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A Bioecological Systems View of School Experiences of High-Ability Students From Rural India

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Abstract

Using Bronfenbrenner's bioecological systems theory, this study investigated the school experiences of nine high-ability students from three secondary schools in rural Western India. Analyses of semi-structured interviews revealed several interconnected systems of influences on the school experiences of participants. Intrapersonal aspects such as positive academic self-perceptions, constant pursuit for academic excellence, and mixed feelings about being formally identified as gifted directly affected school experiences. In the participants' immediate environment, school aspects such as teacher-student relationships, teaching methods, and curricular content had the most prominent influence on their school experiences. Interactions between family and the school systems had direct and mixed influences on participants' school experiences. Besides the adversities of rural education, participants emphasized the unique strengths of rural settings in India including the role of extended families, strong rural attachment, and positive relationships with school, teachers, and community that positively contributed to their school experiences. Implications for rural gifted education in India are discussed.

Keywords: intellectual giftedness, rural education, India, Bioecological systems theory

A Bioecological Systems View of School Experiences of High-Ability Students From Rural India

Approximately 3.4 billion (45%) of the world's population lives in rural areas (U. N. Department of Economic and Social Affairs, 2018). Schools, students, and school experiences in rural settings can be qualitatively and quantitatively different from their urban counterparts (Kettler et al., 2016; Plucker, 2013). A deep attachment to the place and value of family, tradition, and religion makes rural contexts unique, and therefore, worth special attention in gifted education (Richards & Stambaugh, 2015). Although the literature on rural gifted education is fragmented and inconclusive (Kettler et al., 2016; Lawrence, 2009; Rasheed, 2020); common themes emerge globally across the literature. There are plenty of challenges in rural gifted education, including geographical remoteness, limited resource support, lack of adequate teacher preparation, accusations of the elitism of exclusive programs for children with high ability, and lack of sizeable talent pool (Azano, 2014; Colangelo, 2001; Colangelo et al., 2003; Lawrence, 2009; Lynn & Glynn, 2019; Puryear & Kettler, 2017; Rasheed, 2020; Showalter et al., 2019).

Poverty, culturally unresponsive identification practices, lack of equitable access to gifted identification, rural provincialism, lesser expenditure per student, and challenges in recruiting and retaining qualified teachers impede talent development in rural schools (Gentry et al., 2019; Kettler et al., 2015; Plucker, 2013). Compared to their urban counterparts, high-ability youth from rural settings tend to have fewer opportunities for gifted education services (Puryear & Kettler, 2017). This reality is further influenced by proximity to urban areas. Students from remote rural locations have even fewer opportunities for gifted education services compared to fringe rural settings that are closer to cities (Puryear & Kettler, 2017). These challenges likely influence rural high-ability students' school experiences. Without appropriate support and

opportunities from educators and family, many children with high ability may never reach their full potential (Olszewski-Kubilius & Clarenbach, 2012; Robinson et al., 2007; Stambaugh & Wood, 2015; Tomlinson et al., 2004).

School experiences of students in rural settings are a complex interplay of multiple proximal processes unique to the cultural, economic, educational, and social contexts of rurality. Bronfenbrenner and Morris (1998) coined the term proximal processes to denote progressively more complex interactions between the person and people (e.g., teachers & peers), objects (e.g., books & devices), or symbols in the immediate environment occurring fairly regularly over a large time. Examples of proximal processes relevant to this study include students' interactions with their peers at school, students' interactions with their teachers in their classrooms, caregivers' interactions with their children as they progress through school, and students' engagement in homework assignments given at school. In addition to proximal processes, Bronfenbrenner's bioecological systems theory (BEST; Bronfenbrenner, 1977, 1992, 1994, 1995, 1999; Bronfenbrenner & Morris; 1998) emphasizes three additional core elements of human development: person, context, and time, which are explained later in this article.

BEST provides the most suitable framework for researchers in gifted education to deeply investigate issues such as school experiences, which are an outcome of process-person-context-time interactions (Crawford et al., 2020). Few researchers have studied the school experiences of rural high-ability students (Colangelo et al., 2003; Stambaugh & Wood, 2015). This study aims to fill this literature gap and present a bioecological systems view of rural high-ability students' school experiences. Knowledge gained from a systemic inquiry into school experiences of rural youth in India can further help educators and researchers transfer findings to similar rural settings beyond India. Moreover, evidence generated through this study can help policymakers in

similar rural settings to make informed decisions about enhancing school experiences of high-ability youth and making rural schools supportive of talent development. Furthermore, qualitative research often excludes youth participants on logistical, ethical, or developmental concerns, denying them the opportunity to participate in and benefit from research, and to describe their lived experience (Schelbe et al., 2015). This study, therefore, also aims to accentuate the voices of rural youth in gifted education research by directly involving students as research participants.

Theoretical Perspective

A bioecological systems theory perspective supports an analytical method to understand phenomena from a holistic approach by viewing an individual or a group as part of their ecosystem and by studying their interactions with environmental aspects that affect each other (Bronfenbrenner, 1977, 1992, 1994, 1995, 1999; Bronfenbrenner & Morris; 1998). Changes in one component of a system are likely to influence other components. The use of a systems approach in gifted education is not new (e.g., Crawford et al., 2020; Csikszentmihalyi, 1998; Dai, 2009; Ziegler, 2005; Ziegler & Philipson, 2012); yet is rarely used (Zielger & Stoeger, 2017). Scholars argue that non-systemic approaches to child development, and by extension to gifted education, provide a limited framework (Crawford et al., 2020; Subotnik et al., 2019; Ziegler, 2005; Ziegler et al., 2013; Ziegler & Stoeger, 2017). To that end, systemic frameworks allow researchers to examine the holistic nature of an individual's experience in the context of various interconnected components of a system. Interactions between multiple settings such as family, school, community, and social-legal-economic systems play a critical role in shaping the experiences of students in rural schools. Therefore, a nested systemic framework such as Bronfenbrenner's BEST that accounts for the interconnectedness of various settings is well

suited to examine the complex sources of school experiences of high-ability youth in the context of rural settings.

Bronfenbrenner's BEST presents a view of child development within the context of a nested arrangement of structures, each contained within the next. First, the *developing person*, in this study a rural high-ability adolescent, is at the center of the systems and their personal characteristics may influence their development. For example, students formally identified as gifted may have higher academic self-perceptions (Ritchotte et al., 2016). The second layer or a *microsystem* is the complex of relations between the individual and the direct and immediate setting containing that individual. This includes school, caregivers, and peers in direct contact with the child within a particular time (e.g., middle school) and place (e.g., rural). For instance, teacher beliefs about high-ability youth can influence student-teacher relationships (Grantham & Ford, 2003). Third, a *mesosystem* is the system of microsystems comprised of interrelations among several vital settings containing the individual at a particular time. For a school student, this includes interactions between teachers or school and family. For example, lack of education among parents can affect their awareness and the ability to directly support their high-ability children's educational needs (e.g., Cross & Burney, 2005), particularly in rural settings (Colangelo, 2003; Silverman, 2012).

Next, an *exosystem* consists of social structures that do not contain the individual but have an influence on that individual's immediate setting. For rural youth, these structures include means of transportation, internet connectivity in the region, healthcare services, neighborhood, and parental economic systems. More importantly, a broader educational system consisting of various levels of government agencies (i.e., local, state, and national) often has a direct influence on what happens at school, and, thus, is included in the individual's exosystem. For example, the

government expenditure is related to household expenditure on education in rural India (e.g., Rao, 2014; Tilak, 2002). Further, a *macrosystem* concerns the overarching patterns of culture—social, economic, political, educational, historical, and legal systems encompassing the inner micro-, meso-, and exo- systems of an individual. For high-ability youth from rural settings, this system includes societal views about giftedness and legal mandates and educational provisions for rural education and gifted education services. The priority high-ability youth are given in educational policies can determine how they are treated at school and how these individuals perceive school. Finally, *chronosystem* refers to the changing aspects of the developing individual and their environment over time, such as changing educational policies of the region. For example, India's New Education Policy (Ministry of Education, 2020) has recently introduced gifted education for the first time, which may influence school experiences of high-ability youth in rural India in the future.

School Experiences of High-Ability Students

High-ability students across settings generally have positive school experiences, may achieve easy success in examinations, and experience high self-efficacy for academic tasks; however, they are also more likely to experience boredom, decreased motivation, and frustration due to lack of academic challenge and undifferentiated teaching (Moon, 2009; Neihart et al., 2002). High-ability students have higher academic self-perceptions compared to their non-identified peers (Litster & Roberts, 2011; McCoach & Siegle, 2003; Ritchotte et al., 2016). In a student's microsystem a lack of academic challenge, school transitions, and peer relationships can negatively contribute to the school experiences of high-ability students (Peterson et al., 2009). Many educators tend not to modify curriculum and instruction to address the unique learning characteristics of high-ability students, which can have negative consequences on these

learners' education (Cooper, 2009; VanTassel-Baska, 2009). Further, high-ability students may have contradictory perceptions about their formal gifted labels as they experience both positive and negative consequences of that label, especially with their peers (Meadows & Neumann, 2017). Challenges related to the family can also negatively affect school experiences (Peterson et al., 2009). Although these experiences are not unique to rural settings, their consequences may be disproportionately worse for rural youth because of economic, geographical, and developmental challenges in the exosystem in rural settings (Azano, 2014; Howley et al., 2009; Lawrence, 2009; Plucker, 2013; Puryear & Kettler, 2017).

Definitions: Rural and Tribal

No one definition of rural exists (Kettler et al., 2016). According to the U.S. Census Bureau, the word *rural* is defined as all territory, persons, and housing units not defined as *urban* (Ratcliffe et al., 2016). Further, the definition of urban uses residential population density and land-use characteristics to identify densely developed territories as urban (Ratcliffe et al., 2016). The present study was conducted in rural India where rural areas are again defined as all areas other than urban (Office of the Registrar General and Census Commissioner [ORGCC], 2011). Further, any place that has a population of less than 5,000; has a population density below 400 per square kilometer (1036 per square mile); and where more than 25% of the male working population is engaged in agricultural pursuits, is defined as rural. However, rurality cannot be confined to a narrow definition of *not urban*. Rurality is an essence characterized by a deep attachment to the place and value of family, tradition, and religion (Richards & Stambaugh, 2015).

Tribal or *Indigenous* people are characterized in diverse ways. In India, the word *Adivasi* is defined under Article 366(25) of the Constitution of India to designate the Scheduled Tribes of

India. Per the report of the Lokur Committee (Department of Social Security, 1965), the essential characteristics of tribal communities in India include primitive traits, geographic isolation, distinct culture, shyness of contact with the community at large, and economic poverty. According to the Census of India (ORGCC, 2011), the tribal population of India is 104.3 million, constituting 8.6% of the total population. About 90% of tribal people live in rural areas. In other words, tribal communities are a subset of rural communities; and therefore, the properties of rurality also apply to tribal communities in India. The phrase tribal communities indicates ethnic affiliation, whereas the phrase rural communities highlights the locale. All the participants in this study were from rural locales, and five were also from tribal ethnicities.

Facilitating Rural Talent Development

Rural high-ability students deserve adequate talent development opportunities at school similar to their urban counterparts; however, they may face severe constraints on their talent development due to various aspects of their bioecological systems. At the microsystem level, high-ability youth from rural and low-income families require educational programs that provide advanced curricula and appropriate teaching methods (Olszewski-Kubilius & Clarenbach, 2012; VanTassel-Baska & Hubbard, 2016). Besides academic support, these programs also require time, resources, and personnel to provide social and emotional support for students (Robinson et al., 2007). Effective teachers for high-ability rural youth maintain high expectations for these students and understand how socio-cultural-economic aspects affect teaching-learning (Stambaugh, 2015). These teachers also ensure access to high-quality curriculum and teaching, excellent learning materials and activities, and an enriched learning environment (Moon, 2009; Rogers, 2007; Stambaugh, 2015; Tomlinson, 1994, 2014; Tomlinson & Kalbfleisch, 1998; VanTassel-Baska & Hubbard, 2016). Furthermore, these teachers focus on students' strengths

over their weaknesses or deficits and provide exploratory, enriching, and accelerative services for high-ability students (Howley et al., 2009; Robinson et al., 2007).

Further related to the microsystem of high-ability youth, the development of communities of learners is important in creating supportive learning environments for rural high-ability students (VanTassel-Baska & Hubbard, 2016). Access to multicultural materials and resources, a curriculum that focuses on critical thinking and problem-solving skills, a range of options for project- and problem-based learning, and access to a wide range of educational opportunities beyond their schools and communities are critical provisions for rural talent development (Colangelo et al., 2006; Lewis & Hafer, 2007; VanTassel-Baska, 2013; VanTassel-Baska & Hubbard, 2016). When possible, providing engagement throughout the year, exposing students to people and opportunities outside of home communities, and taking advantage of digital technologies are highly recommended for the development of talents among rural youth (Lynn & Glynn, 2019).

In the mesosystem, parents play an important role in facilitating rural talent development (Aamidor, 2007; Colangelo, 2003; Colangelo et al., 2006; Cross & Burney, 2005). Parents' educational background can affect their ability to support their high-ability children's unique learning needs (Lovecky, 1992; Probst & Piechowski, 2012; Provasnik et al., 2007; Silverman & Golon, 2008). In the past, parents in rural settings have been reported to have lower educational expectations for their children than parents in urban and suburban areas (Provasnik et al., 2007); however, more recent research indicates that parents in rural areas do hold high expectations for their children (Griffin et al., 2011). Further, several aspects in the exosystem such as geographic isolation, scarcity of resources, and myriad other challenges may impede rural talent

development (Azano, 2014; Howley et al., 2009; Lawrence, 2009; Plucker, 2013; Puryear & Kettler, 2017).

Context: Status of India's High-Ability Students

Context is one of the four core elements of BEST. As many as 66% (880 million) of Indians reside in rural regions (Department of Economic & Social Affairs, 2018). Due to its massive population, India is one of the world's largest talent pools with an estimate of over 50 million high-ability youth. A rough estimate of the number of high-ability children in rural India's secondary schools (grades 6 to 12) is 8.6 million given the secondary school enrollment (132 million), national rural proportion (66%), and a broad definition of high-ability youth (i.e, top 10% of any ability domain; Gagné, 2004). Students in the rural regions of India struggle with the challenges of poverty and access to resources (ASER Centre, 2019). The goal of achieving basic standards of quality education for all Indian students remains far from fulfilled because of limited resources and poor implementation mechanisms (ASER Centre, 2019; Bhattacharjea et al., 2011). Because of such strong influences in the outer systems of high-ability youth in rural India, providing these rural youth an appropriately challenging education has remained a low-priority area in terms of research and service provisions (Kurup & Roy, 2016; Roy, 2017). Although the roots of giftedness and gifted education have existed in India since ancient times (Raina & Shrivastava, 2000), skeptics view gifted education as an elitist idea. These areas form the macrosystemic influences on the education of high-ability youth in India. In such a scenario characterized by the lack of gifted education policy, services for high-ability students, and teacher preparation mechanisms, the prospects for India's high-ability children are dismal (Kurup & Maithreyi, 2012; Kurup & Roy, 2016; Raina & Shrivastava, 2000; Roy, 2017). Moreover, the adversities of rural life exacerbate the situation significantly by curtailing many

opportunities for the advanced development of rural talent. This reality exists across the globe in rural gifted education (e.g., Gentry et al., 2019; Kettler et al., 2015; Lawrence, 2009).

Despite the large number of learners, systemic efforts to alleviate the poor state of education for India's high-ability students have been sparse. Jawahar Navodaya Vidyalaya (JNV) is one exemplary government initiative that aims to raise talent in rural secondary schools. JNV is a network of more than 590 secondary schools spread across India and enrolling about 1.2 million rural and tribal high-ability students. However, these efforts have not been replicated beyond the JNV network, leaving out about 7.4 million secondary high-ability students from India's rural and tribal schools. To this end, school experiences of high-ability children in rural India are understudied, and therefore, studies focusing on high-ability Indian students' lived school experiences present a key area of focus for policymaking and school practices.

The Present Study

Given the dismal status of talent development in India's rural schools, the goal of this study was to investigate school experiences of high-ability students from rural settings using Bronfenbrenner's bioecological systems theory as the interpretive framework. Specifically, school experiences were studied with a focus on the participant and on participants' micro-, meso-, exo-, and macrosystems. Interpretive frameworks in qualitative research are particularly appropriate to understand the meanings and perspectives of participants (Creswell & Poth, 2017), especially for research conducted with youth (Schelbe et al., 2015). A Google Scholar search using India, gifted/talented, rural/tribal, and school/education as keywords produced no empirical studies published in peer-reviewed journals. Therefore, this study adds to the limited literature concerning high-ability, rural Indian youth. Also, findings from this study may be transferred to

similar settings elsewhere and could help policymakers make better-informed decisions about rural gifted education.

Research Questions

The following research questions guided my inquiry:

1. How do participants perceive their school experiences?

2. What are the aspects within the participants' bioecological systems that influence their school experiences, and how do these aspects interrelate with each other?

Method

Participants

Nine students (five boys, four girls), aged 12 to 16, from three government-aided but privately-run secondary schools in rural settings participated in this study. Participants came from families having low income and limited educational attainment. The families were involved in farming and farming-related vocations. Table 1 includes demographic information of the participants. Before this study began, Mensa India had previously identified 37 students as intellectually gifted from the three participating schools using universal screening, based on their scores at or above the 95th percentile on the Nafde's Non-Verbal Test of Intelligence (NVTI; Nafde, 1961). These 37 students responded to an 80-item, researcher-made, multiple-choice-multiple-selection questionnaire concerning their school experiences. Based on their responses to the questionnaire and among those who were willing to be interviewed, I sampled nine students using the maximum variation purposive sampling strategy (Patton, 2015). Efforts were made to maximize representation from different categories of gender, grades (6-10), school types (tribal/non-tribal), and school proximity to an urban center (fringe/distant/remote) so that the

sample allows for examining common patterns that cut across heterogenous participants (Palinkas et al., 2015; Patton, 2015).

Table 1

Demographic Information of Participants

Pseudonym	Gender	Age	Grade	School type	School location[a]	Father's education (years)	Mother's education (years)
School 1							
Vivek	Male	12	7	Non-Tribal	Fringe	12	12
Shashi	Male	14	9	Non-Tribal	Fringe	15	10
Sneha	Female	15	9	Non-Tribal	Fringe	10	8
Akshay	Male	16	10	Non-Tribal	Fringe	4	3
School 2							
Geeta	Female	12	6	Tribal	Distant	3	0
Vijay	Male	12	6	Tribal	Distant	10	4
School 3							
Manju	Female	12	6	Tribal	Remote	12	7
Nitish	Male	15	9	Tribal	Remote	10	4
Priya	Female	16	10	Tribal	Remote	10	0

Note.

[a]School location categories are in relation to their proximity to the nearest urban centers.

Setting

The participants' schools were located in three different rural locales (i.e., fringe, distant, & remote) in a Western state in India. The participants received education in their native language, Marathi, and they studied with their peers in undifferentiated general education classes. The school enrollment ranged from 300 to 400 each. The schools were run by non-government, non-profit organizations and partially funded by the state government. Typically,

these schools enrolled students from families with low income. These schools are known to usually offer more enriched schooling compared to other public schools in the region.

The first school was located in a small village in the plains, 7 miles from the nearest city. The school enrolled students from nearby rural communities. The school was renowned in the area for its focus on agricultural and technical education in addition to the regular state-mandated curriculum. The second school was a residential tribal school and was located along a state highway, 19 miles from the nearest city. The third school was located in a small, remote village in the mountains, 15 miles from the nearest highway, and 34 miles from the nearest city. This school lacked easy access to transportation and communication.

Instruments

Nafde's NVTI

Prior to this study, Mensa India had used NVTI (Nafde, 1961) in the gifted identification process at the three sites mentioned above. NVTI is a standardized test that was designed as a non-verbal test specifically for use in a multilingual Indian society and has been recognized by the National Supervisory Psychologists in Mensa India. Split-half reliabilities of NVTI range from .89 to .94. Test-retest reliabilities were reported to have been calculated on four groups in the intervals of one day, one week, two weeks, and three months and as ranging from .74 to .88. Internal consistency estimates (Kuder-Richardson formula 20) of reliability ranged from .88 to .96. The test authors reported correlations between the NVTI and other verbal and non-verbal tests of intelligence including Raven's Standard Progressive Matrices and Differential Aptitude Test battery ranging from .71 to .88 to establish criterion validity. Mensa India revised the norms in 2009 on 2,500 students from a rural and urban sample and found them to be consistent with the original norms. NVTI was administered in a group format. The non-verbal nature of the test,

although to a limited extent, may have served the purpose of reducing the cultural/linguistic characteristics often introduced in using a verbal test with culturally and linguistically diverse populations (McCallum, 2017).

Interview Protocol

The semi-structured interview protocol designed for this study (see Appendix) was based on the characteristics of intellectual giftedness (Silverman, 1993a). For example, in one of the questions the participants responded to how they felt about their textbooks' difficulty, because high-ability students are characterized as rapid learners (Silverman, 1993a). Similarly, other questions probed perceived difficulty and levels of engagement with regard to teaching methods, homework assignments, and various assessments conducted at the school. Additionally, the protocol elicited perceptions about the school, teachers, curriculum, and various curricular and extracurricular activities at school. Throughout, participants were asked what changes they would like to see in their schools regarding the abovementioned aspects. The interview protocol was developed in consultation with the head of the Tribal Mensa Nurturing Program, who is an expert in rural and tribal gifted education with a doctorate and has spent 18 years at these research sites.

Data Collection and Analysis Procedures

After obtaining school permissions (principal consent and participant assent) and completing an initial round of rapport building with the school administration, teachers, and students, I conducted the student interviews on the next visit. Participants in School 1 were interviewed on March 23, 2015, and in School 2 and School 3 on March 24, 2015. We conversed in Marathi, which is our native language. Semi-structured interviews lasted for about 30 minutes each. To maintain the natural flow of the interviews and reciprocal interaction with participants

(Schelbe et al., 2015), the sequence of the questions in the protocol remained flexible. Interviews ended when the data started to saturate among the participants and no new points were being presented, or when the participants had nothing more to add.

The interviews were audio-recorded and transcribed verbatim. After reading the transcripts multiple times and documenting my initial thoughts about the data in memos, I inductively analyzed the data following the guidelines by Strauss and Corbin (1990), Saldaña (2015), and Thomas (2006). Data analysis began with open coding (Saldaña, 2015; Strauss & Corbin, 1990) using NVivo 12 software to identify initial categories of information from data. Next, I used the constant comparison method (Charmaz, 2006) to organize open codes into several categories and properties depicting participants' multiple perspectives about the identified categories. I maintained analytical and self-reflective memos (Saldaña, 2015) during this process to document my thoughts about the data analysis by describing the participants' responses and major patterns.

During the second round of coding, I condensed open codes to develop axial codes (Saldaña, 2015). Axial coding is the process of interconnecting and reorganizing the categories in a meaningful way (Strauss & Corbin, 1990). This led to the development of the central phenomenon of *school experiences* and the related data categories in different causal and contextual aspects around it. These categories included *intrapersonal* aspects, *people* aspects, *rural setting*-related aspects, and *academic* aspects. I then developed an operational model diagram (Saldaña, 2015) to represent the information from this coding phase into a visual coding paradigm that presented the most salient aspects of *school experiences*. Further, using Bronfenbrenner's BEST, I condensed and reorganized categories identified in the previous round into bioecological systems. Finally, I organized the categories further to delineate the six themes

that described school experiences and five themes that described the causal and contextual influences on those school experiences. Table 2 presents an illustrative coding table for the themes of the rural setting and career aspirations.

Table 2

An Illustrative Coding Table for Select Themes

Illustrative Quote	Open Code
Theme: Rural Setting	
"There are no doctors in this region, no hospitals. Mobile doctors are available, but they can't provide proper treatments. So, villagers have no choice but to travel to the nearest town. And don't even ask what if there are emergencies." (Priya, p. 7)	Lack of medical facilities
"This whole region suffers from water scarcity because the electric motor frequently stops working. Water supply stops every now and then." (Nitish, p. 8)	Water scarcity
"My region is extremely poor. . . . The village council is corrupt. The councilors abuse the power." (Nitish, p. 9)	Rural poverty
"I neglected mathematics studies in fifth to seventh grades. . . . Maybe, because I never received any guidance from anyone. . . . My father was uneducated. He studied school only until the third or fourth grades. And I used to work on his farm. Sometimes, I would miss school for this." (Akshay, p. 4)	Lack of education among parents
"My father works a farm laborer. He works for my uncle. I also work on the farm [with my father]. . . . He shouldn't have to work on the farm." (Vijay, p. 23)	Family poverty
Theme: Career Aspirations	
"I want to be an Engineer because all the houses in my village are earthen. They collapse after a heavy rainfall." (Priya, p. 1)	Want to help my village
"Imagine people in the village. If they want to undergo a big surgery, then they cannot afford it. If I become a doctor, then I can lower their bills. That is what is on my mind." (Manju, p. 1)	Want to help my villagers
"I want to be a lawyer. And I want to bring developments to my village." (Vijay, p. 2)	Want to bring developments to my village
"Our school doesn't tell us much about careers. We get some information only when we reach the tenth grade. Had we gotten the career information earlier [than tenth grade], we would have studied hard accordingly." (Priya, p. 12)	Lack of career education at school

Trustworthiness

Various measures enhanced the trustworthiness of this study. According to Lincoln and Guba (1985), credibility, transferability, dependability, and confirmability define the criteria for judging the soundness of qualitative research. Credibility concerns the aspect of truth-value. I spent sufficient time familiarizing myself with the setting and context of the study and interacted with students, teachers, and principals before the data collection to build trust. Further, I developed the interview protocol in consultation with an established researcher with significant experience with all three research sites.

Culturally relevant research practices should be adopted while conducting rural and Indigenous research (Berryman et al., 2013; Kovach, 2009). To enhance the cultural relevance of the data collection process, I conducted interviews in Marathi, which is the native language of my participants and me. This ensured that the participants understood the questions well and had the opportunity to respond in their native language. To further enhance the trustworthiness of the data collected, I frequently asked my participants follow-up questions and maintained reciprocal interactions to ensure the accuracy of my understanding of their responses, and I encouraged the participants to support their responses with illustrative examples. Further, I conducted the data analysis in the native language and translated the illustrative quotes for English readers. A doctoral student of qualitative research methodology studying at a U.S. university verified the accuracy of the translated quotes.

Transferability concerns the extent to which the results of a study can be applied to other contexts or settings. To enhance the transferability of the results of this study, the research setting and participants have been described at moderate length. This will help readers to make sound judgments about the extent to which the results of this study could be transferred to a

different context. Dependability and confirmability concern consistency and transparency of various aspects of the research study. To this end, I have transparently described the research steps and have presented the participants' voices. Moreover, maintaining an audit trail throughout the study and writing several analytical and reflective memos to document my thoughts about the data and changes in the coding (Saldaña, 2015) have enhanced the trustworthiness. To further improve the reflexivity of the study (Kovach, 2009; Kovach et al., 2013), I have presented a researcher positionality statement below. I have also presented a thick description along with discrepant information to enhance the trustworthiness of the study.

Researcher Positionality

The primary instrument of a qualitative-interpretive study is the researcher. It is, therefore, critical to acknowledge the researcher's positionality to the reader (Chilisa, 2012; Kovach et al., 2013; Kwame, 2017). I was a first-generation doctoral candidate from an economically middle-class, urban, Marathi-speaking family in India. I completed secondary schooling in India in a school for youth with high ability, which provided me plenty of challenging and differentiated curricular and pedagogical experiences. My childhood school experiences were largely positive, and that developed a strong urge that all children, especially those from rural areas, deserve similar experiences commensurate to their advanced potential. I have previously worked with numerous rural and tribal children as an educator for 13 years, and in my previous work, I interacted with one of the three participating schools in this study. Although I identify as an urban person, previous work experience in the rural and tribal settings provided the required foundation for me to approach this study. However, despite several similarities in language and culture between the participants and me, I acknowledge that there might be notable differences in our life experiences, financial backgrounds, and school

experiences. To this effect, intentional efforts have been made to enhance reflexivity during the research (Chilisa, 2012; Kovach et al., 2013; Kwame, 2017).

Results

Research Question 1: How Do Participants Perceive Their School Experiences?

Participants' school experiences tended to be positive yet also indicative of their aspirations for better quality education. Participants' experiences were composed of (a) positive academic self-perceptions, (b) a strong pursuit of academic excellence, (c) positive teacher-student relationships, (d) lack of engaging teaching methods, (e) demands for advanced curricular challenges and extended learning opportunities, and (f) high career aspirations. These experiences also indicated the most salient proximal processes of participants' school experiences. These include participants' interactions with their teachers and peers at school, with parents and/or extended families at home, and with curricular material and homework assignments given at school.

Academic Self-Perceptions

Participants, in general, had positive perceptions of their academic abilities. For example, they described themselves as "quick learners," "imaginative," "creative," "confident," "curious," and "fast readers." They also described themselves as having "multiple interests," "strong memory," and "leadership skills." These descriptors often appeared in their narrations of academic experiences such as taking tests, asking questions, and other classroom interactions. Illustrating his academic self-efficacy, Akshay noted, "I am sure I will score between 85 to 95 percentage. . . . I know that for a fact. . . . In fact, I might even get a full score in some subjects. . . . Maybe, in algebra and geometry." To that end, most participants were academic high-achievers and often top-rankers among their peers.

Although everyone shared positive remarks about their academic self-perceptions, two participants considered themselves as less intelligent than their peers because their academic performance was comparatively lower than peers. Equating intelligence to academic success, Sneha mentioned, “I mean, there are many intelligent girls in my class. . . . [I think so] because they score very high percentages [on tests].”

The pursuit of Academic Excellence

Academic excellence mattered to all the participants. They, in general, had positive perceptions about their academic learning, both concerning academic self-efficacy and motivation in learning. They enjoyed studying and found their academics to be of low to moderate difficulty. However, they experienced boredom when teachers expected repeated or easy work from them. Although the participants did not experience the school’s summative assessments to be challenging, they varied in their reports of preparing for those assessments. Some of them found little, if any, need to prepare extensively before the tests. For example, Nitish said, “I don’t fear exams too much. . . . I anyways secure a rank in the top three.” Others tended to make rigorous efforts for learning. Geeta noted, “I prepare a lot before the exam. . . . I try very hard but all I can manage is the second rank.” Although some participants were driven by mastery goals to achieve excellence and some others were driven by performance goals to secure a top rank for reasons such as peer pressure or to satisfy parental expectations, everyone reported the urge to score a top rank, if not the topmost rank, in their class.

Teacher-Student Relationships

In general, participants shared positive relationships with their teachers. Particularly, they preferred teachers who were warm and involved, taught joyfully, and understood them. Manju said, “Our teachers are considerate. They allow us to make mistakes.” Participants liked teachers

who engaged with them beyond the regular classroom interactions. Illustrating her free time engagement, Sneha said, “I learned writing poetry from one of our teachers. He used to share his poems during our free time.” Akshay, who lives in the school dorm said,

> A teacher stays back after the school gets over. . . He often visits [the dorm] on Sundays. . . . I am lucky that I get to meet him during extra hours. . . Without that, I do not think I would have gotten the opportunity to develop higher-order thinking type problems, and I would have settled in the average [learning] range.

Overall, participants expected their teachers to be understanding, pleasant, and approachable. Shashi said, “Teachers should meet us outside the school; preach us a few good things. . . . A student should feel compelled to approach this kind of a teacher for advice instead of going to someone else.” However, they disliked the teachers who treated students or supporting staff unfairly or used harsh words while teaching. Vijay said, “It hurts when the teacher insults the supporting staff. I feel pained because the mess staff works very hard for us.”

Teaching Methods

When asked to describe the teaching practices at school, participants reported that non-traditional teaching methods such as the use of humor and an emphasis on higher-order thinking skills over chalk-and-talk methods helped them learn better. Participants expected their teachers to answer their higher-order questions and preferred meaningful and non-repetitive homework.

Narrating her language teacher’s methods, Priya said, “We love learning poetry because the teacher composes excellent music for the poems [given in the textbook].” To that end, Manju wanted her “teachers to share funny things about the [complex] concepts or words.” She added, “That way, we will remember better.” Also, participants enjoyed classes with teachers who shared their personal stories or used a story-telling approach to teaching. Vijay enjoyed one of

his teachers' classes more than others' because his teacher ". . . narrates lessons like stories. I enjoy it a lot."

Five participants reported asking advanced questions in their classes. Their questions usually transcended the scope of the prescribed curriculum, and they preferred teachers who could answer these questions. At times, their teachers disappointed them by discouraging questions, and three participants did not appreciate that. Describing her frustration about this problem, Sneha said,

> I was eating breakfast when I noticed two vessels in front of me. I wondered why different vessels have different shapes. For a long time that day, I asked my teacher many questions regarding this. But he said—Sneha, do not ask those kinds of questions because I can't answer them. That time I felt no one answers me. . . . I mean my teachers teach well. But when we ask questions, they should try hard to find answers. . . . They shouldn't be annoyed. They should make an effort to understand us.

Two participants preferred not to ask higher-order questions to their teachers, and one kept a secret journal to compile these questions. Teachers did not adequately answer participants' higher-order questions, leaving them without any help. This teacher attitude negatively affected participants' school experiences.

Curricular Challenge and Advanced Learning Opportunities

Curricular challenge was another aspect of the school system that strongly contributed to participants' school experiences. Participants' perceptions of the state-mandated curriculum were largely positive. However, they described the limitations of their textbooks and demanded a higher academic challenge and more opportunities for extended learning.

All participants expressed their disapproval of the textbooks being limited in scope and, at times, too easy. Shashi said, “I don't find any textbooks difficult. . . . I find them very easy. . . . [the] History textbook is too small. . . . It should be a lot bigger.” Participants unanimously expressed their desire for more challenging content. Manju expressed that her “textbook lessons should be longer and denser, and the questions asked in the exercises should be more challenging. . . . The exercises should require us to go beyond the textbook to find the answers.”

Although eight participants wanted their textbooks to have more and richer texts, their reasons varied. Geeta said, “If our textbooks were more challenging. . . . we would have known what's happening in the world.” On the other hand, Priya mentioned, “Had the textbooks been more challenging, it would have stimulated [my] studies. More challenge [automatically] means an increased need to prepare.” Despite the range of reasons, participants reported the ability and willingness to learn more challenging content.

All participants mentioned that they desired more opportunities to extend their learning, which they felt were currently missing. This is reflected in Priya's assertion, “I do not feel motivated to attempt easy questions. . . . It's more exciting to attempt difficult questions.” Two participants went beyond academics to express their desire to gain learning experiences that would benefit them in their future careers.

Four participants reported homework tasks were often memory-based or repetitive (rote learning-based). Those in middle school expressed relatively positive attitudes toward their homework assignments; however, high school participants expressed strong negative attitudes toward repetitive assignments. Illustrating her homework experience, Sneha said,

> We solve the same exercise questions in homework and essays. . . . I find it boring. I expect homework that is novel, [that] demands deeper thinking. . . . I hate repetitive work. . . . I don't feel like writing [homework assignments].

Further, participants reported interests in multiple and diverse fields. Although schools often offered many co-curricular opportunities to cater to participants' diverse interests, schools lacked training systems and opportunities for specialized interests such as music and dance. Also, participants complained about having limited, if any, access to computers and internet facilities.

Career Aspirations

School experiences entrenched in the adversities of rural life seemed to have an enabling effect on participants' career aspirations. The challenges they faced being in rural areas tended to positively shape their future career goals. The participants' diverse aspirations ranged from joining civil services to engineering, law, and fashion designing careers. Their future career goals stemmed from their lived experiences of scarcity and demonstrated a strong attachment to the rural place, resources, and people. Priya aspired to become a construction engineer because the houses in her tribal village easily succumbed to heavy rainfall in the mountains. To that end, Manju, another tribal girl said, "Imagine people in the village. If they want to undergo a big surgery, then they cannot afford it. If I become a doctor, then I can lower their bills. That is what is on my mind."

The larger social purpose stemming from rural attachment was among the major influences on participants' career aspirations; however, it is not clear if the participants thought these aspirations were attainable or if they had the required skills and opportunities to reach their aspirations. Priya, who was in her last year of school, narrated her feelings about the lack of

career education at her school, “Our school doesn’t tell us much about careers. We get some information only when we reach the tenth grade. Had we gotten the career information earlier [than tenth grade], we would have studied hard accordingly.” The interplay between career aspiration and rural context was notable.

RQ2: What Are the Aspects Within the Participants’ Bioecological Systems That Influence Their School Experiences? How Do These Aspects Interrelate With Each Other?

Several aspects of the participants’ bioecological systems seemed to influence the above-mentioned school experiences. The rural context of the schools and the surrounding rural culture seemed to have complex, at times, contradictory influences. Although the adversities of rurality presented numerous challenges for participants, the peculiar aspects of rural culture seemed to have a positive influence. Among other intervening aspects, formal gifted identification, the role of peers, and the role of the family including that of the role of relatives had the most salient influences on participants’ school experiences. None of these aspects could be completely separated from each other as they were often found to be interrelated. Therefore, in addition to presenting the separate themes, interrelations among them have been briefly specified.

Rural Setting

The rural setting of the participants provided a context to various aspects of their school experiences. Rurality presented participants with numerous educational and non-educational challenges. Poverty, remoteness, lack of medical facilities, frequent disruptions in power supply, and water scarcity were among the common challenges faced by participants in their villages. For example, on asking about the challenges of the region, Priya mentioned, “There are no doctors in this region, no hospitals. Mobile doctors are available, but they can’t provide proper

treatments. So, villagers have no choice but to travel to the nearest town. And don't even ask what if there are emergencies."

Speaking about the remoteness of her school, Priya said,

> Our village is too remote to reach. It's a tiny hamlet. One doctor Dr. [X] built this school here. This has benefitted numerous villages around here. Children can now stay closer to their families and attend the school. . . . If it was not for this school, we would have to travel far off to go to school.

Another pertinent challenge in rural schools was the scarcity of resources and facilities. Participants complained about having limited if any, access to computers and internet facilities. Narrating her experience with computer facilities at school, Priya said,

> We don't get to use computers very often. . . . We will have to join special computer training after we finish high school if they do not allow us to handle computers now. A little exposure now will be very helpful later during higher education.

Participants frequently mentioned having limited or no access to computer technology at school.

Also, participants faced many other challenges that influenced their school experiences. These include lack of education among parents, lack of academic guidance, and missing school in order to work to support their families. Akshay, who is now in high school, narrated his middle school experiences of missing school. He said,

> I neglected mathematics studies from fifth to seventh grades. . . . Maybe, because I never received any guidance from anyone. . . . My father was uneducated. He studied school only until the third or fourth grades. And I used to work on his farm. Sometimes, I would miss school for this.

Five participants left their native villages, which were smaller and remote, to attend their current schools either because these schools were well-known, had residential facilities, or were in proximity to their relatives. These five participants studied in school 1, which is in the plains and closer to an urban center. Three participants from school 3 (the remote school in the mountains) went to that school because it was available to them in their community, although it was very far and remote from the rest of the world. Eight of the nine participants mentioned not accessing any external academic support or attending additional coaching. Thus, it was evident that the participants faced multiple challenges due to the lack of modern development and education in their rural setting. The extent of adversities seemed greater for the participants in the remote rural school than for the participants in the distant and fringe rural schools. It was also evident that participants largely depended on their schools for academic learning. Despite severe challenges and shortcomings caused by scarcity, participants were grateful toward schools and teachers and held largely positive perceptions. The rural context also influenced the role of family and relatives in education and in shaping participants' career aspirations.

Rural Culture and Values

In addition to contextual aspects presented earlier, the rural culture appeared in conversations with participants. For example, Priya explained how she could approach her teachers at any time during the day because they all have been living in the same village for years. Priya said,

> I am in this school since the first grade. So, I know all the teachers from the beginning. All of them live here in this village. So, if some of my doubts are not cleared in the school, I go visit them at their homes and get my doubts solved. I bug my teachers here [in the school] as well as again at their homes (laughs).

Rural settings in India, especially fringe villages, can be tiny hamlets with small populations. This allowed the participants and their teachers to develop bonds beyond the school boundaries. To that end, Priya shared how her school's principal shares a familial relationship with her father. "And our principal tied *Rakhi* to my father, which means she is now my aunt. So, she invites me to her home and teaches me Marathi. She sings poems as she cooks in the kitchen." *Rakhi* is an Indian tradition where a woman or a girl ties an ornamental cotton wristband to her brothers and cousins, in her blood relation or outside. It signifies a sibling relationship. Priya's narration exemplified how rural Indian culture may transcend the school boundaries and influence students' school experiences.

The other side of this communal approach can result in school interference. On asking what disappointed him about the school, Shashi said, ". . . External interference by some people in the village. . . . I mean, when the people in the village come to school with something, it disturbs the [school] climate." The interplay between rural culture in India and the role of the family was notable.

Formal Gifted Identification

Formal gifted identification positively boosted participants' self-perceptions; however, for some participants, interactions with peers based on the gifted label resulted in negative school experiences, affecting their friendships and psychosocial wellbeing.

All the participants were formally identified as intellectually gifted by Mensa India and were enrolled in the Tribal Mensa Nurturing Program. The formal gifted identification positively affected self-perceptions among these participants. It seemed to reassure them of their high abilities. Sneha, who mentioned earlier feeling inferior to other top-ranking classmates, said,

> I am an average student in the class. But when I got to know about my selection in Mensa and that only two girls from my class of 20 had qualified, that time I realized that I am not dumb. If I have passed the Mensa test, it means I too have something in me. I am also capable of something [great]. And this time I have decided that I will compete with these [high-achieving] girls. And I will score very well.

Furthermore, the Mensa selection helped some participants to avoid distractions and focus on their studies. The Mensa selection and enrollment in the nurturing program helped the participants to recalibrate their focus and attention. For instance, Vijay said, "Earlier, my mind used to wander here and there when in class. . . . The [program facilitator] told that you have the potential to think of numerous questions [while in class]. Now I focus more on my studies." The participants seemed to feel more responsible for their academic performance after they were formally identified as gifted and had the opportunity to be in the gifted program.

At times, formal gifted identification also resulted in negative experiences concerning the label. Four participants reported challenges they faced with their peers because of some of their distinctive characteristics such as deep and rapid thinking. Geeta, the youngest tribal participant, shared her misery with tearful eyes. When asked about her friend circle, she paused, gathered herself, and said,

> I don't have many friends in my class. I don't make many friends. They [classmates] call me over-smart. . . . They call me names. . . . They despise me . . . because I study more [than them] and perform better [than them].

When probed further about her feeling about the school, she expressed her reluctance to attend the school. "I don't feel like going to the school," she said. Formal gifted identification thus seemed to influence participants' academic self-perceptions as well as peer interactions.

Role of Peers

Peer interactions at school had a strong influence on participants' school experiences. Some participants compared their learning opportunities in a mixed-ability classroom with the opportunities for their peers. Critiquing the common approach of "teaching to the middle," Akshay complained,

> The teachers focus on teaching for the average class profile; neither the smart students are taught well nor the slower ones. . . . Most students are average. So, the teachers focus on the average. Therefore, students who are at the top are also at loss; and those who are at the bottom are also at the loss. . . . I mean, teachers skip the higher-order type questions because they think most of the students will not be able to solve them.

Participants discussed various ways peers shaped their school experiences. At times, friends served as safe emotional places for these developing adolescents where they could share secrets "that could not be shared with [their] teachers and elders" (Akshay). Other times, participants indicated peer interactions can negatively affect school participation and socialization. Geeta experienced severe ostracism in school for being a high performer, and Sneha faced harsh remarks from her friends when, according to them, she had the habit of asking "too many questions." Vivek felt emotional while narrating his socialization experience at school as he said, "No one makes friends with me." Peer interactions contributed to participants' social-emotional experiences at school as well as their perceptions of curricular challenge and teaching methods.

Role of Family

Parental expectations and their support played important roles in shaping participants' school experiences. Participant responses suggested that although semi-literate, their parents held

high expectations from them and wanted them to continue pursuing education. Also, participants acknowledged their parents' hardships such as poverty, and believed that it was through good education that they could pay back their parents. However, participants often associated high parental expectations with top ranks in academics. This, at times, translated into intense academic pressure for high performance. Manju narrated her sense of burden as follows,

> If I don't score in the top three ranks, my parents will scold me a lot—We were repeatedly telling you to study. Why didn't you study? Now you will have to face the consequences. Your other classmates scored the top two-three ranks and yours dropped to fourth or fifth. The teachers will also say—Every year you score a rank in the top three. What happened to you this year? Why did your rank drop? . . . I feel burdened.

Although the parents held high expectations for these students, they could offer only minimal academic and financial support. For example, Sneha shared how her family reacted to her habit of asking questions. She said, "When teachers turn me down on asking questions, I approach my parents. But they too shut me up, admonishing me, saying things like—why do you always have to ask so many questions!" Interrelations among parental expectations, the scarcity of resources in rural settings, a sense of obligation toward family, and resulting career aspirations were evident.

Relatives. Relatives (extended family) played catalytic roles in supporting participants' education. It is common for students in rural India to move in with their relatives or an extended family to complete their education at a better school compared to the one available in their native village. Five participants lived with their relatives far from their family home. In these cases, participants' local relatives supported them by providing shelter, encouraging school success, providing academic guidance and learning materials, and creating safe emotional spaces for

personal sharing. Akshay said, “My father was uneducated. . . . Then my uncle brought me here and said—You should get a good education that stimulates your brain and make good progress. So, I studied under my uncle’s guidance.” For some, elder cousins served as career role models, showing future pathways to higher education.

Relatives, including cousins, uncles, and grandparents of participants, seemed to create a supportive ecosystem in their academic lives. Shashi, who attempted to run away from the school in his early days at the hostel, took shelter in his relatives’ home near the school in a village far away from his native village. Frustrated by severe ostracism from her peers, Geeta found strong support in her elder sister who studied at the same school. However, there were exceptions to this finding. Sneha narrated how her extended family members were not in favor of continuing her education. She said,

> I have huge parental expectations to fulfill. . . . You see, my family lives in poverty. So they expect me to do something about it. But some uncles oppose my education. . . . But I’m resolute, and I’m not going to stop.

Relatives, as a part of the culture in rural India, played a major role in many participants’ education and therefore, school experiences.

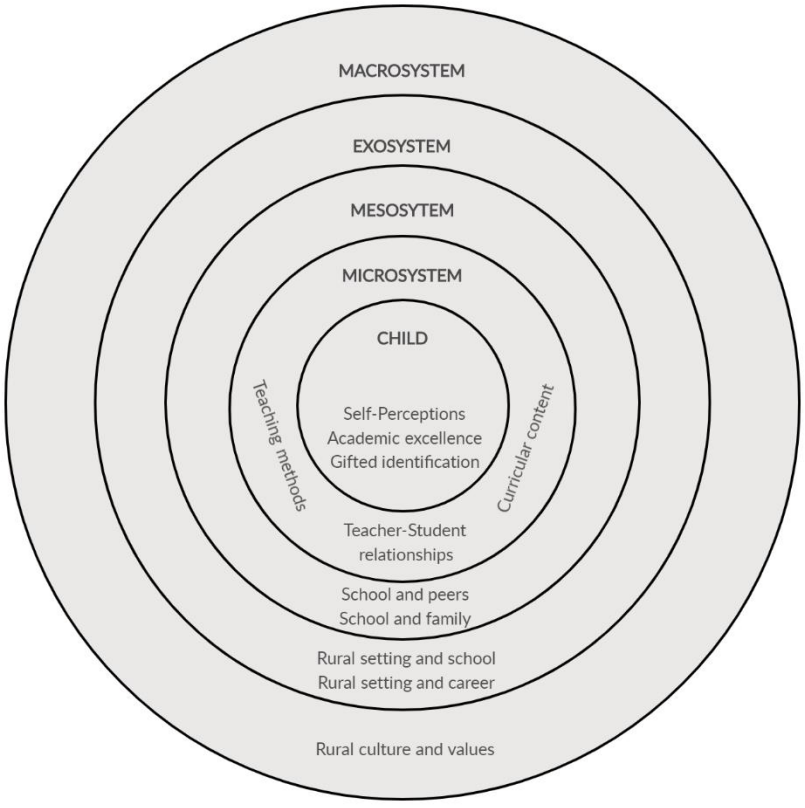
Discussion

This study examined the school experiences of high-ability students from rural India. The findings reveal that, in general, participants positively construed their school experiences but that there also were complex, at times contradictory, aspects of their experiences. Many of these findings overlap with previous studies conducted outside of India both within and outside of rural settings. The use of BEST in this study allowed an in-depth exploration of participants’ experiences in their broader context beyond the immediate scholastic setting (Crawford et al.,

2020). Consequently, several nested influences on the school experiences of the participants were uncovered. These layers reveal important and complex interactions between the rural high-ability students and their environment. The interconnectedness is perhaps the most salient finding of this study, implying that educators and policymakers will need concerted efforts to enhance school experiences of rural high-ability youth, targeting several aspects both within and beyond the students' immediate environment. The examination using BEST begins with the identification of individual aspects and finishes with thinking about the broader elements within the individual's outermost systems (Crawford et al., 2020). Therefore, based on the findings of this study, a bioecological systems view of school experiences of high-ability students in rural settings in India has been presented in Figure 1.

Figure 1

*A Bioecological Systems View of School Experiences of Rural High-ability Participant*s



Individual

The results indicate that intrapersonal aspects of high-ability adolescents can greatly influence their school experiences. Similar to what previous researchers found, participants in this study reported largely positive school experiences (Moon, 2009; Neihart et al., 2002), usually performed well at school (Lawrence, 2009; Rasheed, 2020), and experienced high academic self-perceptions (Litster & Roberts, 2011; McCoach & Siegle, 2003; Ritchotte et al., 2016). Despite largely positive academic self-perceptions, some participants experienced concerns over performing lower than their peers. Excellent academic performance mattered to most participants; however, a wide range of mastery and performance goals motivated them to perform well.

Results indicate that formal gifted identification positively and negatively affected participants' academic and social experiences at school. This finding confirms the results of previous studies. For example, Colangelo (2003) and Griffin and Wood (2015) found that formal labeling of rural high-ability youth leads to both positive and negative experiences. Colangelo (2003) also found that labeling can have a mixed influence on socialization at school, friendships, mental wellbeing, and liking for school, which is also reflected in the findings of this study.

Microsystem

In the participants' microsystem, school aspects such as teacher-student relationships, teaching methods, and curricular content had the most prominent influence on their school experiences. Positive teacher-student relationships positively influenced participants' school experiences. However, participants expressed a need for advanced curricula and teaching methods, which has been emphasized by various researchers in gifted education (Olszewski-

Kubilius & Clarenbach, 2012; VanTassel-Baska & Hubbard, 2016). Prior research has indicated that access to high-quality curriculum, excellent teaching-learning materials, and an enriched learning environment can positively influence school experiences of high-ability students everywhere (Moon, 2009; Rogers, 2007; Stambaugh, 2015; Tomlinson, 1994, 2014; Tomlinson & Kalbfleisch, 1998; VanTassel-Baska & Hubbard, 2016). As reported by the participants in this study, discouraging student inquiry in the classroom can harm high-ability students' learning motivation and relationship with teachers (Olszewski-Kubilius & Clarenbach, 2012; VanTassel-Baska & Hubbard, 2016). Conversely, curriculum and teaching methods that focus on inquiry, critical thinking, and problem-solving skills, and that provide a range of options for project- and problem-based learning, can effectively facilitate rural talent development (Colangelo et al., 2006; Lewis & Hafer, 2007; VanTassel-Baska, 2013; VanTassel-Baska & Hubbard, 2016). However, discouraging student inquiry is not unique to rural settings. In fact, this has been a common experience in many different settings (Olszewski-Kubilius & Clarenbach, 2012).

Participants stressed the lack of opportunities for inquiry-based learning. They also highlighted the repetitiveness of their homework assignments. Research on inquiry techniques including problem-based learning has shown that inquiry techniques are effective in developing content mastery, facilitating the transfer of learning, and fostering motivation (VanTassel-Baska, 2013). Similarly, the use of alternative assessments for learning that are advanced, open-ended, and focused on problem-solving is more effective (VanTassel-Baska, 2008; 2013). Therefore, based on the experiences of the participants in this study, the use of inquiry techniques, differentiated curriculum, and alternative assessments are suggested for teachers in rural India. Importantly, these methods are not limited to students with high ability and may support the learning needs of a wide range of students in a classroom within and beyond rural settings.

Mesosystem

Although peers represented a separate microsystem, interactions among participants, peers, and school formed a mesosystem that strongly affected the participant's school experiences. Participants reported that their learning needs were not fulfilled in a mixed-ability, undifferentiated classroom. Similar to the findings of this study, previous researchers (e.g., Lawrence, 2009; Moon, 2009; Neihart et al., 2002; Rasheed, 2020) have reported high-ability students' experiences of boredom, decreased motivation, and frustration with inadequately challenging curricular content and the use of rote learning methods. This study emphasized that participants noticed teachers were more focused on meeting the needs of their non-identified peers while their academic needs were not being met. This may not be unique to rural settings, as this has also been reported by high-ability students in other settings (Moon, 2009; Neihart et al., 2002). Apart from learning-related aspects, interactions between participants and their peers at school seemed to influence socialization and friendships at school, both positively and negatively. Some participants faced mild to severe ostracism from their peers (Heller, 2005; Peterson, 2009).

The findings of this study also suggest that interactions between parents and school can have a strong and mixed influence on school experiences of rural high-ability students. Participants experienced high parental expectations, but received only minimal academic support from their parents. Although prior research (Provasnik et al., 2007) indicated that rural parents may not always hold high educational expectations compared to their urban counterparts, this study confirms recent research that shows a change in that rural parents hold high academic expectations from their children (Griffin et al., 2011). However, 14 out of 18 parents in this study did not attend or complete high school. Researchers have reported that lack of education among

parents can affect their awareness and the ability to directly support their high-ability children's educational needs (Cross & Burney, 2005; Lovecky, 1992; Probst & Piechowski, 2012; Provasnik et al., 2007; Silverman, 1993b; Silverman & Golon, 2008), particularly in rural settings (Colangelo, 2003; Silverman, 2012). The findings of this study confirmed this as participants reported that their parents did not always encourage their unique learning characteristics such as advanced questioning and curiosity, possibly because of lack of education. Parents who have not attended college, like the parents of the participants of this study, may lack the information necessary to prepare their children for college (Griffin et al., 2011; Provasnik et al., 2007; Saenz et al., 2007; Whitener & McGranahan; 2003), which may have long-term effects on children and especially so in rural settings.

A unique finding of the current study concerns the role of extended family members in rural gifted education in India. Members of the extended family (relatives) had a largely positive and, at times, negative influence on participants' immediate environments, and that shaped participants' school experiences. Most relatives strongly supported the education of the participants. This finding regarding the role of extended families is relatively new to the published literature on rural gifted education, especially in the U.S; although some research exists in the general education context (e.g., Jæger, 2012). However, this is a common cultural experience in India's rural settings where extended families in fringe rural areas offer to help the parents of the remote rural children of their relatives in continuing their children's education at a better-equipped school. Culturally, Indian society values collectivism and promotes interdependence in which family members are tightly connected even beyond the immediate family members living under one roof (Medora, 2007). In practice, the family keeps in regular contact with extended families and receives practical assistance with child-rearing, education,

and finances (Medora, 2007; Rao, 2002). This cultural aspect of extended family structures seems to have a strong but mixed influence on the education of high-ability youth in rural settings in India.

Exosystem and Macrosystem

Participants in this study mentioned several challenges stemming from their rural setting, many of which have also been identified by other researchers. Geographical remoteness (Puryear & Kettler, 2017), high rates of poverty (Howley et al., 2009), limited resource support (Azano, 2014; Colangelo, 2001; Colangelo et al., 2003), lack of adequate teacher preparation (Lawrence, 2009; Plucker, 2013; Rasheed, 2020), inadequate opportunities for career education and technology education (Cross & Burney, 2005), and the limited role of parents in education (Provasnik et al., 2007) affected participants' school experiences. Participants from remote rural schools experienced more adversities and negative school experiences compared to participants from distant and fringe rural schools. Regardless of these challenges, participants emphasized the unique strengths of rural settings. Participants shared strong connections with extended family members, demonstrated a strong sense of place, and shared positive relationships with school and teachers, which has been reported in previous studies (Coleman, 1988; Elder & Conger, 2000; Howley, 2006; Stambaugh & Wood, 2015). Therefore, although faced with several challenges, rural settings may offer unique and rich resources within their community in terms of connections to families, teachers, and schools. These intimate connections among rural high-ability students, school, teacher, family, extended family, and community may serve as a network of resources for catalyzing rural gifted education.

Further, participants in the current study also reported a strong rural attachment in their career aspirations. They aspired to make things better for their communities through their

vocations. It is known that rural high-ability students demonstrate a strong attachment to place, resources, and people, especially concerning career aspirations (Cao et al., 2021; Howley, 2006; Jung & Young, 2019; Petrin et al., 2014). Petrin and colleagues (2014) found that a large proportion of rural students aspire to return to a rural place after migrating to other locales to pursue advanced degrees. However, rural settings often lack work opportunities for specialists and persons with advanced degrees, an area that needs attention from industry and government alike, especially in remote regions.

Cultural Influences

A possible explanation of the findings of this study comes from cultural studies on the sense of self, given that the experiences of individuals are socio-culturally patterned (Markus & Kitayama, 2010). Cultural aspects of rural India may have had unique influences on the participants' school experiences. It is well-known that Asian cultures including India demonstrate a high sense of interdependence (Markus & Kitayama, 2010). That is, a pattern that stresses that "individuals are inherently connected and made meaningful through relationships with others" (Markus & Kitayama, 2010, p. 423), ensuring that "people are likely to be responsive to others" (p. 425). Sense of interdependence can lead to an acknowledgment of role obligation, reading the expectations of others (Markus & Kitayama, 2010), fostering good relationships (Holloway et al., 2009), and exhibiting relatively little concern with getting to choose (Snibbe & Markus, 2005). To that end, participants of this study were grateful toward school and teachers for providing education in remote rural areas and described school experiences in largely positive ways *despite* evident challenges. They also perceived their relationships with their teachers to be largely positive *despite* shortcomings in their teaching methods. They acknowledged a relatively larger role of parents, relatives, and rural communities

in influencing their personal aspirations, which were, at times, largely influenced by a sense of obligation toward family and community. Participants also tended to exhibit relatively little concern with getting to choose subjects, curricula, and other facilities at school, although, they raised concerns about the lack of curricular challenge and Internet facilities. These can be direct cultural influences of the collectivistic Indian society that values interdependence among members; gratitude and respect for an authority such as teachers; and family and community's needs, goals, and priorities, over autonomy, choice, and personal freedom (Lee et al., 2020a, 2020b; Medora, 2007).

Further, unique to this study is the finding that relatives and extended families played critical roles in continuing education of the participants, which could be an indication of a sense of moral responsibility toward helping ingroups. Miller and Bersoff (1998) compared Indians and Americans and found that Indians held higher moral responsibility to help others when the aid is solicited and the cost to the agent is low, regardless of their liking of the person. Further, a vast majority of Indians treat helping ingroup members such as relatives as necessary under similar constraints (Medora, 2007; Miller et al., 1990; Rao, 2002). Taken together, the findings reveal several unique cultural influences on school experiences of high-ability students in rural India including the role of extended family members as role models, caretakers, and providers of education (Medora, 2007).

Implications and Future Research

The findings of this study have implications for rural high-ability students and those in their environment. These findings indicate that India's rural high-ability students may experience inadequate stimulation in school (Raina & Shrivastava, 2000) and receive mediocre schooling that offers few opportunities for talent identification and development (Roy, 2017). The findings

highlight that providing appropriately challenging education to rural high-ability students has remained a low priority in India, and schools need to provide urgent attention to alleviate the depressing situation of the education of rural high-ability youth (Kurup & Roy, 2016; Roy, 2017).

Implications

As reported in the current study, these participants demanded more quality in education, namely, classroom instruction, curricular content, and facilities. At the same time, eight out of nine participants reported having no private coaching. According to the latest National Sample Survey (NSS; National Statistical Office, 2020), there is a shift toward private schools in rural India. The prime reason cited by students for this shift toward private schools was the perceived quality of education (38.3%). Further, the NSS report also indicated that the annual household expenditure on education at the secondary level in rural India per student (INR 5,856 or 80 USD) was nearly one-third that in urban India (INR 17,518 or 240 USD). That is, wide disparities exist in rural and urban India concerning household expenditure on education. Unsurprisingly, similar gaps have been reported in expenditures on private tutoring and transportation. Although small, negative differences also existed in household expenditure between girls and boys.

It is, therefore, evident that there is a rising demand for quality education in rural India; however, household expenditure on education is disparate, especially for girls. While the families of students in urban India can afford expenditure on private institutions including private coaching, rural students are at a greater disadvantage due to income disparities. In the lack of equitable access to quality education outside of the school, the prime avenue for rural talent development is through the schools. Therefore, it is suggested that rural schools in India and elsewhere should provide advanced learning opportunities, appropriate curricular challenges,

and access to facilities for all students including high-ability students. It is also known that, in rural India, the government expenditures and household expenditures on education do not substitute for each other; rather they complement each other (Tilak, 2002). Therefore, to stimulate household expenditure on education, the government must considerably increase its allocation to education and make education in rural India affordable at all levels, especially for girls (Rao, 2014; Tilak, 2002).

The results of this study indicate that high-ability students in rural India, like students in other contexts, may not benefit from classroom activities of average complexity, repetition of already mastered content, or additional work not relevant to the core curriculum (Rogers, 2007). Therefore, to catalyze rural talent development, schools in rural India should consider adopting inquiry-based, project-based, problem-based, and higher-order thinking-based learning approaches (Stambaugh, 2015; VanTassel-Baska, 2013; VanTassel-Baska & Hubbard, 2016). In addition, results indicate a need for consistent teacher professional learning in rural India to improve the teaching of high-ability students (Croft, 2015). The results also suggest that schools and parents in rural India should seek advanced learning opportunities for high-ability students within their school, within the community, and outside of school and community (Cross & Burney, 2005; Howley et al., 2009; Olszewski-Kubilus et al., 2015).

To counter the challenges of remoteness faced by rural high-ability students in this study and similar contexts worldwide, schools should consider providing students with access to the Internet and communication technology; and in remote places where isolation affects connectivity, printed resources should be made available through interlibrary loans (Lewis & Hafer, 2007). In the future, Internet penetration will continue to rise in rural settings. Therefore, digital education and Massive Open Online Courses will open new learning opportunities for

rural high-ability students. Rural educators should, therefore, consider investing in these digital modes of learning to positively shape the school experiences of high-ability students in rural settings.

The findings of this study suggest that rural high-ability students, like their urban counterparts, are likely to encounter mixed emotions in their peer interactions (Colangelo, 2003; Griffin & Wood, 2015); and therefore, schools should consider providing counseling support for rural students at the school level as they may not have access to counseling services in their locality (Colangelo et al., 2006; Cross & Burney, 2005; Provasnik et al., 2007). School counselors additionally can play an important role in academic planning, career guidance, and college preparation of high-ability students in rural settings (Cross & Burney, 2005; Provasnik et al., 2007; Wood & Lane, 2015). Because school counselors are rarely available in rural India, this is a steep challenge that needs urgent attention from policymakers.

Further, participants reported gaps between the high educational expectations and limited support their parents provided. Therefore, parents of high-ability students in rural India may benefit from parent education programs that focus on the career, academic, and personal-social aspects of their high-ability child (Aamidor, 2007; Cross & Burney, 2005; Griffin & Farris, 2010).

Future Research

The development of a rural high-ability child at school is influenced by various proximal processes and interactions among nested settings in the child's environment (Bronfenbrenner, 1977). Therefore, it is important to examine multiple settings of rural high-ability students rather than examining only the immediate school setting. The interconnectedness of aspects influencing high-ability students' development in rural schools calls for holistic and interconnected

approaches to research in rural gifted education. Future research should focus on reciprocity between two or more settings, recognize the totality of the nested systems, and examine the influences of direct and indirect environmental factors affecting rural high-ability students. For example, the role of the extended family in rural gifted education has not been widely studied, and such studies may reveal aspects of rural gifted education such as influences of the extended family on school experiences, educational attainment, and school success.

Consequently, it would be worthwhile to examine the broader contexts of rurality and overarching institutional and ideological patterns of rural culture as they affect student development. Future research should consider examining the school experiences of tribal students and contrast them with rural experiences. Further, longitudinal studies would help researchers to understand how age, school, and place transitions over time influence the developmental aspects of school experiences of rural high-ability youth. For example, further research should examine the relationship between career aspirations when in school and actual career trends of rural high-ability adults.

India recently adopted a new national policy on education (Ministry of Education, 2020). The policy highlights the support for the education of high-ability youth (sections 4.43 – 4.46). Teacher professional learning will now include methods for the identification and nurturance of talent. Moreover, subject Olympiads, competitions, and summer residential programs will be conducted for high-ability secondary school students including those from socio-economically disadvantaged groups and rural areas. Therefore, future research should examine the macrosystemic influence of the new education policy on high-ability youth in rural India. Similarly, COVID-19 has disproportionately affected education in rural settings worldwide due

to challenges of access to virtual learning. This has opened a new area of inquiry for researchers studying rural gifted education and the impact of the recent pandemic.

Limitations

This study has several limitations. By design, qualitative research does not aim to generalize findings but to offer thick, rich descriptions and relevant information so that other researchers can make judgments about the transferability of the results to their settings (Peterson, 2019). The current study aimed to offer a detailed account of the school experiences of a specific sample within a specific rural context. It consisted of students from three schools in one district in Western India. Any two rural settings can greatly differ from one another; therefore, caution should be taken while transferring these results to other settings. The experiences of other rural students in the region may vary, and this warrants further research.

Further, this study focused on students' perspectives; to gain a more detailed understanding of high-ability students' school experiences, other perspectives including those of parents, extended family, teachers, and community members should be explored. This would be especially helpful while using a systemic framework such as Bronfenbrenner's BEST. Finally, recent information on the psychometric properties of the NVIT instrument used by Mensa India could not be found, which may limit this study. Caution is warranted regarding generalizing from these sample characteristics and participants' school experiences.

Conclusion

Layers of rural high-ability students' school experiences and corresponding influencing aspects have been presented in this study. The results corroborate previous studies in rural gifted education conducted outside of India. The results, therefore, indicate the global nature of influences of rurality and scarcity of resources on the school experiences of high-ability students

while also revealing the uniqueness of their Indian experience. However, caution is warranted in transferring these results to other rural settings. Due to the challenges of limited resources and a general lack of awareness regarding talent development in rural schools in India, rural talent is at risk. Therefore, gifted education in rural India warrants immediate attention. Realizing the ultimate goals of inclusive education requires educators to ensure appropriate learning for high-ability students. Such inclusion inherently demands an understanding of student perceptions of their learning in schools. Further research is needed to investigate the more complex interplay among the various settings of the bioecological systems of high-ability students in rural settings across the globe.

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Appendix

Interview Protocol

1. What are your interests? What do you want to become when you grow up?
2. What do your parents do? How did you come to this school?
3. What is your opinion of your school? What do you like the most? the least? If anything, what would you like to change about school?
4. Can you describe the teaching methods used in this school? What is your opinion of them? How would you want your teachers to teach if you wanted them to change something?
5. How do you find your textbooks with respect to difficulty? If anything, what would you like to change about them?
6. What are the extra-curricular activities at school that you participate in? Describe your experience.
7. What kind of homework and examinations do you take? If anything, what would you like to change?
8. Can you describe your experience of getting selected in Mensa?
9. Tell me about your friends and your friendship with them.
10. Tell me about your social and emotional experience at the school. Who do you reach out to when you feel low?
11. Do you want to add anything that we did not discuss regarding your school, teachers, textbooks, or anything else?