EPH–International Journal of Educational Research
Published by: **Southern Cross Academic Press**
ISSN (Online): **2208-2204**
Volume 10 , Issue 1, May, 2026

TEACHING COMPETENCY AMONG SECONDARY SCHOOL TEACHERS OF SIKKIM: STATUS AND ASSOCIATED FACTORS

[1*]Bappaditya Adhikary, [2]Dr. Sandhya Rai
[1*]Research Scholar, Loyola College of Education (Affiliated to Sikkim University)
Email id- bdakmg@gmail.com
[2]Assistant Professor, Loyola College of Education (Affiliated to Sikkim University)
Email id- sandhyarai269@gmail.com

Article History:
Article Type: **Research**

Received Date: **05/03/2026**
Revised Date: **12/04/2026**
Accepted Date: **14/05/2026**
Published Date: **29/05/2026**

Keywords: Teaching competency;secondary schoolteachers; classroom observation

ABSTRACT

Teaching competency is a central determinant of the quality of secondary education, yet very less studies has been done through direct classroom observation. This study focused on general teaching competency among secondary school teachers in Sikkim. Using a cross-sectional, comparative observational design, trained observers rated 308 secondary school teachers on the Passi and Lalitha (2011) General Teaching Competency Scale, a 21-item, seven-point observational instrument rooted in the microteaching tradition. Competency was operationalised as the summed observed score, which can range from 21 to 147. The mean was 61.56 (SD = 7.07), and scores ranged from 43 to 83 in a near-symmetric distribution. Interpretation followed two complementary bases. Judged against the instrument's standardised norms derived from pre-service trainees, almost the whole sample fell into the lowest grade bands, an outcome that reflects a mismatch between the norming group and serving teachers rather than poor practice. Judged against sample-referenced bands, competency was distributed normally: 65.9% of teachers were moderate, 18.2% high, and 15.9% low. Welch t-tests and a one-way analysis of variance found no significant differences in competency by gender, locale, school management, academic qualification, professional-qualification cohort, or teaching experience, and every effect size was negligible (all $|d| \leq 0.20$, $\eta^2 = .001$). The competency profile is therefore moderate and strikingly uniform, a pattern that mirrors two parallel Sikkim studies-of professional commitment and of higher-secondary teaching competency-and converges with competency research from the Philippines, Oman, Nigeria, and elsewhere The findings have implications for teacher professional development, classroom-quality monitoring, and evidence-based educational policy in small-state educational contexts. The findings caution against the uncritical use of norms built on non-equivalent groups and carry implications for how teacher-quality policy in Sikkim is targeted.

1. Introduction

Good teachers are essential for a good education system. It is they who do the actual construction of the institution. This is an indisputable fact that has formed the basis of the research over the last five decades as to what constitutes good teaching and remains a main focus on the job of teachers' support and training for policymakers. Literature has developed a more nuanced view of teacher competence, which now is regarded as not being a fixed trait, but a multidimensional construct of knowledge, skills and dispositions that add to the quality of instruction and, in turn, what pupils learn (Blömeke et al., 2015; Medley, 1977). There is no universal consensus on the definition of the concept, but a consensus that has emerged within the academia is that teaching involves observable behaviours which lead to pupil learning, and that competency is the successful execution of such behaviours (Passi & Lalitha, 2011; Shulman, 1987). The competence of teachers is pedagogically and policy relevant at the secondary level especially where the need for specialisation in the subjects taught is increasingly evident, examination stress is high, and adolescent development is a factor. Research on competency in teaching in India has developed mainly from the adaptation of Stanford microteaching to the Indian context and the observation instruments developed by it (Passi, 1976). One of those instruments, the General Teaching Competency Scale (GTCS) is used to have two questions about secondary school teachers in Sikkim – what is their overall status with respect to teaching competency and whether the teaching competency is different across background characteristics? Its study is relevant to educational research because there is relation between the classroom teaching and teacher education, professional development and educational quality. It is a tool for the systematic evaluation of the teaching and learning processes that can be used through direct observation of teaching competency. The findings can also guide the policy on teacher training, teacher quality enhancement, and teacher support programmes in secondary schools. Next, the sections that follow put the questions in their theoretical perspective, review the relevant literature, identify the gap the study will fill and state the research questions.

1.1 Theoretical Background

The view of teaching competency adopted here sits within a clear scholarly lineage. During the 1960s, teacher-effectiveness research moved away from explaining good teaching through stable personality traits and toward analysing it as a chain of observable, identifiable acts (Medley, 1977). That shift gave rise, at Stanford University, to microteaching and to the decomposition of teaching into discrete, trainable skills (Allen & Ryan, 1969). Indian scholarship carried the approach further: Passi and Lalitha broke the teaching act into a finite set of classroom skills clustered under planning, presentation, closing, evaluation, and classroom management, and built the GTCS to make those skills observable (Passi & Lalitha, 2011). The scale is the operational expression of that genealogy, specifying behavioural components for each of 21 skills and asking an observer to assess their use in a live lesson. Two consequences follow. First, because the competency is defined behaviourally, the construct-valid way to measure it is direct observation rather than self-report, a point the methodology returns to. Second, the same lineage feeds contemporary international models that treat competency as a continuum running from underlying disposition to situated classroom performance (Blömeke et al., 2015; Shulman, 1987). On that continuum the GTCS measures the performative end: what teachers are seen to do, not what they say they know.

1.2 Review of Related Literature

Some studies that use summed or averaged rating scale report moderate to high scores (Malunes & Dioso, 2020; Nyakundi & Orodho, 2020; Velasco & Baer, 2022). However the question pertinent to the present study is the other one: does competency vary with teacher characteristics? and here the results do not agree, and this is significant for the following discussion. Gender is the most obvious. There are a few studies that show no significant difference in effectiveness of the overall competency. However, in Tamil Nadu, pre-service teachers revealed no significant difference between genders in terms of teaching competency (Srinivasan and Pugalenthi 2019, 2020), in Oman, differences were only found on specific sub-dimensions of teaching competency, but not overall (Al-Bulushi et al. 2022), and in a study of primary schools in Nigeria, differences were found at the

sub-level, but not at the overall level (Osiesi et al. 2024). Some critical differences do emerge, but they are minor and pertain to specific dimensions and not necessarily in the same direction (Haider & Atta, 2025). The picture is just as mixed with regards to academic qualifications and professional qualifications. It is sometimes assumed that high education levels are associated with high competence; however, the evidence is mixed: Malunes and Dioso (2020) found no effect of qualification on the competence of elementary teachers in the Philippines while Osiesi et al. (2024) also found that attainment of qualifications did not affect competence, although there were slight gains reported in other studies (Gorain & Ghosh, 2025). Experience in teaching is the most theorized moderator, performing in a similar fashion. While several studies report a linear relationship (expertise-development accounts), others have found a curved (or non-linear) relationship, and some have noted that the less experienced teachers tend to incorporate newer practices more quickly (Gorain & Ghosh, 2025; Malunes & Dioso, 2020). Variations based on locale and school management are present in some contexts, typically with a bias towards urban and private schools, and are often masked by resourcing issues, and are not universal. The collection of these works reflects a view of teaching competency as a somewhat quantifiable construct that tends to be moderate to high, but that does not suggest significant differences among the various groups of demographics and professionals. Any differences are usually not large or across all contexts. It is this lack of uniformity which makes it essential to study the issue in a clearly defined context such as Sikkim where the effect size for every question and every null finding be communicated, and not ignored. This is the approach followed in the present study.

1.3 The Sikkim Context and Research Gap

A good example to this is the state of Sikkim in the north eastern part of India. Its school system is mainly public, but also has a significant private school population. The data from UDISE+ 2021-22 (Ministry of Education, as cited in CETE, 2023) indicates that the state has around 13,600 teachers in all school categories, with the vast majority of them teaching in government-managed schools. A lack of professional teacher qualifications remains a constant worry, according to a Centre of Excellence in Teacher Education (CETE, 2023) report that about a quarter of Sikkim's school teachers lacked professional teacher qualifications, which is one of the highest percentage in the country. Another school education review of the state later identified that there were about 395 private schools with enrollment of more than 50,000 students while there were significant gaps in teachers' support system, with vacancy rates of about 19% at the State Council of Educational Research and Training and 34% at the District Institutes of Education and Training (Sikkim Express, 2024). The geographic distribution of teaching competency is a real one, rather than just a place thing, as a geography that is rural dominant, a mixed government-private system, and a layered teaching workforce all contribute. Actual observations of that question, however, are almost lacking. The most closely parallel previous research is on teacher attributes (as opposed to observed competency). Professional commitment was found to be of moderate level among all the government school teachers in the East district of Sikkim by Bhowmik and Sharma (2020) and there was no significant difference in terms of gender, locality, teaching experience, professional qualification and level of teaching among the government school teachers in the study area except in terms of academic qualification. A similar study by Ghosh (2024) on higher-secondary teachers in Sikkim did not show any significant difference between teaching competency as measured by teachers' self-report and as per gender, management and experience. These studies validate the homogeneity of teacher attributes within the different demographic strata as observed in Sikkim's teacher population and the norm-referenced, z-score interpretation of indigenous scales used in the present study. But of these, neither looked into the competence of the secondary teachers in the actual classroom. The current study makes three contributions to the literature that opened the window of the competency literature, which is often self-report; it extends the regional coverage of the competency literature, which is still relatively sparse; and it examines the distribution of competence among the workforce strata that define secondary teaching in Sikkim—gender, locale, management, qualification, and experience.

1.4 Objectives and Research Questions

RQ1. What is the status of general teaching competency among secondary school teachers in Sikkim?
RQ2. Is teaching competency significantly associated with teachers' gender, school locale, school management, academic qualification, professional-qualification cohort, or teaching experience?

1.5 Contribution of the Study

The study is a contribution to educational research in three ways. First, it offers observational evidence on the competency of secondary school teachers in their teaching practices, a topic that frequently is studied using self-report measures. Secondly, it brings regional evidence from a region like Sikkim, which is under-represented in teacher competency research. Third, it provides a methodological hesitation with respect to the use of standardized norms if the norming group is not representative of the study group.

2. Methodology

2.1 Research Design

The method of the study was quantitative, cross sectional and comparative observational. Since competency in teaching is a theoretical construct, which can be described as a set of observable classroom behaviors (Medley, 1977; Passi & Lalitha, 2011), observation was selected as a construct-valid way of measuring teaching competency and as such was preferred over self-report. The design is descriptive-comparative that describes competency levels for the sample (RQ1) and competency in pre-specified groups (RQ2).

2.2 Population and Sample

The research participants were the secondary school teachers of Sikkim. There were 308 teachers who were observed. The sample spanned government (n = 233) and private (n = 75) schools, rural (n = 213) and urban (n = 95) locales, and both female (n = 208) and male (n = 100) teachers. The level of qualification was determined as 221 teachers were postgraduates and 87 were graduates; and 86 teachers were postgraduates with one year of B.Ed. and 209 were postgraduates with two years of B.Ed. and 13 were M.Ed. qualification holders. The teaching experience ranged from 1–36 years (M = 10.2, SD = 7.31). A single-stage cluster sampling procedure has been used. The sampling clusters were the secondary schools in the six districts of Sikkim, with a total of 60 schools being selected and all the secondary teachers in these selected schools giving their consent were observed (n=308 teachers). A random sampling of schools provided representation among district, school management type and locale. To avoid selection bias and to get a broad idea of the competence of teachers in the state, all eligible secondary teachers who were present in the selected schools during the period of data collection were included.

2.3 Instrument

Teaching competency was measured with the General Teaching Competency Scale (GTCS-PBLM) developed by Passi and Lalitha (2011). The scale comprises 21 items corresponding to 21 teaching skills grouped under five aspects of classroom teaching: planning, presentation, closing, evaluation, and managerial. An observer rates each item on a seven-point scale (1 = not at all to 7 = very much), and the items are summed to give the General Teaching Competency score, with a theoretical maximum of 147 and minimum of 21 (Passi & Lalitha, 2011). Because it is an observation schedule, its appropriate reliability index is inter-observer reliability; the manual reports coefficients between .85 and .91. Content and factorial validity are documented in the scale's development, the latter through Rama's (1979) factor-analytic study of teaching competencies among secondary school teachers (Passi & Lalitha, 2011). The conversion of raw scores to z-scores for norm-referenced interpretation follows the procedure used with comparable indigenous Indian scales, including the parallel Sikkim study by Bhowmik and Sharma (2020).

2.4 Data-Collection Procedure

Each teacher was observed for a complete lesson by a trained observer. Prior to classroom observation, observers were oriented to the GTCS observation schedule and its behavioural indicators. Practice observations were conducted to familiarise observers with the rating procedure and to promote consistency in scoring. Where more than one observer was involved, inter-observer agreement was estimated to assess rating consistency. Following the manual's procedure, the observer recorded ratings against all 21 items at the close of the teaching period, drawing on the behavioural components specified for each skill to keep ratings objective (Passi & Lalitha, 2011).

2.5 Data Analysis

Analyses were conducted in jamovi (Version 2.7.31; The jamovi project, 2026), which uses the R statistical language. For RQ1, competency was summarised descriptively and interpreted on two bases: a standardised, norm-referenced basis, converting raw scores to z-scores against the manual's full-scale norms (M = 95.50, SD = 14.60, N = 1,015) and classifying them by the manual's grade bands; and a sample-referenced basis, classifying teachers as low, moderate, or high relative to the sample mean (± 1 SD). For RQ2, group differences were tested with independent-samples Welch t-tests for two-group factors and a one-way analysis of variance for the three experience bands. Every comparison is reported with an effect size (Cohen's d or η^2), because in a sample of this size statistical significance is a poor guide to practical importance on its own. Given mild departures from normality in two subgroups, Mann-Whitney U and Kruskal-Wallis tests were run as sensitivity checks and are reported alongside the parametric results; this dual parametric-nonparametric approach follows comparable competency studies (Malunes & Dioso, 2020). Distributional assumptions are reported in Section 3.1.

3. Results and Discussion

3.1 Distributional Properties and Assumption Checks

The scores on the GTCS were near normal. The mean was 61.56 (SD = 7.07, median = 61.0), with scores from 43 to 83. Both skewness (-0.12) and kurtosis (-0.33) were within the normal range and the histogram and normal Q-Q plot (Figure 1) indicate that there is only slight deviation in the tails. The Shapiro-Wilk test was significant (W = .988, p = .014), while the Kolmogorov-Smirnov test with Lilliefors correction was not (D = .050, p = .087). The significant Shapiro-Wilk result is due to the sensitivity of the test to trivial deviations and is not a measure of a serious departure, but the skewness, the kurtosis and the Q-Q plots and their results support the parametric tests, which were performed; nonparametric tests were reported for assurance.

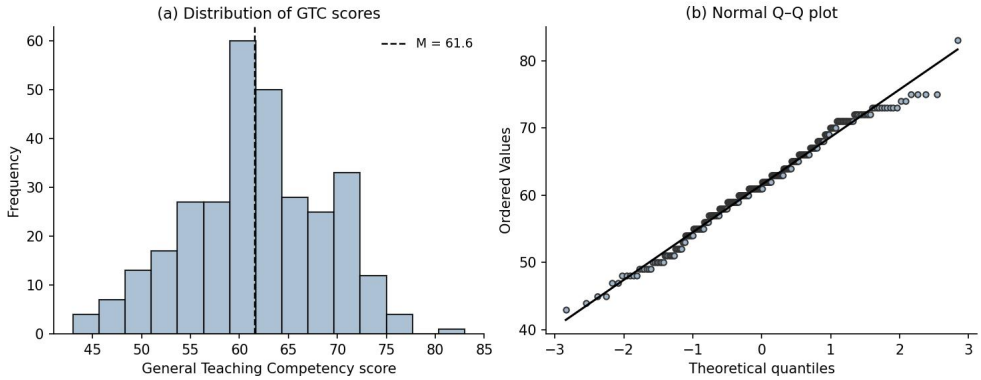

Figure 1. Distribution of General Teaching Competency scores (a) and normal Q-Q plot (b) for the observed sample (N = 308).

3.2 RQ1: The Status of Teaching Competency

Table 1 exhibits the level of teaching competency on the three descriptive and interpretive bases. The raw scores indicate moderate competency. A mean of 61.56 on the 21-147 scale corresponds to an average rating of about 2.93 per skill on the seven-point scale, which falls between the scale's 'low' and 'below average' anchors.

Table 1 Status of Teaching Competency on Raw, Norm-Referenced, and Sample-Referenced Bases (N = 308)

	Category	n (%)
Raw descriptive	M = 61.56, SD = 7.07, range 43-83	-
Norm-referenced	Grade E (Below Average)	1 (0.3)
(manual norms,	Grade F (Low)	74 (24.0)
pre-service N = 1,015)	Grade G (Inferior)	233 (75.6)
Sample-referenced	High (> 68.6)	56 (18.2)
(Mean ± 1 SD)	Moderate (54.5-68.6)	203 (65.9)
	Low (< 54.5)	49 (15.9)

Note. Norm-referenced grades follow the GTCS manual (Passi & Lalitha, 2011). The concentration in the lowest grades reflects a norm-group mismatch (see text), not a substantive deficiency.

When the sample mean is read against the scale's standardised norms, it converts to a z-score of about -2.32, placing almost every teacher in the two lowest grades (Figure 2 shows the sample-referenced distribution against which this should be weighed). This should not be taken to mean that Sikkim's secondary teachers are broadly incompetent. The GTCS norms were developed using 1,015 pre-service trainees, observed during microteaching on selected skills they had deliberately practised (Passi & Lalitha, 2011). Judging serving teachers, observed across full live lessons, against trainees performing rehearsed micro-skills is not a fair comparison, and the apparent shortfall is largely a by-product of that mismatch. This is precisely the risk of applying standardised norms to a group unlike the one for which they were created-a caution that holds for other indigenous Indian scales interpreted through fixed z-score bands as well (Bhowmik & Sharma, 2020).

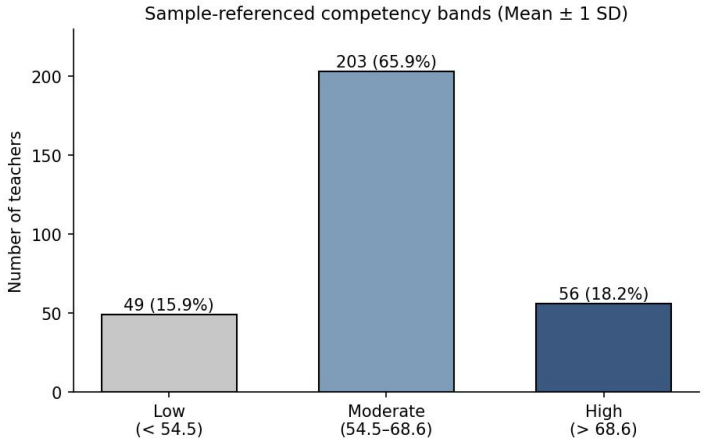

Figure 2. Sample-referenced classification of teaching competency using Mean ± 1 SD bands (N = 308).

The sample-referenced classification gives the more defensible answer to RQ1. Measured against their own distribution, 65.9% of teachers were of moderate competency, 18.2% high, and 15.9% low-a near-textbook spread around the mean. The most accurate description of competency status in this sample is therefore moderate and tightly clustered: teachers occupy a fairly narrow band of observed performance, with no large tail of either very high or very low scorers. Reporting both bases, rather than privileging the standardised grade, is a deliberate choice in the interest of interpretive honesty, and it situates the present finding alongside Bhowmik and Sharma's (2020) report of a moderate, sample-centred distribution of professional commitment among government teachers in the same state.

3.3 RQ2: Associated Factors

The comparisons for the groups are reported in Table 2 and are consistent and unambiguous. There were no statistically significant relationships between the six factors and teaching competency, and all the effect sizes were small. No two-group difference approached significance except gender (p = .095) which had only a small effect (d = -0.20). The nonparametric checks were consistent with the parametric tests at all points and Levene's tests showed that variances were homogeneous across all levels. The five two-group effect sizes are plotted in Figure 3 with their confidence intervals, all of which cross through zero, and all of which fall into the range of negligible effect.

Table 2 Comparisons of Teaching Competency across Demographic and Professional Factors (N = 308)

Factor / groups	M (SD)	Test	p	Effect size
Gender		t = -1.68	.095	d = -0.20
Female (208)	61.10 (7.07)			
Male (100)	62.53 (7.01)			
Locale		t = -1.45	.148	d = -0.18
Rural (213)	61.17 (7.08)			
Urban (95)	62.43 (6.99)			
Management		t = -0.07	.942	d = -0.01
Government (233)	61.55 (7.11)			
Private (75)	61.61 (6.97)			
Academic qualification		t = 0.11	.911	d = 0.01
Graduate (87)	61.63 (6.79)			
Postgraduate (221)	61.53 (7.19)			
Professional cohort		t = -0.93	.352	d = -0.11
1-year B.Ed. (86)	60.99 (6.47)			
2-year B.Ed.+M.Ed. (222)	61.78 (7.29)			
Experience		F = 0.18	.835	η^2 = .001
≤ 5 yrs (94)	61.91 (7.16)			
6-10 yrs (96)	61.32 (7.07)			
11+ yrs (118)	61.47 (7.05)			

Note. Two-group tests are Welch's t. Experience was tested by one-way ANOVA. All p ≥ .05; all effect sizes negligible. Mann-Whitney U and Kruskal-Wallis sensitivity checks concurred at every comparison.

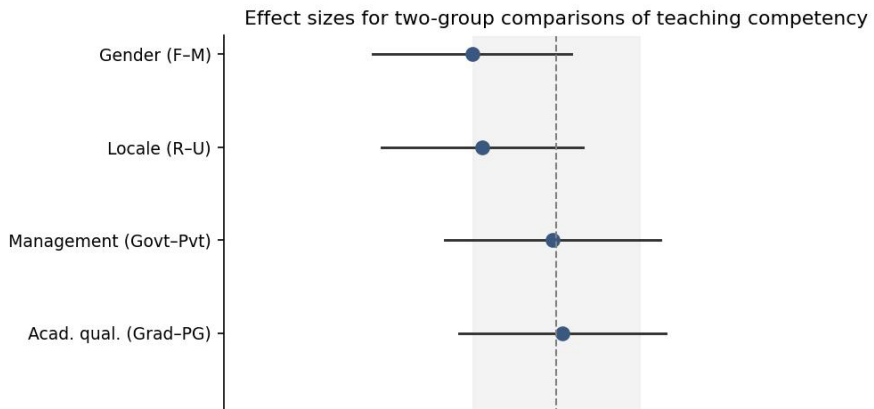

Figure 3. Cohen's d with 95% confidence intervals for the five two-group comparisons. The shaded band marks the region of negligible effect (|d| < 0.20); all intervals cross zero.

The central empirical finding is therefore one of homogeneity: observed teaching competency in this sample does not vary in any practically meaningful way with gender, locale, management, academic qualification, professional-qualification cohort, or experience. Because the sample is large, these are well-powered null results rather than failures to detect an effect that a bigger study might have found. The near-zero effects sizes point to a genuine absence of meaningful differences, not merely an absence of statistical power, a distinction worth stating for each factor and not just for gender, where the gap was largest yet still small.

This pattern does more than restate the unsettled literature reviewed earlier; it extends it. The most telling comparisons are local. Bhowmik and Sharma (2020), studying professional commitment among government secondary teachers in Sikkim's East district, found the same broad homogeneity-no significant differences by gender, locality, experience, professional qualification, or level of teaching. Ghosh (2024) reported a closely parallel result for teaching competency itself: among higher-secondary teachers across Sikkim, overall competency did not differ significantly by gender, management, or experience. That two further teacher attributes-commitment and self-reported competency-show the same flatness across the same strata in the same state points to something about the workforce rather than about any single construct or instrument. It is worth noting that Ghosh measured competency by self-report and reported a generally high level, whereas the present observational measure places most teachers in the moderate band; this difference is consistent with the well-documented tendency of self-report to run higher than observed performance, and it underlines the value of the observational approach taken here. The convergence widens beyond Sikkim. In the Philippines, Malunes and Dioso (2020) found teaching competence 'very high regardless of the demographic profiles,' with no significant difference by educational attainment or experience. In Tamil Nadu, Srinivasan and Pugalenthi (2019, 2020) found no gender or institution-type difference in competency, albeit among pre-service teachers. In Oman, Al-Bulushi et al. (2022) found only isolated sub-dimensional differences; in Nigeria, Osiesi et al. (2024) found neither gender nor qualification mattered for effectiveness; and in Kenya, Nyakundi and Orodho (2020) found teacher competence explained only a trivial share of performance, with qualifications and experience non-significant. Uniform teacher competency across demographic strata is, in short, a recurring cross-context result, and Sikkim's secondary teachers fit it.

A simpler explanation than differences between individual teachers may therefore be a systemic one. Common recruitment standards, a shared system of in-service training, and uniform curricular and examination demands could plausibly compress observed classroom practice into a narrow range regardless of the individual teacher. Whereas earlier work emphasised differences across career stages (Shi & Singh, 2024), the present observational data suggest a departure from that expectation in this setting: competence here appears less as a stratified attribute and more as a shared professional baseline.

One divergence deserves direct attention rather than being smoothed over. Bhowmik and Sharma (2020) reported a significant effect of academic qualification on professional commitment in Sikkim, whereas the present study found no academic-qualification effect on competency. The contrast is most plausibly construct-specific: a higher academic degree may bear on a teacher's dedication to, and identification with, the profession more than on the observable classroom skills the GTCS captures. The interpretation is necessarily tentative, because that earlier study's qualification figures

contain internal inconsistencies, and so the contrast is drawn here at the level of pattern-an effect present for commitment, absent for competency-rather than of magnitude.
A second result calls for methodological caution rather than substantive reading. The professional-qualification comparison sets holders of the older one-year B.Ed. against holders of the two-year B.Ed. and M.Ed. The two-year qualification became the national norm only after the National Council for Teacher Education's 2014 regulation, which superseded the one-year programme to deepen practicum and professional preparation (National Council for Teacher Education, 2014). In this sample the one-year cohort is consequently far more experienced (mean 14.2 years) than the two-year cohort (mean 8.7 years), so the professional-qualification variable is substantially collinear with experience. The comparison should therefore be read as a training-cohort contrast confounded with seniority, not as an estimate of the effect of training duration as such. That both the qualification and the experience comparisons return null results is, if anything, mutually corroborating.

3.4 Implications

Two implications follow for Sikkim. First, a moderate and uniform competency suggests that broad, undifferentiated in-service programmes are reaching teachers fairly evenly, but it also points to collective headroom for improvement: with the typical observed skill rated near the scale midpoint, system-wide development targeting the specific skills the GTCS captures-probing questioning, stimulus variation, closure, and diagnostic evaluation-is likely to be more productive than interventions aimed at particular demographic groups. These results suggest that professional-development programmes should be designed around observable classroom skills rather than teacher demographic categories. Training modules may prioritise questioning techniques, learner engagement, diagnostic evaluation, lesson closure, classroom management, and reflective teaching practice. School leaders and teacher-education institutions may also use observation-based feedback to support continuous improvement in classroom instruction. Second, because competency did not differ by management or locale, the much-discussed drift of enrolment toward private schooling in the state (Sikkim Express, 2024) is unlikely to be explained by differences in observed teaching competency between sectors; policy attention to that drift may be better directed elsewhere. These inferences are local and tentative, and should be weighed against the study's limitations.

4. Conclusion

The status of general teaching competency in 308 secondary school teachers of Sikkim was assessed and its association with six demographic and professional factors was tested. Moderate competency was generally found and was being clustered tightly for RQ1. The norms developed for the instrument are standardised and pre-service norms would classify almost the entire sample as low, but this is because of a mismatch between the norm groups; the defensible sample-referenced reading puts about two-thirds of teachers in the moderate band. The relationship between competency and gender, locale, management, academic qualification, professional-qualification cohort, and experience were all negligible, and not significant in RQ2.
The study has two contributions. Substantively, it is a well-powered null, supported by converging evidence from two studies within the same state (observational and single context) and from other countries to studies of competency in professional activity and in higher education, that teaching competency here is a common baseline of the profession, rather than a hierarchy of benchmark. On the methodological side, it demonstrates the importance of measuring competency both on a standardised and on a sample-referenced scale and against the dangers of using norms based on non-equivalent groups without being critical. Both are modest in scale and the paper does not overstate their modest dimensions, but both are solid and well proved.
The findings are subject to some caveats. Design: Cross-sectional, not causal claims. The professional-qualification contrast is confounded with experience, as noted. Some procedural details such as the number of observers, inter-observer agreement reached, and ethics approval details, should be provided to complete the record of the methodological details. Lastly, the results are from one state and one observational tool and should not be extrapolated to other similar contexts without

replication. Future research could also explore the long-term effects of professional development targeting observed competency and the correlation between increased competency and student engagement, learning outcomes, and school level quality indicators.

References

1. Al-Bulushi, M., Al-Said, S., & Lietzén, O. (2022). Teacher competencies in Oman: How gender and teaching experience are associated with self-assessment. Athens Journal of Humanities & Arts, 9(1), 77-104. https://doi.org/10.30958/ajha.9-1-4
2. Allen, D. W., & Ryan, K. (1969). Microteaching. Addison-Wesley.
3. Bhowmik, A., & Sharma, B. P. (2020). A study on professional commitment of government school teachers of East district of Sikkim. Journal of Indian Education, 46(2), 22-35.
4. Blömeke, S., Gustafsson, J.-E., & Shavelson, R. J. (2015). Beyond dichotomies: Competence viewed as a continuum. Zeitschrift für Psychologie, 223(1), 3-13. https://doi.org/10.1027/2151-2604/a000194
5. Centre of Excellence in Teacher Education. (2023). Teachers in India in 2021-22: The picture from UDISE+ (Background Paper 1: State of Teachers, Teaching and Teacher Education Report 2023). Tata Institute of Social Sciences. https://tiss.ac.in/uploads/files/SOTTTER-23_BP1_UDISE.pdf
6. Ghosh, S. (2024). Attitude towards reflective teaching and teaching competency among higher secondary school teachers of Sikkim [Doctoral dissertation, Sikkim University]. Shodhganga. http://hdl.handle.net/10603/568761
7. Gorain, S., & Ghosh, S. (2025). Assessing teacher burnout, qualifications and experience on teacher effectiveness in secondary schools. Journal of Education Method and Learning Strategy, 3(3), 477-490. https://doi.org/10.59653/jemls.v3i03.1846
8. Haider, M. M., & Atta, M. A. (2025). A gendered and qualification-based study of teacher professional attitude and effective teaching skills. ProScholar Insights, 4(3), 69-77.
9. Malunes, R. E., & Dioso, D. P. D. (2020). Teaching competence of public-school teachers in the light of the Philippine Professional Standards for Teachers. Philippine Social Science Journal, 3(2), 43-44. https://doi.org/10.52006/main.v3i2.197
10. Medley, D. M. (1977). Teacher competence and teacher effectiveness: A review of process-product research. American Association of Colleges for Teacher Education.
11. Ministry of Education, Government of India. (2019). Report on Unified District Information System for Education Plus (UDISE+) 2018-19. Department of School Education and Literacy.
12. National Council for Teacher Education. (2014). National Council for Teacher Education (Recognition Norms and Procedure) Regulations, 2014 (Notification No. F. 51-1/2014-NCTE). Gazette of India.
13. Nyakundi, G. M., & Orodho, J. A. (2020). Influence of competence on performance of teachers in public secondary schools in Kisii County, Kenya. Journal of Education and Practice, 11(3), 1-9. https://doi.org/10.7176/jep/11-3-19
14. Osiesi, M. P., Ayanwale, M. A., Akomolafe, O. D., Olayiwola-Adedoja, T. O., Olatunbosun, S. O., & Ariyo, S. O. (2024). Transforming classrooms: How professional development and teacher attitudes drive primary school teaching effectiveness. Social Sciences and Humanities Open, 10, 101099. https://doi.org/10.1016/j.ssaho.2024.101099
15. Passi, B. K. (1976). Becoming better teacher: Microteaching approach. Sahitya Mudranalaya.
16. Passi, B. K., & Lalitha, M. S. (2011). Manual for General Teaching Competency Scale (GTCS-PBLM). National Psychological Corporation.
17. Rama, M. (1979). Factorial structure of teaching competencies among secondary school teachers [Unpublished doctoral dissertation]. M. S. University of Baroda.
18. Shi, Y., & Singh, S. S. B. (2024). Comparative study on teachers' beliefs, professional commitment and classroom management effectiveness-Taking novice and experienced teachers in public high school as examples. International Journal of Social Science and Humanity, 14(6), 1228. https://doi.org/10.18178/ijssh.2024.14.6.1228

19. Shulman, L. S. (1987). Knowledge and teaching: Foundations of the new reform. Harvard Educational Review, 57(1), 1-22. https://doi.org/10.17763/haer.57.1.j463w79r56455411
20. Sikkim Express. (2024). Sikkim schools: Focus on quality, not closure. https://www.sikkimexpress.com/news-details/sikkim-schools-focus-on-quality-not-closure
21. Srinivasan, R., & Pugalenthi, N. (2019). A study of emotional maturity, and teaching competency among prospective teachers. Shanlax International Journal of Arts, Science and Humanities, 7(2), 47-50. https://doi.org/10.34293/sijash.v7i2.545
22. Srinivasan, R., & Pugalenthi, N. (2020). A relationship between self-esteem and teaching competency of prospective teachers. Shanlax International Journal of Arts, Science and Humanities, 7(3), 44-48. https://doi.org/10.34293/sijash.v7i3.546
23. The jamovi project. (2026). jamovi (Version 2.7.31) [Computer software]. https://www.jamovi.org
24. Velasco, M. S., & Baer, J. S. (2022). Teaching competencies and professional commitment: Relationship to job satisfaction of senior high school teachers. BOHR International Journal of Advances in Management Research, 1(1), 80-85. https://doi.org/10.54646/bijamr.2022.10