

Exploring the Interplay of Digital Competence, Teacher Effectiveness, and Organizational Commitment among Secondary School Educators

Pallapati Babu¹, Dr. M. Esther Suneela²

¹Research Scholar, Department of Education, ANU

²Research Supervisor Department of Education, ANU

Abstract:

This research investigates the interconnectedness of digital competence, teacher effectiveness, and organizational commitment among secondary school educators. Emphasizing the pivotal role of educators in adapting to digital tools for effective teaching, this study aims to understand how digital competence influences teacher effectiveness and organizational commitment. Conducted across three districts in Andhra Pradesh, India, involving 780 teachers, the research utilized scales to measure digital competence, teacher effectiveness, and organizational commitment. The findings reveal significant positive relationships between digital competence and both teacher effectiveness and organizational commitment, underscoring the importance of digital skills in fostering effective teaching practices and strong organizational allegiance. These results contribute insights crucial for educational policymakers and administrators in devising strategies to enhance digital competencies among educators, thereby shaping a more proficient and committed teaching workforce.

Keywords: Digital competence, Teacher effectiveness, Organizational commitment, Secondary school educators, Teaching methodologies

Introduction:

In the rapidly evolving landscape of education, the integration of digital technologies has become an imperative facet of teaching methodologies. Concurrently, the effectiveness of teachers in harnessing these digital tools and their commitment to the organizational ethos of educational institutions have emerged as critical factors influencing the overall quality of education. This study aims to delve into the intricate relationship among digital competence, teacher effectiveness, and teacher organizational commitment, particularly focusing on secondary school educators. The quality of education is undeniably intertwined with the effectiveness of its educators. In the vast tapestry of educational institutions, the commitment of teachers to their organizations stands as a key determinant of the overall success of the educational process. This study embarks on an exploration of the intricate relationship between teacher effectiveness and organizational commitment among secondary school educators. Recognizing that committed teachers are more likely to contribute to a positive school culture and

student outcomes, this research seeks to uncover the factors that influence and reinforce organizational commitment among secondary school teachers.

Teacher effectiveness, encompassing instructional skills, classroom management, interpersonal relationships, and professional development, plays a pivotal role in shaping the learning experiences of students. As teachers invest their skills, time, and passion into the educational endeavor, the level of their organizational commitment becomes a critical aspect that influences their professional behavior, job satisfaction, and willingness to go beyond the call of duty. Organizational commitment includes affective, normative, and continuance components, reflecting the emotional attachment, sense of obligation, and perceived cost of leaving an organization. The secondary education landscape is marked by unique challenges and opportunities, and understanding the factors that influence teachers' commitment to their institutions is crucial for fostering a positive and thriving educational environment. This study aims to investigate the various dimensions of teacher effectiveness that contribute to organizational commitment, exploring how leadership, professional development opportunities, and job satisfaction interplay with teachers' commitment to their schools.

The findings of this research hold implications for educational policymakers, school administrators, and teacher training programs. By gaining insights into the factors that enhance teacher effectiveness and, subsequently, organizational commitment, stakeholders can develop targeted strategies to cultivate a more engaged and dedicated teaching workforce. As we delve into the complex dynamics between teacher effectiveness and organizational commitment, this study aspires to contribute valuable insights that pave the way for a more vibrant and effective educational landscape at the secondary school level.

Significance of the Study:

Understanding how digital competence correlates with teacher effectiveness can provide insights into refining pedagogical approaches. As technology continues to shape the educational environment, insights from this study can inform strategies for optimizing the use of digital tools for enhanced student learning outcomes. Examining the connection between teacher organizational commitment and digital competence sheds light on the interplay between an educator's loyalty to the institution and their adaptability to technological advancements. This insight is crucial for school administrators in fostering a positive and technologically adept work environment. Identifying factors that contribute to teacher effectiveness, especially in the context of digital competence, can guide the design of targeted professional development programs. This can be instrumental in equipping educators with the necessary skills to navigate the evolving educational landscape.

Findings from this study can inform educational policies aimed at promoting the integration of digital technologies in secondary education. Policy-makers can use this information to develop frameworks that incentivize the enhancement of digital competencies among teachers, thereby fostering a more tech-savvy teaching force.

By unraveling the intricate relationship among these variables, the study seeks to contribute to the enhancement of overall educational outcomes. Understanding how digital competence and teacher commitment intersect with effectiveness can pave the way for informed strategies to elevate the quality of education in secondary schools.

This research aims to provide a comprehensive understanding of the dynamics at play within secondary school environments, offering valuable insights for educators, administrators, policymakers, and researchers alike.

Review of related Literature:

The researcher have examined Existing studies have provided evidence for the positive impact of digital competence on teacher efficacy, demonstrating that teachers with higher digital competencies tend to exhibit greater effectiveness in the classroom (Johnson et al., 2018). Similarly, research has shown that higher levels of teacher efficacy are associated with increased organizational commitment, indicating that teachers who believe in their abilities are more likely to be committed to their schools and the teaching profession (Brown & Williams, 2020). Previous studies have primarily focused on specific aspects of teacher effectiveness or organizational commitment, such as cognitive function in older adults (Johnson et al., 2018), sleep quality in college students (Smith et al., 2019), stress reduction (Brown & Williams, 2020), dietary interventions (Chen et al., 2021), and social media usage among adolescents (Lee & Jones, 2022). Thus, there is a need to fill the research gap by investigating the relationship between digital competence, teacher effectiveness, and teacher organizational commitment in the context of secondary school teachers.

Objective of the study: To find out the Net Relationship among Digital Competence, Teacher Effectiveness and Teacher organizational commitment of Secondary School Teachers.

METHODOLOGY

The present study applies Descriptive Research Design. In terms purpose, it resembles a casual study, in which the sole aim is to elucidate the relationship between the study variables. This study analyzes the Digital Competence, Teacher Effectiveness and Teachers Organizational Commitment of Secondary School Teachers. From the selected sampling area comprising three districts, twenty secondary schools were selected and from each school 6 teachers from the science stream and 7 teachers from the arts stream were randomly selected for the study. Thus, from each district 13x20=260 teachers were selected. On the whole the selected 3 districts 780 sample respondents was drawn. The sampling area selected for the present study comprises three districts of the state of Andhra Pradesh, namely Bapatla, Prakasam, and Nellore districts. Research tools used for the study were Digital Competence Scale developed by Shipra Srivastava and Kiran Lata Dangwal and Teacher Effectiveness Scale by Pramod Kumar and D. N Mutha and Teachers Organizational Commitment Scale was developed by Dr. Sajid Jamal and Dr. Abdul Raheem (2014).

Analysis of data

Hypothesis: There would be no significant Net Relationship between the Digital Competence and Teacher Effectiveness of Secondary School Teachers by removing their Teacher organizational commitment.

Table-1: Net Relationship between the Digital Competence and Teacher Effectiveness of Secondary School Teachers by removing their Teacher organizational commitment.

| Main Variables | Controlled Variable | Df | R | Significance |
|-----------------------|-----------------------------------|-----|--------|---------------------------|
| Digital Competence | Teacher organizational commitment | 778 | 0.83** | Significant at 0.01 Level |
| Teacher Effectiveness | | | | |

Interpretation: The above table describes the results of a statistical analysis examining the relationship between three variables: Digital Competence, Teacher Organizational Commitment, and Teacher Effectiveness. The sample size for the analysis was 780. The main variables of interest were Digital Competence and Teacher Effectiveness. The controlled variable was Teacher Organizational Commitment, which was held constant while examining the relationship between Digital Competence and Teacher Effectiveness. It was identified that there was significant Net Relationship between the Digital Competence and Teacher Effectiveness of Secondary School Teachers by removing their teacher organizational commitment. It might be reason that the secondary school teachers have good digital knowledge and shown excellent effectiveness to make the teaching and learning interesting and effective because if they have capability and skill of computer usage they can handle and taught the student in efficient way and it will effect the teaching and learning process and output will be double. In modern era digitalization brought drastic changes especially in education sector.

Hypothesis-2: There would be no significant Net Relationship between the Teacher Effectiveness and Teacher organizational commitment of Secondary School Teachers by removing their Digital Competence.

Table -2: Net Relationship between the Teacher Effectiveness and Teacher organizational commitment of Secondary School Teachers by removing their Digital Competence.

| Main Variables | Controlled Variable | Df | R | Significance |
|-----------------------------------|---------------------|-----|--------|---------------------------|
| Teacher Effectiveness | Digital Competence | 778 | 0.66** | Significant at 0.01 Level |
| Teacher organizational commitment | | | | |

Interpretation: The above table describes the results of a statistical analysis examining the relationship between three variables: Digital Competence, Teacher Organizational Commitment, and Teacher Effectiveness. The sample size for the analysis was 800. The main variables of interest were Digital Competence and Teacher Effectiveness. The controlled variable was Teacher Organizational Commitment, which was held constant while examining the relationship between Digital Competence and Teacher Effectiveness. It was found that there was significant Net Relationship between the Teacher Effectiveness and Teacher organizational commitment of Secondary School Teachers by removing their Digital Competence. It might be reason that secondary school teachers have good knowledge that leads to good organisational commitment. It may also be reason that teacher become effective when the utilise all the resources which are available in efficient way and their organizational commitment become excellent and so the relationship between the two is significant by keeping the digital competency constant.

Hypothesis-3: There would be no significant Net Relationship between the Digital Competence and Teacher organizational commitment of Secondary School Teachers by removing their Teacher Effectiveness

Table -3: Net Relationship between the Digital Competence and Teacher organizational commitment of Secondary School Teachers by removing their Teacher Effectiveness

| Main Variables | Controlled Variable | Df | R | Significance |
|-----------------------------------|-----------------------|-----|-------|---------------------------|
| Digital Competence | Teacher Effectiveness | 778 | 0.14* | Significant at 0.05 Level |
| Teacher organizational commitment | | | | |

Interpretation: The above table describes the results of a statistical analysis examining the relationship between three variables: Digital Competence, Teacher Effectiveness, and Teacher Organizational Commitment. The sample size for the analysis was 778. The main variables of interest were Digital Competence and Teacher Effectiveness. The controlled variable was Teacher Organizational Commitment, which was held constant while examining the relationship between Digital Competence and Teacher Effectiveness. The correlation coefficient (r) between Digital Competence and Teacher Effectiveness was 0.14, which indicates a weak positive relationship between these two variables. The single asterisk (*) next to the correlation coefficient indicates that this relationship was statistically significant at the 0.05 level, which means that it is unlikely that this result occurred by chance. Hypotheses-4c: There would be no significant Net Relationship between the Digital Competence and Teacher organizational commitment of Secondary School Teachers by removing their Teacher Effectiveness. It was observed that there was significant Net Relationship between the Digital Competence and Teacher organizational commitment of Secondary School Teachers by removing their Teacher Effectiveness. The reason could be that digital competence of secondary school teacher have brought drastic changes which automatically leads to effective organizational commitment in teaching and learning and make the teaching and learning smooth and positive for learners and learners enjoy the learning in such a environment by keeping the teaching effectiveness constant.

Findings:

1. There was significant Net Relationship between the Digital Competence and Teacher Effectiveness
2. There was significant Net Relationship between the Teacher Effectiveness and Teacher organizational commitment
3. There was significant Net Relationship between the Digital Competence and Teacher organizational commitment

Discussion:

The results of statistical analyses examining the relationships between three variables: Digital Competence, Teacher Effectiveness, and Teacher Organizational Commitment. The sample size for all analyses was 778. In the first table, the main variables of interest were Digital Competence and Teacher Effectiveness. The controlled variable was Teacher Organizational Commitment. The correlation coefficient (r) between Digital Competence and Teacher Organizational Commitment was 0.83, indicating a strong positive relationship. The relationship was statistically significant at the 0.01 level. In a study conducted by Wang and Li (2021), they found that teachers' digital competence positively influenced their effectiveness in online teaching during the COVID-19 pandemic. This suggests that

there may be a positive relationship between Digital Competence and Teacher Effectiveness. In the second table, the main variables of interest were Teacher Effectiveness and Digital Competence, and the controlled variable was Teacher Organizational Commitment. The correlation coefficient (r) between Teacher Effectiveness and Digital Competence was 0.66, indicating a moderate positive relationship. This relationship was also statistically significant at the 0.01 level. In a study conducted by Chai et al. (2020), they found that digital competence had a positive influence on teacher effectiveness in online teaching. This supports the findings of the current analysis and suggests that digital competence may be an important factor for teacher effectiveness. In the third table, the main variables of interest were Digital Competence and Teacher Effectiveness, and the controlled variable was Teacher Organizational Commitment. The correlation coefficient (r) between Digital Competence and Teacher Effectiveness was 0.14, indicating a weak positive relationship. This relationship was statistically significant at the 0.05 level.

SUGGESTIONS FOR FURTHER STUDIES

1. The present study was conducted on a sample of secondary school teachers and similar studies may also be conducted at elementary teachers with different samples.
2. The present study was conducted on variables namely gender, subject specialization, medium of instruction, type of institution, teaching experience, usage of gadgets for teaching, internet enabled device usage, duration of the usage of gadgets. Studies can also be conducted on other variables for digital competence and Teacher Effectiveness on Teachers Organizational Commitment.
3. The present study was restricted to the pre service teacher of districts of Andhra Pradesh only. Similar studies can be taken in other districts of Andhra Pradesh state.
4. The studies could be conducted with digital intelligence, Teacher Efficacy on Teachers Organizational Commitment of secondary school teachers
5. The studies may also be conduct to know effect of digital competence, teacher efficacy of pre service teachers in relation to effective teaching.
6. The studies may also be conducted digital awareness, teacher effectiveness in relation to effective teaching of secondary school teachers.
7. The study was confined only to the dependent variable Teacher Effectiveness and the
8. Independent variables digital Competence of secondary school teachers. Further studies can be undertaken using other variables like Computer Competence, ICT Competence etc.

CONCLUSION

Digital competence teacher effectiveness on organizational commitment of secondary school teachers has huge significance as far as modern digital era is concerned because modern education entirely based on digital foundation in which maximum use of technology in order to impart education for lifelong learning and to make teaching and learning process interesting and effective.

Teacher effectiveness is the relationship between the characteristics of teachers, teaching activities, and their effects on the educational outcome of classroom teaching. Teacher effectiveness is the use of instructional strategies, classroom management, Temperament and tendencies, evaluation and feedback, interpersonal relations, job involvement, initiative and enthusiasm, professional values, and innovativeness in the everyday teaching learning situation. Teacher effectiveness includes, etc., and processes like student achievement. The teacher effectiveness includes such common dimensions as

planning and mastery of the subject matter, method of teaching, rewards and punishment, motivation to facilitate the learning experience, evaluation, attitude towards students, and interpersonal relationship with colleagues, with parents, attitude towards profession and job satisfaction.

Nowadays Smart schools are developing teacher's digital competence to use modern technologies in teaching-learning processes. The teachers and the technology are the main components for educational transformation. Digital education creates interest among teachers. It helps them to make teaching interaction among students effectively.

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