

A Study of Challenges Faced by Students in Rural Areas of Palghar District

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Abstract: Education plays an important role in individual development, social mobility and economic progress. However, students living in rural areas frequently experience barriers that affect their educational access, regular attendance, participation and academic performance. The present study, titled “A Study of Challenges Faced by Students in Rural Areas of Palghar District,” examines the technological, financial and transportation-related difficulties experienced by rural students. The study adopted a descriptive research design and collected primary data from 160 respondents through a structured questionnaire. Frequency, percentage, descriptive statistics, a one-sample t-test and the Friedman test were used to analyse and interpret the collected data.

The findings reveal that transportation-related difficulties were perceived as the most prominent challenges faced by rural students, followed by technological difficulties, while financial challenges were comparatively less prominent. The statistical results confirm that the levels of the challenges experienced by students differed significantly. Poor road connectivity, inadequate public transportation, long travelling distances, limited access to digital devices, weak internet connectivity and insufficient technological facilities adversely affect students’ educational experiences. The study concludes that educational institutions and government authorities should improve rural transportation services, road and digital infrastructure, internet access and institutional support to promote regular attendance, equitable educational participation and better academic development among students in the rural areas of Palghar district.

Keywords: Rural students, technological challenges, financial challenges, transportation challenges.

Introduction: Education is one of the most important instruments for individual development, social mobility and national progress. It enables students to acquire knowledge, skills, values and competencies necessary for employment and responsible participation in society. However, educational opportunities are not equally available

to all students. Learners residing in rural and remote regions frequently experience disadvantages related to poverty, limited institutional facilities, geographical isolation and inadequate educational support. Although school enrolment in rural India has improved considerably, the availability of schooling does not always guarantee regular attendance, effective classroom participation or satisfactory learning outcomes. Research has shown that poor-quality schooling can gradually exclude disadvantaged children through low achievement, repetition and eventual discontinuation of education.

Palghar district, located in Maharashtra, contains eight talukas and includes a substantial number of rural, tribal, hilly and geographically remote settlements. Students from these areas may have to travel considerable distances to reach schools and colleges, particularly when educational institutions are situated far from their villages. In several remote settlements, poor roads, inadequate public transportation, difficult terrain and seasonal weather conditions make regular attendance challenging. During the monsoon, students in some tribal hamlets have reportedly faced muddy pathways, swollen water bodies and unsafe routes while travelling to school. Such geographical and transportation barriers may contribute to absenteeism, delayed enrolment, irregular participation and school dropout. Access to higher education can be even more difficult for students living in hilly and isolated tribal settlements of Palghar.

Socioeconomic conditions represent another major challenge for rural students. Many families in rural areas depend on agriculture, daily-wage labour, seasonal employment or informal occupations, resulting in uncertain and limited household income. Consequently, parents may find it difficult to bear expenses related to fees, uniforms, books, stationery, transportation, digital devices and private coaching. Students may also be expected to assist their families in agricultural work, household responsibilities, childcare or income-generating activities. These pressures can reduce the time available for study and negatively influence academic performance. First-generation learners may receive limited academic guidance at home because their parents may have low levels of formal education. Poverty, social exclusion, gender discrimination and cultural expectations can further restrict educational opportunities, particularly for girls and students belonging to tribal and other disadvantaged communities.

The quality of educational infrastructure and teaching-learning facilities also affects the experiences of rural students. Schools and colleges in rural areas may face shortages of qualified teachers, classrooms, laboratories, libraries, sanitation facilities, electricity, safe drinking water and learning materials. Teacher vacancies, irregular attendance, multi-grade teaching and limited use of student-centred methods may weaken the overall learning environment. Students studying in regional languages may also experience difficulties when textbooks, entrance examinations, technical courses and higher education are primarily available in English or another unfamiliar language. In addition, limited career guidance, counselling, exposure to competitive examinations, vocational education and placement opportunities may create uncertainty regarding higher education and employment. A study concerning colleges in the rural areas of Palghar has similarly highlighted the importance of improving students' competencies and employability for successful campus placement.

The increasing use of technology in education has created additional inequalities between rural and urban learners. Many rural students lack personal smartphones, computers, reliable electricity, affordable internet connectivity and adequate digital skills. Research on digital inequality in India indicates that disadvantaged social groups experience inequalities not only in access to devices and the internet but also in their ability to use digital technologies effectively. These difficulties became especially visible during the COVID-19 pandemic, when online education excluded or disadvantaged many rural learners.

Review of Literature

1. **Azim P (2021)**, In the research titled "Loss of learning during the pandemic" concluded that prolonged school closures caused substantial learning loss among primary school children. A large proportion of students had forgotten essential language and mathematical abilities that they had acquired in previous classes. The study reported that approximately 92 per cent of the children surveyed had lost at least one language ability, while 82 per cent had lost at least one mathematical ability. Limited interaction with teachers, inadequate access to digital devices, poor internet connectivity and an unsuitable home-learning environment intensified the problem, particularly among children from rural and disadvantaged communities.

The study recommended reopening schools safely, assessing students' present learning levels and providing systematic remedial teaching rather than immediately introducing the regular grade-level syllabus.

2. **Drèze & Kingdon (2001)**, In the research titled "School participation in rural India" concluded that children's participation in schooling is influenced by a combination of household, social, economic and institutional factors. Parental education and motivation were found to have a strong positive influence on school attendance, whereas poverty, domestic responsibilities, employment opportunities and high dependency ratios could discourage participation. The study also highlighted that girls' education was particularly sensitive to family circumstances, social background and the availability of suitable school facilities. Factors such as teacher availability, school infrastructure, village development and the provision of midday meals improved students' participation. The authors therefore suggested that increasing enrolment requires not only the expansion of schools but also improvements in educational quality, household awareness, infrastructure and supportive incentives for disadvantaged children.
3. **Govinda (2011)**, In the research titled "Who goes to school? Exploring exclusion in Indian education" concluded that the expansion of school enrolment in India had not completely eliminated educational exclusion. Children belonging to poor households, Scheduled Castes, Scheduled Tribes, minority communities, migrant families and remote rural regions continued to face difficulties in accessing and completing quality education. The book explains that exclusion does not occur only when children remain outside school; it can also take place inside the classroom through discrimination, weak teaching, language barriers, poor achievement and irregular attendance. Although the Right to Education Act created an important legal foundation for universal elementary education, the study stressed that effective implementation, equitable distribution of resources and locally responsive policies were essential. It recommended an inclusive education system that recognises the different social and economic circumstances of disadvantaged children.
4. **Govinda & Bandyopadhyay (2011)**, In the research titled "Overcoming exclusion through quality schooling" concluded that providing physical access to schools

alone is insufficient to achieve universal elementary education. Although most children had gained access to educational institutions, many continued to receive poor-quality education, resulting in weak learning, grade repetition, irregular attendance and eventual dropout. The authors observed that educational exclusion develops gradually when schools fail to respond to students' academic, social and cultural needs. Children from economically disadvantaged and marginalised communities are especially vulnerable because they often lack additional learning support outside school. The study therefore recommended improving classroom practices, teacher accountability, school infrastructure, learning assessment and community participation. It emphasised that quality and equity must be addressed together because low-quality schooling itself becomes an important mechanism of exclusion.

5. **Jha & Jhingran (2005)**, In the research titled "Elementary education for the poorest and other deprived groups: The real challenge of universalization" concluded that the poorest and most socially disadvantaged children remain the most difficult groups to include in elementary education. Poverty interacts with caste, gender, migration, occupation, location and parental education to restrict school enrolment, attendance and completion. Even when schools are physically available, indirect expenses, child labour, domestic duties, discrimination and poor-quality teaching can push children away from education. The authors argued that uniform educational policies are inadequate because deprived communities face different and interconnected barriers. Universal elementary education therefore requires fundamental changes in the functioning of the schooling system, along with wider social and economic measures. The study recommended flexible and locally appropriate programmes, greater public responsibility, improved school quality and special support for children experiencing multiple forms of disadvantage.
6. **Kingdon (2007)**, In the research titled "The progress of school education in India." concluded that India had achieved noticeable improvements in school enrolment, literacy and educational access, but serious concerns remained regarding attendance, learning achievement, teacher performance and inequality. The progress in expanding educational facilities had not been matched by equal improvements in the quality of learning. Teacher absenteeism, weak accountability,

insufficient monitoring and ineffective use of resources reduced the performance of many government schools. The study also noted the rapid growth of private schooling and found evidence that many private schools achieved better learning outcomes at lower unit costs, largely because of differences in teacher salaries and accountability. However, dependence on private education could create affordability and equity concerns. The paper therefore emphasised the need for stronger governance, cost-effective public investment and greater attention to measurable learning outcomes.

7. **Kundu & Bej (2021)**, In the research titled “COVID-19 and online education: Digital inequality and other dilemmas of rural students in accessing online education during the pandemic” concluded that online education was not an equally accessible substitute for classroom learning among rural students. The major challenges identified included inadequate digital devices, poor internet connectivity, high data costs, limited digital literacy, physical discomfort, distractions at home and an unfamiliar academic environment. Many students had to share smartphones with family members and were unable to attend online classes regularly or communicate effectively with teachers. The study observed that digital education increased existing inequalities because economically and socially disadvantaged students lacked the resources necessary for meaningful participation. It recommended improving rural digital infrastructure, providing affordable devices and internet services, developing students’ and teachers’ digital skills and adopting flexible teaching methods that combine online, offline and community-based educational support.

Research Gap: The reviewed studies provide valuable insights into educational exclusion, school participation, learning loss, poverty, quality of schooling and digital inequality among students in India. However, most of these studies examine rural education at the national or broader regional level and do not focus specifically on the challenges experienced by students in the rural areas of Palghar district. The existing literature mainly discusses general barriers such as poverty, inadequate infrastructure, poor teaching quality, gender inequality, digital exclusion and limited parental education. There is comparatively limited research examining how these factors operate together within the distinctive geographical, tribal, socioeconomic and cultural

conditions of Palghar district. The difficulties associated with remote settlements, hilly terrain, transportation, seasonal migration, language differences and limited access to secondary and higher education require more detailed local investigation.

Furthermore, earlier studies largely concentrate on school enrolment, attendance, educational exclusion or online learning as separate issues. Limited attention has been given to the combined influence of economic, social, academic, institutional, geographical and technological challenges on students' educational experiences and performance. There is also insufficient empirical evidence regarding students' own perceptions of these difficulties in rural Palghar. Therefore, the present study seeks to fill this gap by identifying and analysing the major challenges faced by rural students in the district. It will provide location-specific evidence that may help educational institutions, teachers, government authorities and community organisations formulate appropriate measures to improve educational access, regular attendance, learning outcomes, digital inclusion and continuation of education among rural and tribal students.

Research Methodology: The present study adopted a descriptive and quantitative research design to examine the challenges faced by students in the rural areas of Palghar district. The study focused on three major dimensions, namely technological challenges, financial challenges and transportation challenges. Primary data were collected from 160 students through a structured questionnaire. The respondents included students from different age groups, years of study, genders and modes of education. The study was limited to students residing in rural areas of Palghar district, and the collected responses were used to understand the nature and level of difficulties affecting their educational participation and academic experience.

The collected data were classified, tabulated and analysed using appropriate statistical techniques. Frequency and percentage analysis were applied to describe the demographic profile of the respondents. Descriptive statistics such as mean, standard deviation and standard error were used to assess the level and variation of the three categories of challenges. A one-sample t-test with a test value of 60 was employed to determine whether the challenges were statistically significant. The Friedman test was also used to examine whether significant differences existed among technological,

financial and transportation challenges and to rank them according to their relative importance. The hypotheses were tested at the 5 per cent level of significance, where a p-value below 0.05 was considered statistically significant.

Data Analysis

Data analysis refers to the systematic process of organising, presenting, examining and interpreting the information collected from respondents to achieve the objectives of a study. In the present research, data obtained from 160 students were analysed to understand their demographic characteristics and the technological, financial and transportation challenges experienced by them in the rural areas of Palghar district. Frequency and percentage distributions were used to describe age, gender, year of study and primary mode of study. Descriptive statistics such as mean and standard deviation were applied to determine the level and consistency of each challenge. The one-sample t-test was used to examine whether the reported challenges differed significantly from the predetermined test value, while the Friedman test and mean ranks were used to compare and prioritise the three categories of challenges. The analysis provides an empirical foundation for drawing findings, testing hypotheses and making suitable recommendations.

Demographic Factor

Sr No.	Statement	Category	Frequency	Percent
1.	Age	Under 18 Years	5	3.1
		18 to 20 Years	68	42.5
		21 to 23 Years	87	54.4
2.	Year of Study	1st Year	21	13.1
		2nd Year	30	18.8
		3rd Year	98	61.3
		Final Year	6	3.8
		Postgraduate	5	3.1
3.	Gender	Male	83	51.9
		Female	77	48.1
4.		Full-time	150	93.8

	Primary Mode of Study	Part-time	10	6.3
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The frequency distribution shows that the study included a total of 160 respondents. In terms of age, the majority of respondents, 87, were between 21 and 23 years, followed by 68 respondents in the 18 to 20 years category, while only 5 respondents were under 18 years. Regarding the year of study, the largest number of respondents, 98, were studying in the third year, followed by 30 respondents in the second year and 21 respondents in the first year. Only 6 respondents were in the final year, while 5 were postgraduate students. The gender distribution was almost balanced, with 83 male respondents and 77 female respondents. With respect to the primary mode of study, a very large majority of 150 respondents were enrolled as full-time students, whereas only 10 respondents were pursuing their studies on a part-time basis. Overall, the sample mainly consisted of full-time, third-year students aged between 21 and 23 years, with nearly equal participation of male and female respondents.

Objective and Hypothesis

Objective 1 To Study the challenges faced by undergraduate students in rural area of Palghar district.

Null Hypothesis H_{01A} : There exists no challenges faced by students.

Alternate Hypothesis H_{11A} : There exists challenges faced by students.

To study the above null hypothesis, Friedman Test is applied and results are as follows:

One-Sample Test				
	Test Value = 60			
	t	df	P-value	Mean Difference
Technological Challenges	10.372	159	.000	12.237
Financial Challenges	1.402	159	.163	1.737
Transportation Challenges	10.974	159	.000	12.656

Interpretation: The above results indicate that calculated p-value is 0.000 for Technological and Financial Challenges. It is less than 0.05. Therefore, Friedman test is rejected. Hence Null hypothesis is rejected and Alternate hypothesis is accepted.

The above results indicate that calculated p-value is 0.163 is Financial Challenges. It is more than 0.05. Therefore, Friedman test is accepted. Hence Null hypothesis is accepted and Alternate hypothesis is rejected.

Conclusion: For Technological and Financial Challenges, there exists challenges faced by students

For Financial Challenges there exists no challenges faced by students

Findings: To understand the findings, mean score of challenges faced by students are obtained and presented as follows:

One-Sample Statistics				
	N	Mean	Std. Deviation	Std. Error Mean
Technological Challenges	160	72.24	14.925	1.180
Financial Challenges	160	61.74	15.681	1.240
Transportation Challenges	160	72.66	14.588	1.153

The one-sample descriptive statistics show that all three types of challenges were assessed among 160 respondents. Transportation Challenges recorded the highest mean score of 72.66, indicating that transportation-related difficulties were the most prominent challenges faced by the students. Technological Challenges had a closely comparable mean score of 72.24, suggesting that inadequate access to digital devices, internet connectivity and technological facilities also created considerable difficulties. Financial Challenges recorded the lowest mean score of 61.74; however, this value still indicates that financial difficulties were experienced by a substantial number of students. The standard deviations ranged from 14.588 to 15.681, showing a moderate variation in the respondents' opinions. Financial Challenges had the highest standard deviation of 15.681, indicating greater differences in students' financial experiences, while Transportation Challenges had the lowest standard deviation of 14.588, reflecting

comparatively more consistent responses. Overall, transportation and technological challenges emerged as the most significant difficulties faced by students.

Null Hypothesis H_{01B} : There is no level of challenges faced by students.

Alternate Hypothesis H_{11B} : There is a level of challenges faced by students.

To study the above null hypothesis, Friedman Test is applied and results are as follows:

Test Statistics ^a	
N	160
Chi-Square	43.937
df	2
P-value	.000
a. Friedman Test	

Interpretation: The above results indicate that calculated p-value is 0.000. It is less than 0.05. Therefore, Friedman test is rejected. Hence Null hypothesis is rejected and Alternate hypothesis is accepted.

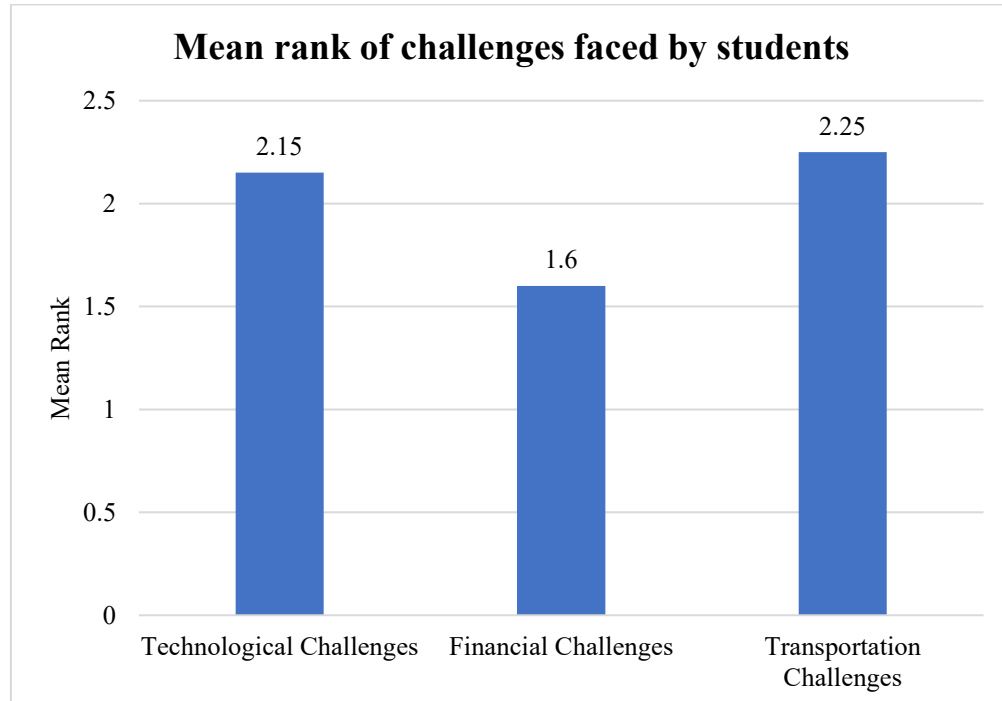
Conclusion: There is a level of challenges faced by students.

Findings: To understand the findings, mean rank of challenges faced students are obtained and presented as follows:

Ranks	
	Mean Rank
Technological Challenges	2.15
Financial Challenges	1.60
Transportation Challenges	2.25

The ranking results indicate that Transportation Challenges received the highest mean rank of 2.25, placing it in the first position among the challenges faced by rural students. Technological Challenges obtained the second-highest mean rank of 2.15, showing that difficulties related to internet connectivity, digital devices and technological facilities were also prominent. Financial Challenges recorded the lowest mean rank of 1.60 and were therefore placed in the third position. Overall, the findings reveal that transportation-related problems were perceived as the most serious challenge, followed

closely by technological challenges, while financial challenges were comparatively less severe.



Conclusion

The study concludes that students in the rural areas of Palghar district experience considerable challenges in continuing their education, particularly in relation to transportation and technology. Transportation challenges recorded the highest mean score of 72.66 and the highest mean rank of 2.25, indicating that inadequate public transport, poor road connectivity, long travelling distances and difficulties during adverse weather conditions are the most serious concerns. Technological challenges ranked second, with a mean score of 72.24 and a mean rank of 2.15, showing that limited internet connectivity, insufficient digital devices, unreliable electricity and inadequate digital skills significantly affect students' learning experiences. The one-sample test also showed that technological and transportation challenge scores were significantly higher than the test value of 60, as both recorded p-values of 0.000.

Financial challenges recorded a mean score of 61.74 and the lowest mean rank of 1.60, suggesting that they were comparatively less severe than transportation and technological difficulties. The p-value of 0.163 further indicates that the financial

challenge score was not statistically different from the test value of 60. Nevertheless, expenses related to fees, books, transportation, digital devices and internet services may continue to affect students from economically weaker households. The Friedman test result of $\chi^2 = 43.937$ and $p = 0.000$ confirms that the levels of the three challenges differed significantly. Therefore, government authorities and educational institutions should prioritise affordable transportation, improved road and internet connectivity, access to digital devices, financial assistance and student support services to improve educational participation and academic performance among rural students in Palghar district.

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