

## Attitudinal Perspectives of B. Ed. Pupil Teachers toward ICT Integration in Arunachal Pradesh

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**Abstract:** The integration of Information and Communication Technology (ICT) has become an essential component of quality teacher education. The successful use of ICT in classrooms largely depends on teachers' attitudes toward technology. The present study investigated the attitudinal perspectives of B.Ed. pupil teachers regarding ICT integration in teacher education institutions of Arunachal Pradesh. A descriptive survey design was adopted for the study. Data were collected from 200 B.Ed. pupil teachers selected through stratified random sampling. An Attitude toward ICT Integration Scale developed by the researcher was used as the research tool. Statistical methods such as mean, standard deviation, and t-test were employed for data analysis. The findings indicate that pupil teachers possess a moderately positive attitude toward ICT integration. Significant differences were observed based on gender, while no significant difference was found with respect to locality. The study highlights the importance of systematic ICT training and improved infrastructural support in teacher education institutions to promote effective ICT integration.

**Keywords:** Attitude toward ICT, ICT Integration, B.Ed. Pupil Teachers, Teacher Education, Arunachal Pradesh.

### 1. Introduction

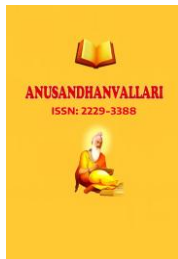
Information and Communication Technology (ICT) has significantly transformed the teaching-learning process by providing access to digital resources, interactive learning methods, and student-centered instructional approaches. In teacher education programs, ICT integration plays a vital role in developing pedagogical skills, professional competence, and technological adaptability among future teachers. The National Education Policy (2020) also emphasizes the importance of technology-enabled teacher preparation.

Attitude is an important psychological factor that influences the acceptance and use of technology. The attitudes of B.Ed. pupil teachers toward ICT integration determine their readiness and willingness to apply digital tools in classroom teaching. Therefore, examining their attitudinal perspectives is especially important in developing regions such as Arunachal Pradesh, where infrastructural limitations and geographical challenges continue to affect educational development.

### 2. Review of Related Literature

Previous research highlights the role of attitude in ICT adoption:

- Das (2020) observed regional disparities in ICT infrastructure affecting teacher education in North-East India.
- Kumar and Kumar (2018) found that pre-service teachers with ICT exposure exhibited more favorable attitudes.



- Mishra and Koehler (2006) emphasized the role of technological pedagogical content knowledge (TPACK) in effective ICT integration.
- Teo (2011) reported that positive attitudes strongly predict teachers' intention to use ICT.

However, limited empirical studies focus specifically on B.Ed. pupil teachers' attitudes toward ICT integration in Arunachal Pradesh, indicating a research gap.

### 3. Need and Significance of the Study

Teacher education institutions in Arunachal Pradesh face challenges related to ICT access, training, and pedagogical application. Understanding pupil teachers' attitudes can help:

- Improve ICT-based curriculum planning
- Design targeted ICT training programs
- Enhance digital readiness of future teachers

The findings of this study will benefit teacher educators, policymakers, and curriculum developers.

### 4. Objectives of the Study

1. To study the overall attitude of B.Ed. pupil teachers toward ICT integration.
2. To compare the attitude toward ICT integration based on gender.
3. To compare the attitude toward ICT integration based on locality (rural/urban).

### 5. Hypotheses

**H<sub>01</sub>:** There is no significant difference in attitude toward ICT integration between male and female B.Ed. pupil teachers.

**H<sub>02</sub>:** There is no significant difference in attitude toward ICT integration based on locality.

### 6. Methodology

#### 6.1 Research Design

Descriptive survey method.

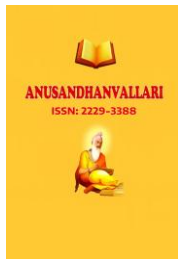
#### 6.2 Population and Sample

Population: All B.Ed. pupil teachers in Arunachal Pradesh.

Sample: 200 B.Ed. pupil teachers selected using stratified random sampling.

#### 6.3 Tool Used: Attitude toward ICT Integration Scale (ATICIS)

- Total items: 30
- Scale: 5-point Likert
- Scoring: 5 to 1 (reverse for negative items)
- Maximum score: 150
- Reliability (Cronbach's Alpha): 0.82



- Validity: Content validity ensured by expert review.

### 7. Statistical Techniques Used

- Mean and Standard Deviation
- Independent samples t-test

### 8. Analysis and Interpretation

#### 8.1 Overall Attitude

N	Mean	SD
200	112.45	14.32

#### Interpretation:

B.Ed. pupil teachers demonstrated a **moderately positive attitude** toward ICT integration.

#### 8.2 Gender-wise Comparison

Gender	N	Mean	SD	t
Male	98	115.20	13.90	
Female	102	109.80	14.50	2.41*

\*Significant at 0.05 level

**Result:** Ho<sub>1</sub> rejected.

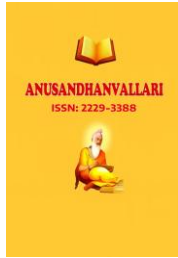
#### 8.3 Locality-wise Comparison

Locality	N	Mean	SD	t
Rural	120	111.90	14.70	
Urban	80	113.20	13.80	0.62

**Result:** Ho<sub>2</sub> accepted.

### 9. Major Findings

1. B.Ed. pupil teachers exhibited a moderately positive attitude toward ICT integration.
2. Gender significantly influenced attitudes.
3. Locality had no significant influence.



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## 10. Educational Implications

- Mandatory ICT training modules in B.Ed. curriculum.
- Continuous professional development programs.
- Improved digital infrastructure in teacher education institutions.

## 11. Conclusion

The study concludes that B.Ed. pupil teachers in Arunachal Pradesh generally demonstrate a positive orientation toward ICT integration. However, the effective implementation of ICT in teaching requires structured training programs and strong institutional support. Enhancing ICT preparedness during the teacher education stage will contribute to more effective classroom practices in the future. Strengthening infrastructure, providing regular training, and encouraging practical ICT exposure are essential steps toward achieving meaningful ICT integration in education.

## References

- [1] Das, S. (2020). ICT integration in teacher education in North-East India. *Journal of Educational Studies*, 15(2), 45-52.
- [2] Kumar, P., & Kumar, A. (2018). Attitude of pre-service teachers toward ICT. *International Journal of Education and Development Using ICT*, 14(1), 72-84.
- [3] Mishra, P., & Koehler, M. J. (2006). Technological pedagogical content knowledge. *Teachers College Record*, 108(6), 1017-1054.
- [4] Teo, T. (2011). Factors influencing teachers' intention to use technology. *Computers & Education*, 57(4), 2432-2440.
- [5] UNESCO. (2018). *ICT competency framework for teachers*. Paris: UNESCO.