Revalidating the Teacher Commitment Scale in a Sample of Indian Teachers

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ABSTRACT

The commitment among teachers is crucial since it impacts numerous educational and non-educational aspects, thus warrants a valid tool to measure it. The study aimed to revalidate the Teacher Commitment Scale (TCS) developed by Vijay Kumar Chechi and Vikas Sharma in 2007. The five-dimensional 50-item scale was put through a rigorous validation process of content validation, exploratory factor analysis, confirmatory factor analysis, and reliability testing while being administered among 580 school teachers chosen through a multi-stage stratified sampling method from five districts of West Bengal in a non-experimental design. The data analysis was run using SPSS and AMOS software. Although all five dimensions were retained, 29 items were deleted as they failed to yield acceptable cut-off values. The updated version with 21 items, with an acceptable reliable Cronbach's alpha and composite reliability value, makes this version of the Teacher Commitment Scale valid to measure the construct and assess the factors that influence it.

Keywords: Education, Exploratory Factor Analysis, India, scale revalidation, teacher commitment.

ARTICLE INFORMATION

Introduction

The United Nations' Agenda 2030 is an integrated framework for solving the world's most pressing concerns and fosters sustainable development in various arenas. A critical component of Agenda 2030 is achieving equitable and inclusive education for all (United Nations: Targets of 2030 agenda). In line with this, teachers are essential in guaranteeing equitable access to education and encouraging diversity in the classroom. Their commitment may solve educational challenges such as impoverishment, gender disparities, and prejudice, all while establishing an environment that respects multiculturalism and benefits every student. Aside from this, the other components under UNSD Goal 4, Quality Education, such as quality teaching and learning, promoting global citizenship, and education for sustainable development, depend equally on a teacher's commitment (United Nations, Goal 4).

Teacher commitment is essential to preserving student-centered learning techniques and guaranteeing flexibility to new educational needs in a quickly changing digital and socioeconomic world (Leithwood et al., 2020). The importance of teacher commitment has been further highlighted by the difficulties presented by technological advancements and pandemic-driven shifts towards online learning. Highly committed teachers are essential for overcoming obstacles and preserving instructional quality under challenging situations (Sahlberg, 2023). They are asked to integrate changes into their routine teaching activity on all levels where the education system constantly evolves. Thus, because of the reform agenda, educators must engage in personal and professional development as a routine to thrive and succeed.

Globally, teacher commitment is being acknowledged by education policy frameworks as a critical component of what makes successful educational institutions sustainable. Emphasis on teacher commitment is vital for two reasons. First, it is an internal drive originating from teachers who seek more accountability, diversity, and challenge in their profession as their educational levels have increased. Secondly, it is an external drive that stems from the school reformation measures and seeks accountability and great canons, which depend on educators' voluntary dedication (Blanco et al., 2022).

National Perspective: The Indian Context

In India, the importance of teacher commitment to educational reforms is becoming more widely acknowledged, especially in light of the country's emphasis on raising academic standards through initiatives like the National Education Policy (NEP) 202. To accomplish the national aims of reforming the Indian education system, the NEP 2020 emphasises the significance of improving teacher quality and commitment. Teacher commitment is frequently raised with their role in promoting inclusive education, particularly in diverse and impoverished environments. In addition to imparting knowledge, a dedicated educator is expected to engage meaningfully with pupils from various socioeconomic backgrounds (Chopra, 2016), a common scenario in India. Furthermore, India has a varied educational landscape with urban, semi-urban, and rural schools. Teachers deal with several unique issues, including limited resources, crowded classrooms, and increasing administrative demands. Nevertheless, committed educators in these environments often exhibit adaptability and ingenuity in overcoming these obstacles, suggesting that teacher dedication is a multifaceted and intricate concept shaped

by regional socio-cultural and institutional elements (Srivastava, 2017; Walker, 2019). Thus, a significant emphasis is being placed on creating professional development programs that support and maintain teachers' commitment, especially in rural and semi-urban regions, given the importance of this commitment to attaining the national goals of educational equity and quality (Jalani, 2021).

Teacher Commitment as a Multifaceted Construct

Teacher commitment is intricate and multidimensional, encompassing more than just professional obligation or satisfaction with work. It includes various elements, including commitment to students, involvement in instructional activities, and a closer bond with the educational community and profession (Gu, 2017). Personal convictions, drive, and institutional elements, including school climate, administration, and resource availability, can also impact a teacher's dedication (Tschannen-Moran, 2014).

A noteworthy facet of a teacher's commitment is their unwavering focus on the development of their students, including not just academic achievement but also emotional and social advancement. As part of this commitment, educators modify their teaching strategies to accommodate the various requirements of their students (Choudhury & Chechi, 2021; Özgenel & Koç, 2020). A strong dedication to the teaching profession, demonstrated by ongoing professional development and an unwavering passion for teaching, is another aspect of teacher commitment. Furthermore, external factors like peer support and community involvement are essential for maintaining teacher commitment, particularly in challenging settings like underfunded schools or marginalized areas

(Barrett & James, 2018). Because of its complex character, teacher commitment is essential for improving student outcomes and preserving a stable, high-quality educational system.

Professionally Committed Teachers

Organisational commitment is an individual's allegiance to the organisation. Individuals with high organisational commitment identify closely with the organisation and are happy to call themselves the institute's staff (Bashir & Gani, 2020; Chung, 2020). Altun (2017) stated in his study that instructors' commitment is an inspiring factor that motivates them to devote more time and attention to their students' success. This eagerness to advance students' progress pushes them to seek methods to improve their teaching careers and provide a thriving learning environment for students to attain their goals. Liyaqat Bashir (2019) stated that professional commitment and teaching efficacy are highly associated, i.e., if the teacher's commitment is high, their efficacy would also be high (Bashir, 2019). Multiple studies demonstrate that teachers' commitment to school, community, learners, and teaching attitude affect student academic accomplishment (Ayllón et al., 2019; Bibiso et al., 2022). According to Frelin and Fransson (2017) and Räsänen et al. (2020), highly committed educators are skilled and dedicated to their duties. In contrast, less committed teachers may exhibit negative work behaviour and low morale. According to Fransson and Frelin (2016) and Kelchtermans (2017), educators who firmly commit to their profession are more likely to work hard because they see their job as emotionally gratifying.

Teachers dissatisfied with their jobs will develop negative attitudes and behaviours, leading to decreased motivation during the

teaching process, as per Renaldo et al. (2021), while satisfied educators will work hard, passionately and shine. This is corroborated by the findings of Samosir's study in 2020, which found a positive and substantial influence of teacher commitment on teacher work satisfaction. In the same year, low commitment to teaching was proved to be leading to poor retention and, thereby, resigning from the profession (Räsänen et al., 2020) alongside issues with the educational structure and workload.

Measurements for Teacher Commitment

With the vitality of commitment coined, it is paramount to be able to measure the same. However, there is a lack of measures for gauging teacher commitment in India, whether in schools, colleges or universities. As a result of this, empirical literature has been scarce in the domain of teacher commitment. According to the National Council for Teacher Education (NCTE), teacher commitment is dedication and allegiance to the teaching profession. It is an inherent comprehension that imparting knowledge as a teacher is the noblest of all vocations. Teacher commitment entails complete commitment to the job, to the goal of education, to the learner, awareness of one's position and obligations, and a high level of professionalism. Based on this principle of NCTE, the Teacher Commitment Scale (TCS) was developed and validated in 2007 by Vijay Kumar Chechi and Vikas Sharma in a sample of Indian teachers. After thoroughly reviewing the available literature, drawing on years of teaching experience, and consulting with experts in the field, they identified five dimensions within the scale.

Commitment to the learner emphasizes the dedication of the teachers towards the holistic growth and development of the students; commitment to the society deals with their responsibility towards the positive development of the society they live in, including promoting cultural understanding and equity and also taking the students on visits; commitment to the profession focusses on their ethical adherence towards their profession and the continuous engagement in processes for self-growth and self-improvement to better their teaching effectiveness; commitment to attaining excellence for professional action denotes their drive for achieving high standards in their pedagogical practices and a constant strive for quality delivery of content and integration of innovation; commitment to basic values deals about their willingness to take the extra steps for the betterment of learning, their alignment with core principles and their integration of parents into their child's education. Since its initial development and validation in 2007, the scale has necessitated a revalidation to guarantee its applicability in the changing Indian educational context. This revalidation within the same population, i.e., teachers (however, Government school teachers in West Bengal as opposed to teachers in Punjab in the initial scale validation) is required due to changes such as a new policy (i.e., NEP, 2020), technological improvements, and changing cultural expectations. Additionally, it makes it possible to compare patterns meaningfully, pointing out potential changes in teachers' priorities or levels of dedication over the last 15 years. These robust insights are crucial for both educational practice and policy.

As a teacher's commitment influences numerous educational and non-educational variables, its measurement is crucial to execute assessments and implement training or necessary actions accordingly. However, there is a dearth of tools to measure teacher commitment in India. Most scales for measuring teacher

commitment that are now in use were created in Western or other non-Indian contexts, frequently without considering the distinct sociocultural, institutional, and economic characteristics of Indian schools. Because of this, these measures might not adequately account for the complexity of teacher commitment in India. Furthermore, among the available scales, most have yet to shadow a proper validation process, i.e., EFA and CFA.

One scale with a strong scientific foundation, validation procedure and high-reliability factor is the TCS (2007) by Vijay Kumar Chechi and Vikas Sharma, which holds a multifaced approach. It is a Master of Education (M.Ed) dissertation submitted by Vikas Sharma under the supervision of Vijay Kr. Chechi is available at Lovely Professional University Library, Punjab. The investigators have taken experts' judgement and pursued item analysis without succeeding processes. With the proper validation steps, revalidation is an approved and necessary procedure. The scale was developed one and a half decades ago, and the education domain has experienced multiple upgrades ever since. Thus, revalidation of the scale in a sample of Indian teachers by following a rigorous procedure is demanded.

Purpose of the Study

To verify the validity and reliability of the Teacher Commitment Scale's five dimensions representing shifts in societal and educational dynamics. It is necessary to revalidate the scale's psychometric robustness and current relevance in the Indian educational setting, which is the purpose of the study.

Conceptual framework

Based on the domains within teachers' commitment as per NCTE, the TCS by Vijay Kumar Chechi and Vikas Sharma (2007) was developed with five dimensions (Figure 1). The first concept, i.e., fundamental value, acts as the theoretical foundation of Cohen's paper (2010), and the remaining four concepts are mentioned in Thien et al. (2014). Teacher commitment is an internal element that fosters effective pedagogical practice, and each of the five dimensions is integral to understanding and evaluating the construct. According to Walker (2020) and Wang et al. (2021), devoted educators are pleased with schooling others and continually strive to attain good teaching skills. The dimension of commitment to the profession captures this. They are concerned about their execution and constantly seek higher standards to achieve school needs and personal accolades, captured by *their commitment to excellence and professional action*. Their commitment to their fellow teachers is palpable, as is their propensity to attain school goals, says Manla (2021). On the other end, student achievement necessitates the educator's attentiveness. It is impacted by strong learner-educator relational characteristics such as priority, precision, trustworthiness, assurance, and rapport (Xie & Derakhshan, 2021), which fall under their *commitment to the learners*. Committed educators strive for excellence to impact the development of their students' academic and personal achievement (Aliakbari & Amoli, 2016; Altun, 2017). They are concerned with their professional advancement and successfully passing on and gaining knowledge from others, gauged by their *commitment to the profession.* Simultaneously, committed teachers understand how to adhere to professional ethics and are willing to uphold their professional values (*commitment to fundamental values*).

Figure 1

Conceptual Framework of Teacher Commitment with Five Dimensions
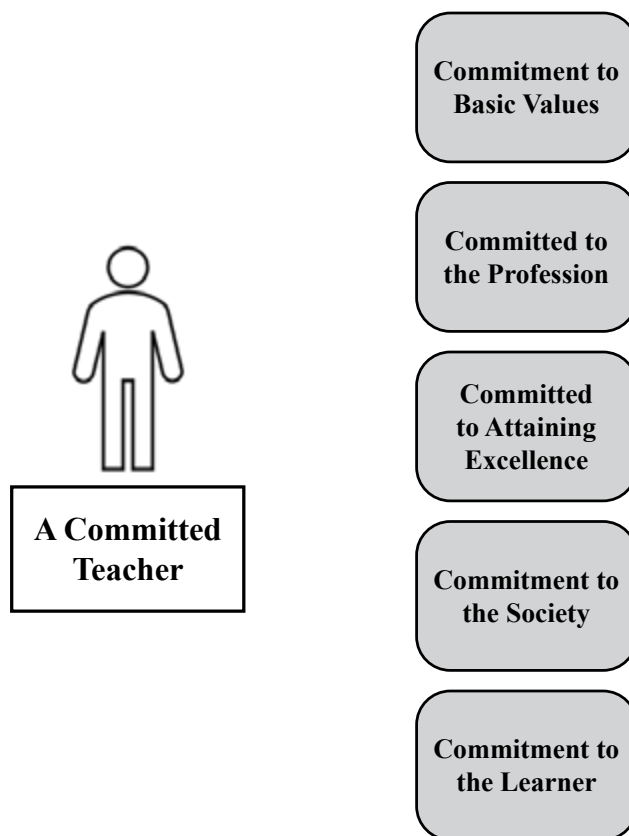
Theoretical Background

According to social exchange theory, the chances of individuals indulging in an activity are higher if they believe something will be gained in return (Cropanzano et al., 2017). Research states that teachers' commitment to their jobs is influenced by both external and internal rewards (Friedman, 2016; Shim & Faerman, 2017). According to Yang et al. (2019), teachers who regard their profession as stable and financially secure are likelier to stay dedicated to it. Friedman (2016) found that authentic philanthropic and healthy narcissistic aspirations typically lead to strong professional commitment.

Yet another theory is Bandura's (1986) Social Cognitive Theory (SCT), which states that an evolving and reciprocal interplay of physical, mental, and environmental factors influences a person's psychological functioning. SCT views humans as proactive, self-organizing, self-reflecting, and self-regulating, as opposed to reactive organisms influenced by environmental factors. The focus is on human cognition, essential for reality construction, self-regulation, information encoding, and behavioural performance (Bandura, 1986). This stands true for teachers' commitment towards their profession.

Aim of the study

To revalidate the Teacher Commitment Scale by Vijay Kumar Chechi and Vikas Sharma, 2007 in a sample of Indian teachers.

Methodology

Research Design

The study adopted a quantitative cross-sectional research design to revalidate the TCS scale among in-service Indian teachers.

Participants and Sampling Technique

The targeted population for the revalidation was Indian in-service school teachers, and a multi-stage stratified sampling method was adopted so that the samples could be chosen randomly. By using a Simple Random Sampling (SRS) technique in stage 1, five districts, namely Howrah, Purulia, North 24 Parganas, Uttar Dinajpur, and Maldah, were selected from the state of West Bengal out of a total of its 23 districts. In stage 2, a stratified sampling technique was used, and government secondary schools were listed from each district. An equal proportion was given here, and approximately 24 schools were chosen from each district. This led to an aggregate of 120 schools in total. Stage 3 was initiated right after this, where five secondary school teachers were randomly selected per school following an SRS technique. This led to the final sample of 600 teachers who were chosen randomly and voluntarily to ensure generalizability and representativeness. The investigators received 580 completed survey sheets, making a response rate of 97%, within the acceptable range. Regarding the strata, the study included a substantial sample of teachers of equal genders.

Regarding age, 157 fell in < 25 years of age, 285 fell in 25-40 years, and the remaining 138 were >40 years of age. Likewise, 220 were experienced more than 10 years in the teaching sector, and the remaining 360 held less than 10 years of experience. All the teachers were from government-sponsored secondary and senior secondary schools, i.e., postgraduate teachers (PGT) and trained graduate teachers (TGT).

Details of the TCS

The tool has two parts: A) demographic details of the respondents and B) the Teacher Commitment Scale by Vijay Kumar Chechi and Vikas Sharma (2007) (Table 1). The investigators here scored the teachers' responses according to the standardized norms of the original scale, i.e., a 5-point Likert scale between strongly disagree to strongly agree, 1 being minimum and 5 being the maximum score. Negative scoring was also present for negative statements. The maximum score that can be yielded was 250, and the lowest was 5.

Data Collection Procedure

The scale was developed in English as the official language spoken in India and was directed towards teachers. The data was collected using Google Forms, where respondents responded online. For revalidation, the sample was 580 teachers (400 for EFA and 180 for CFA) from five districts in West Bengal who participated voluntarily after providing comprehensive information about the purpose

Table 1

Dimensions and Item Numbers of Original Teacher Commitment Scale

Scale No.	Dimensions	Items
1	Learner (L)	1,2,3,4,5,6,7,8,9,10
2	Society (S)	11,12,13,14,15,16,17,18,19,20
3	Profession (P)	21,22,23,24,25,26,27,28,29,30
4	Attaining excellence for professional action (AEPA)	31,32,33,34,35,36,37,38,39,40
5	Basic values (BV)	41,42,43,44,45,46,47,48,49,50

of the survey. As per Costello and Osborne (2005) and Tabachnick and Fidell (2019), EFA typically requires a minimum of 5 participants per variable. Thus, a sample size of 400 for EFA suffices for this condition. On the parallel, according to Mundfrom et al. (2005) and Wolf et al. (2013), the minimum necessary sample size for CFA based on the variables-to-factor ratio is never more than 18. Similarly, modern CFA estimation methods perform well even on sample sizes of approximately 18. Further, bearing the parsimonious model in mind (Wolf et al., 2013), the authors expected fewer items following EFA analysis, thus allocating a smaller sample size for CFA. The time frame for data collection was two months, i.e., April and May 2022.

Data Analysis

The completed questionnaires were decoded for the application of statistical procedures and checked for errors, missing values and outliers. Following the cleaning process, statistical software SPSS v21 and AMOS v29 were used to analyse the data. A stringent statistical calculation was incorporated for construct validity assessment as expert opinion, and the original investigators had already assessed content validity. Initially, 98

items were pooled, and following guidance from seven experts, 50 were retained. The scale was comprised of an S-CVI of .9222.

Here, in the process of revalidation, the content validity of the 50-item five-dimensional scale was initially verified by language experts and later checked by six subject experts in the field of education. Their expert viewpoints on the quality of items were acquired. As a subsequent step, the scale with 50 items was administered among 400 samples and analysed by Churchill's item purification method (Field, 2005) to examine the accuracy of a purification process. The original five-point Likert scale format was retained. Kaiser–Meyer–Olkin (KMO) measure of sampling adequacy and Bartlett's test of Sphericity (BTS) were performed at the onset to determine the sample's appropriateness for factor analysis. Sequentially, the sample was randomly divided into two independent groups to perform Exploratory Factor Analysis (EFA) and Confirmatory Factor Analysis (CFA) from the 580 respondents. EFA was achieved on the first random sample (n =400), and CFA was achieved using the second random sample (n =180).

Ethical Considerations

This research method imparts no risk to its respondents, such as no physical damage or emotional harm, because questions only address their perceptions and attitudes towards their commitment to teaching. However, following the principles set by Stanley and Wise (2010), the study emphasised the ethical considerations of safeguarding privacy, ensuring obscurity, and confidentiality to the respondents. The rationale is to limit the participants' risk of emotional harm, unease, or distress. As a result, participation was completely optional and voluntary. The respondents were enlightened before the study to ensure they understood the decision they were making. Furthermore, an informed agreement was obtained from West Bengal educational authorities.

Results and Discussion

This section presents the findings and the discussion of the analysis in a structured manner, addressing the revalidation process and the psychometric properties of the TCS. The results are organised into four parts: i) content validity, ii) EFA detailing factor extraction and initial validation, iii) CFA focussing on model fit and factor structure verification, and iv) reliability indices.

Content Validity

The content validity ensures that the TCS measures all the aspects of teacher commitment as per theoretical and empirical literature. It was measured on a four-point rating scale ranging from 1 being not relevant to 4 being highly relevant based on relevance, clarity and comprehensiveness. Based on expert judgment on each of the 50 items, the Content Validity Index (CVI) was calculated per Lawshe (1975). The items with ICVI below .8 were recommended to be rejected, and those above .8 were retained. All the 50 items under five domains were retained as all the values were above .8, and CVI was found to be 1, while SCVI (average) was .9466. This critical step shows that the content of the scale is highly relevant and establishes its validity, thereby ensuring its alignment with the well-known theoretical base (Lawshe, 1975; Rubio et al., 2003). Thus, it enhanced the scale's credibility and applicability for the following analysis.

Purification

The corrected item-total correlation statistics were focussed, and less than or equal to .3 is considered insignificant. The items are recommended to be deleted from the list as they show minor common variance with the other items on the scale (DeVellis, 2021). Table 2 suggests the deletion of 25 items (bold) as they were insignificant contributors to the factor structure and failed to meet the recommended criteria of a minimum factor loading of .4 (Howard, 2016).

It is also crucial to note that as a result of deleting 25 items, Cronbach's alpha value did not reduce by a notable level. All remaining chosen elements in inter-item correlations were above .4 and, thus, satisfied the criteria for further analysis. Among the first dimensions of *learners*- L2, L4, L6, L8 and L10 were removed. S5, S6, S10 were removed from the second dimension *society*, and subsequently P3, P4, P6, P8, P9 from third dimension *profession*, AEPA 1, AEPA2, AEPA3, AEPA5 and AEPA10 from fourth dimension and BV1, BV2, BV3, BV7, BV8, BV9 and BV10 from fifth dimension were removed. Thus, the purification process

confirms the scale's five dimensions and internal consistency, which is paramount for its validity and reliability (Devellis, 2017; Tabachnick & Fidell, 2019). The refined scale offers a strong psychometric foundation since the retained items hold robust factor loadings and, thus, represent the constructs of teacher commitment better than the original version.

Table 2

Total–Item Correlation Statistics of the Scale

Items	Scale Mean if Item Deleted	Scale Variance If Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
L1	194.45	85.466	.503	.834
L2	197.55	9.910	**-.094**	.847
L3	194.50	84.607	.586	.833
L4	194.46	87.332	**.287**	.838
L5	194.50	84.431	.586	.832
L6	194.48	88.777	**.125**	.841
L7	194.49	84.205	.634	.832
L8	194.54	87.918	**.215**	.840
L9	194.52	84.726	.540	.833
L10	194.51	87.438	**.269**	.839
S1	194.45	84.288	.525	.833
S2	194.65	83.340	.586	.831
S3	194.56	84.663	.478	.834
S4	194.60	84.071	.522	.833
S5	194.58	86.530	**.313**	.838
S6	194.55	86.729	**.312**	.838
S7	194.60	84.226	.495	.833
S8	194.57	85.203	.419	.835
S9	194.56	84.713	.388	.836
S10	194.14	89.489	**.143**	.841
P1	194.61	84.399	.530	.833
P2	194.64	84.607	.502	.834
P3	197.30	89.742	**-.005**	.846

P4	194.54	87.753	**.233**	.839
P5	194.57	84.211	.558	.833
P6	197.39	94.520	**-.358**	.855
P7	194.59	84.058	.568	.832
P8	197.32	9.384	**-.057**	.850
P9	197.25	89.475	**.012**	.846
P10	194.57	84.181	.571	.832
AEPA1	194.70	88.152	**.102**	.844
AEPA2	194.24	89.817	**.033**	.842
AEPA3	194.49	9.225	**-.032**	.845
AEPA4	194.44	85.515	.500	.834
AEPA5	195.67	91.552	**-.171**	.847
AEPA6	194.50	85.609	.469	.835
AEPA7	194.44	85.469	.506	.834
AEPA8	194.50	85.243	.514	.834
AEPA9	194.44	85.425	.509	.834
AEPA10	194.57	87.619	**.232**	.840
BV1	194.20	9.453	**-.063**	.843
BV2	197.49	87.308	**.272**	.839
BV3	196.69	88.224	**.066**	.847
BV4	194.55	85.637	.444	.835
BV5	194.49	84.987	.488	.834
BV6	194.55	86.067	.403	.836
BV7	197.54	92.404	**-.250**	.849
BV8	194.63	86.333	**.281**	.839
BV9	197.43	88.285	**.176**	.841
BV10	197.49	87.574	**.241**	.839

Exploratory Factor Analysis (EFA)

As Churchill Jr (1979) suggested, the subsequent step in scale purification is assessing the retained items' dimensionality. DeVellis (2003) and Spector (1992) recommended using EFA to reduce items by determining the eigenvalues. Before this, The Kaiser–Meyer–Olkin measure of sampling adequacy index (KMO) and Bartlett's test of Sphericity were examined. The

Table 3

Rotated Component Matrix of the Scale

Items	Components				
Dimensions	1	2	3	4	5
L1			.712		
L3				.917	
L5				.856	
L7				.893	
L9				.906	
S1			.863		
S2			.579		
S3			.691		
S4			.728		
S7			.619		
S8					
S9			.552		
P1	.933				
P2	.877				
P5	.946				
P7	.955				
P10	.920				
AEPA4		.932			
AEPA6		.811			
AEPA7		.935			
AEPA8		.799			
AEPA9		.934			
BV4					.915
BV5					.638
BV6					.911

former yielded a value of .842, greater than .6 (acceptable range) and closer to 1.0, which is highly adequate. Thus, it stands to be significant (Tabachnick & Fidell, 2007). The latter value of $\chi^2=12708.248$, $df = 300$, $p <.000$ proved the variance to be homogenous. This indicates the data were appropriate for factor analysis.

EFA of the retained 25 items across five dimensions was initiated and arrived at the variance 75.466 together in rotated sums of squares under total variance. Extraction and factor rotation were followed as subsequent steps. EFA with Principal Component Analysis and Varimax Kaiser Methods was applied to examine the factorial structure with 25 items and 400 samples. Statistically, two prime methods examine the underlying items for the extracted factor structure for each dimension: 1) Standardized factor loadings value and 2) Cronbach's alpha value. The acceptable cutoff value (Eigenvalue) as factor loadings is .50 and above, as per Hair et al. (2010). Table 3 shows the loadings of each element to be above .50, except S8, which is less than .50, and Item L1, which is loaded with another factor. The rotated component matrix

confirms the scale's factor structure to be aligned with its theoretical dimensions. Thus, the scale's dimensionality was reinforced, and the retained items were strongly relevant to their respective constructs (Field, 2018; Tabachnick & Fidell, 2019). Therefore, all the other 23 items were further accepted and contributed to the construct underlying the factor.

Confirmatory Factor Analysis (CFA)

It was initiated in Amos V29, with the second half of the sample comprising 180 secondary school teachers. As stated in the methodology, the number of items was reduced following the EFA analysis (only 23/50 were retained). Thus, as per the parsimonious model by Wolf

et al. (2013), a smaller sample size for CFA is sufficient for models with high factor loadings and a more straightforward structure. This statistical application, i.e. CFA, intended to validate the scale's discriminant and convergent validity after it passed through EFA. It examines the validity of the scale's hypothesized five dimensions and further improvises the model fit. A five-dimensional factor structure diagram was generated where the individual loading factors of AEPA Item 6 (.48) and AEPA Item 8 (.40) were initially less than .50, below the cross-loading standard. The two items were thus removed, and a second model fit estimate with a 21-item scale was examined again for the factor loadings. Figure 2 showcases all values above the welcomed range of .50, with the lowest .54 and

Figure 2

The Factor Structure of the Model with 21 items
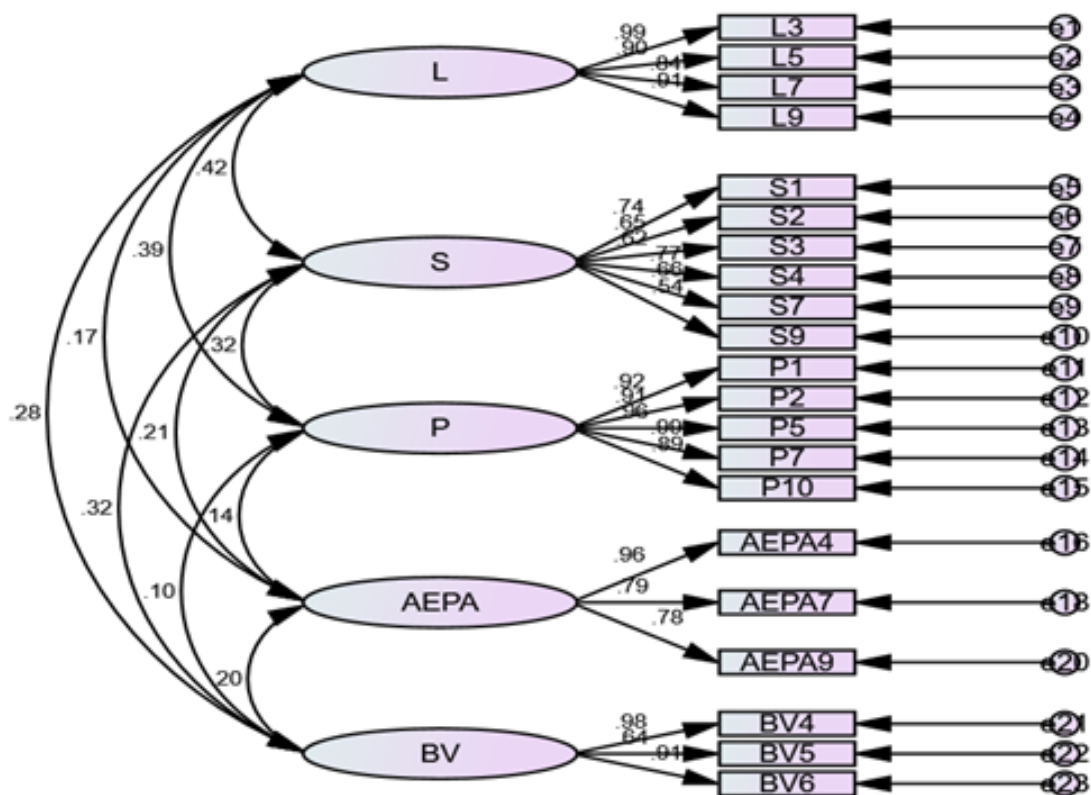
the highest .99. Thus, the results confirm that each of the 21 items retained contributes significantly to the construct while providing evidence of the convergent validity of the instrument. This aligns with the prior empirical findings and the theoretical expectations (Byrne, 2013; Kline, 2016).

Finally, the five-factor correlated CFA model was found to hold good fitness indices, fulfilling the cut-off values. This comprises the p-value .000, which denotes a significant value (<.05). CMIN/DF was 1.690, indicating a satisfactory fit between the hypothetical model and the sample. RMR (Root Mean Square Residual) showed .026 (<.08) and also falls into the acceptable model fit. RMSEA (Root Mean Square Error of Approximation) value was .062 (<.08), the GFI (Goodness of Fit index) value was .875 (>.9), PCFI output resulted in .820 (>.8), IFI was .963 (>90) and lastly the CFI obtained was .963 (>.95) which are all indicative of a good model-data fit in general (Ding & Ng, 2008).

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Reliability and Composite Reliability of the Updated Scale

According to experts, a construct's reliability (or composite) should be at least .70 and is a statistical measure of a given scale's internal consistency (Netemeyer et al., 2003). When all 21 items consistently measure the same construct, they have high composite reliability. As seen in Table 4, the composite reliability for each construct ranges from .827 to .972 (i.e. >.70), an evident sign that every item consistently measures the construct that corresponds to it, which is teachers' commitment to their profession in this case. Likewise, Cronbach's alpha ranges from .823 to .971 and aligns with the values suggested by Hair et al. (2014). Overall, Cronbach's alpha is .895, and composite reliability is .980 (Table 4). The finalized scale with 21 items has high validity and reliability and can be used in Indian settings to assess the teacher's commitment.

Table 4

Cronbach's Alpha and Composite Reliability of Teacher Commitment Scale

Sub Scale	Cronbach's Alpha	Composite Reliability	No. of Items
Learner	.950	.951	4
Society	.823	.827	6
Profession	.971	.972	5
Attaining excellence for professional action	.882	.885	3
Basic values	.870	.886	3

The inference from the findings is close to the one validated in a Malaysian sample in 2014 among 600 school teachers using a commitment

scale with 17 items. However, the scale has only four dimensions and captures less information due to its limited items (Thien et al., 2014). On the parallel, other commitment scales are based on the commitment to the organization, students, etc., and do not focus on the profession like the TCS scale. The findings assure the planned integration as per the current NCTE, 1998. As a result, based on the current empirical findings, the proposed integrated paradigm of teacher commitment transforms new information in the respective literature. Acknowledging and backing the commitment of teachers is critical to ensuring Agenda 2030's success and the other wide range of demands, as they are the agents for transformational education that enable individuals and society to achieve a more sustainable and prosperous tomorrow.

Conclusion

The study aimed at revalidating the 1.5-decade-old Teacher Commitment Scale developed in 2007 by Vijay Kumar Chechi and Vikas Sharma in a sample of Indian school teachers. As a result of identifying teacher commitment as an essential factor in educational outcomes through literature and a dearth of a valid tool to gauge the same, this study's result poses numerous implications and fills the existing research gap. Content validation, purification, exploratory factor analysis (EFA) and confirmatory factor analysis (CFA) were run using SPSS v21 and AMOS v29 software. ICVI calculation yielded all the ratings to be above .8 as per the expert judgement, resulting in all the items being retained. This proved the holistic nature of the scale to measure all the relative aspects of teacher commitment. Following this, the purification was conducted, and half of the items were removed as they did not significantly contribute to the factor

structure. EFA was conducted for the remaining 25 items using principal component analysis and varimax Kaiser methods. This led to the deletion of two items due to a factor loading of less than .5. In the subsequent step, CFA was calculated initially with 23 items and later with 21 items, as two items failed to meet the minimum criteria. The factor structure of the model with 21 items has a lowest value of .54 and a highest value of .99. The findings support teacher commitment as a multifaceted construct with its five dimensions: *(a) learners, (b) society, (c) profession, (d) attaining excellence for professional action, and e) basic value since all the five dimensions.* Thus, the theoretical framework is enriched for comprehending teacher commitment, supporting the established theories of professional motivation.

The study helps to effectively assess teacher commitment by ensuring that the re-validated version of the TCS is reliable for the changing Indian educational system. It is a bridge to fill the research gap in measuring teacher commitment as it follows a scientifically solid revalidation procedure. The current tool can compare outcomes across research investigations and study contexts. It gives policymakers a solid instrument to create policies that improve teachers' efficacy and professional development. More importantly, it can also assess the factors influencing teacher commitment within its dimensions, which can inform future research, enhance learning results, and direct teacher training programs. Specifically, promoting teacher commitment can directly impact student outcomes, aligning with ASEAN's goal of achieving equitable and quality education under the ASEAN Work Plan on Education 2021-2025. Cross-regional research that can validate similar tools for different ASEAN member states can be adopted, thus endorsing a collaborative

effort to strengthen teacher education policy. The study, on the whole, aids in promoting teacher commitment, which advances teaching methods and societal development.

Limitations of the Study

The study was undertaken in only five districts in West Bengal and is geographically limited. This potentially affects the generalizability of findings to other states of the country. Another potential limitation is the sample size of 580 teachers, which, though it meets the requirements for EFA and CFA, reliance on online data collection via Google Forms might have excluded teachers with limited digital access. The study's cross-sectional design captures teacher commitment at a single point, thus limiting insights into changes over time. Additionally, the focus solely on Government school teachers excludes viewpoints and inputs from private or unaided schools. Finally, self-reported replies may be swayed by social desirability bias.

Recommendations for Future Research

To improve generalizability, future research should broaden the study's focus to encompass a variety of geographic locations and school kinds, including private and unaided institutions across the nation. The scale can be used to discover trends and monitor changes in teacher commitment over time when used in longitudinal studies. A deeper understanding of the subtleties of teacher commitment can be gained through mixed-method approaches that include qualitative methodologies. It may identify distinctive factors affecting commitment when used in comparative research designs in various policy and cultural contexts. Lastly, investigating how teacher commitment affects

student outcomes and academic achievement would have important real-world implications.

■ ■ ■

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Ethical Approval

Since this research method does not pose any harm to its participants, ethical approval was not required as per national guidelines. However, oral informed consent was acquired before their voluntary authorisation to take part.

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The authors declare that the use of AI, both generative and assisted technologies, were not used in any way during preparing, writing or proofreading the manuscript.

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Annexure

Modified Teacher Commitment Scale with 5 Dimensions and 21 Items

Dimensions	S. No.	Items
L3	1	I believe that the mission of my life is to facilitate the all-round development of the child.
L5	2	I try to solve the problems of the students at the earliest.
L7	3	I feel satisfied by acting as a facilitator for the students.
L9	4	I get thrilled when children share their excitement with me.
S1	5	I believe that teachers are nation builders.
S2	6	I hold the view that a teacher needs to understand social norms and values of the society, in which he is working.
S3	7	I promote democratic atmosphere in my classroom.
S4	8	I hold the opinion that a school is a miniature of society.
S7	9	I believe that a teacher is a facilitator for the social and educational development of the child.
S9	10	I believe that a teacher should take students on visits outside the school for direct experiences.
P1	11	I hold the view that teachers are responsible for the quality of teaching.
P2	12	I am worthy of being called a good teacher.
P5	13	I am a dedicated teacher.
P7	14	I am conscious of the roles and the responsibilities that come along with the teaching profession.
P10	15	I advocate the use of technology for better classroom learning.
AEPA4	16	I own a small library, concerning books related to my subject, at my home.
AEPA7	17	I believe that a teacher's grasp of knowledge is important for the teaching profession.
AEPA9	18	I believe in developing right attitude for the teaching profession.
BV4	19	I help weak students by giving extra time to them.
BV5	20	I want to be praised for my good teaching.
BV6	21	I keep the parents well informed about the performance of their ward.