

## Effectiveness of a Need-Based Training Programme on Teachers' Assessment Tool Design Competency: Evidence from NEP 2020 Assessment Reforms

Niyaz Varis Varasi<sup>1</sup>, Neeta Singh<sup>2</sup>, Kaiful Islam<sup>3</sup>

### Abstract

Assessment is a crucial component of the teaching–learning process and plays a significant role in enhancing the quality of education (Black & Wiliam, 1998). The present study investigates the impact of a need-based training programme on teachers' assessment tool design competency conducted at the District Institute of Education and Training (DIET), Gautam Budh Nagar, Uttar Pradesh. The study is experimental in nature and adopted a purposive sampling technique. A total of 198 government school teachers from Gautam Budh Nagar district participated in the training programme. Data were collected using a self-developed assessment tool designed to measure teachers' competency in assessment tool construction. The collected data were analysed using descriptive statistics such as Mean and Standard Deviation, along with inferential statistics using the t-test. The findings of the study revealed a significant improvement in teachers' assessment tool design competency after the training programme. The results clearly indicate that training programmes designed on the basis of teachers' identified needs are effective in enhancing their professional competencies (Desimone, 2009). The study has important implications for teacher educators, teacher training institutions, policymakers, and other stakeholders in planning and implementing effective professional development programmes in alignment with the National Education Policy (NEP) 2020 and its emphasis on 360-degree assessment (Government of India, 2020).

### Keywords

Need-Based Training Programme, Assessment Tool Design Competency, Teacher Training, In-Service Teachers, DIET Gautam Budh Nagar, Uttar Pradesh.

### Introduction:

Education is widely regarded as a powerful such as the District Institutes of Education and instrument for national development, and teachers Training (DIETs). DIETs are mandated to organise play a pivotal role in ensuring the quality of education both pre-service and in-service teacher training (UNESCO, 2017). Teachers are often described as programmes aimed at enhancing teachers' nation builders because their competencies directly professional competencies (NCERT, 2015). However, influence students' learning outcomes. Among the it has often been observed that many training various dimensions of teaching competence, the programmes remain generic in nature and fail to ability to assess and evaluate students' learning address the actual classroom needs and challenges effectively occupies a central position (Stiggins, faced by teachers (Korthagen, 2010). As a result, the 1997). Assessment not only provides information transfer of training into classroom practice is often about students' academic achievement but also helps limited.

teachers refine instructional strategies to meet diverse learning needs.

Contemporary educational reforms strongly assessment practices (Government of India, 2020). emphasise *assessment for learning* rather than merely Primary education, being the foundation of the *assessment of learning* (Black & Wiliam, 1998). This teaching– learning process, places greater shift highlights the importance of well-designed responsibility on teachers to maintain quality and assessment tools, ranging from diagnostic adhere to prescribed standards and guidelines. In this assessments to formative and summative evaluations. context, the role of DIET Gautam Budh Nagar, Uttar Pradesh, has become increasingly significant in Properly constructed assessment tools enable teachers Prades, has become increasingly significant in to align assessment practices with learning objectives addressing teachers' professional needs and and expected learning outcomes (Nitko & Brookhart, promoting innovative and effective teaching–learning 2014). practices.

In India, the professional development of Need-based training programmes have teachers is primarily facilitated through institutions emerged as an effective approach to overcome the

<sup>1</sup>Lecturer Education, D.I.E.T. Gautam Budha Nagar, U.P.

<sup>2</sup>Lecturer Home Science, D.I.E.T. Gautam Budha Nagar, U.P.

<sup>3</sup>Assistant Professor, Faculty of Education, Glocal University, Saharanpur, UP.

### How to cite this article:

Varasi, N. V., Singh, N., & Islam, K. (2025). Effectiveness of a Need-Based Training Programme on Teachers' Assessment Tool Design Competency: Evidence from NEP 2020 Assessment Reforms. *DIET - Multidisciplinary Research Journal (DIET-MRJ)*, 1(2), 41-43.

limitations of traditional training models. Such programmes are planned after systematically identifying teachers' specific needs and gaps in professional competencies (Desimone, 2009). One critical area where teachers often require support is *assessment tool design*, including the construction of achievement tests, preparation of blueprints, development of rubrics, and formulation of formative assessment tools aligned with learning outcomes (Nitko & Brookhart, 2014). The present study, therefore, attempts to examine the effectiveness of a need-based training programme conducted at DIET, Gautam Budh Nagar, Uttar Pradesh, with specific focus on enhancing teachers' assessment tool design competency.

**Review of Related Literature:**

Several studies have highlighted the importance of assessment literacy among teachers. Black and Wiliam (1998) emphasised that effective assessment practices significantly improve students' learning outcomes. Teachers possessing strong assessment skills are better equipped to diagnose learning difficulties, provide constructive feedback, and support students' academic growth (Stiggins, 1997). Research on teacher training programmes indicates that professional development is most effective when it is context-specific and need-oriented. Desimone (2009) highlighted that professional development programmes aligned with teachers' actual classroom needs lead to sustained changes in teaching practices. Empirical studies conducted in the Indian context have also reported that need-based in-service training programmes positively contribute to teachers' pedagogical and assessment competencies (MHRD, 2018).

Despite the growing body of literature on teacher professional development, limited empirical research is available on the impact of need-based training programmes specifically focused on assessment tool design at the DIET level. Therefore, the present study attempts to fill this research gap by systematically examining the effectiveness of a need-based training programme conducted at DIET, Gautam Budh Nagar, Uttar Pradesh.

**Need and Significance of the Study**

To ensure accessibility, literacy, and numeracy at the primary level without compromising the quality of education, it is essential to continuously assess the teaching-learning process from its foundational stages (Government of India, 2020). Assessment is a core component of competency-based education, as emphasised in the National Education Policy 2020. Teachers are expected to design assessment tools that measure not only knowledge but also skills, creativity, and higher-order thinking abilities in accordance with Bloom's taxonomy (Bloom et al., 1956).

However, many teachers lack formal training in scientific test construction and assessment design (Stiggins, 1997). In this regard, it becomes the responsibility of teacher education institutions, universities, and training centres to maintain high standards of education by strengthening assessment and evaluation practices (NCERT, 2015). The District Institute of Education and Training (DIET), Gautam Budh Nagar-designated as a Centre of Excellence (CoE) by the State Council of Educational Research and Training (SCERT)-has been playing a proactive role in this direction.

The need-based training programme organised at DIET, Gautam Budh Nagar was specifically designed to address teachers' gaps in assessment tool design competency. Evaluating the impact of this programme is essential to determine its effectiveness and to provide evidence-based recommendations for improving future training initiatives. The findings of the study are expected to benefit teacher educators, DIET administrators, policymakers, and all stakeholders involved in planning and implementing effective teacher professional development programmes.

**T-Test**

Paired Samples Statistics					
		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Pre	7.3517	145	2.21275	.18376
	Post	12.4276	145	2.28140	.18946

Paired Samples Correlations				
		N	Correlation	Sig.
Pair 1	Pre & Post	145	.105	.210

Paired Samples Test							
		Paired Differences			t	df	Sig. (2-tailed)
		M	SD	SEM			
P	PP	-5.075	3.007	.249	-20.326	144	.000

SEM = Std. Error Mean; PP= Pre – Post; P= Pair 1

**Findings:**

A paired samples t-test was conducted to compare the pre-test and post-test scores of the participants. The mean pre-test score (M = 7.35, SD = 2.21) was significantly lower than the mean post-test score (M = 12.43, SD = 2.28). The results indicated a statistically significant difference between pre- and post-test scores,  $t(144) = -20.33, p < .001$ . This shows that the post-test scores were significantly higher than the pre-test scores. Therefore, the intervention/treatment had a significant positive effect on the participants' performance.

**Results and Discussion:**

Recent studies have shown that 360-degree assessment, as promoted under NEP 2020, provides a

more holistic evaluation of learner development by integrating self, peer, and teacher evaluations (Seelan et al., 2024; Parveen, 2020). Research indicates that such multidimensional frameworks help capture varied competencies and support improved learning outcomes (Gusain & Sharma, 2023). Furthermore, stakeholder perceptions from middle-stage schools in Uttar Pradesh highlight positive attitudes toward holistic assessment systems (Singh & Naaz, 2025), aligning with the NEP's emphasis on broad-based evaluation and continuous improvement (Nayak, 2024).

#### Conclusion:

Need-based training programmes are effective in strengthening teachers' assessment competencies and supporting assessment reforms under NEP 2020. The study provides evidence-based insights for teacher education institutions, policymakers, and DIETs in planning impactful professional development initiatives.

#### Recommendations:

- Systematic implementation of 360-degree assessment practices.
- Regular teacher training in competency-based assessment.

- Integration of continuous and formative assessment tools.
- Alignment of school assessment practices with PARAKH guidelines.
- 5. Use of assessment data for instructional improvement.

#### Limitations:

The study was limited by sample scope, short intervention duration, and reliance on quantitative data. Findings are context-specific and may not be generalized universally.

#### References:

- Black, P., & Wiliam, D. (1998). Assessment and classroom learning. *Assessment in Education*, 5(1), 7–74.
- Desimone, L. M. (2009). Improving impact studies of teachers' professional development. *Educational Researcher*, 38(3), 181–199.
- Government of India.(2020). National Education Policy 2020.Ministry of Education.
- Parveen, S. (2020). 360-degree holistic assessment. *International Journal of Reflective Research in Social Sciences*, 3(2), 4–8.
- Seelan, J. A. S., Murty, K. V. S. N., Christopher, T. A., & Brintha, C. (2024).Exploring the 360-degree assessment framework. *Sampreshan*, 15(3), 26–31.
- Stiggins, R. J. (1997). *Student-centered classroom assessment*. Merrill.