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Impact of Digital Learning on Teaching Competency Among B.Ed. Trainees

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ABSTRACT: Teaching Competence refers to a set of knowledge, abilities, beliefs teacher possess and bring to the teaching situation. It defined as adequacy for a task of required knowledge skills and abilities. It emphasizes on the ability haw to demonstrate knowledge. In the present scenario we need a competent teachers may sustain and the progression to facing challenges of teaching-learning process. So, with the intention of this, the investigator indents to carry out a research on impact of digital learning on teaching competency among B.Ed. trainees. The data were collected from 182 B.Ed. trainees from private colleges of education in Coimbatore District using Attitude towards Digital Learning scale adopted from Paula Mae Bigatel et. al. (2017). The simple random sampling method was adopted to select the sample. The collected data were analyzed using descriptive and one way anova. The study concludes that there is no significant mean score difference in teaching competency between the groups based on attitude towards digital learning among B.Ed. trainees in Coimbatore District.

Key Words: Digital Learning, Teaching Competency, B.Ed. Trainees, Teacher Education

INTRODUCTION

Teaching Competence refers to a set of knowledge, abilities, beliefs teacher possess and bring to the teaching situation. It defined as adequacy for a task of required knowledge skills and abilities. It emphasizes on the ability haw to demonstrate knowledge. In the present scenario we need a competent teachers may sustain and the progression to facing challenges of teaching-learning process. Bhattacharya (1974) defined as perceiving the involvement process analytically as constituting a host of activities. Like-wise the term competency as defined by Brown (1975) & Gage (1972) they apply in the essence of teaching profession. Classification of teacher competencies- Teacher competencies classify into two major categories: first term as Management activities or 'enabling' and second is Instructional activities. In practice these implements each other impossible without any former. It is very difficult to separate them, one performs both functions simultaneously. NCTE classifying teacher competencies as follows:- Contextual, Conceptual, Content, Transactional, Evaluation, Management, Co-curricular Activities, Competencies related to working with Parents, Community and other Agencies.

The triangle of digital competencies creates a stable structure for their development. Vital (custom) digital competencies will keep up with the world of digital devices and services. Profile and professional competencies will determine the adaptability and success in the conditions of digitalization of professions. Social digital competence of citizens will help to preserve our fragile world on the principles of humanism and creative development of our children, to avoid atomization of digital society.

The child acquires vital user digital competencies not only at school, but also in everyday life, communication, profile competencies—in school and in the system of additional education, professional digital competence—in the system of professional education.

Traditionally, the development of general user and professional digital competencies of teachers is engaged in the system of professional development of teachers, for which every year new courses are formed taking into account the development of digital pedagogy. As for the formation of social digital competencies in children at school, this is connected with the socialization and upbringing of children in a digital society, which has new features reflected in the interaction with the cyber world, cyber security, and legal information literacy of active citizens of any country. Here, the school needs help, and the digital curator of the school will become a new profession generated by the digital wave of our time. Digital curator will unite the efforts of the school as a social platform for working with children and family in the socialization of children in the face of complex challenges of the new digital world. Thus, the present study is intended to carry out a study on attitude towards digital learning in relation to teaching competency of the pre-service teachers.

LITERATURE REVIEW

Michael J. J. Roll & Dirk Ifenthaler (2021) has stated that Developments of Industry 4.0 require a set of multidisciplinary digital competencies for future vocational teachers, consisting of specific knowledge, motivational aspects, cognitive abilities and skills to fulfill the demands of digitally interconnected work situations. The competence model that is adapted from future work scenarios of vocational apprentices in Industry 4.0 includes attitudes towards digitization and handling of digital devices, information literacy, application of digital security standards, virtual collaboration, digital problem solving as well as a demonstration of reflective judgment of one's actions in an interconnected and digital environment. Structural equation modeling was used to assess N = 205 pre-service vocational teachers between 18 and 35 years of age. The findings indicate the relationship of the proposed dimensions, measured through external- and self-assessments validate the proposed structure of the multidisciplinary digital competencies. However, attitude towards digitization can predict the self-efficacy of the relevant Multidisciplinary Digital Competencies but not the actual achievement in an external assessed scenario. Nevertheless, this study confirms that self-assessed multidisciplinary digital competencies can predict achievement in an external and qualitative-assessed competence test. Fit indices show an acceptable model conception, the reliability and construct validity of the model were confirmed. Findings suggest that the attitude towards digitization and the application of digital security standards are important, whereas the ability to solve digital problems seems to have a weak relation to the general multidisciplinary digital competencies of pre-service vocational teachers.

Karunanayaka, S. P., & Weerakon, W. M. S. (2020) has conducted a study on the Commonwealth Digital Education Leadership Training in Action (C-DELTA) programme provides a framework for fostering digital education for lifelong learning by developing digital education leaders. The Faculty of Education at the Open University of Sri Lanka

implemented an action research project to promote the adoption of C-DELTA among teachers and students of secondary schools in Sri Lanka, and evaluate its impact on the teaching-learning process. A group of 41 teachers participated in the intervention and implemented C-DELTA in their schools. A variety of data were collected throughout the process via questionnaires, concept maps, focus group interviews, implementation reports, and log records in the C-DELTA platform. Findings revealed that despite challenges, such as inadequate ICT facilities, time constraints and limitation in English language competencies, the adoption of C-DELTA has supported improving digital literacy, enacting changes in thinking and digital behaviour among teachers and students, and enhancing teachers' digital education leadership skills.

Johannes König (2020) opined that as in many countries worldwide, as part of the consequences of the COVID-19 pandemic lockdown schools in Germany closed in March 2020 and only partially re-opened in May. Teachers were confronted with the need to adapt to online teaching. This paper presents the results of a survey of early career teachers conducted in May and June 2020. First, we analysed the extent to which they maintained social contact with students and mastered core teaching challenges. Second, we analysed potential factors (school computer technology, teacher competence such as their technological pedagogical knowledge, and teacher education learning opportunities pertaining to digital teaching and learning). Findings from regression analyses show that information and communication technologies (ICT) tools, particularly digital teacher competence and teacher education opportunities to learn digital competence, are instrumental in adapting to online teaching during COVID-19 school closures. Implications are discussed for the field of teacher education and the adoption of ICT by teachers.

Martzoukou, K., Fulton, C., Kostagiolas, P. and Lavranos, C. (2020) has conducted a survey with Library and Information Science students from three higher education institutions in Scotland, Ireland and Greece was conducted as a basis of empirical data to support the theoretical propositions of the study. The survey centred on the technical and higher-level digital competences of students and drawing from students' self-perceived digital competences for learning and for the everyday life digital context, addressing e-leisure, e-learning, e-democracy, e-government and e-health activities.

RESEARCH DESIGN OF THE STUDY

Since the objective of the study is to find out the impact of attitude towards digital learning on teaching competency, it needs to adopt survey method. The data were collected from 182 B.Ed. trainees from private colleges of education in Coimbatore District using Attitude towards Digital Learning scale adopted from Paula Mae Bigatel et. al. (2017). The simple random sampling method was adopted to select the sample. The collected data were analyzed using descriptive and one way anova. The collected data were analyzed using descriptive and one way anova test.

RESULTS AND INTERPRETATIONS

Hypothesis – 1: There will be significant mean score difference in Teaching Competency between the groups based on Attitude towards Digital Learning among the selected B.Ed. trainees.

Table –1: Number, Mean and Standard Deviation in Teaching Competency between the groups based on Attitude towards Digital Learning among the selected B.Ed. trainees.

Groups in Attitude towards Digital Learning	Teaching Competency		
	N	Mean	SD
Low Group	48	65.06	18.09
Moderate Group	76	65.39	18.28
High Group	58	64.10	18.36

The table 1 shows the Number, Mean and Standard Deviation in Teaching Competency between the groups based on Attitude towards Digital Learning among the selected B.Ed. trainees. As per the table, there is no much difference in mean among all the three groups. Especially, there is no difference between low group and moderate group.

Table –2: Mean score difference in Teaching Competency between the groups based on Attitude towards Digital Learning among the selected B.Ed. trainees.

Variable	Groups	Sum of Squares	DF	Mean Square	F-value	p-value	Result
Teaching Competency	Between Groups	55.667	2	28.333	0.085	.919	Not significant
	Within Groups	59676.350	179	333.387			

Table 2 shows the Mean score difference in Teaching Competency between the groups based on Attitude towards Digital Learning among the selected B.Ed. trainees. According to the table, the calculated f-value is not significant at 0.05 level. Hence, the hypothesis – 1 is rejected. Further, it can be concluded that the Attitude towards Digital Learning does not affect the teaching competency of the B.Ed. trainees.

FINDINGS AND CONCLUSIONS

Based on the results of the present study, it is found that there is no significant Mean score difference in Teaching Competency between the groups based on Attitude towards Digital Learning among the selected B.Ed. trainees. Hence, it is concluded that the variable attitude towards digital learning does not influence on teaching competency among the selected B.Ed. trainees in Coimbatore district.

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