significant improvements in mathematics when compared to districts that did not implement the initiative. Slavin, et al. (2013) suggest that data-driven decision-making initiatives may have a greater effect several years after implementation.

Professional Development

Studies have shown that professional development affects teachers’ classroom practices, which, in turn, may affect student achievement. Desimone (2011) notes a process for connecting teacher professional development to student outcomes. First, a teacher participates in professional development activities, which increase the teacher’s knowledge, skills, or beliefs in the subject. Teachers then use their new knowledge in the classroom where the “instructional changes that teachers introduce to the classroom boost their students’ learning” (p. 70).

Desimone, et al. (2002) suggest that professional development that covers specific teaching skills are related to teachers’ increased usage of those skills in the classroom. Further, Desimone, Smith, and Phillips (2013) conducted a longitudinal study on teacher professional development and found that teachers who focused on advanced mathematics and emphasized novel problems resulted in student achievement growing

more quickly than students whose teachers did not. They also found that “when teachers participated in professional development that focused on math content or instructional strategies in mathematics... they were more likely to teach in ways associated with student achievement growth” (p. 31).

Kutaka, et al. (2017) conducted a study that found that the students whose teachers participated in mathematics-focused professional development experienced a small, positive gain in mathematics achievement. Some professional development activities are more effective with certain age groups. For example, Foster, Toma, and Troske (2013) found that a specific professional development program had positive effects on middle school students, whereas only negligible effects were noted for elementary students.

Teacher Collaboration

Studies have demonstrated that a relationship exists between the amount of teacher collaboration and student achievement. Ronfeldt, Farmer, McQueen, and Grisson (2015) found a correlation between teacher collaboration and student achievement. Specifically, they show that as teacher collaboration increases or decreases, student achievement also increases or decreases. However, they also note that the causal direction is unknown, suggesting that it is possible that increasing or decreasing student achievement may increase or decrease teacher collaboration. Goddard, Goddard, Kim, and Miller (2015) found that the level of teacher collaboration within a school was in relation to the level of instructional leadership demonstrated by the school’s principal, suggesting that a principal’s leadership can affect the amount of teacher collaboration within the school.

Methods

To understand how CUSD improved student outcomes, ADE conducted a mixed-mode case study that included (a) in-depth, qualitative interviews with district and school administrators and (b) a survey of kindergarten through eighth grade teachers. The research question guiding this case study was *how has Chinle Unified School District supported improving student outcomes and academic performance since 2016?*

A case study is “an in-depth investigation of a contemporary phenomenon within its real-life context” (Schoch, 2019, p. 245). The case study design will help to clarify the context behind the academic gains that CUSD students have made since 2016, beyond what can be demonstrated through assessment and achievement data.

Administrator Interview Participants

To address the research question, interviewers first conducted a series of in-person qualitative interviews with two district administrators and six school principals in CUSD. Analysts for this case study utilized a purposeful sampling plan, because “the goal is to find individuals or cases that provide insights into the specific situation under study” (Schoch, 2020, p. 248). Therefore, communication was initiated with district administrators, as well as principals at each elementary and junior high school, each of whom agreed to participate.

Arizona annually assesses the academic performance of students in grades 3 through 8 and again in grade 11. It is important to note that we collected data for this study from administrators, principals, and teachers at each school in CUSD with K-8 content

rather than content at the high school level. Thus, principals and teachers from Chinle High School and Hózhó Online Academy did not participate in the case study.

Administrator Interviews

The administrator interview was designed to take approximately 30 minutes, and each was conducted individually and in person during the school day. Interviews were audio recorded using a handheld recording device and transcribed to text using Microsoft Teams. Interviewees were informed of their rights as study participants (see Appendix A).

The interview protocol included questions about the respondent's education and career backgrounds, their current and previous roles at CUSD, their opinion on changes in student performance, how they involve members of the community, how they feel CUSD provides support to teachers in the classroom, and their collaboration with other schools. The time taken to interview each respondent ranged from approximately 25 minutes to 55 minutes.

Administrator Interview Analysis

To analyze the qualitative interview data, we conducted a thematic analysis (Saldaña, 2021). The thematic analysis began with two independent analysts assigning codes (i.e., "coding") to the transcribed interview data. "Coding is...an exploratory problem-solving technique without specific formulas or algorithms to follow" (Saldaña, 2021, p.12). Analysts assigned a word or phrase to a larger portion of text that was representative of the interviewee's meaning. The reviewers used an inductive coding approach, which allowed codes to be created as the reviewers worked through the

interview data, rather than developing pre-existing codes which would not allow themes to emerge naturally. After defining the initial codes, the codes then became a deductive coding system which were used to code subsequent interviews (Saldaña, 2021).

Recurring codes helped dictate larger themes within the interview data. Saldaña (2021) states that “a theme is an *extended phrase* or *sentence* that identifies what a unit of data is *about* and/or what it *means*” (p. 258). In the current study, for example, four initial themes emerged through a process of coding, categorization, and comparison. The initial coding process resulted in upwards of 75 codes. From there, 14 codes demonstrated a need for *strategic planning and vision* within the school district, 12 codes suggested *professional development opportunities*, five codes suggested *data-driven decision making*, and five codes suggested *collaboration across schools*.

Teacher Survey

In the second part of this case study, elementary and junior high school teachers in CUSD participated in a ten-minute online survey to address the research question, *how has Chinle Unified School District supported improving student outcomes and academic performance since 2016*, and to provide contextual data for the administrator interviews. Teachers completed the online questionnaire during the last two weeks of May 2025 via Survey Monkey.

CUSD teachers participating in the teacher survey were asked several questions about their background. On average, the teachers reported experience as a teacher for approximately 20 years. Eighty-six percent of respondents were female and approximately

70 percent were 45 years of age or older. Almost 77 percent of teachers reported that a master's degree was their highest level of education.

Administrator Interview Findings

The following sections review the findings of the administrator interviews. Four primary themes emerged from the administrator interview data, including *strategic planning and vision*, *professional development opportunities*, *data-driven decision making*, and *collaboration across schools*. The following sections describe each theme and provide quotes from interview participants.

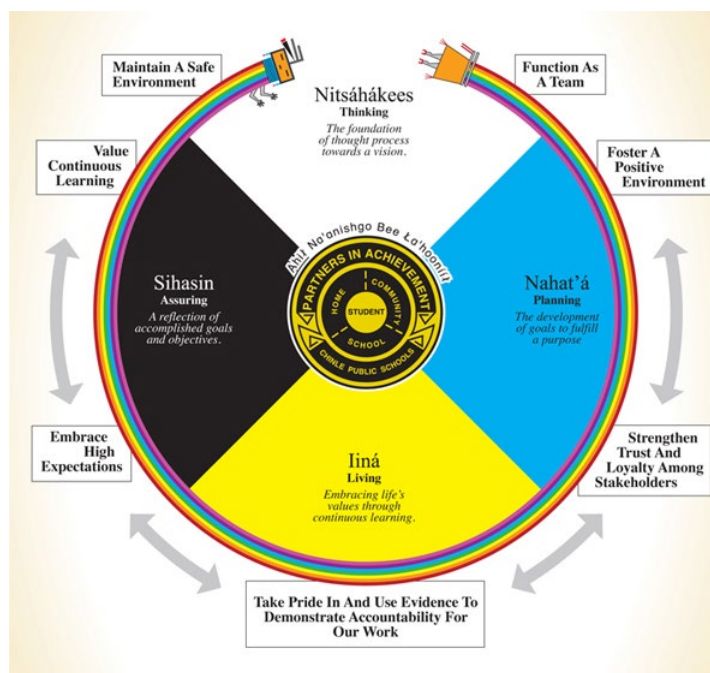
Theme 1: Strategic Planning and Vision

The first theme, *strategic planning and vision*, references how school principals and district leaders understood that CUSD underperformed academically. Respondents noted that the focus of CUSD in prior years prioritized athletics over academics, with one principal stating, "I'll be honest, our student academic performance, at least in my mind, was not a focused effort on the academic component and our community, really, just celebrated our athletic performances." Another administrator noted that school board meetings focused more on athletics, stating "I remember at the board meeting that night lasted for two or three hours and the whole topic was about the boys' basketball team." These findings suggest that the administrators recognized that athletics took priority over academics in CUSD and acknowledged this was not the direction that was needed.

Although they recognized a need to change the focus, there was no consensus among district and school leaders on the right direction to take, prior to Quincy Natay

becoming Superintendent of CUSD during the 2013–14 school year. One principal noted, “I saw our school leaders, our district leaders, our kids, our stakeholders, our parents, our support staff, everyone had their own initiatives, and they were going different directions.” Another administrator discussed the process in which CUSD came to focus on academics, noting that “our task was to look at here’s where we are, here’s where we want to go, and the gap in between is the work that we need to do. And that was how we made those choices to focus on academics first and then from the strategic planning piece also came the common vision.” In short, administrators recognized a need for change from a focus on athletics to a focus on academics, thereby developing a strategic path forward that focused on academics and a common vision for the district to follow.

Principals in CUSD cited the creation of the vision statement³ and adoption of the current curriculum as helping change CUSD’s focus from athletics to academics. “Once we got TAP on board, then NIET⁴, that provided a framework that aligned our targets in to what is a best practice when it comes to instruction, and it aligned everyone. We started seeing really positive results after that,” one principal



³ See https://www.chinleusd.k12.az.us/apps/pages/index.jsp?uREC_ID=432853&type=d

⁴ For more information about TAP and NIET, visit <https://www.niet.org/>

stated. The CUSD vision is presented on the right.

The administration noted that getting buy-in from the school board was important to making significant changes to the overall culture of CUSD by understanding “why we’re here” and where CUSD wants to go:

“So, part of the process here that change process that occurred was creating the culture of why we’re here, really understanding our ‘why’ which is we we’re here for students and creating that positive culture. Not only in one school, but all schools as a district initiative, and it began with getting the board to get on board with that and being a part of the process of creating a strategic plan, having those conversations of where do we see ourselves in the future?”

There was some initial resistance to the changes being implemented as one principal explained, “there were growing pains, there were teachers that were like this...this is too much. You want us to do all these things?” Eventually, however, schools agreed to the same vision for the district, with another principal stating that “when I think about it... we all have the same vision. We...all serve our vision statement. We have our goals for the district.” Another principal noted, “we’re all following the same framework and the same expectations, and I think that’s what’s helped the district.” Another principal commented that the “teachers are dedicated and really follow our vision and what we stand for.” A principal mentioned that “our strategic and school plans, the plans for support, have helped us. If we didn’t have those goals, we would be lost.” One principal noted that CUSD students also know the district vision: “hearing it from the students, I thought, wow, it’s like one big goal.”

The theme, *strategic planning and vision*, suggests that CUSD administrators and principals recognized that a change in focus from athletics to academics was necessary to

improve student achievement. The district, as well as the community, were aware they were 25 to 30 percentage points below the state average in Math and ELA proficiency and worked to address this gap (see Figures 1 and 2). Although there was initial pushback from teachers, CUSD administrators and schools agreed to follow a common vision for the district. In conjunction with the following three themes, having district-wide buy-in on the vision and support from the governing board was vital in the academic gains of the district. As a district located on the Navajo Nation, CUSD has been intentional in embedding the Navajo language, culture, and history in administrative and instructional spaces. For example, as they updated their strategic plan, members of the community and school board were adamant that the district vision and mission (including the logo) were reflective of Navajo philosophy.

Theme 2: Professional Development Opportunities

The second theme, *professional development opportunities*, suggests that respondents recognize the value of teacher support by the administration during the school year with one principal noting, “supporting a teacher, I think, is one of the most important roles that administrators have in the school.” CUSD provides many opportunities for teachers to participate in professional development activities. Principals and administrators stated that CUSD follows a professional development strategy that includes daily, weekly, monthly, and yearly professional development opportunities. “We have supervised PD for teachers. (The) instructional team (i.e., the principal and 2 academic coaches) meets every week to arrange (the) cluster plan. Then we do observations to reinforce what the teachers learned in the cluster.”

One administrator stated that academic coaches, or “master teachers” as described by one administrator, are available at each school to assist teachers by stating, “(we) have academic coaches in every building.... They’re master teachers, so they provide professional development every day.” Academic coaches also provide professional development through weekly clusters that focus on the specific needs of a grade level within a school, and by conducting classroom walk-throughs with teachers to model instruction. One principal noted that “we...do a weekly professional development, we call clusters. And that is when the academic coaches will bring the grade level team together and discuss where we’re at and where we need to go based on that grade level.” The principal also discussed how professional development is provided monthly stating, “beyond that, even at a larger scale, we have monthly professional development days built into our schedule”

Schools in CUSD are allowed to invest in new professional development opportunities. As noted by one administrator, “(schools) are allowed to use it and implement it, and if it’s successful... one of the charges I give you is OK, if it works, we’ll invest in it, but you have to take the lead providing PD.” Finally, one principal highlighted that the professional development presented in clusters “are research based and proven to work with our kids.”

Overall, CUSD supports teachers by providing many opportunities for continued professional development. Professional development is provided on a daily, weekly, and monthly basis, and CUSD staff can identify and pilot new professional development opportunities.

Theme 3: Data-Driven Decision Making

The third theme, *data-driven decision making*, implies that CUSD staff use data to inform instructional choices and actions related to academic performance. One principal attributed the success of CUSD students to using data to increase student performance by noting that “one big thing that I know makes us successful is being data-driven. We look at numbers to make decisions...for the best interests of the students of mine.” Another principal mentioned that “we’re data rich and we use those data points to drive every decision that we make for the good of our students.”

Interestingly, one principal stated that using data is sometimes incorporated into their professional development activities with teachers, stating that “for our PD days, we’re showing them data, putting it together. So, as I give (data) to them, sometimes we’ll ask them to bring it. But then I’m also showing them what they could do (with) that data, how they how they use it.” Another principal noted that they incorporate data into principal-teacher sessions: “All sessions with teachers, we’re showing them data. I show them what they could do with their data, to truly use it to drive instruction, how to change their instruction.”

One way of using data to drive decision making was to develop district-wide strategies for “moving MPs (i.e., minimally proficient students).” This suggests that the district identifies students whose proficiency level was “minimally proficient” and individually target those students who can move up to “partially proficient” or higher in ELA or mathematics. An administrator noted that “(targeting minimally proficient students) was a really impactful strategy. The results of those sessions with the principals was that we

developed district-wide goals for movement of minimally proficient students.” Similarly, students may be evaluated on their Lexile level which allows teachers to ensure that the students are reading at their appropriate level: “So (students) read at their level and build up in their Lexile.”

The theme, *data-driven decision making*, shows that CUSD regularly uses data to inform the decision-making process, including decisions about individual students. For example, by targeting minimally proficient students, CUSD identifies students in need of additional assistance and follows the most appropriate course of action to help the student move to a higher proficiency level.

Theme 4: Collaboration Across Schools

The fourth theme, *collaboration across schools*, highlights the supportive relationships that are encouraged and fostered among schools in the district. Specifically, principals can communicate and collaborate with principals at the other schools, or sister schools. One principal remarked that “we invite other schools or other grade levels from our sister schools...to see what they’re doing there and get ideas and see what we’re doing here.” Another principal noted that

“I was welcomed to our sister elementary schools to go see what they were doing and how they were doing things. Not just in their instructional model, but also how their leadership was, you know, hosting different, you know, components and systems that they had at their schools, like walkthroughs, like data meetings, like staff meetings, and just what their general structures were during the day.”

Additionally, collaboration across schools is a way to help students transition from elementary school to junior high, or from junior high to high school. One principal stated

that “we’re developing even tighter networks of collaboration so that the transition across schools is easier for our students.” Principals also encourage their academic coaches to collaborate with academic coaches at sister schools: “I have encouraged my two academic coaches to reach out...if you don’t know something, call another academic coach at the other school.”

Teacher Survey Findings

The following sections describe the results of the teacher survey. The questionnaire consisted of 32 questions, which were primarily developed in-house and based on preliminary findings from the qualitative administrator interviews (see Appendix B). The survey questions therefore focused largely on school climate, teacher support, professional development, and teacher collaboration. Six of the questions were developed by the Massachusetts Department of Elementary and Secondary Education.

Climate

Several questions included in the survey were designed to elicit teachers’ views on the overall climate of their school. When asked to rate their personal job satisfaction on a scale of one to ten, with ten being the highest, approximately 75 percent of respondents reported an eight or higher. When asked to rate the quality of education in CUSD overall, about 82 percent of respondents reported a rating of eight or higher. Teachers also rated the quality of education at their school specifically with approximately 74 percent giving a rating of eight or higher. When asked about their relationships with other teachers at their

school, approximately 79 percent indicated that they had a “very good” or a “good” relationship with their peers.

Next, teachers were asked to rate their agreement with statements about school safety. Eighty percent of teachers indicated that they feel safe at their school, and approximately 88 percent felt that their school has systems set up to ensure that the school runs in a safe and efficient manner.

Support

Overall, teachers indicated a high level of support from principals and district administrators. Approximately 71 percent of teachers indicated that both the school and district administrations provided them with the appropriate support to be successful. Almost 79 percent of the teachers indicated further that they believe their students have the support and resources needed to be successful. Seventy percent of teachers have access to the high-quality instructional materials needed to support all students’ learning. Approximately 72 percent of teachers indicated that they have the resources needed to adapt lessons and units to support student learning.

Professional Development

When asked about their participation in professional development activities, approximately 72 percent of teachers indicated that the professional development provided in their school was aligned with the school’s goals. When asked about the types of professional development teachers participated in during the previous year, most teachers (84%) participated in professional development on instructional strategies.

Teachers reported that the least common type of professional development to participate in was leadership at approximately 12 percent of teachers. Table 3 displays the types of professional development that teachers in CUSD participated in during the 2024–25 school year.

Table 2: Percentage of teachers participating in professional development by type in FY25

Professional Development	Percent
Instructional strategies	83.6
Content knowledge and curriculum	59.0
Classroom management	45.9
Educational technology	44.3
Assessment and evaluation	39.3
Leadership	11.5

Teacher Collaboration

Teachers were asked about the frequency with which they collaborate with other teachers at their school. Roughly 71 percent of teachers reported that they “frequently” or “very frequently” collaborate with other teachers on lesson planning. About two-thirds (67.2%) of teachers indicated that they “frequently” or “very frequently” collaborate with other teachers on instructional strategies, and roughly one-third (34.4%) collaborated on extracurricular activities.

The results of the teacher survey suggest that teachers view their school climate in a positive light and often collaborate with their fellow teachers. Most teachers indicated that they felt supported by their principal and the CUSD administration and that their students receive the appropriate support needed to be successful in their academic careers. Next, we offer some conclusions about the administrator interview and teacher survey findings.

Conclusions

The purpose of this case study was to examine *how Chinle Unified School District has supported improving student outcomes and academic performance since 2016?* The current study uses data collected from CUSD administrators, principals, and teachers to provide an account of practices that coincided with academic increases of its students. While the case study design cannot show that the things that CUSD *caused* a change in student performance, it does offer some insight into the approaches that have supported CUSD's improvement efforts over the past decade.

Since 2016, CUSD has reduced the gap between the performance of CUSD students and the statewide average in mathematics and ELA, while also improving their schools' letter grades. These improvements occurred alongside district policy changes, which suggests that consistent messaging across district schools is important in overall improvement endeavors.

There were four themes identified in this study. The first theme was *Strategic Planning and Vision* which describes a move from a district focus on athletics to one focused on improving student outcomes. Administrators and principals described the development of the strategic plan and vision as the first step to increasing student outcomes. Administrators further noted that there was some initial resistance to change but demonstrated eventual buy in across the CUSD schools.

The second theme, *Professional Development*, reveals how CUSD implemented a professional development approach that included opportunities for support from academic coaches, weekly clusters by grade level, and monthly professional development

days, among others. Further, CUSD allows teachers to pilot new professional development activities. Results from the teacher survey show that most teachers indicated that their professional development was aligned to the goals of their school. Teachers reported that the professional development activities primarily focused on instructional strategies, content knowledge and curriculum, and classroom management.

Data-Driven Decision Making was the third theme. It details how administrators and principals use data to guide decision making in the district, school, or classroom. One such strategy involved specifically identifying minimally proficient students and supporting them to reach higher proficiency levels.

The fourth theme was *Collaboration Across Schools*. Principals described opportunities to exchange ideas with other principals across the district about managing their school to help students transition to junior high from elementary school. The results of the teacher survey also demonstrated a high level of collaboration among teachers, specifically around lesson planning, instructional strategies, and extracurricular activities.

These themes—strategic planning and vision, professional development opportunities, data-driven decision making, and collaboration—coincided with improved student outcomes at CUSD over the past decade. The successes that CUSD has experienced challenge the assumptions that a remote, rural location will limit school improvement efforts. Rather, the successes of CUSD reveal that significant academic gains are possible in rural and tribal districts.

Discussion

Having fewer schools and a small community, CUSD can leverage unity and cohesion more effectively than larger districts. Their success is evident in a district moving in the same direction among teachers, staff, administrators, and the school board. This alignment is reinforced by the development of a shared district mission, vision, and strategic plan created with input from parents, students, staff, community members, and Navajo practitioners, ensuring cultural relevance and collective ownership. As a remote community, educators lack easy access to workshops, conferences, or other specialized training. Yet CUSD has developed robust professional development opportunities and systems. These include job-embedded professional learning such as Professional Learning Communities (PLCs), clusters, mini-clusters, instructional coaching cycles, walkthroughs, co-teaching, and district-led institutes and summits that build internal capacity rather than relying on external training.

The geography of a school district does not have to determine professional excellence. Additionally, small districts often rely heavily on tradition and are resistant to district-wide changes. CUSD has shown a willingness to improve and innovate in that process by relying on and being comfortable with using data to make informed decisions. District and school leaders emphasize regular data analysis practices, including gap analysis, tracking mastery and growth, and focusing strategically on moving students from minimally proficient to proficient levels. The improvement in school grades is evidence of discipline and intentional improvement plans and action. This improvement is also supported by the implementation of a guaranteed and viable curriculum across all schools,

aligned with instructional frameworks and consistent use of systems to standardize expectations and instruction.

Despite having fewer resources, limited staffing pools, and fewer external opportunities than urban districts, CUSD demonstrates a powerful example of embracing growth, resilience, and community-driven leadership. In rural communities, schools are the heart of the community. Student success in CUSD uplifts the community, the tribe, and the region. This showcases the strong school-community partnerships, commitment from families, educators, and leadership, and a belief that students in remote communities can thrive. Schools have intentionally strengthened community engagement through outreach efforts, parent involvement, and partnerships that recognize families and the broader community as key contributors to student success, particularly following lessons learned during COVID about the importance of shared responsibility.

Limitations

It should be noted that there are three limitations to this study. First, because this is a case study, the findings are specific to the context of CUSD and therefore not intended to be generalized in a broad sense. The information presented here might be more useful for smaller rural and tribal schools than those located in urban environments. Particularly, the district's strong integration of community voice, cultural context, and small-scale collaboration structures may not directly translate to larger systems with more complex organizational layers. Second, the case study design does not allow for causal claims about the relationship between district practices and student outcomes. Finally, the data

presented here focuses primarily on brick and mortar elementary and junior high schools and excludes high schools and online schools.

In conclusion, CUSD offers an example of how a shared commitment to strategic planning and vision, providing many professional development opportunities, using data to drive decision making, and collaborating across and within schools may support improving student outcomes. Additional contributing factors include the establishment of strong instructional coaching systems, the use of non-negotiable instructional programs, ongoing leadership development for principals, and organizational alignment from the school board to classrooms. As rural and tribal districts across the state look for ways to support academic improvement, CUSD provides practical evidence for the potential benefits of aligning policies and practices across district schools. The district's experience also highlights the importance of sustained leadership support, competitive staff compensation to retain effective educators, and fostering culture where continuous feedback, collaboration, and shared accountability are normalized.

References

- Aspen Institute. (2021). *Creating conditions for student success: A policymakers' school climate playbook*. Aspen Institute. <http://www.jstor.org/stable/resrep42720>
- Berkowitz, R., Moore, H., Astor, R. A., & Benbenishty, R. (2017). A research synthesis of the associations between socioeconomic background, inequality, school climate, and academic achievement. *Review of Educational Research*, 87(2), 425–469. <https://doi.org/10.3102/0034654316669821>
- Benbenishty, R., Astor, R. A., Roziner, I., & Wrabel, S. L. (2016). Testing the causal links between school climate, school violence, and school academic performance: A cross-lagged panel autoregressive model. *Educational Researcher*, 45(3), 197–206. <http://www.jstor.org/stable/43996917>
- Brand, S., Felner, R. D., Seitsinger, A., Burns, A., & Bolton, N. (2008). A large-scale study of the assessment of the social environment of middle and secondary schools: The validity and utility of teachers' ratings of school climate, cultural pluralism, and safety problems for understanding school effects and school improvement. *Journal of School Psychology*, 46, 507–535.
- Brookover, W. B., Schweitzer, J. H., Schneider, J. M., Beady, C. H., Flood, P. K., & Wisenbaker, J. M. (1978). Elementary school social climate and school achievement. *American Educational Research Journal*, 15(2), 301–318. <https://doi.org/10.2307/1162468>
- Carlson, D., Borman, G. D., & Robinson, M. (2011). A multistate district-level cluster randomized trial of the impact of data-driven reform on reading and mathematics achievement. *Educational Evaluation and Policy Analysis*, 33(3), 378–398. <http://www.jstor.org/stable/41238557>
- Desimone, L. M. (2011). A primer on effective professional development. *The Phi Delta Kappan*, 92(6), 68–71. <http://www.jstor.org/stable/25822820>
- Desimone, L. M., Porter, A. C., Garet, M. S., Yoon, K. S., & Birman, B. F. (2002). Effects of professional development on teachers' instruction: Results from a three-year longitudinal study. *Educational Evaluation and Policy Analysis*, 24(2), 81–112. <http://www.jstor.org/stable/3594138>

- Desimone, L. M., Smith, T. M., & Phillips, K. J. R. (2013). Linking student achievement growth to professional development participation and changes in instruction: A longitudinal study of elementary students and teachers in Title I schools. *Teachers College Record*, 115(5), 1–46. <https://doi.org/10.1177/016146811311500508>
- Foster, J. M., Toma, E. F., & Troske, S. P. (2013). Does teacher professional development improve math and science outcomes and is it cost effective? *Journal of Education Finance*, 38(3), 255–275. <http://www.jstor.org/stable/23354866>
- Goddard, R., Goddard, Y., Kim, E. S., & Miller, R. (2015). A theoretical and empirical analysis of the roles of instructional leadership, teacher collaboration, and collective efficacy beliefs in support of student learning. *American Journal of Education*, 121(4), 501–530. <https://doi.org/10.1086/681925>
- González, C., Bacon, V., & Kearney, C. A. (2022). Systematic and evaluative review of school climate instruments for students, teachers, and parents. *Psychology in Schools*, 60, 1781–1836.
- Hargreaves, A., & Braun, H. (2013). *Data-driven improvement and accountability*. National Education Policy Center. <http://nepc.colorado.edu/publication/data-driven-improvement-accountability>
- Klein, E. J., & Riordan, M. (2009). Putting professional development into practice: A framework for how teachers in expeditionary learning schools implement professional development. *Teacher Education Quarterly*, 36(4), 61–80. <http://www.jstor.org/stable/23479284>
- Konstantopoulos, S., & Chung, V. (2011). The persistence of teacher effects in elementary grades. *American Educational Research Journal*, 48(2), 361–386. <http://www.jstor.org/stable/27975293>
- Kraft, M. A., Blazar, D., & Hogan, D. (2018). The effect of teaching coaching on instruction and achievement: A meta-analysis of the causal evidence. *Review of Educational Research*, 88(4), 547–588.
- Kutaka, T. S., Smith, W. M., Albano, A. D., Edwards, C. P., Ren, L., Beattie, H. L., Lewis, W. J., Heaton, R. M., & Stroup, W. W. (2017). Connecting teacher professional development and student mathematics achievement: A 4-year study of an elementary mathematics

specialist program. *Journal of Teacher Education*, 68(2), 140–154.

<https://doi.org/10.1177/0022487116687551>

McCoy, M. L. (2005). *The evolution of tribal sovereignty over education in federal law since 1965*.

Perkins, D. N., & Reese, J. D. (2014). When change has legs. *Educational Leadership*, 71(8), 42–47.

Ronfeldt, M., Farmer, S. O., McQueen, K., & Grissom, J. A. (2015). Teacher collaboration in instructional teams and student achievement. *American Educational Research Journal*, 52(3), 475–514. <http://www.jstor.org/stable/24546739>

Saldaña, J. (2021). *The coding manual for qualitative researchers*. Sage Publications.

Schoch, K. (2019). Case study research. In G. J. Burkholder, K. A. Cox, L. M. Crawford, & J. H. Hitchcock (Eds.), *Research design and methods: An applied guide for the scholar-practitioner* (pp. 245–258). Sage Publishing.

Slavin, R. E., Cheung, A., Holmes, G., Madden, N. A., & Chamberlain, A. (2013). Effects of a data-driven district reform model on state assessment outcomes. *American Educational Research Journal*, 50(2), 371–396. <http://www.jstor.org/stable/23526145>

Van Geel, M., Keuning, T., Visscher, A. J., & Fox, J. P. (2016). Assessing the effects of a school-wide data-based decision-making intervention on student achievement growth in primary schools. *American Educational Research Journal*, 53(2), 360–394. <http://www.jstor.org/stable/24751549>

Appendix A: Qualitative Interview Protocol

Chinle Unified School District Case Study Qualitative Interview Protocol ADE Data Governance

Introduction

Thank you for taking the time to participate in this study. [INTRODUCE YOURSELF] Before we begin, I need to read some consent materials, so you know your rights as a study participant. This interview will be recorded so that it may be transcribed into text.

[RECORD INTERVIEW]

Informed Consent

The purpose of the study is to investigate *how Chinle Unified School District has supported improving student outcomes and academic performance over the past 5 years*. This interview today should take approximately 30 minutes to complete. Your participation in this research is completely voluntary. You may refuse to answer any question or to end the interview at any time without any consequences.

While there are no potential risks, discomforts, or adverse effects to you by participating in this study, there are also no direct benefits to you. Your participation in this study is confidential. There are no direct incentives to participate in this study.

If you have any questions or concerns about your participation or your rights as a participant in this study, please contact Dr. Amanda Riske by telephone at 1-602-342-0874 or by e-mail at Amanda.Riske@azed.gov.

Do you agree to participate?

Questions

1. To start, please tell me about yourself. What is your educational background and what led you to work at CUSD?
2. Tell me about your current role at CUSD and any previous roles.
3. How would you describe the school climate at CUSD?
4. Since you've been at CUSD what changes have you noticed regarding student performance?

The CUSD Educational Philosophy states that *Since each student lives in a dual society, relationships between the two societies must be identified and made an integral part of the educational process.*

5. How do you balance the “dual society” in the classroom?

The mission of the Chinle Unified School District is to work as partners within the community, promoting lifelong learning in a multicultural and global environment to serve as a strong foundation for all students.

6. How does CUSD involve members of the community? Other stakeholders, such as parents?
7. How does the administration provide supports to teachers in CUSD?
8. Tell me about any opportunities you’ve had to collaborate with other schools in your district.
9. Describe what you think contributed to CUSD receiving all As and Bs on the AZ State School Report Cards?

Appendix B: Teacher Survey Questionnaire

1. Including the current school year, how many years have you been a teacher in Chinle Unified School District?
2. Including the current school year, how long have you been a teacher overall?
3. Are you female or male?
 - a. Female
 - b. Male
4. Which bracket best describes your age?
 - a. 18 – 24
 - b. 25 – 34
 - c. 35 – 44
 - d. 45 – 54
 - e. 55 – 64
 - f. 65+
5. What is your highest level of education?
 - a. High school diploma or equivalent
 - b. Associate's degree
 - c. Bachelor's degree
 - d. Master's degree
 - e. Doctoral degree
6. What grade(s) did you teach during this past school year? (Select all that apply)
 - a. Kindergarten
 - b. First Grade
 - c. Second Grade
 - d. Third Grade
 - e. Fourth Grade
 - f. Fifth Grade
 - g. Sixth Grade
 - h. Seventh Grade
 - i. Eighth Grade

7. What school do you teach at?
- a. Canyon de Chelly Elementary School
 - b. Chinle Elementary School
 - c. Chinle Junior High School
 - d. Many Farms Public School
 - e. Mesa View Elementary School
 - f. Tsaile Public School
8. What kind of professional development have you participated in this past year?
(Select all that apply)
- a. Instructional strategies
 - b. Classroom management
 - c. Assessment and evaluation
 - d. Content knowledge and curriculum
 - e. Leadership
 - f. Educational technology
 - g. Other (please specify)
9. On a scale of 1 to 10 with 1= “Low” and 10= “High” how would you rate
- a. Your personal job satisfaction?
 - b. The quality of education in CUSD overall?
 - c. The quality of education at your school?
 - d. Your level of autonomy in the classroom?
10. Do you agree or disagree with the following statements
- a. I feel physically safe at my school
 - b. I am committed to the vision and mission of CUSD
 - c. Families are supportive of teachers’ efforts in the classroom
 - d. Families are supportive of teachers’ efforts in the community
 - e. My school administration provides the supports necessary for me to be successful
 - f. The CUSD district administration provides the supports necessary for me to be successful
 - g. Students at my school have the support and resources they need to be successful
 - h. The professional development provided at this school is aligned to our school/district goals*

- i. I have access to the high-quality instructional materials I need to support all students' learning*
- j. I have the resources I need to adapt lessons and units to support student learning*
- k. Our building has systems in place to ensure that the school runs in a safe and efficient manner*
- l. The principal provides resources to support staff with their mental health and well-being*
- m. The professional development provided at this school is aligned to our school goals*

** Question was adapted from Massachusetts Department of Elementary and Secondary Education*

11. How often do you collaborate with other teachers at your school on lesson planning?

- a. Very frequently
- b. Frequently
- c. Infrequently
- d. Very infrequently
- e. I do not collaborate with other teachers

12. How often do you collaborate with other teachers at your school on instructional strategies?

- a. Very frequently
- b. Frequently
- c. Infrequently
- d. Very infrequently
- e. I do not collaborate with other teachers

13. How often do you collaborate with other teachers at your school on extracurricular activities?

- a. Very frequently
- b. Frequently
- c. Infrequently
- d. Very infrequently
- e. I do not collaborate with other teachers

14. How often do you participate in activities such as Community and Family Engagement (CAFE)?

- a. Always
- b. Often
- c. Sometimes
- d. Rarely
- e. Never

15. How would you rate your relationship with other school staff?

- a. Very good
- b. Good
- c. Fair
- d. Poor

16. Describe what you see as the biggest challenge facing your school.

17. Describe what you see as the biggest challenge facing your district.