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Attitude toward Creative Teaching and Its Relationship with ICT Awareness among Secondary School Teachers in Vaishali District

Dr. Mukta Sinha

Assistant Professor, Head Department of Education Maulana Maxharul Haque Arabic & Persian University, Patna

Indrajeet Kumar Thakur

Research Scholor, Department of Education Maulana Maxharul Haque Arabic & Persian University, Patna

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ABSTRACT

Creative teaching is an essential component of quality education in the twenty-first century, enabling teachers to foster critical thinking, creativity, and active student engagement. Information and Communication Technology (ICT) has become an indispensable tool for supporting innovative teaching practices. The present study examined secondary school teachers' attitudes toward creative teaching and explored their relationship with ICT awareness in Vaishali District, Bihar. The objectives were to assess teachers' attitudes toward creative teaching, compare these attitudes across gender, school type, and availability of ICT gadgets at home, and determine the relationship between ICT awareness and creative teaching attitude. A descriptive survey method was employed. Data were collected from 200 secondary school teachers selected through stratified random sampling using standardized ICT Awareness and Creative Teaching Attitude Scales. Statistical techniques included the mean, standard deviation, independent-samples ***t***-test, and Pearson's product-moment correlation coefficient. The findings indicated that teachers generally possessed a positive attitude toward creative teaching. No significant gender difference was observed, whereas significant differences were found based on school type and ICT gadget availability. A strong positive correlation ($r = 0.684$, $p < .01$) was found between ICT awareness and attitude toward creative teaching. The study highlights the importance of strengthening teachers' ICT competencies to promote innovative instructional practices and improve educational quality.

1. Introduction

Rapid technological advancement has transformed educational practices worldwide. Teachers are now expected to integrate technology with innovative pedagogical approaches to create engaging and learner-centered classrooms. Creative teaching encourages curiosity, problem-solving, collaboration, and critical thinking, thereby improving students' overall learning experiences.

Information and Communication Technology (ICT) has emerged as a powerful resource for enhancing teaching effectiveness through digital content, interactive learning environments, and access to diverse educational resources. However, the successful integration of ICT depends largely on teachers' awareness, competence, and willingness to adopt innovative instructional methods.

Vaishali District, Bihar, has experienced gradual improvements in educational infrastructure and technology integration. Understanding teachers' attitudes toward creative teaching and their ICT awareness is important for designing effective teacher education programmes and educational policies that promote quality teaching and learning.

2. Objectives of the Study

The study was conducted to:

1. Examine the attitude of secondary school teachers toward creative teaching.
2. Compare teachers' attitudes based on gender.
3. Compare teachers' attitudes based on school type.
4. Compare teachers' attitudes based on the availability of ICT gadgets at home.
5. Examine the relationship between ICT awareness and attitude toward creative teaching.

3. Hypotheses

The following null hypotheses were tested:

- There is no significant gender difference in teachers' attitudes toward creative teaching.
- There is no significant difference between government and private school teachers' attitudes toward creative teaching.
- There is no significant difference between teachers with and without ICT gadgets at home regarding their attitudes toward creative teaching.
- There is no significant relationship between ICT awareness and attitude toward creative teaching.

4. Methodology

A descriptive survey research design was adopted for the study. The population comprised secondary school teachers working in government and private schools in Vaishali District, Bihar.

A sample of 200 teachers was selected using a stratified random sampling technique. The sample included 100 male and 100 female teachers from both government and private schools.

Instruments

The following standardized tools were used:

- ICT Awareness Scale
- Creative Teaching Attitude Scale
- Personal Information Schedule

The ICT Awareness Scale measured teachers' knowledge and use of computers, the internet, educational software, and digital teaching resources.

The Creative Teaching Attitude Scale assessed openness to innovative teaching methods, flexibility, encouragement of student creativity, and reflective teaching practices.

Statistical Techniques

The collected data were analyzed using:

- Mean
- Standard deviation
- Independent-samples ***t***-test
- Pearson's product-moment correlation coefficient

5. Data Collection

Permission was obtained from the heads of the selected schools before data collection. The researcher personally visited each school, explained the objectives of the study, and assured participants of confidentiality. The standardized questionnaires were administered, collected, checked for completeness, coded, and analyzed using appropriate statistical techniques.

6. Results

Sample Distribution

The study included 200 teachers:

- Male: 100 (50%)
- Female: 100 (50%)

Government school teachers constituted 120 (60%) of the sample, while 80 (40%) were from private schools. A total of 145 teachers (72.5%) had ICT gadgets at home, whereas 55 (27.5%) did not.

Attitude towards Creative Teaching

Teachers demonstrated a positive attitude toward creative teaching (Mean = 87.45, SD = 8.32), indicating general acceptance of innovative instructional practices.

Gender Comparison

Male teachers (Mean = 86.72) and female teachers (Mean = 88.18) did not differ significantly in their attitudes toward creative teaching ($t = 0.65$, $p > .05$). The null hypothesis was accepted.

School Type Comparison

Private school teachers (Mean = 89.67) demonstrated significantly more positive attitudes than government school teachers (Mean = 85.34) ($t = 2.48$, $p < .05$). The null hypothesis was rejected.

ICT Gadget Availability

Teachers with ICT gadgets at home (Mean = 90.23) showed significantly more positive attitudes than those without ICT gadgets (Mean = 81.15) ($t = 5.12$, $p < .01$). The null hypothesis was rejected.

ICT Awareness

Teachers demonstrated a moderate to high level of ICT awareness (Mean = 78.56, SD = 9.45), suggesting satisfactory familiarity with educational technology.

Relationship between ICT Awareness and Creative Teaching

A strong positive and statistically significant relationship was found between ICT awareness and attitude toward creative teaching ($r = 0.684$, $p < .01$). Approximately 47% of the variation in teachers' attitudes toward creative teaching could be explained by ICT awareness.

7. Discussion

The findings indicate that secondary school teachers generally possess favorable attitudes toward creative teaching. The absence of a significant gender difference suggests that male and female teachers share similar perceptions regarding innovative instructional practices.

Private school teachers exhibited more positive attitudes than government school teachers, possibly because of better infrastructure, greater access to educational technology, and more frequent professional development opportunities.

Teachers with ICT gadgets at home demonstrated significantly higher creative teaching attitudes, highlighting the importance of continuous access to technology for professional growth and instructional innovation.

The strong positive correlation between ICT awareness and creative teaching supports the view that technological competence enhances teachers' confidence, creativity, and willingness to implement learner-centered teaching strategies. These findings are consistent with the Technological Pedagogical Content Knowledge (TPACK) framework, which emphasizes the integration of technology, pedagogy, and content knowledge.

8. Major Findings

The study revealed the following:

- Secondary school teachers possessed a positive attitude toward creative teaching.
- No significant gender difference was found in creative teaching attitude.
- Private school teachers demonstrated significantly more positive attitudes than government school teachers.
- Teachers with ICT gadgets at home showed significantly higher creative teaching attitudes.
- Teachers exhibited moderate to high ICT awareness.

- ICT awareness was positively and significantly related to creative teaching attitude.
- Higher ICT awareness was associated with greater adoption of innovative instructional strategies.

9. Educational Implications

The findings emphasize the need to strengthen ICT competencies among teachers to promote creative classroom practices.

Teacher education institutions should integrate ICT training with creative pedagogy. Schools should provide adequate ICT infrastructure, digital learning resources, and regular professional development programmes. Policymakers should prioritize technology-enabled teacher training, particularly in government schools, to reduce disparities in ICT access and instructional innovation.

Providing teachers with opportunities for continuous digital learning and home-based ICT access can further enhance their confidence in implementing creative teaching strategies.

10. Limitations

The study was limited to secondary school teachers in Vaishali District, Bihar, and therefore the findings may not be generalized to other regions. The sample size was limited to 200 teachers, and the study relied on self-reported responses. The descriptive survey design does not establish causal relationships, and only selected variables were examined.

11. Recommendations

Future studies should include larger and more diverse samples across different districts and states. Longitudinal and experimental research designs may provide deeper insights into the impact of ICT training on creative teaching practices.

Teacher education programmes should integrate technology with innovative pedagogy, while educational authorities should strengthen ICT infrastructure and provide regular training opportunities for teachers.

12. Conclusion

The study concludes that ICT awareness plays a significant role in shaping teachers' attitudes toward creative teaching. Although gender did not influence teachers' attitudes, school type and access to ICT gadgets were significant factors. Teachers possessing greater ICT awareness demonstrated stronger positive attitudes toward innovative instructional practices.

Developing teachers' technological competencies through continuous professional development, improved ICT infrastructure, and supportive educational policies can substantially enhance creative teaching and improve classroom effectiveness. The findings underscore the importance of integrating technology with pedagogy to achieve the goals of quality education and educational innovation envisioned in the National Education Policy 2020.

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