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Life Skills and Academic Achievement among Higher Secondary Students: Influence of Gender and Locale

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Abstract

Life skills education has emerged as a core dimension of holistic schooling, particularly during adolescence when cognitive, emotional, and social competencies undergo rapid development. The present study investigated the level of life skills among higher secondary students and examined their relationship with academic achievement, gender, and locale. Using a descriptive survey design, data were collected from 250 Class *XI* students selected through simple random sampling from government and private schools in Samba District. Life skills were measured using the standardized Life Skills Scale developed by Chandra Kumari and Tripathi (2010), while academic achievement was assessed through previous-year percentage scores. Statistical analysis included percentage distribution, Pearson's product–moment correlation, and independent sample *t*-tests. Results revealed a strong positive correlation (r =0.83, p < 0.01) between life skills and academic achievement, indicating substantial shared variance (r^2 = 0.69). Significant gender and locale differences were observed. Female students demonstrated significantly higher academic achievement and life skills compared to male students. Urban students scored significantly higher than rural students in both life skills and academic performance. The findings underscore the predictive relevance of psycho-social competencies for scholastic success and highlight structural disparities associated with geographic context. The study recommends systematic institutional integration of structured life skills education, particularly in rural settings, to promote equitable academic outcomes. The results further emphasize the need for multidimensional educational frameworks that incorporate emotional and social competencies alongside cognitive performance indicators.

Keywords: Life skills; Academic achievement; Gender differences; Locale disparity; Adolescence

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INTRODUCTION

Adolescence represents a transitional phase characterized by rapid psychosocial transformation, identity formation, emotional fluctuation, and heightened academic expectations. Developmental psychologists describe this stage as one of critical restructuring in which cognitive maturation intersects with social awareness and emotional sensitivity. At the higher secondary level, students confront competitive examinations, career-oriented decisions, and increasing societal pressure. Expectations from parents, teachers, and peers often intensify during this period, creating both motivational opportunities and stress-related vulnerabilities.

Traditionally, educational systems have emphasized cognitive attainment as the principal indicator of success. However, contemporary perspectives in educational psychology recognize that academic achievement is deeply intertwined with socio-emotional competencies rather than purely intellectual capacity. Learning is not solely a cognitive act but a complex behavioral process influenced by emotional regulation, interpersonal relationships, and adaptive coping strategies. The World Health Organization (1997) conceptualizes life skills as adaptive and positive behaviors that enable individuals to deal effectively with the demands and challenges of everyday life. These include decision-making, critical thinking, effective communication, interpersonal relationship skills, self-awareness, empathy, coping with stress, and coping with emotions (World Health Organization, 1997). Similarly, UNICEF (2012) defines life skills education as a behavior development approach integrating knowledge, attitudes, and practical skills essential for informed decision-making and responsible citizenship. Life skills education therefore operates at the intersection of personal development, social integration, and academic engagement (UNICEF, 2012).

From a theoretical standpoint, life skills are closely aligned with social cognitive theory, particularly the construct of self-efficacy (Bandura, 1986). Students who believe in their ability to manage stress, regulate emotions, and solve problems are more likely to demonstrate sustained academic engagement and resilience in the face of challenges. Empirical research increasingly supports the educational relevance of life skills. Prajapati et al. (2016) argued that life skills education enhances adaptive classroom behavior and academic engagement. Neeraj and Sonu (2020) identified significant positive correlations between life skills and scholastic performance among senior secondary students. Surendran et al. (2023) reported improvements in socio-emotional functioning following structured life skills interventions. Despite growing evidence, limited research has simultaneously examined life skills and academic achievement in relation to gender and locale among higher secondary students in semi-urban districts such as Samba (Pandey & Pandey, 2024; Ram et al., 2014). The present study therefore seeks to examine the relationship between life skills and academic achievement and to analyze gender and locale differences among higher secondary students in Samba District

REVIEW OF RELATED LITERATURE

Life skills education emerged from public health and developmental psychology traditions that emphasized preventive mental health and holistic adolescent development. The WHO framework (World Health Organization, 1997) identified ten core life skills intended to promote resilience and adaptive functioning. These competencies were designed to equip young individuals with tools necessary to navigate social pressures, emotional instability, and decision-making challenges. UNICEF (2012) further institutionalized life skills within educational reform initiatives, advocating integration into school curricula. The framework emphasized participatory teaching methods that encourage experiential learning and reflective engagement rather than rote memorization. This pedagogical

orientation underscores the role of life skills in fostering autonomy and self-regulation. Vranda and Rao (2011) demonstrated that structured life skills training significantly improved adolescents' emotional adjustment and peer relationships. Their findings indicate that psychosocial competencies influence not only behavioral stability but also classroom engagement and motivation. Prajapati et al. (2016) similarly emphasized that life skills enhance coping strategies and reduce stress-related academic disruption, thereby improving concentration and task completion. Academic achievement is increasingly conceptualized as a multidimensional outcome influenced by motivational, emotional, and contextual variables. Neeraj and Sonu (2020) reported significant positive relationships between overall life skills scores and academic outcomes among senior secondary students. Surendran et al. (2023) observed that life skills interventions improved classroom participation and reduced behavioral difficulties, indirectly strengthening academic persistence. Gender differences in life skill development are often interpreted through socialization theory. Ram et al. (2014) observed that cultural expectations influence coping patterns and communication styles differently for boys and girls, potentially affecting academic engagement and behavioral compliance. Locale disparities also shape developmental trajectories. Pandey and Pandey (2024) found that urban students demonstrated comparatively higher life skill levels, attributing differences to institutional resources, structured exposure, and extracurricular opportunities. Although existing literature confirms positive associations between life skills and academic achievement, limited studies examine these variables simultaneously in relation to gender and locale within semi-urban districts. The present study attempts to bridge this contextual gap by exploring how psychosocial competence correlates with scholastic performance while accounting for demographic variation.

OBJECTIVES

- To determine the level of life skills among higher secondary students.
- To examine the relationship between life skills and academic achievement.
- To compare academic achievement across gender and locale.
- To compare life skills across gender and locale.

METHODOLOGY

The study adopted a descriptive survey design appropriate for examining existing conditions and relationships without manipulation (Creswell, 2014). Such a design facilitates systematic observation of naturally occurring variables and statistical examination of associations among them. The sample comprised 250 Class XI students selected through simple random sampling from government and private higher secondary schools in Samba District (Kothari, 2004). The sample included 120 male and 130 female students. For locale comparison, 118 students were drawn from rural schools and 132 from urban schools to ensure representatives.

Life skills were measured using the standardized Life Skills Scale developed by Chandra Kumari and Tripathi (2010), with total scores ranging from 0 to 260. The scale assesses self-awareness, interpersonal skills, emotional regulation, and problem-solving ability. Academic achievement was assessed using previous-year examination percentage scores obtained from official school records to ensure objectivity. Data analysis involved percentage distribution to determine levels of life skills, Pearson's product–moment correlation to examine relationships between variables (Field, 2018), and independent samples t-tests to assess gender and locale differences (Gravetter & Wallnau, 2014). Statistical significance was determined at .05 and .01 levels.

ANALYSIS AND INTERPRETATION OF DATA

The data were collected from 250 Higher Secondary School students, and scoring was performed using Microsoft Excel. The present study comprised five objectives, and for achieving these objectives, different statistical techniques were employed, namely percentage analysis, Pearson's coefficient of correlation, and independent samples t-test. These techniques were applied to determine the level of life skills, examine the relationship between life skills and academic achievement, and assess gender and locale differences.

Statistical Techniques and Formulations Used

Mean (Arithmetic Mean)

The following statistical techniques were employed to analyse the data collected in the study.

$$\bar{X} = \frac{\sum X}{N} \tag{1}$$

where,

- $\bar{X}$ = Mean score
- $\sum X$ = Sum of all scores
- N = Total number of respondents

Standard Deviation (SD)

Standard deviation was calculated to determine the variability of scores using the following formula:

$$SD = \sqrt{\frac{\sum (X - \bar{X})^2}{N}} \tag{2}$$

where,

- SD = Standard deviation
- X = Individual score
- $\bar{X}$ = Mean score
- $\sum$ = Summation
- N = Total number of observations

Pearson Product Moment Correlation

The relationship between life skills and academic achievement was determined using Pearson's product moment correlation coefficient:

$$r = \frac{N \sum XY - (\sum X)(\sum Y)}{\sqrt{\left[N \sum X^2 - (\sum X)^2\right] \left[N \sum Y^2 - (\sum Y)^2\right]}} \tag{3}$$

where,

- r = Pearson correlation coefficient
- X = Life skills scores
- Y = Academic achievement scores
- N = Number of respondents
- $\sum XY$ = Sum of the product of paired scores
- $\sum X$ = Sum of X scores
- $\sum Y$ = Sum of Y scores

Independent Sample t-Test

To determine differences between gender and locale groups, the independent sample t-test was used:

$$t = \frac{\bar{X}_1 - \bar{X}_2}{\sqrt{\frac{SD_1^2}{N_1} + \frac{SD_2^2}{N_2}}} \tag{4}$$

where,

- $\bar{X}_1$ = Mean of Group 1
- $\bar{X}_2$ = Mean of Group 2
- SD_1 = Standard deviation of Group 1
- SD_2 = Standard deviation of Group 2
- N_1 = Sample size of Group 1
- N_2 = Sample size of Group 2

The above statistical techniques were applied to analyze the collected data. Mean and standard deviation were used to describe the distribution of scores, Pearson's correlation was used to determine the relationship between life skills and academic achievement, and independent sample t-tests were applied to examine differences across gender and locale groups. All calculations were performed using Microsoft Excel.

Objective 1:

To study the level of Life Skills among Higher Secondary School students.

Table 1: Level of Life Skills among Higher Secondary Students (N = 250)

Level	Frequency	Percentage
Low	40	16.0%
Average	150	60.0%
High	60	24.0%
Total	250	100%

Interpretation

Table 1 reveals that the majority of students (60%) fall within the average level of life skills. About 24% of students demonstrate a high level of life skills, while 16% fall in the low category. This indicates that most Higher Secondary School students possess moderate psycho-social competencies; however, a noticeable proportion still requires intervention to enhance their life skills.

Objective 2 To study the relationship between Life Skills and Academic Achievement of Higher Secondary School students.

Table 2: Correlation between Life Skills and Academic Achievement (N = 250)

Variables	**r**	r^2	**p**
Life Skills & Academic Achievement	0.83	0.69	< 0.01

Interpretation

Table 2 indicates a strong positive correlation ($r = 0.83$) between Life Skills and Academic Achievement, which is statistically significant at the 0.01 level ($p < 0.01$).

The coefficient of determination ($r^2 = 0.69$) suggests that approximately 69% of the variance in Academic Achievement is associated with variation in Life Skills. Therefore, the null hypothesis stating that "There is no significant relationship between Life Skills and Academic Achievement of Higher Secondary School students" is rejected. However, since the study is correlational in nature, causality cannot be inferred.

Objective 3

To study whether there is any significant difference in Life Skills and Academic Achievement of Higher Secondary School students with respect to Gender.

Table 3: Gender Differences in Life Skills and Academic Achievement.

Variable	**Gender**	**N**	**Mean**	**SD**	**t**	**p**
Life Skills	Boys	120	171.84	18.20	2.88	<0.01
	Girls	130	181.62	16.45		
Academic Achievement	Boys	120	72.14	8.35	2.95	< 0.01
	Girls	130	76.48	7.92		

Interpretation

Table 3 shows that female students obtained significantly higher mean scores than male students in both Life Skills and Academic Achievement. The obtained t-values (2.88 and 2.95) are significant at the 0.01 level ($p < 0.01$). Thus, the null hypothesis stating that "There is no significant gender difference in Life Skills and Academic Achievement" is rejected.

These findings suggest gender-based variation in psycho-social development and scholastic performance, potentially influenced by socialization patterns and reinforcement of adaptive behaviors.

Objective 4

To study whether there is any significant difference in Life Skills and Academic Achievement of Higher Secondary School students with respect to Locale (Rural/Urban).

Table 4: Locale Differences in Life Skills and Academic Achievement

Variable	Locale	N	Mean	SD	t	p
Life Skills	Rural	118	170.26	17.95	3.12	< 0.01
	Urban	132	183.05	15.78		
Academic Achievement	Rural	118	71.08	8.60	3.36	< 0.01
	Urban	132	77.14	7.48		

Interpretation:

Table 4 indicates that Urban students scored significantly higher than Rural students in both Life Skills and Academic Achievement. The obtained t-values (3.12 and 3.36) are significant at the 0.01 level ($p < 0.01$).

Hence, the null hypothesis stating that "There is no significant difference with respect to locale" is rejected. These differences may reflect disparities in educational resources, institutional support, exposure opportunities, and socio-economic conditions that influence psycho-social and academic development.

FINDINGS AND DISCUSSION

The central finding of this investigation is the strong association between life skills and academic achievement. Students with higher emotional regulation, decision-making capacity, and communication competence achieved better scholastic outcomes. This aligns with Surendran et al. (2023), who found that socio-emotional functioning enhances classroom engagement and academic persistence. Similarly, Prajapati et al. (2016) argued that life skills strengthen independent learning behaviors, thereby improving performance. The observed 69% shared variance indicates a deep interconnection between psycho-social and academic functioning. Neeraj and Sonu (2020) also reported significant positive correlations between life skills and scholastic outcomes. However, consistent with methodological caution emphasized in correlational research (Field, 2018), the present study cannot establish directionality. It is theoretically plausible that academic success reinforces self-efficacy and communication skills, just as life skills enhance persistence. A reciprocal developmental model therefore appears conceptually consistent.

Gender differences identified in the study align with Ram et al. (2014), who highlighted gendered socialization patterns shaping emotional expression and compliance with institutional norms. Female students' comparatively higher life skills and academic achievement may reflect social reinforcement of responsibility and attentiveness. However, such differences should not be interpreted as inherent biological distinctions but as socially constructed patterns shaped by educational and cultural contexts. Locale disparities corroborate findings by Pandey and Pandey (2024), who reported higher life skill levels among urban students. Urban educational institutions may provide structured extracurricular activities, counseling support, and digital resources that promote psycho-social development. Rural schools may encounter infrastructural and resource constraints limiting systematic life skills programming. These disparities highlight structural inequality rather than inherent capability differences.

The distribution findings also suggest policy implications. A significant minority of students remains within lower life skill categories. Without targeted intervention, these students may experience cumulative academic disadvantage. Institutional integration of structured life skills curricula, as advocated by UNICEF (2012), may mitigate developmental inequities. Limitations must be acknowledged. The use of self-report measures may introduce response bias. The sample is geographically restricted to one district. Furthermore, the cross-sectional design prevents causal inference. Future longitudinal and intervention-based studies would provide stronger explanatory evidence. Overall, the findings reinforce multidimensional models of academic development wherein emotional and social competencies serve as foundational contributors to scholastic success.

CONCLUSION

The study establishes a strong and statistically significant association between life skills and academic achievement among higher secondary students. Psycho-social competence emerges as a central correlate of scholastic performance, underscoring the integration of emotional, social, and cognitive domains in educational outcomes. Significant gender and locale differences reveal that developmental trajectories are shaped by socialization processes and structural opportunity contexts. Female and urban students demonstrated comparatively higher levels of both competencies. Although causal conclusions cannot be drawn, the magnitude and consistency of findings provide compelling justification for embedding structured life skills education within secondary school curricula, particularly in rural educational settings to promote equitable academic development. The integration of psycho-social skill developments into mainstream academics planning may therefore represent a strategic approach toward fostering resilient, adaptive, and academically competent adolescents.

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Authorship Contribution

Tanvi Sambyal: Conceptualization, data collection, data analysis, interpretation of results, manuscript drafting, and preparation of final manuscript.

Ashish Choudhary: Research design formulation, statistical supervision, validation of analysis, and critical revision of manuscript.

Prof. Ritu Bakshi: Overall supervision, methodological guidance, manuscript review, intellectual input, and final approval of the manuscript for submission.

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Conflict of Interest

The authors declare that there is no conflict of interest regarding the publication of this paper.

Declaration

The authors declare that the data used in this study are original and collected by the researchers. This manuscript has neither been published previously nor submitted to any other journal for consideration.

Similarity Index Declaration

The authors hereby confirm that there is no similarity index in the Abstract and Conclusion sections. The overall similarity index of the manuscript is below 10%, and the contribution from any individual source does not exceed 2%

REFERENCES

Bandura, A. (1986). Social foundations of thought and action: A social cognitive theory. Prentice-Hall.

Chandra Kumari, P., & Tripathi, R. (2010). Life skills scale manual. National Psychological Corporation.

Creswell, J. W. (2014). Research design: Qualitative, quantitative, and mixed methods approaches (4th ed.). Sage Publications.

Field, A. (2018). Discovering statistics using IBM SPSS statistics (5th ed.). Sage Publications.

Gravetter, F. J., & Wallnau, L. B. (2014). Statistics for the behavioral sciences (9th ed.). Wadsworth Cengage Learning.

Kothari, C. R. (2004). Research methodology: Methods and techniques (2nd ed.). New Age International Publishers.

Neeraj, & Sonu, R. (2020). A study on life skill of senior secondary students. International Journal of Scientific Research in Science and Technology, 7(6), 104–112. https://doi.org/10.32628/IJSRST207611

Pandey, D. P., & Pandey, M. (2024). Assessment of life skills among secondary school students of district Nainital, Uttarakhand, India. International Journal of Literacy and Education, 4(1), 165–169. https://doi.org/10.22271/27891607.2024.v4.i1c.180

Prajapati, R. K., Sharma, B., & Sharma, D. (2016). Significance of life skills education. Contemporary Issues in Education Research, 10(1), 1–6. https://doi.org/10.19030/cier.v10i1.9875

Ram, U., Strohschein, L., & Gaur, K. (2014). Gender socialization: Differences between male and female youth in India and associations with mental health. International Journal of Population Research, 2014, Article 357145. https://doi.org/10.1155/2014/357145

Surendran, G., Sarkar, S., Kandasamy, P., Rehman, T., Eliyas, S., & Sakthivel, M. (2023). Effect of life skills education on socio-emotional functioning of adolescents in urban Puducherry, India: A mixed-methods study. Journal of Education and Health Promotion, 12, 250. https://doi.org/10.4103/jehp.jehp_434_22

Tagat, A., Balaji, A., & Kapoor, H. (2025). The impact of life skills education on socio-emotional development and school-related outcomes among adolescents in India. BMC Public Health, 25, 759. https://doi.org/10.1186/s12889-024-21195-0

UNICEF. (2012). Global evaluation of life skills education programmes. United Nations Children's Fund.

Vranda, M. N., & Rao, M. C. (2011). Life skills education for young adolescents: Indian experience. Journal of Indian Association for Child and Adolescent Mental Health, 7(2), 1–10.

World Health Organization. (1997). Life skills education for children and adolescents in schools. WHO Programme on Mental Health.

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