

Research Paper

Prospective Teachers' Attitudes Towards Developing Vocational Attitude Maturity among Secondary School Students

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ABSTRACT

Against the backdrop of accelerating demands for employability, skill development, and the vocationalisation of education, this study examines the vocational attitude maturity (VAM) of prospective teachers and its variation across gender and academic disciplines. Grounded in a descriptive survey design within a quantitative framework, data were collected from 118 secondary-level prospective teachers in Lucknow District using a standardised Vocational Attitude Maturity scale. Descriptive statistics, ANOVA, cross-tabulation, and Games–Howell post hoc tests were employed for analysis. Results indicate a predominant low level of VAM (78%), with a modest proportion at moderate (18.6%) and minimal representation at high levels (3.4%). The overall mean score ($M = 27.45$) reflects a low to moderate attitudinal disposition. While ANOVA revealed no statistically significant differences across disciplines ($F = 1.386, p > .05$), distributional patterns and post hoc analysis identified significant mean differences between Language and both Social Science ($p = .002$) and Science ($p = .009$), signalling comparatively lower VAM among Language students. Gender-wise trends further suggest greater concentration of males in the low category, whereas females show relatively higher representation at the moderate level. The findings expose a systemic gap in attitudinal preparedness within teacher education, underscoring the urgency of embedding competency-based, work-integrated, and experiential pedagogies. Strengthening vocational orientation in pre-service training is imperative for aligning teacher preparation with national policy imperatives and global workforce expectations.

Keywords: *Vocational Attitude Maturity, Prospective Teachers, Vocationalisation Employability Skills, Secondary School Students*

The rapid transformation of the global economy into a knowledge- and skill-based system has intensified the importance of vocational and career-oriented education across all levels of schooling (UNESCO, 2016; OECD, 2019; World Bank, 2020). Contemporary education systems increasingly emphasise employability skills, adaptability, and lifelong learning to meet the demands of the 21st-century workforce (Trilling & Fadel, 2009; Griffin, McGaw, & Care, 2012). In India, the National Education Policy (NEP-2020) strongly advocates the integration of vocational education within mainstream schooling to

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bridge the gap between academic learning and the world of work (Government of India, 2020; NSDC, 2021). Within this evolving educational framework, teachers are recognised as key agents in promoting vocational awareness and shaping students' career orientations (Watts, 2009; CEDEFOP, 2017). The concept of vocational attitude maturity refers to an individual's readiness, orientation, and value disposition towards vocational choices and work-related behaviours (Super, 1990; Crites, 1978). For prospective teachers, this dimension is particularly significant, as their attitudes directly influence classroom practices and students' perceptions of vocational pathways (Savickas, 2005; Patton & McMahon, 2014).

Existing literature suggests that teacher education programmes often prioritise pedagogical knowledge while comparatively neglecting vocational and attitudinal preparedness (Darling-Hammond, 2006; King, 2012; Billet, 2011). Empirical studies indicate that many prospective teachers demonstrate low to moderate levels of vocational orientation, which may limit their effectiveness in implementing vocational education initiatives (Tilak, 2002; Agrawal, 2013; Oketch, 2007). This gap becomes more critical in developing countries, where the alignment between education and employment remains a persistent challenge (King & Palmer, 2010; UNESCO-UNEVOC, 2018). Vocational attitude maturity is influenced by a range of variables, including gender, academic discipline, and socio-cultural context (Lent, Brown, & Hackett, 1994; Savickas, 2013). Research has shown that disciplinary backgrounds can shape individuals' career orientations and perceptions of vocational relevance (Becker, 1964; Marginson, 2016), while gender differences may affect access, motivation, and engagement in vocational pathways (Eccles, 1994; Buchmann, DiPrete, & McDaniel, 2008). Despite these insights, there is a lack of focused empirical investigation into how these factors interact within teacher education contexts, particularly in the Indian scenario.

In light of these considerations, the present study seeks to examine the level of vocational attitude maturity among prospective teachers and analyse its variation across gender and academic disciplines. By providing empirical evidence, the study aims to contribute to the strengthening of teacher education programmes and support the alignment of educational practices with national priorities and global trends in vocational and career-oriented education (OECD, 2021; World Bank, 2022).

Rationale of the study

In the contemporary educational landscape, the growing emphasis on vocationalisation, skill development, and employability highlights the need for vocational attitude maturity among prospective teachers. As future educators, their attitudinal readiness is essential for the effective implementation of vocational education. However, existing evidence indicates inadequate development of such attitudes within teacher education programmes. Moreover, limited empirical research has examined variations in vocational attitude maturity across gender and academic disciplines. Therefore, the present study aims to assess the level of vocational attitude maturity and analyse group differences among prospective teachers, providing empirical insights for strengthening teacher education in alignment with national and global educational priorities.

Research Objectives

1. To assess the overall level of vocational attitude maturity among prospective teachers.

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2. To analyse the mean attitude scores of prospective teachers towards developing vocational attitude maturity among secondary school students.
3. To examine the differences in vocational attitude maturity among prospective teachers with respect to their academic discipline.
4. To examine the association between gender and different levels (Low, Moderate, High) of vocational attitude maturity
5. To examine the association between academic discipline and different levels (Low, Moderate, High) of vocational attitude maturity
6. To identify specific group differences in vocational attitude maturity among disciplines using post hoc analysis.

METHODOLOGY OF THE STUDY

Method	The method used in the present study is a descriptive survey method and quantitative in nature
Sample	The sample of the study comprised 118 secondary-level prospective teachers drawn from different areas of Lucknow District. Among them, 61 were male, and 57 were female, representing a balanced distribution of gender within the sample.
Tool Used	Standardised questionnaire was employed as the primary tool for data collection to measure the level of vocational attitude maturity among the respondents.
Sampling Technique	Purposive sampling is used for data collection in different areas of the Lucknow District.

RESULTS AND DISCUSSION

1. Assess the overall level of vocational attitude maturity among prospective teachers

Table 1: Level of Vocational Attitude Maturity among Prospective Teachers

Attitude_Level		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Low Attitude Level	92	78.0	78.0	78.0
	Moderate Attitude Level	22	18.6	18.6	96.6
	High Attitude Level	4	3.4	3.4	100.0
	Total	118	100.0	100.0	

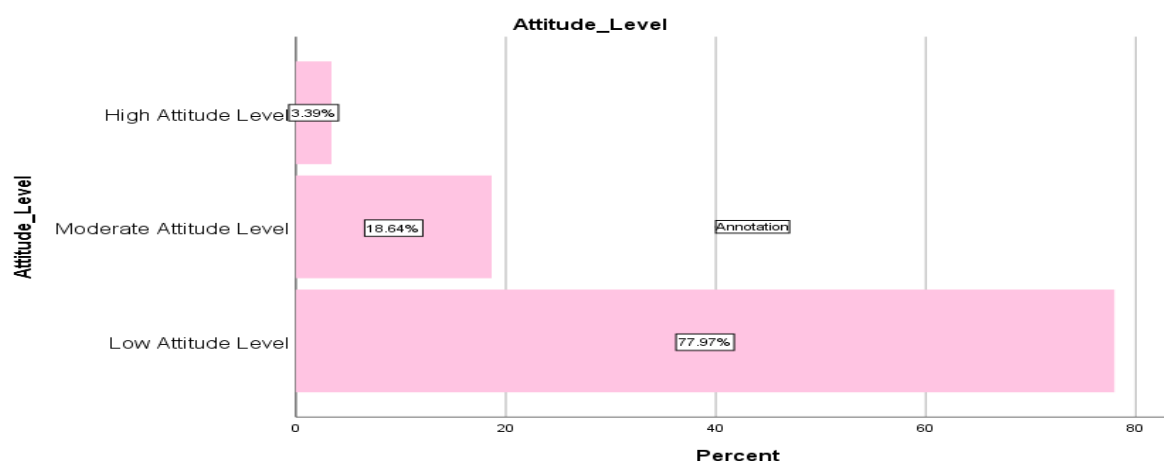


Figure 1: Level of Vocational Attitude Maturity among Prospective Teachers

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Levels of vocational attitude maturity among prospective teachers were categorized based on their total scores obtained from the 15-item attitude scale. The overall score range was divided into three categories, namely Low, Moderate, and High levels of vocational attitude maturity, using predetermined score intervals (15–30 = Low, 31–45 = Moderate, and 46–75 = High). This classification enabled a meaningful interpretation of respondents' attitudinal disposition towards developing vocational attitude maturity among secondary school students. The distribution of respondents across these levels was analysed using frequency and percentage, as presented in Table 1.

2. To analyse the mean attitude scores of prospective teachers towards developing vocational attitude maturity among secondary school students.

Table 2: Descriptive Statistics of Attitude Scores

Descriptives								
Total Attitude								
	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
Social Science	54	27.8519	6.17178	.83987	26.1673	29.5364	19.00	46.00
Language	7	23.8571	1.46385	.55328	22.5033	25.2110	23.00	26.00
Science	40	28.2250	7.49525	1.18510	25.8279	30.6221	16.00	47.00
Biological Science	17	25.8235	4.90198	1.18890	23.3032	28.3439	16.00	33.00
Total	118	27.4492	6.38855	.58811	26.2844	28.6139	16.00	47.00

The overall mean attitude score is 27.45, indicating a generally low to moderate level of vocational attitude maturity.

3. To examine the differences in vocational attitude maturity among prospective teachers with respect to their academic discipline.

Table 3: Gender-wise Discipline Distribution

	Discipline of the Students				
	Social Science	Language	Science	Biological Science	
	Count	Count	Count	Count	
Gender of the Students	Male	26	5	25	5
	Female	28	2	15	12

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Table 4: ANOVA (Total Attitude across Disciplines)

ANOVA					
Total Attitude					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	168.077	3	56.026	1.386	.251
Within Groups	4607.118	114	40.413		
Total	4775.195	117			

No significant difference found among disciplines ($F = 1.386, p > 0.05$).

4. To examine the association between gender and different levels (Low, Moderate, High) of vocational attitude maturity

Table 5 Gender of the Students * Attitude Level

			Attitude Level			Total
			Low Attitude Level	Moderate Attitude Level	High Attitude Level	
Gender of the Students	Male	Count	53	6	2	61
		% within Gender of the Students	86.9%	9.8%	3.3%	100.0%
	Female	Count	39	16	2	57
		% within Gender of the Students	68.4%	28.1%	3.5%	100.0%
Total	Count	92	22	4	118	
	% within Gender of the Students	78.0%	18.6%	3.4%	100.0%	

Male students show higher proportion in low attitude level (86.9%), while females show relatively higher moderate level (28.1%). A higher proportion of male students fall under the low attitude level compared to females, whereas females show relatively higher representation in the moderate category.

5. To examine association between discipline and different levels (Low, Moderate, High) of vocational attitude maturity

Table 6: Discipline of the Students * Attitude Levels

			Attitude Level			Total
			Low Attitude Level	Moderate Attitude Level	High Attitude Level	
Discipline of the Students	Social	Count	41	11	2	54
	Science	% within Discipline of the Students	75.9%	20.4%	3.7%	100.0%

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Language	Count	7	0	0	7
	% within Discipline of the Students	100.0%	0.0%	0.0%	100.0%
Science	Count	30	8	2	40
	% within Discipline of the Students	75.0%	20.0%	5.0%	100.0%
Biological Science	Count	14	3	0	17
	% within Discipline of the Students	82.4%	17.6%	0.0%	100.0%
Total	Count	92	22	4	118
	% within Discipline of the Students	78.0%	18.6%	3.4%	100.0%

Language students are entirely concentrated in the low attitude category, while other disciplines show a more distributed pattern across low and moderate levels.

6. To identify specific group differences in vocational attitude maturity among disciplines using post hoc analysis.

Table 7: Games-Howell Multiple Comparisons

Multiple Comparisons							
Dependent Variable: Total Attitude							
	(I) Discipline of the Students	(J) Discipline of the Students	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
Tukey HSD	Social Science	Language	3.99471	2.55377	.403	-2.6638	10.6532
		Science	-.37315	1.32617	.992	-3.8309	3.0846
		Biological Science	2.02832	1.76795	.661	-2.5813	6.6380
	Language	Social Science	-3.99471	2.55377	.403	-10.6532	2.6638
		Science	-4.36786	2.60455	.341	-11.1588	2.4231
		Biological Science	-1.96639	2.85492	.901	-9.4101	5.4773
	Science	Social Science	.37315	1.32617	.992	-3.0846	3.8309
		Language	4.36786	2.60455	.341	-2.4231	11.1588
		Biological Science	2.40147	1.84054	.562	-2.3974	7.2004
	Biological Science	Social Science	-2.02832	1.76795	.661	-6.6380	2.5813
		Language	1.96639	2.85492	.901	-5.4773	9.4101
		Science	-2.40147	1.84054	.562	-7.2004	2.3974
Social Science	Language	3.99471*	1.00574	.002	1.3015	6.6879	
	Science	-.37315	1.45253	.994	-4.1907	3.4444	
	Biological Science	2.02832	1.45564	.512	-1.9064	5.9630	

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Games-Howell	Language	Social Science	-3.99471*	1.00574	.002	-6.6879	-1.3015
		Science	-4.36786*	1.30790	.009	-7.8593	-.8764
		Biological Science	-1.96639	1.31134	.455	-5.6208	1.6881
	Science	Social Science	.37315	1.45253	.994	-3.4444	4.1907
		Language	4.36786*	1.30790	.009	.8764	7.8593
		Biological Science	2.40147	1.67868	.487	-2.0758	6.8787
	Biological Science	Social Science	-2.02832	1.45564	.512	-5.9630	1.9064
		Language	1.96639	1.31134	.455	-1.6881	5.6208
		Science	-2.40147	1.67868	.487	-6.8787	2.0758

*. The mean difference is significant at the 0.05 level.

The Games-Howell post hoc analysis revealed statistically significant differences in total attitude scores across academic disciplines. Specifically, significant mean differences were observed between Social Science and Language students (Mean Difference = 3.99, $p = 0.002$) and between Science and Language students (Mean Difference = 4.37, $p = 0.009$), indicating that prospective teachers from Social Science and Science disciplines demonstrate significantly higher attitudes towards developing vocational attitude maturity among secondary school students compared to those from the Language discipline. However, no statistically significant differences were found among Social Science, Science, and Biological Science students, nor between Language and Biological Science students ($p > 0.05$), suggesting a relative homogeneity in attitude levels among these groups. Overall, the findings indicate that academic discipline has a partial influence on prospective teachers' attitudes, with Language students exhibiting comparatively lower attitudinal orientation, while Biological Science students do not differ significantly from other disciplines.

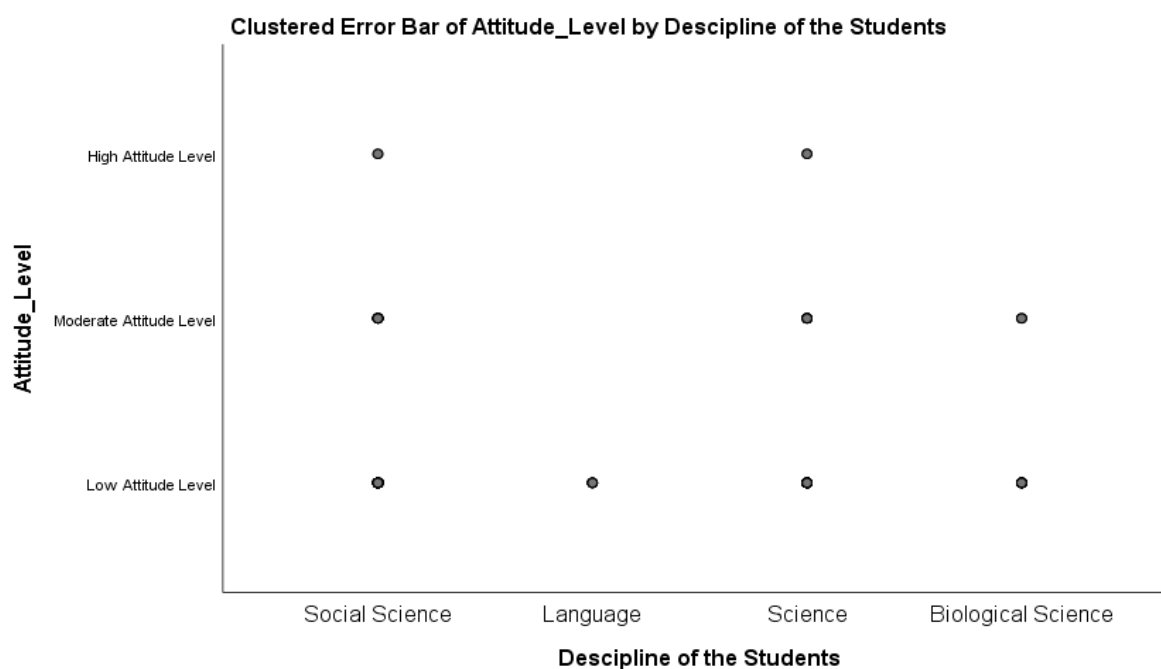


Figure 2: Clustered Error Bar of Attitude_Level by Discipline of the Students

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Figure 2 shows that prospective teachers from the Science discipline have the highest mean attitude scores, followed by Social Science and Biological Science, whereas Language students exhibit the lowest mean scores. This supports the post hoc findings indicating comparatively lower attitudes among Language students. Significant differences were found between Social Science & Language ($p = 0.002$) and Science & Language ($p = 0.009$); Language students show lower attitude.

FINDINGS AND CONCLUSION

The findings of the study reveal that a majority of prospective teachers (78.0%) fall under the low level of vocational attitude maturity, while only 18.6% and 3.4% fall under moderate and high levels, respectively, indicating an overall low attitudinal orientation. The mean attitude score ($M = 27.45$) further supports that prospective teachers possess a low to moderate level of vocational attitude maturity. The ANOVA results showed no statistically significant difference in attitude scores across academic disciplines ($F = 1.386$, $p > 0.05$), suggesting that discipline does not significantly influence vocational attitude maturity. However, gender-wise analysis indicated that male students are more concentrated in the low attitude category, whereas female students show relatively higher representation in the moderate level. Discipline-wise distribution revealed that Language students are entirely concentrated in the low attitude category, while other disciplines show some variation. The Games-Howell post hoc analysis identified significant differences between Social Science and Language ($p = 0.002$) and Science and Language ($p = 0.009$), indicating comparatively lower attitudes among Language students. Overall, the study concludes that prospective teachers exhibit generally low vocational attitude maturity, highlighting the need for strengthening vocational orientation within teacher education programs to better prepare them for fostering vocational attitudes among secondary school students.

In light of the findings, the study emphasises the need for structured pedagogical and curricular interventions to enhance vocational attitude maturity among prospective teachers. The predominance of low attitudinal levels indicates a gap in the existing teacher education framework, necessitating the integration of competency-based, experiential, and work-integrated learning approaches. Targeted academic interventions should be designed to address group-specific disparities, particularly among cohorts exhibiting comparatively lower attitudinal orientation. Furthermore, aligning teacher education with internationally recognised practices—such as skill-based training, digital competency development, and industry-academia collaboration—may significantly strengthen vocational dispositions. The study also underscores the importance of continuous assessment, reflective practices, and institutional support mechanisms to facilitate sustained attitudinal development. Future research should focus on intervention-based and longitudinal designs to examine causal relationships and enhance the generalizability of findings across diverse educational contexts.

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Conflict of Interest

The author(s) declared no conflict of interest.

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