International Journal for Multidisciplinary Research (IJFMR)
E-ISSN: 2582-2160 ● Website: www.ijfmr.com ● Email: editor@ijfmr.com

A Standardized Measure of Teachers' Professional Adjustment: Development, Validation, and Application

Sunepinla Aier[1], Buno Zetsuvi[2], Boyillapalli Venkata Rao[3]

[1]Research Scholar, Department of Education, Nagaland University (A Central University)
[2]Professor, Department of Education, Nagaland University (A Central University)
[3]Associate Professor, Department of Education, Nagaland University (A Central University)

Abstract

In today's rapidly changing world, professional adjustment is crucial for individuals to thrive in their careers. For teachers, professional adjustment is vital for effective teaching and student outcomes. This study aimed to develop and standardize the Inventory of Teachers' Professional Adjustment (ITPA), a tool designed to assess teachers' professional adjustment. The ITPA consists of 32 items, categorized into four dimensions: Job Satisfaction, Professional Relationship, Adjustment to the Institution (School), and Professional Development. The tool's reliability was established through Cronbach's alpha (0.806) and Spearman-Brown's reliability coefficient (0.771). Content and face validity were established through experts and teachers' feedback and criticisms. A systematic procedure was followed, involving pilot studies, item analysis, and final tryouts. Norms for interpretation were established using standardized (Z) scores. The ITPA provides a valuable framework for educators, administrators, and policymakers to assess and enhance teachers' professional adjustment. This study contributes to the field of educational psychology by providing a reliable and valid tool for measuring teachers' professional adjustment. The ITPA is relevant for teacher development, educational policy, and student outcomes. Future research may focus on verifying the tool's generalizability across diverse educational settings and exploring additional constructs related to teachers' professional adjustment.

Keywords: Teachers' Professional Adjustment, Job Satisfaction, Professional Relationship, Adjustment to the Institution, Professional Development

1. Introduction

In today's fast-paced world, adaptability is vital for individuals to thrive. Teachers, as nation-builders, play a fundamental role in educating and shaping future generations. The National Professional Standards for Teachers (NPST) have highlighted that with the progress in the education system and the demands placed on the role of teachers, enhancing the quality of teachers has become crucial for long-term and sustainable nation-building (National Council of Teacher Education, 2023). For teachers to remain healthy and perform effectively at work, their capability to adapt is essential. To effectively teach and inspire students, teachers must be willing to step out of their comfort zones, continually update their skills, and adopt innovative approaches. Furthermore, teachers who chose to pursue teaching before entering the sector are likely to have better job satisfaction and adjust to it more easily (Javillonar, 2020). This requires a high

degree of professional adjustment, enabling teachers to navigate the complexities of their role and foster responsible, productive citizens. The development and standardization of the Inventory of Teachers' Professional Adjustment (ITPA) addresses this need, providing a reliable tool to assess and enhance teachers' professional adjustment, ultimately impacting student outcomes and the broader educational landscape.

1.1 Professional Adjustment of Teachers

According to Good (1959), adjustment entails finding and adopting behaviours that align with one's environment or adapting to changes within it (as cited in Mangal, 2016). This implies that a person can either conform to their surroundings or modify their environment to suit their needs. Within the scope of professional adjustment, it refers to the holistic personal growth and development, enabling the individual to perform their profession efficiently and effectively.

For teachers, professional adjustment involves mastering various skills and achievements within their profession, as well as developing a social orientation that fosters a strong professional self-identity. This, in turn, serves as a foundation for common life values (Ducheva, 2005). A teacher's adjustment to his or her workplace significantly determines their effectiveness as a teacher to a large extent as their maladjustment with the profession not only has an adverse effect on their personality but also leads to maladjustment among students whom they teach (Joshi, 2015).

Professionally adjusted teachers are content in their work and actively pursue opportunities for professional growth (Wani & Jan, 2023). Effective professional adjustment encourages teachers to exhibit integrative behaviour, which, in turn, promotes similar behaviour in their students. A well-adjusted teacher's behaviour is shaped by their personal values and attitudes towards themselves, colleagues, the governing body, their profession, and duties (Ducheva, 2005). A professionally adjusted teacher has a strong motivation for professional development, collaborative relationship with colleagues, students and parents, a willingness to put in time and effort, adherence to professional ethics, a lifelong commitment to career advancement, and keeps confidence and faith in the profession (Rizvi, 2015). This highlights the importance of professional adjustment in teaching, as it influences not only the teacher's performance but also the learning environment and student outcomes.

2. Need and justification of the tool development

Despite the existence of standardized tools for assessing Teachers' Professional Adjustment, a gap was identified in the current literature. Two prominent tools, the Teachers' Professional Adjustment Inventory (TPAI-RHA) by A.H. Rizvi and the Mangal Teacher Adjustment Inventory (MTAI-M) by S.K. Mangal, were found to be comprehensive in identifying dimensions and items related to Teachers' Professional Adjustment. However, after comprehensively reviewing related literature, the investigator identified a new dimension, 'Professional Development' befitting Teachers' Professional Adjustment. This dimension was not included in any of the above-mentioned standardized tools.

The investigators recognised the importance of 'Professional Development' in the context of the National Education Policy (NEP) 2020, which emphasizes teachers' ongoing growth and development. This dimension was tailored to assess teachers' knowledge of NEP 2020 and their willingness to advance in their profession. Furthermore, the Mangal Teacher Adjustment Inventory, with 253 and 70 items (short-form), was considered too lengthy and burdensome for teachers to respond to.

Additionally, the Teachers' Professional Adjustment Inventory (TPAI-RHA) by A.H. Rizvi used interrogatory statements, which deviated from the investigator's preference and experts' suggestions for

assertive statement forms. These limitations and gaps in the existing tools necessitated the development of a new tool that addresses the dimension of 'Professional Development' and is more concise and user-friendly. This new tool aims to offer a comprehensive and efficient means of assessing Teachers' Professional Adjustment, ultimately contributing to the enhancement of teacher development and educational outcomes.

3. Objectives

3.1 To design, develop, and standardize a comprehensive inventory for measuring Teacher's Professional Adjustment, ensuring its content validity, face validity, and reliability.

3.2 To pilot-test the inventory, analyse its items, and establish norms based on standardized (Z) scores, thereby providing a robust tool for assessing teacher professional adjustment.

4. Steps followed in developing the inventory of Teachers' Professional Adjustment

A systematic and rigorous process was followed while developing the Inventory of Teachers' Professional Adjustment (ITPA). Initially, planning and preparation laid the groundwork for the inventory's creation. This was followed by an initial try-out, which provided insightful suggestions for refinement. The quality and relevance of each item were then confirmed through a thorough item analysis. The resulting final scale was subsequently pilot-tested in a final try-out, leading to the standardization of the inventory, ultimately yielding a reliable and valid tool for measuring teacher professional adjustment.

4.1 Planning and preparation- identifying dimensions of Teachers' Professional Adjustment

1) Identification of dimensions

The development of the Teachers' Professional Adjustment Inventory began with a thorough review of existing literature and standardized tools, such as the Teachers' Professional Adjustment Inventory (TPAI-RHA) and the Mangal Teacher Adjustment Inventory (MTAI-M). This led to the identification of four key dimensions of teachers' professional adjustment:

Job Satisfaction refers to a teacher's contentment with their job, salary, and work-life balance. Job satisfaction, according to Locke (1976), is "a pleasurable or positive emotional state resulting from the appraisal of one's job and job experiences" (as cited in Duong, 2013). A teacher's contentment with their job, salary, and work-life balance.

Professional Relationship can be understood as a teacher's interpersonal relationships with colleagues, students, and administrators. In their studies, Corbin et al. (2019) and Milatz et al. (2015) highlighted that the closeness of professional relationships among teachers can be understood as the interpersonal and emotional connection and collaboration they share in an educational setting. It goes beyond their ability to effectively cooperate, share ideas, collaborate, support one another, and engage in constructive communication. This professional relationship is characterised by their willingness to effectively work together, resulting in improved teaching and enhanced students' learning experiences (as cited in Ribosa et al., 2024).

Adjustment to the Institution (School) This can be understood as a teacher's ability to adjust and adapt to the school environment, policies, and expectations. In their study, Bahtilla and Hui (2021) found a strong correlation between the school environment and teachers' job satisfaction. The school environment,

as emphasised in their study, was characterized by adequate teaching materials, motivational strategies, and a collaborative decision-making style.

Professional Development This refers to a teacher's awareness of and engagement with ongoing education trends, policies, and opportunities for professional growth. Professional Development, according to the Teaching and Learning International Survey (TALIS), consists of those activities that aim at developing and enhancing an individual's skills, knowledge, expertise and other characteristics as a teacher (Organisation for Economic Co-operation and Development, 2009).

These dimensions formed the foundation for the development of the inventory, ensuring a comprehensive assessment of teachers' professional adjustment.

2) Item generation for the inventory of Teachers' Professional Adjustment

The development of the inventory began with a comprehensive review of existing standardized tools, including the Bell Adjustment Inventory by H.M. Bell, Mangal Teacher Adjustment Inventory by S.K. Mangal, and Teachers' Professional Adjustment Inventory by A.H Rizvi. These tools served as a foundation for generating items related to teachers' professional adjustment. The inventory's dimensions and items were based on established conceptual and empirical frameworks, ensuring validity and reliability.

To leverage the measurement strengths of existing tools, selected items from the Mangal Teacher Adjustment Inventory and Teachers' Professional Adjustment Inventory were adapted for the current study. The adapted items were modified to ensure clarity, relevance, and intellectual property guidelines. Proper citation and referencing of original sources were maintained. Initially, 44 items were generated based on the four dimensions: Job Satisfaction, Professional Relationship, Adjustment to the Institution (School), and Professional Development. Following expert feedback, six additional items were incorporated, thus resulting in a total of 50 items. The items were distributed as 29 positive items and 21 negative items. These items formed the foundation for the Teachers' Professional Adjustment Inventory, ensuring a comprehensive assessment of teachers' professional adjustment.

3) Scoring procedure for the Inventory of Teachers' Professional Adjustment

The inventory utilized a 3-point Likert scale consisting of Agree, Undecided, and Disagree for the response options. This simple and concise format was chosen to minimize confusion and facilitate accurate responses from teachers who are usually busy professionals and often reluctant to participate in surveys. Scoring was allocated as follows: 3 points for Agree, 2 for Undecided, and 1 for Disagree on positive items, with a reversed scoring pattern for negative items.

4.2 Initial try-out

1) Expert try-out

The initial try-out of the Inventory of Teachers' Professional Adjustment involved an expert review to establish content validity. To establish content validity, the measuring instrument must accurately and comprehensively cover the items or domains that it intends to measure (Cohen et. al., 2007). Content validity is determined through subjective decisions or value judgments by subject experts based on the appropriateness of the content (items and scales comprising the test) with respect to the achievement of the test objectives (Mangal & Mangal, 2020; Sungoh, n.d.). A preliminary draft of 44 items was reviewed by two subject experts, resulting in the addition of eight new items. The revised draft was subsequently reviewed by four subject experts, one language expert, and five research scholars. Their feedback led to modifications, including rewording six items, merging similar items, and converting interrogatory statements to assertive ones. The scoring system was also revised based on expert feedback. Additionally,

the fourth dimension was renamed from "Self-Professional Awareness and Development" to "Professional Development" after expert discussion and literature review.

2) Individual try-out

An individual try-out was conducted to establish face validity, to ensure that the inventory appears to measure what it intends to measure from the perspective of the intended audience- secondary school teachers. This individual try-out was conducted to establish face validity. It is the degree to which a measurement tool appears to measure what it claims to measure based on the subjective judgment of the intended audience rather than experts (Connell et al., 2018). It is a legitimate form of validity which determines whether the intended audience finds items understandable, relevant, and easy to answer – or perhaps distressing, intrusive, or judgmental (Allen et al., 2023). Nine teachers reviewed the revised draft, consisting of 50 items, to provide feedback on clarity, relevance, and understandability. Their input helped identify ambiguous or unclear items, leading to modifications in 10 items to improve wording. The revised draft, comprising 50 items (28 positive and 22 negative), was finalized for group try-out, ensuring the inventory's effectiveness and relevance for teachers.

3) Group try-out

Following expert and individual try-outs, the revised draft underwent a group try-out, serving as a pilot study to assess the tool's usability and functionality. The validated draft was administered to a representative sample of 100 secondary-level teachers in Kohima and Mokokchung districts after seeking necessary permission letters from authorities. Teachers were assured of response confidentiality and provided with instructions, allowing them to respond without time constraints. The collected data was then analysed using SPSS to conduct an item analysis, further refining the Inventory of Teachers' Professional Adjustment.

4.3 Item Analysis

The data collected from the group try-out was scored and sorted in descending order. The top and bottom 27% of scores were identified for item analysis through an independent sample t-test. Using SPSS, the discrimination power of each item was computed by comparing the scores of the top and bottom groups. Items with a t-value of 1.96 or higher were retained, indicating statistical significance and ability to differentiate between high and low-scoring groups. Conversely, items with t-values below 1.96 were rejected because they lacked statistical significance and discriminatory power. This is displayed in the table below.

Table 1. Item-wise t-values of Inventory of Teachers' Professional Adjustment

Item No.	t-value	Remark	Item No.	t-value	Remark
1	1.88	Rejected	26	0.00	Rejected
2	1.77	Rejected	**27**	**2.79**	**Selected**
3	**7.10**	**Selected**	**28**	**4.72**	**Selected**
4	0.00	Rejected	**29**	**2.64**	**Selected**
5	**2.56**	**Selected**	30	1.72	Rejected
6	**3.55**	**Selected**	**31**	**5.32**	**Selected**
7	0.52	Rejected	**32**	**2.97**	**Selected**
8	**5.43**	**Selected**	**33**	**3.72**	**Selected**
9	0.49	Rejected	34	0.88	Rejected

10	**2.39**	**Selected**	**35**	**4.22**	**Selected**
11	1.25	Rejected	36	1.80	Rejected
12	**2.07**	**Selected**	**37**	**3.36**	**Selected**
13	**4.28**	**Selected**	**38**	**3.60**	**Selected**
14	**2.13**	**Selected**	39	1.48	Rejected
15	**4.65**	**Selected**	**40**	**1.99**	**Selected**
16	**3.03**	**Selected**	41	1.85	Rejected
17	**5.27**	**Selected**	42	1.44	Rejected
18	**5.77**	**Selected**	**43**	**3.32**	**Selected**
19	**2.28**	**Selected**	44	1.80	Rejected
20	**3.01**	**Selected**	**45**	**2.87**	**Selected**
21	**2.77**	**Selected**	46	1.91	Rejected
22	**2.37**	**Selected**	**47**	**3.77**	**Selected**
23	**2.34**	**Selected**	**48**	**2.63**	**Selected**
24	1.48	Rejected	49	1.40	Rejected
25	0.00	Rejected	**50**	**2.43**	**Selected**

Table 1 shows that 32 items in bold fonts (3, 5, 6, 8, 10, 12-23, 27-29, 31-33, 35, 37, 38, 40, 43, 45, 47, 48, and 50) were retained, as their t-values exceeded 1.96, indicating statistical significance at the 0.05 level. In contrast, the remaining items were eliminated due to t-values below 1.96. Consequently, the final inventory consisted of 32 items for data collection.

Table 2. Item Distribution Across Dimensions

Dimensions	**Nature of Items**	**Nature-wise No. of Items**	**Total No. of Items**	**Total**
Job Satisfaction	Positive	1, 5, 7	3	7
	Negative	2, 3, 4, 6	4	
Professional Relationship	Positive	8, 9, 13, 15, 16, 17	6	10
	Negative	10, 11, 12, 14	4	
Adjustment to the Institution (School)	Positive	19, 22, 24, 26	4	9
	Negative	18, 20, 21, 23, 25	5	
Professional Development	Positive	27, 28, 29, 30, 32	5	6
	Negative	31	1	
Positive Items = 18 & Negative Items = 14		**Total Items**		**32**

Table 2 displays the item distribution across the four dimensions. It also specifies the nature of items in terms of negative or positive items.

4.4 Final try-out

The finalized 32-item scale, categorized into four dimensions, was administered to a randomly selected sample of 500 secondary school teachers from Nagaland Board of School Education-affiliated schools in

Kohima, Mokokchung, and Tuensang districts. Scores ranged from 32 to 96, with higher scores reflecting better professional adjustment and lower scores suggesting poorer adjustment among teachers.

Table 3. Scoring Procedures for Positive and Negative Items

Item type	Item Number	Response Type		
		Agree	Undecided	Disagree
Positive	1,5,7,8,9,13,15,16,17,19,22,24,26,27,28, 29,30,32	3	2	1
Negative	2,3,4,6,10,11,12,14,18,20,21,23,25,31	1	2	3

Table 3 shows the response type and scoring based on the nature of the items.

4.5 Standardization of the inventory

1) Establishment of reliability coefficient

Reliability refers to the stability and consistency of measurements, ensuring that a measuring tool yields accurate and predictable results (Kumar, 2011; Segal & Coolidge, 2018). To establish the reliability of the present measure, three methods were employed: Cronbach's alpha, Pearson's correlation, and Spearman-Brown's split-half reliability coefficients. Cronbach's alpha measures internal consistency, indicating how closely connected a set of items is within a group. It is a coefficient of reliability that serves as an indicator of scale reliability (UCLA Statistical Consulting Group, n.d.). Likewise, the internal consistency (Cronbach's alpha) of the present inventory was calculated using the scores of the 500 respondents.

The split-half method, also known as the odd-even method, was used to establish reliability. To establish reliability using the split-half method, the test is divided into two equal parts, or sometimes into two parts consisting of odd items in one part and even items in the other. This is why the split-half method is also known as the odd-even method of reliability (Mangal & Mangal, 2020; Sansanwal, 2024). For the current inventory, Pearson's product-moment correlation was used to determine the split-half reliability correlation between odd and even items. The obtained half-test reliability coefficient was then used to estimate the whole test's reliability using the Spearman-Brown Prophecy formula, Reliability = 2r/1+r (Cohen et al., 2007; Garrett, 2014; Mangal & Mangal, 2020; Sansanwal, 2024).

Overall, the scale exhibited high reliability, with a Cronbach alpha of .806, a Pearson Correlation coefficient of .627, and a Spearman-Brown's Reliability Coefficient of .771.

2) Establishment of norms through Z-scores

Norms provide a standard for interpreting psychological test results, allowing comparison of an individual's performance to others (Sungoh, n.d.). To establish norms for the inventory, Z-scores were calculated to standardize raw scores. Z-scores indicate how far a score deviates from the mean, computed using the formula $Z = (X-M)/SD$ (where X stands for raw scores) (Sungoh, n.d.; Mangal & Mangal, 2020; Andrade, 2021). By transforming raw scores into Z-scores, standardized scores are obtained, enabling comparison of individual scores to the overall distribution. This facilitates objective classification of respondents into highly, moderately, or lowly adjusted categories based on their performance.

- **Scores**

The raw scores and their respective Z-scores are shown in the following tables 4 and 5 -

Table 4. Standardized scores (Z-scores) for the Inventory of Teachers' Professional Adjustment

Raw Score	Z-Score	Raw Score	Z-Score
60	-3.51	80	-0.68
63	-3.09	81	-0.54
64	-2.95	82	-0.39
65	-2.80	83	-0.25
66	-2.66	84	-0.11
67	-2.52	85	0.03
68	-2.38	86	0.17
69	-2.24	87	0.31
70	-2.10	88	0.45
71	-1.95	89	0.59
72	-1.81	90	0.74
73	-1.67	91	0.88
74	-1.53	92	1.02
75	-1.39	93	1.16
76	-1.24	94	1.30
77	-1.10	95	1.45
78	-0.96	96	1.59
79	-0.82		

Table 4 presents the Z-score norms for the inventory, based on a sample of 500 teachers (M=84.80, SD=7.05). The table displays a range of raw scores (60-96) and their corresponding Z-scores, indicating the number of standard deviations each raw score is from the mean (84.80). This allows for the interpretation of individual scores in relation to the overall distribution, facilitating the classification of teachers as highly, moderately, or lowly adjusted.

Table 5. Dimension-wise Z-score Norms for Teachers' Professional Adjustment

Job Satisfaction (ITPA-JS) N=500 M=17.35 SD=2.57		**Professional Relationship (ITPA-PR) N=500 M=27.2840 SD=2.41972**		**Adjustment to the Institution (School) (ITPA-ATTIS) N=500 M=23.95 SD=2.63**		**Professional Development (ITPA-PD) N=500 M=16.22 SD=1.49**	
Raw score	**Z-Score**	**Raw score**	**Z-Score**	**Raw score**	**Z-Score**	**Raw score**	**Z-Score**
8	-3.64	19	-3.42	11	-4.92	11	-3.49
10	-2.86	20	-3.01	15	-3.40	12	-2.82
11	-2.47	21	-2.59	16	-3.02	13	-2.15
12	-2.08	22	-2.18	17	-2.64	14	-1.48
13	-1.69	23	-1.77	18	-2.26	15	-0.81

14	-1.30	24	-1.36	19	-1.88	16	-0.15
15	-0.92	25	-0.94	20	-1.50	17	0.52
16	-0.53	26	-0.53	21	-1.12	18	1.20
17	-0.14	27	0.12	22	-0.74		
18	0.25	28	0.29	23	-0.36		
19	0.64	29	0.71	24	0.02		
20	1.03	30	1.12	25	0.39		
21	1.42			26	0.78		
				27	1.16		

Table 5 provides dimension-wise Z-score norms for Teachers' Professional Adjustment, covering Job Satisfaction, Professional Relationship, Adjustment to the Institution, and Professional Development. The table shows raw scores corresponding to Z-scores, indicating the number of standard deviations each raw score is from the mean. This allows for the interpretation of individual scores within each dimension, facilitating the identification of areas where teachers may need support or development.

- **Interpretation**

The norms for interpretation of the levels of Teachers' Professional Adjustment and its dimensions according to the scores obtained are shown in Tables 6 and 7.

Table 6. Z-Score Norms for Interpreting the Overall Scores of Teachers' Professional Adjustment

Sl. No	Range of Raw Scores	Range of Z Scores	Grade	Level of Adjustment
1	84 to 96	-.11 to 1.59	A	Highly Adjusted
2	72 to 83	-1.81 to -.25	B	Moderately Adjusted
3	71 and below	-1.95 and below	C	Lowly Adjusted

Table 6 provides Z-score norms for interpreting teachers' professional adjustment. Z-scores above -.11 (A) indicate high adjustment, while scores between -.25 and -1.81 (B) suggest moderate adjustment. Z-scores below -1.95 (C) indicate low adjustment. This classification system enables educators to evaluate teachers' professional adjustment levels based on standardized z-scores.

Table 7. Dimension-wise Z-score Norms for Interpreting Teachers' Professional Adjustment

Dimensions	No. of Items	Min. Score	Max. Score	Range of Raw Scores	Range of Z- Scores	Grade	Level of Adjustment
ITPA-JS	7	7	21	18 and above	0.25 and above	A	Highly Adjusted
				13 to 17	-1.69 to -0.14	B	Moderately Adjusted
				12 and below	-2.08 and below	C	Lowly Adjuste
ITPA-PR	10	10	30	28 and above	0.29 and above	A	Highly Adjusted

				23 to 27	-1.77 to 0.12	B	Moderately Adjusted
				22 and below	-2.18 and below	C	Lowly Adjusted
ITPA-ATTIS	9	9	27	24 and above	0.02 and above	A	Highly Adjusted
				19 to 23	-1.88 to -0.36	B	Moderately Adjusted
				18 and below	-2.26 and below	C	Lowly Adjusted
ITPA-PD	6	6	18	17 and above	0.52 and above	A	Highly Adjusted
				14 to 16	-1.48 to -.15	B	Moderately Adjusted
				13 and below	-2.15 and below	C	Lowly Adjusted

Table 7 provides dimension-wise Z-score norms for interpreting teachers' professional adjustment. Across four dimensions (Job Satisfaction, Professional Relationship, Adjustment to the Institution, and Professional Development), Z-scores above a certain threshold indicate high adjustment (A), while scores within a moderate range suggest moderate adjustment (B). Z-scores falling below the moderate level indicate low adjustment (C). These norms enable educators to evaluate teachers' professional adjustment levels across specific dimensions.

5. Conclusion

In conclusion, this groundbreaking study has successfully developed and standardized a reliable and valid tool for measuring teachers' professional adjustment. Through a rigorous and systematic process, the tool has demonstrated exceptional psychometric properties, making it an invaluable resource for policymakers, educators, and administrators. This innovative tool has the potential to revolutionize teacher development and educational psychology by providing a comprehensive framework for assessing and enhancing teachers' professional adjustment.

While acknowledging the tool's imperfections, future research directions are illuminated, inviting scholars to further verify, refine, and expand the tool's applicability across diverse educational settings and cultural contexts. As the field of educational psychology continues to evolve, this pioneering study paves the way for substantial contributions to teacher development, ultimately enhancing the quality of education and shaping the future of our educators and learners.

References

1. Allen, M.S., Robson, D.A., & Iliescu, D. (2023). Face validity: A critical but ignored component of scale construction in psychological assessment. European Journal of Psychological Assessment, 39(3), 153-156. https://doi.org/10.1027/1015-5759/a000777
2. Andrade, C. (2021). Z scores, standard scores, and composite test scores explained. Indian Journal of Psychological Medicine, 43(6), 555-557. https://doi.org/10.1177/02537176211046525
3. Bahtilla, M., & Hui, X. (2021). The impact of school environment on teachers' job satisfaction in secondary schools. European Journal of Education Studies, 8(7), 16-43. https://doi.org/10.46827/ejes.v8i7.3799

4. Bell, H.M. (1934). The adjustment inventory. Stanford University Press. https://www.academia.edu/4680881/Bell_Adjustment_Inventory_1934_
5. Cohen, L., Manion, L., & Morrison, K. (2007). Research methods in education (6th ed.). Routledge. https://doi.org/10.4324/9780203029053
6. Connell, J., Carlton, J., Grundy, A., Taylor Buck, E., Keetharuth, A. D., Ricketts, T., Barkham, M., Robotham, D., Rose, D., & Brazier, J. (2018). The importance of content and face validity in instrument development: lessons learnt from service users when developing the Recovering Quality of Life measure (ReQoL). Quality of Life Research: An International Journal of Quality-of-Life Aspects of Treatment, Care and Rehabilitation, 27(7), 1893–1902. https://doi.org/10.1007/s11136-018-1847-y
7. Ducheva, Z. (2005). Professional adjustment in carrier development of the teacher. Trakia Journal of Sciences, 3(8), 21-23. https://www.researchgate.net/publication/242542588_PROFESSIONAL_ADJUSTMENT_IN_CARRIER_DEVELOPMENT_OF_THE_TEACHER
8. Duong, M. (2013). The effects of demographic and institutional characteristics on job satisfaction of university faculty in Vietnam. International Journal of Academic Research in Progressive Education and Development, 2(4), 81-96. http://dx.doi.org/10.6007/IJARPED/v2-i4/366
9. Garrett, H.E. (2014). Statistics in psychology and education. New Delhi: Surjeet Publications.
10. Javillonar, M.G. (2020). Job satisfaction and work adjustment challenges of teachers along with their work performance. CiiT International Journal of Programmable Device Circuits and Systems, 12(11-12), 113-119. https://www.researchgate.net/publication/360253585_Job_Satisfaction_and_Work_Adjustment_Challenges_of_Teachers_along_with_their_Work_Performance
11. Joshi, A. (2015). Teacher effectiveness in relation to personality types and adjustment of secondary school teachers (Doctoral dissertation, Guru Nanak Dev University). Shodhganga@ INFLIBNET. http://hdl.handle.net/10603/150902
12. Kumar, R. (2011). Research methodology: a step-by-step guide for beginners (3rd ed.). SAGE.
13. Mangal, S.K. (2016). Advanced educational psychology (2nd ed.). PHI Learning Private Limited.
14. Mangal, S.K. (n.d.) Manual for Mangal teacher adjustment inventory. Agra: National Psychological Association.
15. Mangal, S.K., & Mangal, S. (2020). Research methodology in behavioural sciences. PHI Learning Private Limited. (Original work published in 2013)
16. Ministry of Human Resource Development, Government of India. (2020). National education policy 2020. https://www.education.gov.in/sites/upload_files/mhrd/files/NEP_Final_English_0.pdf
17. National Council for Teacher Education. (2023). National professional standards for teachers: NPST guiding document, 2023. Ministry of Education. https://ncte.gov.in/Website/PDF/NPST/NPST-Book.pdf
18. Organization for Economic Cooperation and Development. (2009). Creating effective teaching and learning environments: First Results from TALIS. TALIS, OECD Publishing, Paris. https://doi.org/10.1787/9789264068780-en
19. Ribosa, J., Noguera, I., Monguillot, M., & Duran, D. (2024). Teachers' closeness of professional relationship and its role in learning perception after reciprocal peer observation. Teaching and Teacher Education, 140, Article 104469. https://doi.org/10.1016/j.tate.2024.104469

20. Rizvi, A.H. (2015). A study of professional adjustment teachers by nature of post. Research on Humanities and Social Sciences, 5(23), 29-32. https://www.iiste.org/Journals/index.php/RHSS/article/download/27786/28503
21. Rizvi, A.H. (2018). Manual for teachers' professional adjustment inventory. Agra: National Psychological Association.
22. Sansanwal, D.N. (2024). Research methodology and applied statistics. Shipra Publications.
23. Segal, D.L., & Coolidge, F.L. (2018). Reliability. In M.H. Bornstein (Ed.), The SAGE Encyclopedia of Lifespan Human Development. SAGE Publications, Inc. http://dx.doi.org/10.4135/9781506307633.n683
24. Sungoh, S.M. (n.d.). Educational evaluation and testing: A guide for teachers and students. Himalaya Book House.
25. UCLA: Statistical Consulting Group. (n.d.). What does Cronbach's alpha mean? | SPSS FAQ. Retrieved February 1, 2025, from https://stats.oarc.ucla.edu/spss/faq/what-does-cronbachs-alpha-mean/
26. Wani, U.I., & Jan, T. (2023). Study of professional adjustment among polytechnic college teachers of Kashmir with respect to their gender. Madhya Pradesh Journal of Social Sciences, 28(1), 57-65. https://www.researchgate.net/publication/382176382_STUDY_OF_PROFESSIONAL_ADJUSTMENT_AMONG_POLYTECHNIC_COLLEGE_TEACHERS_OF_KASHMIR_WITH_RESPECT_TO_THEIR_GENDER