

Research Paper

Effect of Socio-Economic Status, Area of Residence and Gender on Locus of Control among College Students

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ABSTRACT

The present study examined locus of control among college students in relation to three background variables: socio-economic status, area of residence, and gender. A quantitative descriptive-comparative survey design was adopted. For the present analysis, a balanced sample of 160 college students was arranged in a $2 \times 2 \times 2$ factorial design, with 20 students per cell. Factor A represented socio-economic status (A1 = High SES; A2 = Low SES), Factor B represented gender (B1 = Male; B2 = Female), and Factor C represented area of residence (C1 = Urban; C2 = Rural). Locus of control was assessed with the Locus of Control Scale (LCS-HJ), while socio-economic status was classified using the Socio-Economic Status Scale. Means, standard deviations, and three-way analysis of variance were employed. The analysis indicated significant main effects of socio-economic status and gender, while the overall main effect of area of residence was not significant. Significant SES $\times$ Area, Gender $\times$ Area, and SES $\times$ Gender $\times$ Area interactions were observed; the SES $\times$ Gender interaction was not significant. The pattern suggests that control orientation among college students is associated not only with socioeconomic and gender differences but also with how these characteristics operate in urban and rural contexts. The findings support a contextual interpretation of locus of control and underline the usefulness of factorial analysis in educational psychology.

Keywords: *Locus of Control, Socio-Economic Status, Area of Residence, Gender, College Students*

Locus of control refers to generalised beliefs about the sources of reinforcement and personal outcomes. Rotter (1966) distinguished an internal orientation, in which individuals perceive outcomes as substantially related to their own effort and behaviour, from an external orientation, in which outcomes are attributed more strongly to chance, fate, luck, or powerful others. During the college years, such beliefs are especially relevant because students must make increasingly independent decisions about learning, career planning, social adjustment, and future goals.

Control beliefs are shaped through repeated experiences of success, failure, opportunity, restriction, and feedback. Students who perceive a dependable connection between effort

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and outcomes may show greater persistence and responsibility, whereas students who frequently encounter barriers beyond their control may develop a more external orientation. Findley and Cooper (1983) noted that internal control beliefs are generally associated with stronger academic achievement, although the strength of this relationship varies across populations and measurement procedures.

Socio-economic status (SES) is one contextual factor that can influence perceived control. SES represents a combination of educational, occupational, financial, and material resources available within the family. Students from higher-SES backgrounds may have greater access to educational materials, career information, technology, private guidance, and opportunities for independent decision-making. In contrast, students from lower-SES backgrounds may face financial constraints, limited educational options, family responsibilities, or uncertainty about employment. These conditions may alter the degree to which young people perceive life outcomes as controllable through personal action.

Area of residence may further modify these experiences. Urban students generally have access to broader institutional resources, transport facilities, digital access, more competitive academic environments, and greater exposure to a wider range of occupations. Rural students may experience stronger community ties and family involvement but may also face limitations in specialised educational facilities, mobility, and career exposure. The effect of socio-economic resources may therefore differ between urban and rural settings rather than operate uniformly across all students.

Gender is also relevant because opportunities and social expectations may differ for male and female students. Family roles, freedom of movement, educational investment, career expectations, and socialisation practices can influence the development of perceived control. Importantly, gender differences may themselves depend on socio-economic and residential context. A three-factor approach is therefore more informative than isolated group comparisons because it can test whether SES, gender, and area jointly shape locus-of-control scores.

REVIEW OF LITERATURE

Rotter (1966) provided the theoretical foundation for internal-external control of reinforcement and proposed that individuals develop generalised expectations about whether reinforcement is contingent on their own behaviour or on forces outside their control. This framework subsequently became influential in research on motivation, achievement, adjustment, and health behaviour.

Findley and Cooper (1983) reviewed the relationship between locus of control and academic achievement and reported an overall tendency for internal control to be associated with better educational performance. Their review also showed that effect sizes vary with sample characteristics and measurement procedures, indicating that contextual variables should be considered in student research.

Lachman and Weaver (1998) demonstrated that perceived control is related to social-class conditions. Lower-income respondents reported lower mastery and greater perceived constraints, while stronger control beliefs were associated with better well-being. Their findings support the view that social and economic circumstances can influence the development and expression of perceived control.

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Shifrer (2019) examined socio-economic differences in adolescents' locus of control and showed that family educational resources, academic performance, school context, and peer experiences contributed to SES-related differences in control beliefs. The study is relevant to the present investigation because it illustrates how structural inequalities can become psychologically meaningful through everyday educational experiences.

Serin, Serin, and Şahin (2010) reported variation in locus of control among university students according to demographic and economic characteristics, including gender and income level. Taken together, the literature suggests that locus of control should be examined as a psychological orientation embedded in social and educational context.

Objectives of the Study

1. To compare locus-of-control scores of high- and low-socio-economic-status college students.
2. To compare locus-of-control scores of male and female college students.
3. To compare locus-of-control scores of urban and rural college students.
4. To examine the interaction effect of socio-economic status and gender on locus of control.
5. To examine the interaction effect of socio-economic status and area of residence on locus of control.
6. To examine the interaction effect of gender and area of residence on locus of control.
7. To examine the three-way interaction effect of socio-economic status, gender, and area of residence on locus of control.

Hypotheses

1. **H1.** There will be a significant difference in locus-of-control scores between high- and low-SES college students.
2. **H2.** There will be a significant difference in locus-of-control scores between male and female college students.
3. **H3.** There will be a significant difference in locus-of-control scores between urban and rural college students.
4. **H4.** There will be a significant $SES \times Gender$ interaction effect on locus-of-control scores.
5. **H5.** There will be a significant $SES \times Area\ of\ Residence$ interaction effect on locus-of-control scores.
6. **H6.** There will be a significant $Gender \times Area\ of\ Residence$ interaction effect on locus-of-control scores.
7. **H7.** There will be a significant $SES \times Gender \times Area\ of\ Residence$ interaction effect on locus-of-control scores.

RESEARCH METHODOLOGY

Sample and Sampling

The study framework concerned college students from selected colleges in Jalgaon District, Maharashtra. For the present factorial analysis, 160 cases were allocated equally across the eight $SES \times Gender \times Area$ cells, with 20 students per cell. Thus, 80 students belonged to high SES and 80 to low SES; 80 were male and 80 female; and 80 were urban and 80 rural. The balanced structure provides equal cell sizes for factorial comparison.

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Table 1 Sample Distribution for the $2 \times 2 \times 2$ Factorial Design

Socio-Economic Status	Gender	Urban (C1)	Rural (C2)	Total
High SES (A1)	Male (B1)	20	20	40
High SES (A1)	Female (B2)	20	20	40
Low SES (A2)	Male (B1)	20	20	40
Low SES (A2)	Female (B2)	20	20	40
Total		80	80	160

Tools of the Study

- 1. Locus of Control Scale (LCS-HJ).** The Locus of Control Scale, developed by N. Hasnain and D. D. Joshi, was used to obtain the dependent variable score. The scale contains 41 items, comprising positively and negatively scored statements with Always, Sometimes, and Never response categories. Scores are obtained according to the prescribed key, with a possible total range of 0 to 82. In the scoring convention used for this study, a higher total score was interpreted as comparatively stronger internal locus of control.
- 2. Socio-Economic Status Scale (SESS).** The Socio-Economic Status Scale developed by R. L. Bharadwaj was used to classify students into high- and low-SES groups. The instrument considers educational, occupational, family, asset, income, and other socio-economic indicators. Classification was made according to the prescribed scoring procedure.

Statistical Analysis

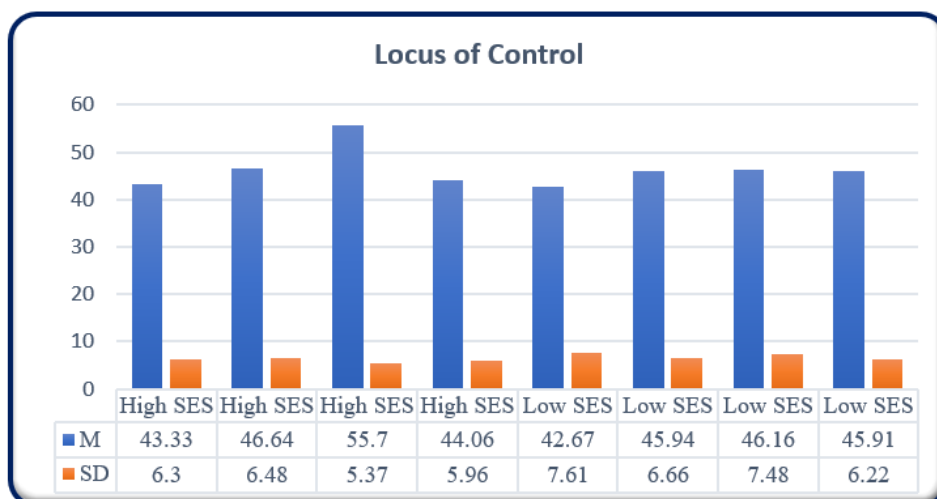
Means and standard deviations were calculated for descriptive interpretation. A $2 \times 2 \times 2$ three-way ANOVA was applied to evaluate the main effects of SES, gender, and area of residence; the SES $\times$ Gender, SES $\times$ Area, and Gender $\times$ Area two-way interactions; and the SES $\times$ Gender $\times$ Area three-way interaction.

RESULTS

Table 2 Mean and Standard Deviation of Locus-of-Control Scores across the Eight Factorial Cells

SES	Gender	Area	n	M	SD
High SES	Male	Urban	20	43.33	6.30
High SES	Male	Rural	20	46.64	6.48
High SES	Female	Urban	20	55.70	5.37
High SES	Female	Rural	20	44.06	5.96
Low SES	Male	Urban	20	42.67	7.61
Low SES	Male	Rural	20	45.94	6.66
Low SES	Female	Urban	20	46.16	7.48
Low SES	Female	Rural	20	45.91	6.22

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Across the marginal means, high-SES students obtained a higher locus-of-control score ($M = 47.43$) than low-SES students ($M = 45.17$), and female students scored higher overall ($M = 47.95$) than male students ($M = 44.65$). Urban and rural marginal means were 46.96 and 45.64, respectively. The highest cell mean occurred among urban high-SES female students ($M = 55.70$), whereas the lowest was observed among urban low-SES male students ($M = 42.67$).

Table 3 Three-Way ANOVA for Locus-of-Control Scores

Source	SS	df	MS	F	p
SES (A)	204.802	1	204.802	4.78	0.05
Gender (B)	437.847	1	437.847	10.22	0.01
Area (C)	70.517	1	70.517	1.65	NS
SES × Gender	100.046	1	100.046	2.33	NS
SES × Area	321.773	1	321.773	7.51	0.05
Gender × Area	853.406	1	853.406	19.91	0.01
SES × Gender × Area	326.841	1	326.841	7.63	0.01
Error	6514.805	152	42.861		
Corrected Total	8830.036	159			

Sig *0.01 = 6.64, *0.05 = 3.84

The three-way ANOVA showed significant main effects of SES, $F(1, 152) = 4.78$, $p = 0.05$, and gender, $F(1, 152) = 10.22$, $p = 0.01$. The main effect of area was not significant, $F(1, 152) = 1.65$, $p = \text{NS}$. The SES × Area and Gender × Area interactions were significant, whereas SES × Gender was not. Most importantly, the SES × Gender × Area interaction was significant, $F(1, 152) = 7.63$, $p = 0.01$, indicating that the SES-by-gender pattern differed across urban and rural contexts.

DISCUSSION

The present investigation examined locus of control through a three-factor framework rather than treating socio-economic status, gender, and residential area as isolated background characteristics. The significant main effect of SES indicated that high-SES students obtained higher total scores than low-SES students. Under the scoring interpretation used in this study, this pattern reflects comparatively stronger internal locus of control among the high-SES group. Greater access to educational resources, parental guidance, career information,

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and opportunities for autonomous decision-making may help students experience a clearer connection between effort and outcomes. This interpretation is consistent with research linking socio-economic resources with perceived mastery and control (Lachman & Weaver, 1998; Shifrer, 2019).

Gender also produced a significant main effect, with female students obtaining a higher overall mean than male students. This result indicates a stronger internal orientation among females in the present sample, but it should not be treated as a universal gender characteristic. Gender effects in locus-of-control research are sensitive to cultural context, opportunity structures, family expectations, and measurement procedures. Serin et al. (2010) similarly reported gender-related variation among university students, supporting the need for context-specific interpretation.

The overall urban-rural main effect was not statistically significant. This finding is important because it shows that residential area alone did not adequately explain differences in locus of control. However, area became meaningful through its interactions with SES and gender. The significant $SES \times Area$ interaction showed that the effect of socio-economic status differed across urban and rural students. Descriptively, the high-SES advantage was pronounced in the urban group, particularly among female students, whereas SES differences were much smaller in the rural group.

The $Gender \times Area$ interaction was the strongest factorial effect in the analysis. Urban female students showed considerably higher scores than urban male students, while the gender pattern was much smaller and slightly reversed in the rural group. This crossover pattern why a simple statement that one gender is generally more internal can be misleading when residential context is ignored. Social roles, mobility, educational exposure, and family expectations may operate differently for male and female students across settings.

The significant three-way $SES \times Gender \times Area$ interaction provides the central finding of the study. It indicates that the joint pattern of socio-economic status and gender differed between urban and rural contexts. Urban high-SES female students showed the highest mean score, while the remaining groups clustered more closely together. The finding supports a contextual interpretation of perceived control: socio-economic resources may have different psychological consequences depending on both gender and residential environment. Because the data are observational, these patterns should be interpreted as group differences rather than causal effects.

Educational Implications

College counselling and student development programmes should strengthen realistic links among effort, planning, problem-solving, and educational outcomes. Students with fewer socio-economic resources may benefit from mentoring, scholarships, career guidance, digital access, and structured opportunities for independent decision-making. The interaction findings further suggest that support should be sensitive to gender and residential context rather than based only on broad urban-rural or high-low SES categories.

CONCLUSION

1. High socio-economic status college students obtained significantly higher locus-of-control scores than low socio-economic status students, indicating a comparatively stronger internal locus of control among the high-SES group.

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2. Female college students obtained significantly higher locus-of-control scores than male students, indicating a comparatively stronger internal locus of control among female students in the present sample.
3. No statistically significant overall difference was found between urban and rural college students in locus-of-control scores.
4. The interaction between socio-economic status and gender was not statistically significant; therefore, the SES difference did not vary reliably by gender when residential area was ignored.
5. A significant SES $\times$ Area of Residence interaction was found, showing that socio-economic differences in locus of control varied across urban and rural settings.
6. A significant Gender $\times$ Area of Residence interaction was found, indicating that the gender pattern in locus of control differed between urban and rural students.
7. A significant SES $\times$ Gender $\times$ Area of Residence interaction was found, indicating that the combined SES-gender pattern changed across residential contexts. The highest internal locus-of-control pattern was observed descriptively among urban high-SES female students.

REFERENCES

- Bharadwaj, R. L. (2001). Socio-Economic Status Scale manual.
- Findley, M. J., & Cooper, H. M. (1983). Locus of control and academic achievement: A literature review. *Journal of Personality and Social Psychology*, 44(2), 419–427. <https://doi.org/10.1037/0022-3514.44.2.419>
- Hasnain, N., & Joshi, D. D. (n.d.). Locus of Control Scale (LCS-HJ) manual.
- Lachman, M. E., & Weaver, S. L. (1998). The sense of control as a moderator of social class differences in health and well-being. *Journal of Personality and Social Psychology*, 74(3), 763–773. <https://doi.org/10.1037/0022-3514.74.3.763>
- Rotter, J. B. (1966). Generalized expectancies for internal versus external control of reinforcement. *Psychological Monographs: General and Applied*, 80(1), 1–28. <https://doi.org/10.1037/h0092976>
- Serin, N. B., Serin, O., & Şahin, F. S. (2010). Factors affecting the locus of control of the university students. *Procedia - Social and Behavioral Sciences*, 2(2), 449–452. <https://doi.org/10.1016/j.sbspro.2010.03.041>
- Shifrer, D. (2019). The contributions of parental, academic, school, and peer factors to differences by socioeconomic status in adolescents' locus of control. *Society and Mental Health*, 9(1), 74–94. <https://doi.org/10.1177/2156869318754321>

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Conflict of Interest

The author(s) declared no conflict of interest.

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