

A Bioecological Systems View of Rural Indian High-Ability Students' College Experiences: A Longitudinal Study

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Yale Center for Emotional Intelligence

Introduction



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42% of
world's
population is
rural.

Every 2 in 3
people in India
live in villages.

*India's way is not Europe's;
India is not Calcutta and Bombay.
India lives in her seven hundred
thousand villages.*



M. K. Gandhi

CWMG, Vol. XXVI, p. 286

Challenges in Rural Education



Geographical remoteness



Poverty and Lack of access to resources



Inadequate talent identification and development opportunities



Challenges in teacher recruitment, preparation, and retention

Azano, 2014; Colangelo et al., 2003; Gentry et al., 2019; Lawrence, 2009; Lynn & Glynn, 2019; Plucker, 2013; Puryear & Kettler, 2017; Rasheed, 2020; Showalter et al., 2019; Stambaugh & Wood, 2015

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

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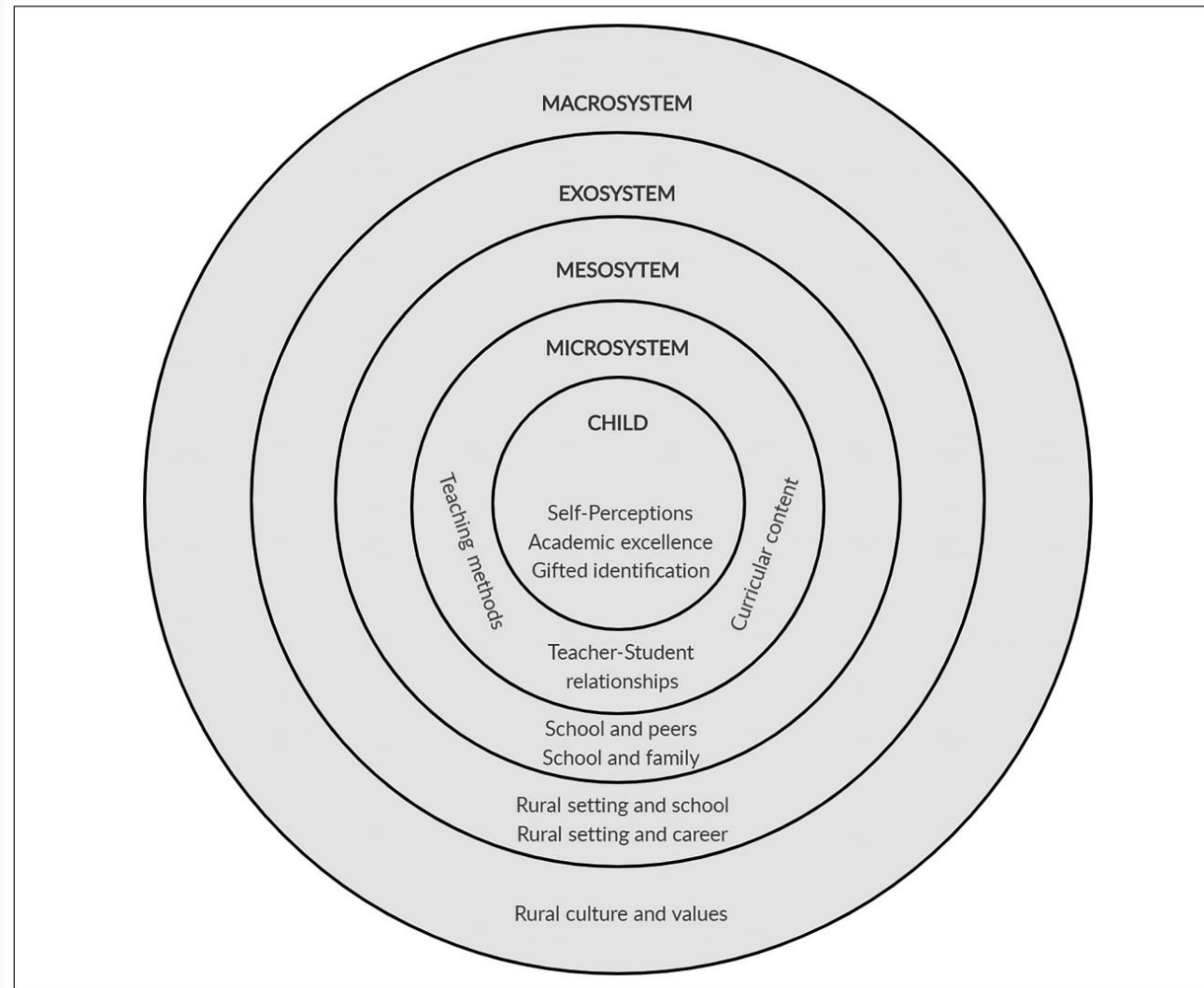
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Abstract

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 semistructured 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.

Interviews conducted in 2015 with 9 middle & high school students

School Experiences of High-Ability Students from Rural India



A young woman with dark hair pulled back, wearing a light-colored top, is looking forward with a serious expression. She is in a classroom setting, with other students blurred in the background. The lighting is warm and slightly dim, creating a somber atmosphere.

What happened to these students?

Did they attend college?

What were their experiences like?

Research Questions

- **RQ1:** How do participants perceive their college experiences?
- **RQ2:** What aspects within participants' bioecological systems influence those experiences, and how do they interrelate?

Theoretical Framework

Bronfenbrenner, 1977, 1992, 1994, 1995, 1999; Bronfenbrenner & Morris, 1998

- **Bioecological Systems Theory:** development as the result of dynamic interactions between **individuals** and their **environments**.
- Individuals do not develop in isolation; rather, they are embedded within **interconnected systems** that influence, and are influenced by, their evolving contexts.
- **Person x Process x Context x Time**

Methods

- Followed **7 of 9** previous participants
- Seidman's (2019) **in-depth** interviewing method
- **Thematic analysis** (Braun & Clarke, 2006, 2021) using QualCoder

Participant Demographics

Pseudonym	Gender	Age (years)	Social Category	Highest/Current Education	Location of Current College	Status of Professional Work	Father's education (years)	Mother's education (years)
Vivek	M	20	General (Maratha)	Pursuing B.Tech.	Semi-rural	Working full-time	12	12
Sneha	W	23	SC	Diploma in Fashion Designing	--	Working full-time	10	8
Geeta	W	20	ST	Pursuing B.Com	Urban	Working part-time	3	0
Shashi	M	22	General (Maratha)	Pursuing M.Com	Urban	Not working	15	10
Manju	W	20	SC	Pursuing B.Sc (Agriculture)	Semi-rural	Not working	12	7
Vijay	M	20	ST	12th	--	Working full-time	10	4
Nitish	M	23	ST	Pursuing M.A. (Geography)	Urban	Not working	10	4

Data Collection - Interviews



Interview 1

Focused on life histories and current circumstances



Interview 2

Explored college experiences, tailored to each participant's educational path



Before Interview 3

participants reviewed recordings from the earlier study



Interview 3

Centered on reflections, both on prior interviews and how their narratives had evolved since the school phase

Approximately one week between interviews
21 online interviews (~29 hours in total)
Conducted in participants' native language (Marathi)
Over eight months in 2023

Data Analysis + Trustworthiness

- Two authors generated **186 initial codes** through repeated readings.
- Codes were grouped into **themes**, reviewed collaboratively, and refined into four final themes in consultation with the broader research team.
- **Before:** Positionality statements, bracketing memos
- **During:** Audit trail with analytic memos; Independent coding followed by collaborative discussion
- **After:** Peer debriefing, thick description, attention to participant voice

Results

Theme 1: Difficult Transition to College

Initial/Open Code	Quote
Language barriers and their impact on college and career	<i>In the beginning, it was a bit hard for me because my [English] vocabulary was limited. I could understand the concepts clearly, but I wasn't able to express them in my own words in English. (Geeta)</i>
Teachers' lack of concern for student learning	<i>The teachers would just teach and move on very quickly, whether someone attended or not, whether someone wanted to learn or not, it didn't matter. You know how school teachers were till 10th grade—they made sure you learned, right? They ensured students studied. (Nitish)</i>
Adjusting to academic load	<i>Till 12th grade, I was used to having at most five or six subjects. But here, in the very first semester [of college], there were 13 subjects. I was not used to that, and it became quite hectic. (Manju)</i>

Theme 2: Financial Struggles

Initial/Open Code	Quote
Financial barriers to college access	<i>I had come to Pune for admission at XYZ College. When I got there, I found out that the fees were ₹28,000, which I couldn't afford given my financial condition. (Geeta)</i>
Government scholarship support	<i>There's a college scholarship through a state-sponsored initiative. The actual college fees are ₹84,000, but I only have to pay ₹8,000 because the scholarship covers the rest. (Manju)</i>
Family financial responsibility	<i>We bought a plot in XYZ town and built a house there. A lot of money was spent on that, and we're still paying installments. So at this point, it's essential for me to work. (Vivek)</i>

Theme 3: Drastic Impact of COVID-19

Initial/Open Code	Quote
Poor online instruction quality	<i>Lectures were being conducted by the college, but their technology wasn't that good. Teaching was done on a blackboard and live-streamed using a mobile camera, but the board wasn't clearly visible. There were no PPTs or other materials prepared either. (Manju)</i>
Learning loss due to online transition	<i>Online classes were held, but I couldn't really learn much because of network issues. Even now, when I think of 11th and 12th [grades], I feel uncomfortable—because I didn't actually learn much during those two years. (Geeta)</i>
Reduced engagement after the pandemic	<i>COVID-19 completely changed students' mentality. Hardly anyone comes to college now. The lectures that do happen aren't regular, and students don't really pay much attention to studies anymore. (Vivek)</i>

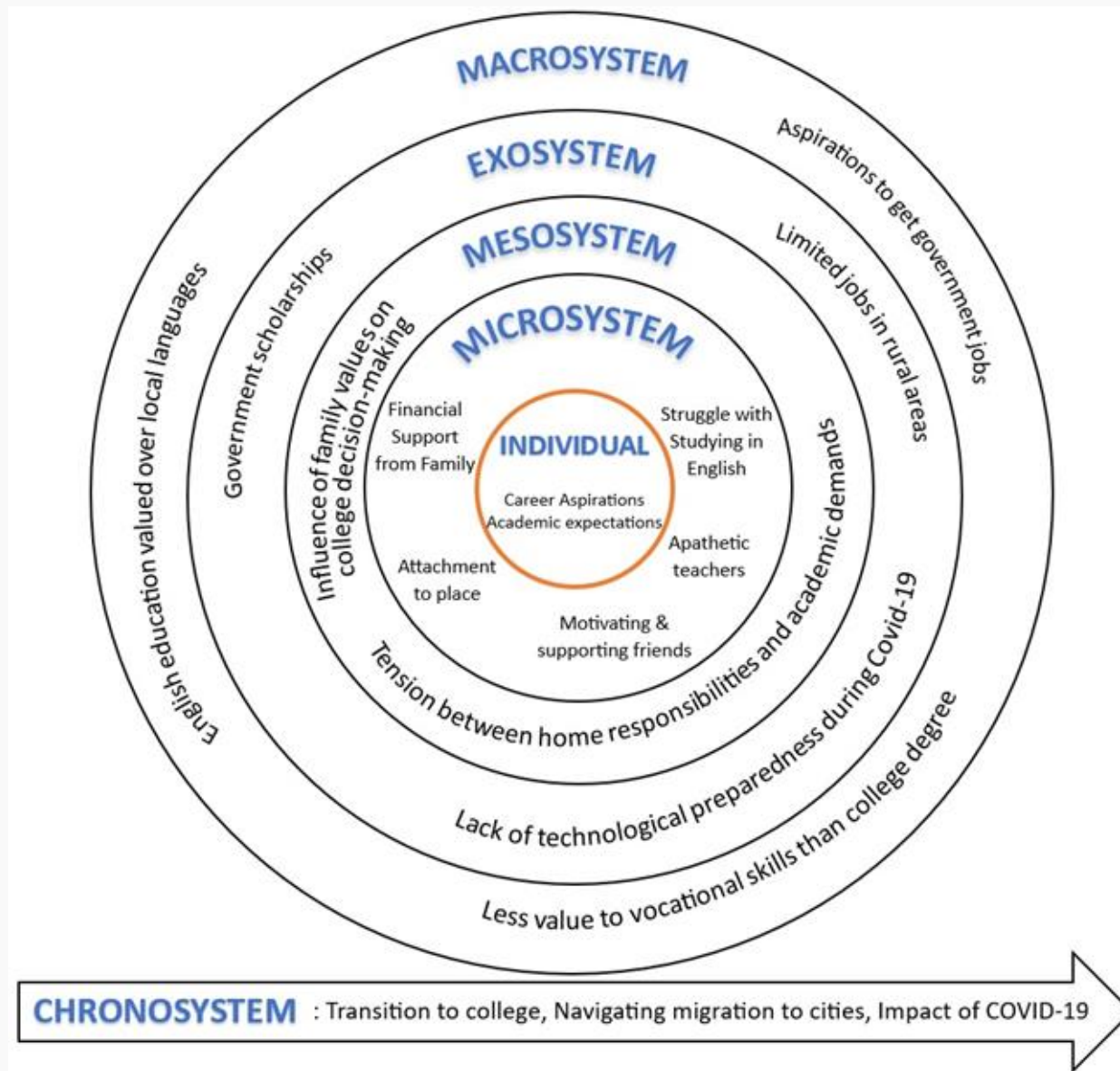
Theme 4: College & Career (Dis)Connection

Initial/Open Code	Quote
Looking beyond formal education	<i>No matter how many marks you score, it doesn't really make a difference. Just having a degree doesn't guarantee a job. You have to do something entirely different for that. (Nitish)</i>
Lack of placement support	<i>In our college, there's no such thing as on-campus recruitment for B.Sc. Agriculture. (Manju)</i>
Mismatch between training and job	<i>The CNC programming course I did isn't related to the work I'm doing now. The course is related to mechanical engineering, and the job I'm currently doing is in the corporate sector. (Vivek)</i>

Contrast Between College Non-Attendees

Theme	Vijay	Sneha
Reason for not attending college	<ol style="list-style-type: none">1. Lost interest in education after 12th due to irregular attendance, lack of mentorship and conducive learning environment2. Financial hardships, peer pressure, and lost connection with college due to COVID-19.	<ol style="list-style-type: none">1. No parental support. Could not appear for exams because the grandmother got ill2. Immediate need to earn due to financial hardships
Career trajectory	<ol style="list-style-type: none">1. Works as an assembly-line worker2. No career advancement; has been doing similar kind of work for 3-4 years3. Earns Rs. 18,000/month	<ol style="list-style-type: none">1. Works as a beautician; owns a beauty parlor2. Continuous professional development: 1st course → work → second course → work → third course → work → started her own parlor3. Earns Rs. 40,000/month
Future aspirations	<ol style="list-style-type: none">1. Starting a transport business; joining a computer-based billing course and finding work in that sector; applying for a BA course	<ol style="list-style-type: none">1. Expanding the business; setting up a fashion-design institute

Discussion



Bronfenbrenner's Bioecological Systems Theory ²⁴

Significance of Study

- Contributes to the limited body of research on high-ability college students from rural contexts
- Demonstrates the value of longitudinal qualitative research for capturing how aspirations, identities, and barriers evolve for high-ability students
- Findings highlight disconnects between rural students' potential and the systems designed to support them
- Underscores the importance of systemic investment in rural higher education (e.g., mentoring/guidance, infrastructure)
- Provides actionable insights for identifying and nurturing talent in rural communities

Thank you!

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