

A STUDY OF DIGITAL SMART CLASSROOM TEACHING EXPERIENCE OF HIGH SCHOOL TEACHERS IN MADURAI DISTRICT

Dr. P.N.Lakshmi Shanmugam, M.Sc.,M.Phil.,(chem.),MCA, M.Ed, M.Phil., Ph.D(edn)

Assistant Professor, Department of Education, SRM School of Teacher Education and Research, SRM University, Kattankulathur Kancheepuram District. 603203.

Abstract

The study focuses on Digital Smart Classroom Teaching Experience of high school teachers. The sample of the study consists of **80** teachers from Aurobindomira Matric Higher Secondary School, Velammal Matric Higher Secondary School and Jeevana International School, Madurai. The survey method was used. The study shows that the teachers are able to identify particular aspects of the environment that seems to encourage new experiences in their teaching practices.

Keywords: Empowerment, Electronic Environment, User Interface, Digital Smart Classroom Teaching, Multimedia, Interactive Classroom

Introduction

Teachers gain increased access to smart classrooms and digital technologies that offer teachers and students, greater access to authentic cultural materials. Teaching with technology changes the teaching and learning environment in many ways. Technology integrates into the daily teaching curriculum which changes the implicit power structures embedded in all classroom interactions. The notion of environment, as a material and symbolic mediation of people's activity stresses the central role played by social relationships and tools in understanding knowledge construction and thinking processes. Digital Smart Classroom has a teacher, computer station with internet access that is connected to a multi-media digital projector and has some form of enhanced sound capabilities for the computer. Other digital technologies can be added to this configuration based on the specific needs of the educational context. Digital Smart Classroom is a concept that attempts to capture a particular kind of environment designed to encourage and promote certain social activities, as well as to allow people to re-shape and re-create these very interactional possibilities.

Need of the Study

The social distribution of intelligence comes from its construction in activities such as the guided participation in joint action. The material distribution

of intelligence originates in the situated inventions of uses for aspect of the environment or the exploitation of the affordances of designed artifacts, either of which may contribute to supporting the technology environment in the classroom. The narrow view of the electronic classroom is that it is a room with computers and multimedia displays. The broader view is that it is an electronic environment that supports the many processes of classroom teaching. This concept of environment allows us to re-conceptualize the notion of a digital classroom. By looking at these classroom settings through the notion of environment introduced above we are able to focus on the complexity of the pedagogical activities that take place within the classroom,. we attempt to construct a pedagogical notion of environment that may overcome technical the problems associated with the digital centred classroom. The electronic dimension of the classroom is re-conceptualized as tools, which are an aspect of the mediational structures that constitute the overall environment. The activities that faculty develop in this environment are the main focus of this study. Because of the central, decision-making role of the teacher, this study uses a critical theory of technology to examine the daily technology integration experiences of the teachers.

Objectives of the Study

- To find out the high school teachers' experience on Digital Smart Classroom Teaching
- To find out the relationship of their teaching competency with their experience on Digital Smart Classroom Teaching.

Hypotheses

- There is no significant difference between UG and PG teachers on Digital Smart Classroom Teaching Experience.
- There is no relationship between Teaching Competency and Digital Smart Classroom Teaching Experience.

Methodology

Survey method has been used in this study. The sample of the study consists of 80 teachers drawn by Purposive Sampling from Sri Aurobindomira Matric Higher Secondary School, Velammal Matric Higher Secondary School and Jeevana International School, Madurai. The investigator constructed Digital Smart Classroom Teaching Experience of high school teachers. There are three dimensions in this tool namely Empower Faculty consisting of 20 statements, Electronic Environment consisting of 20 statements and User Interface consisting of 15 statements. After validation the refined tool consists of 40 statements (Empower Faculty consisting of 15 statements, Electronic Environment consisting of

15 statements and User Interface consisting of 10 statements). The statistical techniques used for treatment of data is 't' test and Correlation.

Empower Faculty

The digital smart classroom is to be a complex scenario for teachers who are not quite familiar with the use of technology in their teaching practices . It makes it more difficult for them to become confident in this task. This pedagogy made the teachers to design the environment, stressing a user friendly approach so that the faculty can intuitively develop the necessary skills to manage the environment. Teachers were inspired to integrate more information and communication technology into their lessons, their teaching practices involved more visual strategies and students were specially motivated by the use of this tool. Faculty is provided with special tools that allow them to capture their annotations, explanations and discussions during classroom interactions. The captured activities are organized in chronological order and displayed together with other instructions. There is an easy access to technology as an essential feature to facilitate teachers presentation. The technical facilities training is to be given to teachers to access information and discuss different teaching materials.

Electronic Environment

The available resources of the Digital Smart Classroom are online resources, smart board writing capabilities, smart board saving capabilities, other software, video-audio and whiteboard, online resources. The resources vary from visual material to digital texts, reference sources the course website. The writing capability of the smart board is used to highlight texts and images. The teacher uses this to retrieve the students' discussion. Other softwares used in this are used to read and work with curriculum designing. Video/audio Visual Materials are DVD and VHS which is used to record audio and video. Whiteboard is used to make annotations during their classes.

User Interface

It is really fine to bring the students up and ask them to pick things that they want to add, to create a space in which they put together audio visual material. The teacher has evaluated students' posting regarding a particular question and organized them in a way that allows him to bring student comments to the class reflecting on the different levels of analysis involved in their responses. Students and instructor engaged in a discussion regarding the different understandings and interpretations have been depicted in the postings.

Results and Discussion

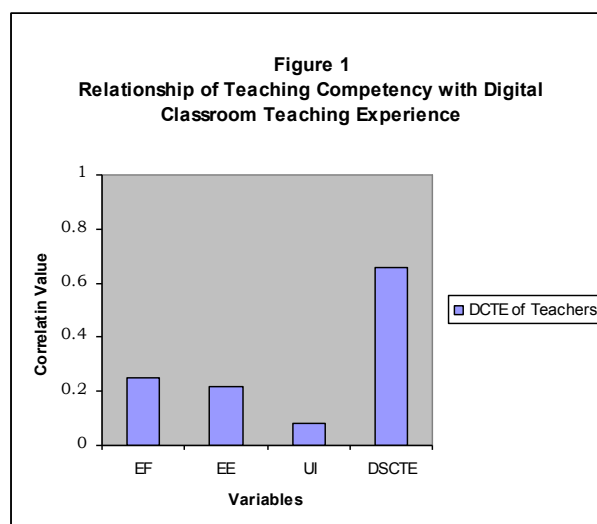
Table 1 't' value between PG and UG teachers on the digital smart classroom teaching

Variables	Trs Category	N	Mean	S.D	t	L of Sig
TC	UG	27	72.89	8.45	0.95	N.S
	PG	53	74.66	7.57		
EF	UG	27	12.07	1.14	0.67	N.S
	PG	53	11.87	1.37		
EE	UG	27	12.15	1.51	0.46	N.S
	PG	53	12.00	1.27		
UI	UG	27	5.15	0.82	5.16	0.001
	PG	53	6.11	0.78		
DSCTE	UG	27	109.96	7.38	0.92	N.S
	PG	53	108.26	7.97		

There is no significant difference between UG and PG Teachers in Teaching Competency , Empower Faculty and Electronic Environment and Digital Smart Classroom Experience as a whole. There is significant difference between UG and PG teachers in User Interface at 0.001 level of significance in favour of PG teachers. Hypothesis (H01) is accepted.

Table 2
Relationship between Teaching Competency and Correlates

Variables	Corr Value
TC	1.00
EF	0.25
EE	0.22
UI	0.08
DSCTE	0.66



Teaching Competency has low positive relationship with Empower Faculty. Teachers were inspired to integrate more information and communication

technology into their lessons, their teaching practices involved more visual strategies. It has low positive relationship with Electronic Environment . Teachers were provided with special tools that allowed enhance teaching with explanations and illustrations. It has negligible relationship with User Interface. Teachers had less experience to deliver online lesson to the students. Teaching Competency has high positive relationship with Digital Smart Classroom Teaching Experience as a whole. Hence, hypothesis (Ho2) is rejected.

Discussion

Empower Faculty

Goals and objectives were defined by teachers for their courses. Teachers possessed the competencies to provide potentially enhanced teaching and learning experiences. Training was given to the teachers to develop activities which enrich knowledge construction process. Teachers got innovative ideas to organize the learning materials. Both UG and PG Teachers got the same experience in Empower Faculty.

Electronic Environment

Teachers used the available resources in the classroom to present ,discuss, compare and deconstruct different reading materials. They were familiar with the tools of electronic environment. This environment allowed the teachers to think about a difference between presenting' a practice commonly associated with certain user of technological tools and teaching, a practice mainly focused in different aspects of the challenge of explaining and discussing knowledge. Both UG and PG teachers got the same experience of handling the technological tools.

User Interface

Students worked in their own computers in the classroom each in their own level. They also used the softwares, installed in the electronic environment. They reviewed each work together, collectively on the smart board screen. Students working in small groups used the environment to create presentations, recorded them and discussed their performances, using different annotations on the smart board, students were also familiar in searching the material from online resources. The performance of PG Teachers in creating the presentation is better than UG Teachers.

Conclusion

Thus the teachers were able to identify particular aspects of the environment that seem to encourage new experiences in their teaching practices that might be conducive to enhance teaching and learning experiences. What seems particularly interesting is the way in which these reflections imply a consideration of educational challenges as a way of experimenting with uses of technology framed in their pedagogical perspective. They identified challenging

and conducive environment in exploring and moving forward the possibilities of the available resources of the Digital Smart Classroom Teaching.

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