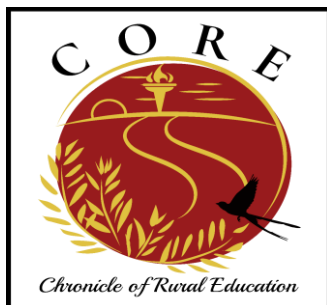




Chronicle of Rural Education

Volume 4: Issue 2

Did We Do a Good Job?: Rural Students Evaluate Their Education and Learning

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Keywords

rural education, remote schools, student experience, school culture,

Recommended Citation

Mitchell, R., & Kirby, D. (2026). Did we do a good job?: Rural students evaluate their education and learning. *Chronicle of Rural Education*, 4(2).

Small, rural schools are unique in many ways and the experiences of individual graduates are also distinctive. Through this study, six graduates of a remote school in rural Colorado were interviewed and their responses coded to provide insight into their perceptions of the rural high school experience. Based on their responses, it was found that four key themes emerged: the inherent limitations and challenges of attending a rural school; enhanced student autonomy; leadership opportunities available to students; and the expectations put upon students to participate in multiple extracurricular events and organizations. Analysis also determined that school culture and post-secondary workforce readiness became a valuable component of the rural student experience. This study paves the way for a longitudinal study focusing on the career and life outcomes of students involved in this study.

Introduction

Rural schools have some distinct advantages over their urban and suburban cousins. Typically, class sizes are smaller, the number of classroom management issues is limited, and individual students are encouraged (if not required) to participate in extra-curricular activities. These components generally lead to a positive school experience for many rural high school graduates. This is most clearly seen by the number of alumni that tend to continue to attend high school sporting events, music/theater performances, and other alumni-specific programming.

Smaller rural schools also have the distinct advantage of being able to track the progress of their graduates in the years immediately following the completion of their high school education. In small towns where the number of graduates typically fall below ten per year, school leaders and educators can routinely identify the location, occupation, and post-secondary education level attained by school graduates. What is more difficult, however, is discerning the quality of the education that these former students received. While it may be easy to determine if an individual high school graduate is employed or attending an institution of higher education, it is much harder to discover the areas of academic strength and limitations for individuals that were developed during the rural secondary school years. This project sought to provide insight into the perception of the quality of the education provided to graduates from one, small, rural school in the state of Colorado.

There are roughly 2500 school districts in the United States with less than 250 total students (NCES, 2016). In Colorado, 51 school districts enroll less than 250 students, and 14 districts have less than 100 students. These smaller districts are frequently challenged by issues related to teacher recruitment and retention, budgetary shortfalls, and limited academic opportunities for students attending these schools. In addition, many smaller districts lack sufficient administrative resources that would allow for substantial, longitudinal evaluation of the quality of education provided to students at their school. While data from standardized test scores may be available to school and district leaders, the significant score fluctuations associated with the small sample size limits the possibility for correlations between student achievement on these assessments and the overall quality of the educational offerings at the school. Accordingly, a qualitative examination of the experiences, strengths, and limitations identified by graduates of one small, rural school district was necessary in order to provide significant insight into the perceived quality of the education received by school alumni.

Specific lines of inquiry for this project were developed with the hope of developing a greater understanding of the experiences and outcomes associated with attending and completing secondary education at a small, remote, rural school in the United States. While the limitation of examining the experience of students at one school in one state is significant, it was hoped that findings will lead towards subsequent studies to confirm or reject this project's results. Accordingly, the primary questions this study sought to answer were:

1. How do graduates of a small, rural high school perceive their experience and their education within the small school environment?
2. How applicable is the content the students learned in school to their post-high school lives?
3. How did their experiences growing up in a remote, rural area impact their education (formal and informal), experiences, and post-secondary outcomes?

Through the use of a quality, phenomenological approach and the application of a self-efficacy framework through a constructivist lens, it was possible to determine generalized outcomes related to these lines of inquiry.

While larger districts can capture, analyze, and interpret outcomes for students on a larger scale – including trends associated with post-secondary educational opportunities and career trajectories following high school, smaller schools typically do not have the bandwidth to take on these types of projects, nor adequate numbers of graduates that can provide insight into the trends or patterns related to student outcomes. This project looked to provide an initial glimpse into these outcomes based on the expressed opinions of small school graduates. Through gathered data developed through a series of interviews with graduates of one school it was possible to determine an overall understanding of how individuals who graduated from this small school perceived their individual educational experiences.

Review of the Literature

Throughout the last decade, numerous studies regarding quality of public education around the world have been completed. While many of these focus on individual content areas such as science (Corning et al., 2023; Zupanec et al., 2022), many other studies have focused on the quality of education provided to marginalized communities and students from recognized minority populations or specific socioeconomic status (Caetano, 2019; Downey et al., 2019; Iyer et al., 2021; West et al., 2022). Within the rural school context, recent scholarship has addressed the issues related with school quality (Nachtigal, 2019; Wang et al., 2019) but with a stronger connection to educator quality and the impact labor shortages has had on providing optimal educational experiences (Kimbrel, 2019; Mitchell et al., 2022; Williams et al., 2022). Many of the outcomes associated with rural teachers relates to established findings that indicate that the presence of a quality educator in the classroom has a significant impact on student learning and achievement (López-Martín et al., 2023; Nye et al., 2004; Wayne & Youngs, 2019).

For individuals that complete high school in rural areas, issues such as overcoming perceived bias and prejudice (Mayes, 2023), substance use and abuse (Hirpa et al., 2022), gender identification and sexuality (Hand & Sanchez, 2000), and poverty (Cassar, 2022) during their secondary school experiences remain prevalent. In rural settings, students and associated scholars have addressed issues and concerns about learning specific academic content (Hlalele, 2012; Murphy, 2022), post-secondary education and educational opportunities (Chambers & Crumb, 2020; Kadavakollu et al., 2020), and family interactions and structures (Legutko, 2008; Qi et al., 2023). The absence of a more generalized understanding and strength based approach of the comprehensive experiences for rural high school graduates supports the need for this specific study and guided the development and methodology of this research (West et al, 2022).

Methodology

While this research focuses on one school within one location, the project was not designed as a case-study due to the absence of an extended period when the study was conducted (Stake, 1995). The school of focus is situated in an agricultural community where the predominate industries are cattle ranching and dryland farming – farming with limited or no irrigation. As a community, the location is also isolated as it is a three-hour drive to the nearest urban center and the closest regional airport is two states away. This unique geographical location provided the environment where a small, rural school continues to exist and there is a small population of students that do graduate nearly every year.

The methodology for this project is firmly embedded within the population under examination. As the small, rural school that was the focus of this study has very small numbers of graduates there was no attempt at developing a representative sample. Rather, all graduates from the small, remote school over a four-year span were included in the recruited population for inclusion in this study. In 2023, only three individuals completed their high school education at the school of focus and each member of this graduating class were contacted for potential inclusion in the study. Table one indicates the number of graduates, and the number of participants involved in this project:

Table 1: Participant involvement

Graduation Year	Number of graduates	Number of participating graduates
2021	3	1
2022	4	3
2023	2	2

The obtaining of 66% of all graduates over a three-year span is reflective of the perceived importance of schools in small, local communities. Many graduates continue to maintain a close relationship with relatives and siblings attending the local school and continue to be interested and, when possible. Involved in school activities.

Initial approval regarding human study from the home university was obtained prior to any outreach or contact with participants. Once approval had been secured, cell phone numbers of graduates were obtained through pre-existing relationships with siblings, parents, and other relatives still connected to the school. For instance, one individual graduated in 2021, but their cell phone number was provided by their grandmother who continues to work at the school in an administrative capacity. Using a developed recruitment script that was designed to be sent via text, a direct communication line was established between the research team and project participants. Once initial contact was made, additional information about informed consent to participate in the study and scheduling of videoconference-based interviews were arranged.

The interview protocol was developed in the initial stage of the project and aligned with one (or more) of the following themes of inquiry:

- current professional/school activities and the impact of the small, rural high school experience
- the areas identified as most useful in the small, rural high school experience
- the areas identified as less useful in the small, rural high school experience
- suggested changes for rural schools and rural education

These four lines of focus within the protocol directly align with the three lines of inquiry that constitute the primary objectives of this research. Each interview was conducted by a member of the research team and each interview was recorded to ensure transcription accuracy and reliability. To support interviewer calibration related to coding interviews materials, two members

of the research team jointly reviewed the first recorded conversation to identify key themes and areas of focus.

For this study, it was determined that a qualitative phenomenological approach was the most appropriate avenue to obtain data from participants. Emerging from the work of Giorgi and Moustakas, the phenomenological approach helps to describe “the life experience of individuals about a phenomenon as described by participants” (Creswell & Creswell, 2018, p. 13). The application of a constructivist approach was also logical as this theory supports the concepts that knowledge “is discoverable, but defined by interpretations” (Bingham, Mitchell, & Carter, 2024, p. 6). The interpretations of the experience of attending a small school are directly gathered by those that graduated from the school itself.

Each interview was recorded and transcripts were subsequently developed. When the six interviews were completed, transcripts were consolidated and reviewed for the emergence of specific themes related to the student experience in small, rural schools.

Limitations

The primary limitation for this research centers on the case-study approach that can make it challenging to support generalizability in other schools and locations. The school of focus is unusually small with a total secondary school enrollment (grades 6-12) of approximately 16 students. This size of school is unique and rare in many parts of the United States and the world and will have some impact on the generalizing of findings.

Another limitation concerns a methodological oversight where the utilization of memoing throughout the research process was not completed with full fidelity. As members of the research team both entered and departed the project throughout the term of the project, this aspect was not fully developed. And while this is a regrettable omission, it is not believed this exclusion had a major impact on the project or the results stemming from this qualitative study.

The findings of this study are based on 45–60-minute interviews with six participants who completed their high school education at a small, remote, rural high school in the western United States. A list of participants, and their assigned pseudonyms, are included in the following table.

Table 2: Participant listing

Pseudonym	Age	Gender (self-identified)	Current occupation
Jonathan	20	Male	IT professional
Jeff	19	Male	Undergraduate student (full-time)
Sarah	19	Female	Medical services
Michael	19	Male	Undergraduate student (full-time)
Heather	18	Female	Undergraduate student (part-time)
Cathy	18	Female	Undergraduate student (full-time)

As noted, all participants are recent graduates of high school. This was an intentional recruiting strategy as the recency of the experiences of participants as high school students provides greater accessibility to detail and a recall of personal feelings and experiences while attending the rural school of focus.

Following the transcription of interview responses, four themes emerged from thematic analysis of the qualitative data: inherent limitations and challenges, student autonomy, leadership opportunities, and expectations of participation. While there was not absolute concurrence on these topics and issues, there was general agreement about some of the more significant experiences found by each rural high school graduate.

Results

The results emerging from this qualitative research resulted in a grouping of four themes that developed through the interviews with identified graduates. These themes materialized from the coding process of transcripts, and a series of discussions among members of the research team. As this research is centered on student viewpoints and experiences, no administrators or faculty members were included in the interview process and, accordingly, the results reflect only student perceptions, opinions, and statements.

Theme one: Inherent limitations and challenges

One common problem articulated by the former students that were interviewed centered on the challenges and limitations associated with academic opportunities and learning experiences that require highly proficient teachers. As stated by Michael:

I think the probably the biggest thing, especially in terms of academics would be I wish that there was more academic challenge in my high school ... I (didn't) really have any homework, my classes (were), you know, relatively easy. (N)ow I actually have to do work out of school and I have to breathe and pay attention.

This identification of challenges associated with limited academic rigor was also seen to be a direct result of the lack of qualified and strong educators available in many rural schools. In this individual school, there was not a full-time math teacher employed for several years, resulting in students having limited exposure to higher level math courses such as geometry, trigonometry and calculus. This was reiterated by Sarah, who commented on the limited exposure to math instruction.

So I only had, I guess, (one) math teacher. And I think she left my eighth-grade year. And then after that, we kind of just had some teachers flowing in and stuff. And really, the last thing that I really learned was in sixth or seventh grade in math, and so I'm kind of having to relearn all of those things. And it's kind of a challenge for me, but I'm getting through it, I guess.

This experience is not uncommon in many rural schools where teachers in the STEM fields are in very short supply. In fact, math and science classrooms “experienced the most serious

(shortage) problems in rural schools” (Ingersoll & Tran, 2023, p. 15). Further, 39% of rural schools in the United States have recorded vacancies in science and 36% have indicated their inability to secure the services of a math teacher (Ingersoll & Tran, 2013).

Jeff had a different perspective regarding the challenges regarding teacher recruitment and retention in his small, rural school. He did note that the teachers that do stay at the school for multiple years are “amazing” and they are “great people”, but he also understands that many teachers cannot stay at the school due to the district being one of the lowest paid school districts in the state.

Theme two: Enhanced student autonomy

Many students completing their high school experience in rural schools have unique opportunities, both academic and non-academic, that may not be available to their peers in more urban or suburban locations. In very small schools, students have an enhanced opportunities to partake in daily activities that are commonly unseen in larger high schools. For example, students in the small school of focus do not utilize passes to travel to the restrooms, there are no locks on student lockers, and there is a large amount of time where students are not directly supervised. This climate and culture of increased student freedom and autonomy was found and articulated by the graduates in the study, as stated by Heather:

They never told me what I had to do. They just told us what they wanted us to do, and they expected it. But they never said, “You have to do this,” so that really helped a lot. So, I got to be a part of making my own decision for my future. ... That was a lot of time management, because I had 10 classes last year (senior year). ... So, I was at a full time job and I had full time school and I live on a farm. So, I had to put that into my schedule. I had to go make sure everybody was all good, just with ... work, and then school and the farm just trying to make sure I got everything done on time so that way it wouldn't affect my grades, and then it wouldn't affect my work and make sure I still have time to go and check on the animals, so I had to make sure my time had to be on top. I had a schedule so that way I could turn in my work on time before it was due.

This unwillingness to micro-manage the student population at the school is an intentional approach that has been developed by the school and district leadership for many years. This has dovetailed nicely into the local environment where the school is located.

The interconnection between the school and the local community also connects to student autonomy as it allows for expanded learning opportunities that may not be available to students in other locations. Jeff spoke to the unique environment and structure associated with rural schools and how accountability and interpersonal connections align.

I definitely think ... my favorite thing about rural education is by being so small, you really get to, like, build a connection with your teachers that you, you can't really get in a, a bigger learning environment. So, and, and you know, the teachers

should feel the same way about the students. So it becomes like, like a family, like a, like a net kind of where everybody wants to see everybody else do really well. So they push you really hard and make sure that they (will) get you ready for the next step.

For many students in rural schools, the importance of an effective teacher-student relationship cannot be understated, as are the characteristics that are developed because of these relationships. As mentioned by Michael, he was able to formulate and implement a process of ensuring his resilience and his ability to overcome various obstacles that are currently impacting his university experience. Through his experience in the small, rural school, he was able to learn resilience by “just doing things you don’t want to do...getting back up and doing it again, day after day.” In this way, both autonomy and resiliency are both products of his small, rural school experience.

Theme three: Leadership opportunities

Being a student in a small, rural school provides additional opportunities for students to be actively involved in school clubs, athletics, and other leadership roles when compared to their peers in larger school systems. In many instances, if students do not actively become involved in a project or initiative, it simply does not get done. Cathy expanded on this through her comments.

So in high school, I was involved in basically anything you could be involved in at our school. I was president my senior year. I was presidents of almost every club we had, and I held an office in those clubs almost all of my time in high school and some offices I had, even while I was in Junior High ... And I learned a lot of leadership, qualities and stuff. And so, I want to be able to further my leadership abilities. ... So, you took your turn, being in charge of everything, and I just like that, and getting to work with people and different types of people all the time.

In addition to Cathy, both Heather and Jonathan spoke to their opportunities that were made available to them during their high school experiences.

Jonathan took the opportunities provided during his high school experience to build a skill set centering on information technology and developed a small business that focused on computer support. His willingness to take on the leadership of his own educational pathway leading to his career of choice demonstrated how effective leadership opportunities can be in a small, rural school and, oftentimes, result in beneficial outcomes.

Theme four: Expectations of participation

By definition, smaller schools have much smaller student populations than schools in the suburbs and cities. With smaller student populations, students are more frequently called upon to participate in athletics, extracurricular activities, and in-school clubs and groups in order to ensure that team or club minimums are met. Many sports, particularly volleyball and basketball, require a minimum number of players and, as a result, students are often encouraged or required to be involved to ensure a team can take the court. Perhaps unsurprisingly, all individuals involved in

this project were involved in varsity athletics at the school, as are the vast majority of students attending the school.

Michael spoke about the challenges related to time and availability in small schools where it is expected that students are involved in multiple activities. According to the recent graduate:

(W)hen you're in a rural town, you have to kind of play, you have to do many things, right? You can't just (be) like, an urban student might just be able to only focus on their music. And that's their extracurricular activity. That's what they do. They go home, and they'll practice that music and, but, you know, for rural students ... you're doing everything. I'll be competing at the knowledge bowl, and then the next day, I'll be working on trucks at my job, and I'll be with sheep at the house, and then I'll go play a football game. And it's just...you're kind of you're learning many different things, and many different things about yourself.

This challenge with time management and expectations, whether from internal or external sources, is another common refrain coming from the recent graduates of the rural school. As was the participation opportunities provided to students – particularly when it allowed for connecting to non-rural populations. Heather saw the immediate benefit of active participation in her own education about the American political system and her own political leanings.

So, the one thing that sticks out to me is that we had a lot of opportunities to go to Denver, and we got to meet a lot of (political) representatives...and in a big school I wouldn't have been one of the people who got to experience that. So, I'm very thankful that I got to go and talk to representatives and learn more about them, and that's really helped me decide where I stand politically.

A related component of this need to participate in a small school centers on the close interactions found between participating and being a part of the school community and the graduate's long-term perceptions of their own experience. Sarah commended that she did not think she would miss any aspect of high school, but there is a feeling of loss regarding the opportunities to interact with friends and other students within the school environment. As she stated, "(a)fter high school, everything changes a lot more than you think." This need to shift away from the structure and timetables associated with high school, and the required participation in various extracurricular activities, led her to realize that once you graduate high school "you're kind of dependent on yourself now."

Discussion

The findings associated with this study highlight both the positive and challenging components of attending and completing high school in a small, remote, location. Through the perspectives of six graduates of a rural high school, specific common experiences can be identified and analyzed. The implications of their experiences connect to the structure, approach, and positioning of the rural school as a center of a small community. As in many rural locations, much of the town's

social and municipal interactions take place within the walls of the school as it provides a common, public space where groups can meet on a regular basis.

This recognition of the school as the centerpiece of the community was mentioned in passing by several rural school alumnae, but it was not a focal point of any specific conversation. The presence and place of the school as a community focal point was an assumed construct by most interview subjects, something that does continue to distinguish the rural school from other similar institutions in both the urban and suburban locations (Mitchell, 2024). This pattern of limited perspective about the unique characteristics of the school also appeared in other discussions, particularly about school climate and culture and the unique student experience based on the school structure and environment.

It was also clear from the multiple conversations with participants that the school leadership has embraced providing student autonomy in many aspects of their school experience while meeting state and federal government public education directives. The mention of students actively engaged in career preparation, particularly in the medical field, aligns with this approach that centers on post-secondary workforce development and preparation. This element was introduced and developed by the school and district leadership, and was clearly seen as a benefit for the students that have graduated from the school. Through the examination of post-high school student outcomes, it is apparent that this focus on post-high school career and college preparation was beneficial as all interviewed former students were either enrolled in institutions of higher education, or pursuing career fields that they were exposed to during this high school experience.

Implications and suggestions for future research

The experiences of six graduates of a small, remote school in the western United States may appear to provide insight into a unique learning environment that only impacts a handful of students every year. Yet, when placed under additional scrutiny, there are commonalities between the small, rural student experience and those in larger schools. For example, nearly all respondents mentioned the challenge of time management and the pressures placed upon them (by themselves or others) to be highly involved in school activities and events. This pressure is also felt among high-performing students in urban and suburban locations (Galloway & Conner, 2015), as young people today are continually challenged with being “connected” through technology 24 hours per day (Haug et al., 2015).

There is also overlap between the goals of these rural students and their peers in the cities and the suburbs. As seen through numerous conversations, rural students desire a robust school experience with challenging academics, opportunities to follow individual interests, and make a positive contribution in their school or community. This is not uncommon from the wishes of other students around the world in non-rural locations where the goal of obtaining a strong secondary education that prepares them for life and career success (Waite & Sims, 2024). This desire to squeeze as much out of the high school experience is worthy of note, and a valid direction of future research on the topic of rural school experiences. Additional focus on the factors driving rural high school expectations in terms of post-secondary opportunities will most certainly yield interesting answers, particularly from students that attend more remote schools.

Building upon this study, it would be worthwhile to revisit these rural high school graduates and, once again, check-in about their perceptions of high school and the knowledge they gained by attending a small, remote school. Insight from these graduates at the five-, ten-, and twenty-year marks post-graduation would provide additional insight into the long-term impact of their high school experience (if any) and how their lives were, at least partially, influenced by the decisions made while they attended a rural high school. Fortunately, all contact information (i.e. cell phone numbers) remains available for future studies and the utilization of internet-based social media does not exclude this opportunity for future research.

Another area of anticipated future research centers on the role of administrators within these very small schools. Much like the dearth of research related to student experiences in small, rural schools, there is also very limited completed scholarship on the role of the school and district administrators in these types of schools. It is hoped that this contribution on the student perspective will encourage future work in this area as the roles, experiences, and perspectives of these leaders is most certainly worthy of additional scholarship.

Conclusion

The opportunity to interview more than 65% of all high school graduates from a school through a qualitative lens is rare. What is not rare, however, is the number of rural schools found throughout the world. The students that attend these schools continue to learn, grow, and develop into adults that provide a multitude of positive contributions back to their local communities. Trying to understand the role their high school experience played in this process is worthy of study and this initial attempt at examining student outcomes from one small, remote school provided the opportunity. While no school is perfect, there are identified benefits from the graduates of this school based on school size. Understanding the long-term impact of their high school experience is the next step in this research sequence.

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