Journal of Education, Society & Sustainable Practice, 2025, 1, 16–24
https://journals.enviromindsolutions.com/jessp
eISSN: pending

Article

Attitude of secondary school students toward education in relation to pre-matric scholarships in West Bengal, India

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Abstract

Pre-matric scholarships are mainly reserved for students from disadvantaged communities, including scheduled castes (SC), scheduled tribes (ST), other backward classes (OBC), girls and minorities. This scholarship has been started by the Central and State Governments of India to raise the levels of participation, decrease the drop-out rate, motivate marginalized communities to pursue higher education, and promote equity. It helps marginalized communities to continue their education without additional economic burdens and ensures a better future. This study speaks about the attitude of secondary school students towards education and the relationship between the educational attitudes of students receiving pre-matric scholarships and those not receiving them. The author used an attitude measuring scale, named Attitude towards Education Scale for School Students (ATESSS), to assess students' attitude towards education. The author assessed the attitude level of pre-matric scholarship recipients to see how much it supported and encouraged the recipients to continue and complete the educational process. A total of 319 students of 10th grade (class X) under the West Bengal Board of Secondary Education (WBBSE) were sampled through simple random sampling to achieve the study objectives. The collected data were tabulated in Microsoft Excel, and subsequent analysis was done in SPSS 22.0. Mean, standard deviation (SD), and t-values were calculated, and the significance of the results was tested at the 0.05 level of significance. No significant difference in attitude toward education was observed between recipients and non-recipients of the scholarship, though the scholarship showed a positive effect for rural students and male students, highlighting group-specific influences.

Article info

Received: 10 November 2025
Revised: 13 December 2025
Accepted: 21 December 2025

Keywords

Pre-matric scholarship
Scholarship recipient & non-recipient
Attitude toward education
Gender
India

How to cite

Mandal, P. (2025). Attitude of secondary school students toward education in relation to pre-matric scholarships in West Bengal, India. Journal of Education, Society & Sustainable Practice, 1, 16–24. https://doi.org/10.63697/jessp.2025.10063

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1 Introduction

Education plays an important role in developing a young individual's life opportunity, yet students' attitudes toward schooling often determine how effectively they engage with the learning process (Akey, 2006; Das et al., 2014; Díez-Palomar et al., 2020; Wei et al., 2024). These attitudes are influenced by a range of social, economic, and cultural factors that shape both their motivation and access to educational resources (Banerji, 1997). In India, to overcome challenges faced by marginalized communities, pre-matric scholarships were introduced specifically for the students who are studying in classes V to X. Pre-matric scholarships are mainly targeted for the students from underrepresented communities, including scheduled castes (SC), scheduled tribes (ST), other backward classes (OBC), minorities, girls, and disabled (Department of Social Justice & Empowerment, 2025). This scholarship was launched by the Central and State Governments of India to raise the levels of participation of the marginalized community (like SC/ST children) in school education, decrease dropout rate, motivate them for pursuing higher education, reduce the gender gap, and promote equity (Chen and DesJardins, 2008; Sao and Shrivastava, 2024). It further helps student to continue their education without the economic burdens they face during their studies, supporting better job prospects and enabling them to achieve their goals.

Students residing in poverty and backwardness often experience hardship in pursuing education (Islam and Al-Amin, 2025). When their family income is low, they experience

problems in fulfilling both their educational and living requirements, e.g., diet, nutrition, health, medical, and so forth. Poverty is regarded as one of the major factors hindering students' academic performance. Financial obstacles are often at the core of the concerns about education opportunities for disadvantaged students. Low-income students are highly sensitive to the cost incurred during higher education and thus impact both enrollment decisions (Kane, 1994; Heller, 1997) and year-to-year persistence (Paulsen and John, 2002). In addition, financial difficulties exert a significant pressure on students' attitudes toward learning and academic persistence (Braunstein et al., 2000).

Attitude can be defined as an established way of thinking, feeling, or behaving toward someone or something (Eagly and Chaiken, 1993). Attitude arises from our beliefs and actions (Fishbein and Ajzen, 1975) and represents a psychological tendency to assess a given entity with varying degrees of favorability (Eagly and Chaiken, 1993). The definition of attitude has been described as "*a mental and neural state of readiness, organized through experience, exerting a directive or dynamic influence upon an individual's response to all objects and situations with which it is related*" (Allport, 1935). Scholarships and other types of positive support help students develop a winning attitude and maintain the same strategy for overcoming different challenges throughout their learning curve (Ahmed et al., 2022; Devi et al., 2025). Students who believe they will be rewarded and acknowledged for excellent behavior are more likely to adopt such behaviors than those who do not think it is worthwhile (Phungphai and Boonmoh, 2021). This is the major way that financial assistance works in the classroom.

In West Bengal, a pre-matric scholarship is given to the secondary school students having SC, ST and OBC background (Government of West Bengal, 2025). The main eligibility criterion for this scholarship is the parental income of the applicant. The income ranges from Rs 44,500 per annum to Rs 200,000 per annum, depending on the type of scholarship. In case of OBC students, the applicant's parental income from all sources should not exceed Rs 44,500 per annum. Pre-matric scholarship is one of the key components for students facing difficulties in pursuing education, and this type of scholarship will likely help them or bolster their chances of good quality education in spite of other challenges. In West Bengal, secondary school students (classes IX and X) receive the pre-matric scholarship (Adhikari and Mohapatra, 2022). Therefore, it is important to know the impact of pre-matric scholarship on their education, how they use this scholarship, what the attitude this scholarship holders have towards education and the attitudinal gap between scholarship recipient and non-recipient students. The current study further raises questions such as how these scholarship recipients and non-recipients feel about education and how the perspectives differ from recipient to those of non-recipients.

This study hypothesized that there would be no significant difference in students' attitude toward education with respect to their scholarship status (recipient and non-recipient) across location (studying in rural and urban schools) and gender (male and female). Further, no significant difference would be observed between scholarship recipients and non-recipients when compared overall, as well as between rural schools and urban schools, and between male students and female students.

2 Methodology

2.1 Sample population

This study was delimited to the southern part of West Bengal, India. Within this geographical area, the schools were selected from the districts of North 24 Parganas, Bankura, Howrah, and Burdwan. The selection of school students was based on the following criteria: the schools were under the academic control of West Bengal Board of Secondary Education (WBBSE), financially aided by the Government of West Bengal, and the medium of instruction for all the schools is Bengali.

2.2 Selection of variables

This research has two types of variables. These are major (attitude towards education) and categorical variables, which include location of school (urban and rural), gender (male and female), and scholarship recipients and non-recipients. The sample population is Bengali medium secondary school students of class X under WBBSE of West Bengal, India.

2.3 Sampling procedure

Three types of schools (boys, girls, and co-educational) were selected from both urban and rural areas of the district of North 24 Parganas, Bankura, Burdwan, and Howrah. The students were selected from boys', girls', and co-educational schools under urban (municipality) and rural (panchayat) areas. All the schools were aided by the Government of West Bengal and academically controlled by WBBSE. A total of 319 secondary school students under WBBSE were selected as the sample for this study. The sample followed randomness.

2.4 Tools used in this study

This study used an attitude scale, named Attitude Towards Education Scale for School Students (ATESSS), to measure the students' attitude towards education. The scale was constructed by the author. The categories of responses were 'strongly agree', 'agree', 'undecided', 'disagree', 'strongly disagree', and '5', '4', '3', '2', '1' were the scores allocated to the responses, respectively. Some items were negative in nature, and the scoring was done in reverse order.

2.5 Validity and reliability of the tools

For the validity and reliability of the ATESSS scale, this study formulated a pool of 36 items, which are of four dimensions, viz., application, academic, economic, and social. To assess the validity of the items, expert ratings were obtained. Experts evaluated each item according to three categories: perfectly suitable, nearly suitable, and not suitable. Three senior academic experts from the author's institute were selected for the rating purpose. The author excluded any items that were rated as "not suitable" by even a single expert. Through this process, the author received 30 items for the ATESSS scale.

2.6 Data analysis

The test of normality of quantitative data is essential. If the sample size is less than 2,000, then Shapiro-Wilk test can be considered to test the normality of the data (Shapiro and Wilk, 1965). If the significance value in the Shapiro-Wilk test is greater than 0.05 ($p > 0.05$), the data can be considered to follow a normally distribution, and a researcher may use the parametric test for data analysis.

The p-values of the Shapiro-Wilk test were 0.145 for male students and 0.402 for female students ($p > 0.05$). Therefore, the data were normally distributed in all cases and there was a spacious chance to test with parametric statistics. Additionally, the p-values of the Shapiro-Wilk test were 0.191 for students from boys' school, 0.291 for students from girls' school, and 0.627 for students for co-educational school ($p > 0.05$), so, the data were normally distributed in all cases and there was a spacious chance to test with parametric statistics.

Likewise, the p-values of the Shapiro-Wilk test were 0.748 for students from urban areas and 0.073 for students from rural areas ($p > 0.05$), so the data were normally distributed in all cases, and there was a spacious chance to test with parametric statistics. Also, the p-values of the Shapiro-Wilk test in the case of attitude towards education were 0.209 for scholarship recipients and 0.290 for scholarship non-recipients ($p > 0.05$), so the data were normally distributed in all cases, and there was a spacious chance to test with parametric statistics.

3 Results

3.1 Scholarship recipient rural versus urban students

The analysis of the data showed that there was no significant difference in the attitude towards education between pre-matric scholarship recipient students from rural and urban schools (**Table 1**). The p-value was 0.631 ($p > 0.05$) for Levene's test for equality of variances, so equal variances can be assumed (Paul and Guha, 2018). The result also showed that, in the case of students' attitude towards education between urban and rural scholarship recipient students, the calculated $t_{(128)}$ value was 0.772, with a p-value of 0.441 ($p > 0.05$). Hence, the results were not significant at the 0.05 significance level. So, it can be concluded that pre-matric scholarship

recipients' urban students were not significantly different than the pre-matric scholarship recipients' rural students with respect to their attitude towards education.

3.2 Scholarship recipient male versus female students

The results showed that there was no significant difference in attitudes toward education between male and female pre-matric scholarship recipients (**Table 2**). Levene's test for equality of variances, found the *p*-value of 0.541 ($p > 0.05$), so equal variances can be assumed. The data also showed that, in the case of students' attitude towards education between scholarships recipient male and female students, the calculated $t_{(128)}$ value was 0.081, with a *p*-value of 0.936 ($p > 0.05$). Hence, 't' was not significant at the 0.05 significance level. Therefore, it can be said that pre-matric scholarship recipient male students were not significantly different than the pre-matric scholarship recipient female students with respect to their attitude towards education.

3.3 Scholarship non-recipient rural versus urban students

The data suggested that there was no significant difference in attitudes toward education among pre-matric scholarship non-recipient students of rural and urban school (**Table 3**). Levene's test for equality of variances found the *p*-value of 0.858 ($p > 0.05$). So, equal variances can be assumed (Paul and Guha, 2018). The data also showed that in case of students' attitude towards education between rural and urban scholarship non-recipient students, the calculated $t_{(187)}$ value was 1.252, with a *p*-value of 0.212. Hence, 't' was not significant at the 0.05 significance level. Therefore, it can be said that pre-matric scholarship non-recipient urban students were not significantly different than the pre-matric scholarship non-recipient rural students with respect to their attitude towards education.

Table 1. *Comparison of pre-matric scholarship recipient students based on their localities.*

Area	N	Mean	Std. Dev.	Std. Error	Leverne's test		t-test for equality of means			
					F	Sig.	t	df	Sig.(2-tailed)	Mean Diff.
Urban	28	124.96	9.88	1.87	0.232	0.631	0.772#	128	0.441	-1.69
Rural	102	126.66	10.38	1.03						

#Not significant at the 0.05 level of significance.

Table 2. *Comparison of pre-matric scholarship recipient students based on their gender.*

Gender	N	Mean	Std. Dev.	Std. Error	Leverne's test		t-test for equality of means			
					F	Sig.	t	df	Sig.(2-tailed)	Mean Diff.
Male	80	126.35	10.46	1.17	0.377	0.541	0.081#	128	0.936	0.15
Female	50	126.20	10.03	1.42						

#Not significant at the 0.05 level of significance.

Table 3. *Comparison of pre-matric scholarship non-recipient students based on their localities.*

Area	N	Mean	Std. Dev.	Std. Error	Leverne's test		t-test for equality of means			
					F	Sig.	t	df	Sig.(2-tailed)	Mean Diff.
Urban	62	125.82	10.55	1.34	0.032	0.858	1.252#	187	0.212	2.06
Rural	127	123.76	10.64	0.94						

#Not significant at the 0.05 level of significance.

3.4 Scholarship non-recipient male versus female students

The analysis of the data revealed a significant difference in attitudes toward education between male and female pre-matric scholarship non-recipient students (**Table 4**). Levene's test for equality of variances found the *p*-value of 0.539. So, equal variance can be assumed. The data also showed that, in the case of students' attitude towards education between male and female scholarship non-recipient students, the calculated $t_{(187)}$ value was 2.488, with a *p*-value of 0.014. Hence, 't' was significant at the 0.05 significance level. Therefore, it can be said that pre-matric scholarship non-recipient male students were significantly different from the pre-matric scholarship non-recipient female students with respect to their attitude towards education.

3.5 Scholarship recipient versus non-recipient rural students

A significant difference was observed in the attitudes toward education between pre-matric scholarship recipient and non-recipient students in rural school (**Table 5**). Levene's test for equality of variances found the *p*-value of 0.868, so equal variances can be assumed. The table also showed that in the case of students' attitude towards education between recipients and non-recipients of scholarships, the calculated $t_{(227)}$ value was 2.067, with a *p*-value of 0.040. Therefore, it can be safely said that pre-matric scholarship recipient students were significantly different from the pre-matric scholarship non-recipient students at rural schools.

3.6 Scholarship recipient versus non-recipient urban students

In terms of attitudes toward education between pre-matric scholarship recipients and non-recipient students in urban schools, no significant difference was observed (**Table 6**). Levene's test for equality of variances found the *p*-value of 0.683 ($p > 0.05$), so equal variances can be assumed. The data also indicated that, in the case of students' attitudes toward education between recipient and non-recipient students in urban schools, the calculated $t_{(88)}$ value was 0.364, with a *p*-value of 0.716. Therefore, it can be safely said that pre-matric scholarship

Table 4. *Comparison of pre-matric scholarship non-recipient students based on their gender.*

Gender	N	Mean	Std. Dev.	Std. Error	Leverne's test		t-test for equality of means			
					F	Sig.	t	df	Sig.(2-tailed)	Mean Diff.
Male	94	122.53	10.80	1.11	0.379	0.539	2.488*	187	0.014	3.79
Female	95	126.33	10.16	1.04						

*Significant at the 0.05 level of significance.

Table 5. *Comparison of rural pre-matric scholarship recipient and non-recipient students.*

Scholarship	N	Mean	Std. Dev.	Std. Error	Leverne's test		t-test for equality of means			
					F	Sig.	t	df	Sig.(2-tailed)	Mean Diff.
Recipient	102	126.66	10.38	1.03	0.028	0.868	2.067*	227	0.040	2.89
Non-recipient	127	123.76	10.64	0.94						

*Significant at the 0.05 level of significance.

Table 6. *Comparison of urban pre-matric scholarship recipient and non-recipient students.*

Scholarship	N	Mean	Std. Dev.	Std. Error	Leverne's test		t-test for equality of means			
					F	Sig.	t	df	Sig.(2-tailed)	Mean Diff.
Recipient	28	124.96	9.88	1.87	0.167	0.683	0.364#	88	0.716	-0.86
Non-recipient	62	125.82	10.55	1.34						

#Not significant at the 0.05 level of significance.

recipient students were not significantly different from the pre-matric scholarship non-recipient students at urban schools with respect to their attitude towards education.

3.7 Scholarship recipient versus non-recipient male students

In terms of attitudes toward education between pre-matric scholarship recipient and non-recipient male students, a significant difference was observed (**Table 7**). Levene's test for equality of variances found the *p*-value of 0.850 ($p > 0.05$), so equal variances can be assumed (Paul and Guha, 2018). The table also showed that, in the case of students' attitude towards education between recipients and non-recipients of scholarships, the calculated $t_{(172)}$ value was 2.359, with a *p*-value of 0.019. Thus, it can be safely said that pre-matric scholarship recipient male students were significantly different from the pre-matric scholarship non-recipient male students with respect to their attitude towards education.

3.8 Scholarship recipient versus non-recipient female students

In terms of attitudes toward education between pre-matric scholarship recipient and non-recipient female students, no significant difference was observed (**Table 8**). Levene's test for equality of variances found the *p*-value of 0.782, so equal variances can be assumed. The data also showed that, in the case of female students' attitude towards education between recipient and non-recipients of pre-matric scholarships, the calculated $t_{(143)}$ value was 0.071, with a *p*-value of 0.943. Thus, it can be safely said that pre-matric scholarship recipient female students were not significantly different from the pre-matric scholarship non-recipient female students.

3.9 Scholarship recipient versus non-recipient students

There was no significant difference in the attitudes toward education between pre-matric scholarship recipient and non-recipient students (**Table 9**). Levene's test for equality of

Table 7. *Comparison of male pre-matric scholarship recipient and non-recipient students.*

Scholarship	N	Mean	Std. Dev.	Std. Error	Leverne's test		t-test for equality of means			
					F	Sig.	t	df	Sig.(2-tailed)	Mean Diff.
Recipient	80	126.35	10.46	1.17	0.036	0.850	2.359*	172	0.019	3.81
Non-recipient	94	122.53	10.80	1.11						

*Significant at the 0.05 level of significance.

Table 8. *Comparison of female pre-matric scholarship recipient and non-recipient students.*

Scholarship	N	Mean	Std. Dev.	Std. Error	Leverne's test		t-test for equality of means			
					F	Sig.	t	df	Sig.(2-tailed)	Mean Diff.
Recipient	50	126.20	10.03	1.42	0.077	0.782	-0.071#	143	0.943	-0.13
Non-recipient	95	126.32	10.16	1.04						

#Not significant at the 0.05 level of significance.

Table 9. *Comparison of pre-matric scholarship recipient and non-recipient students.*

Scholarship	N	Mean	Std. Dev.	Std. Error	Leverne's test		t-test for equality of means			
					F	Sig.	t	df	Sig.(2-tailed)	Mean Diff.
Recipient	130	126.29	10.26	0.90	0.058	0.810	1.552#	317	0.122	1.85
Non-recipient	189	124.44	10.63	0.77						

#Not significant at the 0.05 level of significance.

variances found the *p*-value of 0.810, so equal variances can be assumed. The table also showed that, in case of students' attitude towards education between the recipient and non-recipient of scholarships, the calculated $t_{(317)}$ value was 1.552, with a *p*-value of 0.122. Therefore, it can be safely said that pre-matric scholarship recipient students were not significantly different from the pre-matric scholarship non-recipient students with respect to their attitude towards education.

4 Discussion

The results showed that among pre-matric scholarship recipients, students' attitudes toward education did not differ significantly by location (urban vs. rural) and by gender. For non-recipient students, no significant difference was observed between urban and rural students, although a significant gender difference existed, with male and female non-recipients differing in their attitudes. When comparing recipients and non-recipients, no overall significant difference in attitude toward education was observed, though significant differences emerged for rural students and male students specifically.

Zheng et al. (2025) observed that education subsidies have a stronger positive impact on non-cognitive development among female students, those from economically disadvantaged backgrounds, and students living in rural areas. However, the results from this study did not show a uniformly stronger attitude among female scholarship recipients, which suggests that the effect of scholarships on attitude may be influenced by other contextual factors, such as socio-economic status, school environment, and cultural expectations. Similarly, Sung et al. (2025) reported a significant gender difference in attitude after intervention, but no significant difference for rural vs. urban location was observed. These results agreed with the current study findings that location does not significantly affect attitudes among scholarship recipients, indicating that equitable support may help reduce urban–rural gaps in education. Likewise, Ahmed et al. (2022) observed that need-based scholarships significantly enhance male students' academic performance and overall success outcomes, whereas merit-based scholarships show no significant effect.

5 Conclusion

This study addressed the pre-matric scholarship scheme and its impact on secondary school students in West Bengal, India. It examined the attitude towards education among scholarship recipients and non-recipient students. The findings indicate that the pre-matric scholarship has a significant positive effect on the attitudes of rural students and male students, while no significant differences were observed among urban students, female students, or the overall student population. In specific cases, scholarship recipients demonstrated higher academic motivation and a more positive attitude toward education compared to non-recipients. As suggested by other studies, scholarships have a positive impact on student success.

6 Ethical statements

The raw data were provided by the school authorities with prior permission. The dataset included anonymized information on students' gender, location (rural/urban), and scholarship status.

7 Conflict of interest

The authors declare no conflict of interest related to this study.

8 Data availability statement

The raw data are not publicly available due to confidentiality considerations.

9 Author contributions

Prosenjit Mandal: Conceptualization and writing original draft. The authors approved the final version of the manuscript.

References

Adhikary, P., & Mohapatra, R. L. (2022). Tribal education: A voyage towards inclusion. Shodha Samiksha, 12(1), 247–252.

Ahmed, R., Ahmed, A., Barkat, W., & Ullah, R. (2022). Impact of scholarships on student success: A case study of the University of Turbat, Pakistan. The Pakistan Development Review, 61(2), 231–258. https://www.jstor.org/stable/27262044

Akey, T. M. (2006). School context, student attitudes and behavior, and academic achievement: An exploratory analysis. Washington, D.C.: MDCR.

Allport, G. W. (1935). Attitudes: A handbook of social psychology. Clark University Press, Worcester.

Banerji, R. (1997). Why don't children complete primary school? A case study of a low-income neighbourhood in Delhi. Economic and Political Weekly, 32(32), 2053–2063. http://www.jstor.org/stable/4405735

Braunstein, A., McGrath, M., & Pescatrice, D. (2000). Measuring the impact of financial factors on college persistence. Journal of College Student Retention: Research, Theory & Practice, 2(3), 191–203. https://doi.org/10.2190/0ttm-u8ra-v8fx-fyva

Chen, R., & DesJardins, S. L. (2007). Exploring the effects of financial aid on the gap in student dropout risks by income level. Research in Higher Education, 49(1), 1–18. https://doi.org/10.1007/s11162-007-9060-9

Das, S. K., Halder, U. K., Mishra, B., & Debnath, D. (2014). Study on relationship between attitude towards education and academic achievement in secondary level minority students. Indian Streams Research Journal, 4(10), 1–6.

Department of Social Justice & Empowerment (2025). Pre-Matric scholarships scheme for scheduled castes & others. Department of Social Justice & Empowerment, Ministry of Social Justice & Empowerment, Government of India. https://socialjustice.gov.in/schemes/23 (accessed on July 15, 2025)

Devi, T., Sengupta, R., Rooj, D., & Gopathi, M. (2025). Investing in education: The impact of scholarships on school attendance in India. International Journal of Educational Development, 116, 103309. https://doi.org/10.1016/j.ijedudev.2025.103309

Díez-Palomar, J., García-Carrión, R., Hargreaves, L., & Vieites, M. (2020). Transforming students' attitudes towards learning through the use of successful educational actions. PLOS ONE, 15(10), e0240292. https://doi.org/10.1371/journal.pone.0240292

Eagly, A. H., & Chaiken, S. (1993). The psychology of attitudes. Harcourt Brace Jovanovich College Publishers.

Fishbein, M., & Ajzen, I. (1975). Belief, attitude, intention, and behavior: An introduction to theory and research. Reading, MA: Addison-Wesley.

Government of West Bengal (2025). Pre-matric scholarship for SC/ST/OBC students. Government of West Bengal. https://wbcareerportal.in/scholarship/pre-matric-scholarship-for-sc-st-students/ (accessed on July 15, 2025)

Heller, D. E. (1997). Student price response in higher education: An update to Leslie and Brinkman. The Journal of Higher Education, 68(6), 624–659.

Islam, M. N., & Al-Amin, M. (2025). Poverty and education: the impacts of tea workers' chronic poverty on their children's education in rural Bangladesh. Labor History, 1–17. https://doi.org/10.1080/0023656x.2025.2451414

Kane, T. J. (1994). College entry by blacks since 1970: The role of college costs, family background, and the returns to education. Journal of Political Economy, 102(5), 878911.

Paul, U., & Guha, A. (2018). Teachers' awareness and attitude towards constructivist approach in teaching for enhancing quality of secondary schools in West Bengal. Indian Journal of Educational Research, 7, 181–194.

Paulsen, M. B., & St. John, E. P. (2002). Social class and college costs: Examining the financial nexus between college choice and persistence. The Journal of Higher Education, 73(2), 189–236.

Phungphai, K., & Boonmoh, A. (2021). Students' perception towards the use of rewards to enhance their learning behaviours and self-development. JEE (Journal of English Education), 7(1), 39–55. https://doi.org/10.30606/jee.v7i1.637

Sao, S., & Shrivastava, R. (2024). Quality enhancement in higher education through scholarships in the lens of National Education Policy–2020. University News, 62(22), 18–22.

Shapiro, S. S., & Wilk, M. B. (1965). An analysis of variance test for normality (complete samples). Biometrika, 52(3–4), 591–611. https://doi.org/10.1093/biomet/52.3-4.591

Sung, E., Han, J., & Kelley, T. R. (2025). Enhancing STEM attitudes of rural high school students through engineering design-based learning. Journal of Technology Education, 36(2), 113–137. https://doi.org/10.21061/jte.v36i2.a.6

Wei, X., Saab, N., & Admiraal, W. (2024). What rationale would work? Unfolding the role of learners' attitudes and motivation in predicting learning engagement and perceived learning outcomes in MOOCs. International Journal of Educational Technology in Higher Education, 21(1). https://doi.org/10.1186/s41239-023-00433-2

Zheng, Y., Zheng, Y., & Liu, X. (2025). How education subsidies affect junior high school students' noncognitive ability development: Evidence from China. Education Sciences, 15(3), 298. https://doi.org/10.3390/educsci15030298