

Vol 6 Issue 10 July 2017

ISSN No : 2249-894X

---

*Monthly Multidisciplinary  
Research Journal*

*Review Of  
Research Journal*

Chief Editors

---

**Ashok Yakkaldevi**  
A R Burla College, India

**Ecaterina Patrascu**  
Spiru Haret University, Bucharest

**Kamani Perera**  
Regional Centre For Strategic Studies,  
Sri Lanka

Review Of Research Journal is a multidisciplinary research journal, published monthly in English, Hindi & Marathi Language. All research papers submitted to the journal will be double - blind peer reviewed referred by members of the editorial Board readers will include investigator in universities, research institutes government and industry with research interest in the general subjects.

### **Regional Editor**

Dr. T. Manichander

### *Advisory Board*

Kamani Perera Regional Centre For Strategic Studies, Sri Lanka	Delia Serbescu Spiru Haret University, Bucharest, Romania	Mabel Miao Center for China and Globalization, China
Ecaterina Patrascu Spiru Haret University, Bucharest	Xiaohua Yang University of San Francisco, San Francisco	Ruth Wolf University Walla, Israel
Fabricio Moraes de Almeida Federal University of Rondonia, Brazil	Karina Xavier Massachusetts Institute of Technology (MIT), USA	Jie Hao University of Sydney, Australia
Anna Maria Constantinovici AL. I. Cuza University, Romania	May Hongmei Gao Kennesaw State University, USA	Pei-Shan Kao Andrea University of Essex, United Kingdom
Romona Mihaila Spiru Haret University, Romania	Marc Fetscherin Rollins College, USA	Loredana Bosca Spiru Haret University, Romania
	Liu Chen Beijing Foreign Studies University, China	Ilie Pinte Spiru Haret University, Romania
Mahdi Moharrampour Islamic Azad University buinzahra Branch, Qazvin, Iran	Nimita Khanna Director, Isara Institute of Management, New Delhi	Govind P. Shinde Bharati Vidyapeeth School of Distance Education Center, Navi Mumbai
Titus Pop PhD, Partium Christian University, Oradea, Romania	Salve R. N. Department of Sociology, Shivaji University, Kolhapur	Sonal Singh Vikram University, Ujjain
J. K. VIJAYAKUMAR King Abdullah University of Science & Technology, Saudi Arabia.	P. Malyadri Government Degree College, Tandur, A.P.	Jayashree Patil-Dake MBA Department of Badruka College Commerce and Arts Post Graduate Centre (BCCAPGC), Kachiguda, Hyderabad
George - Calin SERITAN Postdoctoral Researcher Faculty of Philosophy and Socio-Political Sciences Al. I. Cuza University, Iasi	S. D. Sindkhedkar PSGVP Mandal's Arts, Science and Commerce College, Shahada [ M.S. ]	Maj. Dr. S. Bakhtiar Choudhary Director, Hyderabad AP India.
REZA KAFIPOUR Shiraz University of Medical Sciences Shiraz, Iran	Anurag Misra DBS College, Kanpur	AR. SARAVANAKUMARALAGAPPA UNIVERSITY, KARAIKUDI, TN
	C. D. Balaji Panimalar Engineering College, Chennai	V.MAHALAKSHMI Dean, Panimalar Engineering College
Rajendra Shendge Director, B.C.U.D. Solapur University, Solapur	Bhavana vivek patole PhD, Elphinstone college mumbai-32	S.KANNAN Ph.D , Annamalai University
Awadhesh Kumar Shirotriya	Awadhesh Kumar Shirotriya Secretary, Play India Play (Trust), Meerut (U.P.)	Kanwar Dinesh Singh Dept.English, Government Postgraduate College , solan
		More.....



## BUILDING 21<sup>ST</sup> CENTURY SKILLS IN THE ERA OF DIGITALIZATION: TEACHER EDUCATION AND ITS ROLE

Amalesh Mondal

Ph. D. Scholar, School of Education, Pondicherry University, Puducherry.



### ABSTRACT:

ICT have become commonplace entities in all aspects of life. Across the past twenty years the use of ICT has fundamentally transformed the practices and procedures of nearly all forms of exertion within business and governance. Education is a very socially focused activity and quality education has traditionally been connected with strong teachers having high degrees of personal contact with learners. The use of ICT in education lends itself to more student-centred learning settings. But with the world moving swiftly into digital media and information, the role of ICT in education is becoming more and more essential and this importance will continue to grow and develop in the 21<sup>st</sup> century.

**KEYWORDS:** Era of Digitalization, Teacher Education, business and governance.

### INTRODUCTION:

Digital Era is also known as 'Information Age', or 'New Media Age'. Digital Era helps to create knowledge based society surrounded by high technology which helps individuals to explore their personal needs. In the present scenario, Digital Technologies play a key role in the teaching and learning process. The rapid technological developments have helped the teacher to achieve professional development. Technology has the power to transform the teaching learning process. Technologies nowadays are helping the teachers to use the educational resources and other Technologies that can increase educational productivity by accelerating the rate of learning and better using teacher's time. Technologies help the teacher to collaborate, share their ideas and resources with the help of various digital tools. These technological tools help both teacher and students to get access to the various resources, materials for effective teaching and learning.

### CONCEPT OF TEACHER EDUCATION

As Digital Era is also known as Information Era, it helps to get information in every aspects of education. As NCF (2005) says ICT should be an important tool for teaching, the advancement of science corners, and providing access to science experimentation kits and laboratories. ICT plays a key role for bridging social gaps. ICT should be used in such a way that it becomes an opportunity equaliser by providing information, communication and computing resources in all educational setup as well as the remote areas. ICT helps to link children and teachers with scientists working in universities and research institutions would also help in demystifying scientists and their work.

An educational institution executes a significant function of providing learning experiences to lead their students from the darkness of ignorance to the light of knowledge. The key personnel in the institutions

who play a vital role to bring about this transformation are teachers. As stated by NCTE (1998) in Quality Concerns in Secondary Teacher Education, the teacher is the most important element in any educational program. It is the teacher who is mainly responsible for implementation of the educational process at any stage. This shows that it is imperative to invest in the preparation of teachers, so that the future of a nation is secure. The importance of competent teachers to the nation's school system can in no way be overemphasized. The National Curriculum Framework (NCF) 2005 says about different demands and expectations of the teacher, which need to be, addressed both by initial and continuing teacher education. The importance of competent teachers to the nation's school system can in no way be overemphasized. It is well known that the quality and extent of learner achievement are determined primarily by teacher competence, sensitivity and teacher motivation. It is common knowledge too that the academic and professional standards of teachers constitute a critical component of the essential learning conditions for achieving the educational goals. Teacher education encompasses teaching skills, sound pedagogical theory and professional skills.

Teacher Education = Teaching Skills + Pedagogical theory + Professional skills

Teaching skills would include giving training and practice in the different techniques, approaches and strategies that would support the teachers to plan and impart instruction, provide suitable reinforcement and conduct effective assessment. It includes effective classroom management skills, preparation and use of instructional materials and communication skills.

Pedagogical theory includes the philosophical, sociological and psychological considerations that would empower the teachers to have a sound basis for practicing the teaching skills in the classroom. The theory is stage specific and is based on the needs and requirements that are characteristic of that stage.

Professional skills comprise the techniques, strategies and approaches that would help teachers to grow in the profession and also work towards the growth of the profession. It includes soft skills, counselling skills, interpersonal skills, computer skills, information retrieving and management skills and above all lifelong learning skills.

### CONCEPT OF COMPETENCE BASED TEACHER EDUCATION

In the present day of globalisation, technical innovations, information and communication technology are everyday developments. Knowledge of today is outdated tomorrow and so the concept of lifelong learning is of at most importance. A teacher must be competent enough to deal with the students and fulfil the desire of learning of the learners. Whereas the competence concerns of The National Council of Teacher Education (NCTE) has identified ten teacher competencies for making the teachers professionally content. Teacher Competencies have been categorized on the basis of purpose.

#### These are as follow:

Contextual competencies, conceptual competencies, content related competencies, transactional competencies, educational activities associated competency, competencies to develop teaching learning material, evaluation competencies, management competencies, competencies related to working with parents and competencies associated to working with community and other agencies.

The Competency Based Curriculum for Teacher Education, 1998 clearly displays the importance given to the teachers specific pedagogical competence. There is hardly any reference to technological skills requirement on the part of a teacher. But National Curriculum for Teacher Education, 2010 has emphasised ICT as an essential component in teacher education and this reflects the challenges the teacher and the students have to face in this information era.

Teacher education needs to orient and sensitize the teachers to differentiate between critically useful, developmentally suitable and the detrimental use of ICT. In a way, ICT can be imaginatively pinched upon for professional development and academic support of the pre-service and in-service teachers (NCFTE, 2010). It also opines that Teaching is a profession and teacher education is a process of professional preparation of

teachers. Teachers are concerned, in an important way, with the total development of human beings - physical, intellectual, emotional, social, moral and spiritual. While the dimensions of teaching other than the informational and cognitive may have suffered neglect in modern times due to a variety of factors, one cannot deny that they constitute an integral part of the teachers' role and functions. The implication of this is to give due emphasis to developing reflective teachers with positive attitudes, values and perspective, along with skills for the craft of teaching.

The implementation of this framework has come in reality as Two year Teacher Education programmes both for under graduation and post-graduation. The B.Ed. course has a paper titled, 'Critical Understanding of ICT'. This course focuses on moving beyond computer literacy and ICT- aided learning, to help student-teachers interpret and adapt ICTs in line with educational aims and principles. It explores ICTs along three broad strands; teaching learning, administrative and academic support system, and broader implication for society.

In view of ICTs as an important curricular resource and an integral part of education, according primacy to the role of the teacher, ensuring public ownership of digital resources created and used in education, taking a critical perspective on ICTs as well as promoting constructivist approaches that privilege participation and co-creation over mere access, are principles that the course help teachers explore. Applying these principles can support Teacher Professional Development models that are self-directed, decentralised, collaborative, and peer learning based, and continuous, in line with the NCFTE, 2010 vision for teacher education.

A paper titled, 'Advanced Educational Technology' is prescribed for M.Ed. with the following objectives:

- + Know the nature & scope of educational technology and also about the various forms of technology.
- + Become effective user of technology in Education.
- + Know the instructional design and modes of development of self learning material
- + Understand the system approach to education, communication theories and modes of communication.

The above details explicitly explain the significance of knowledge in skills in ICT application in teaching and learning at all stages of education. ICT in the field of education provides easy access to learning. The utility of ICT is multifaceted as students can now browse through e-books, sample examination papers, previous year papers etc. and can also have an easy access to resource persons, mentors, experts, researchers, professionals, and peers-all over the world. This flexibility has heightened the availability of just-in-time learning and provided learning opportunities for many more learners who previously were constrained by other commitments. The available resources of ICT can be in the form of best practices and best course material in education, and it can foster better teaching. ICT also allows the academic institutions to reach disadvantaged groups and new international educational markets. Today learning is possible at any time and teachers are also finding the capabilities of teaching at any time. Mobile technologies and seamless communications technologies support teaching and learning. Choosing how much time will be used within the envelope and what periods of time are challenges that will face the educators of the future.

Thus, ICT enabled education will ultimately lead to the democratization of education. Especially in developing countries like India, effective use of ICT for the purpose of education has the potential to bridge the digital divide.

Edmodo is a free and secure teaching platform where teachers and students both need to have account. It is more over like Facebook and twitter but it can be controlled by teacher accordingly. It helps the teacher to create and manage communication in a registered group. Edmodo facilitates a virtual and collaborative classroom. By using Edmodo, teacher and students can share content and submit assignments, homework and quizzes and also helps to get feedback from the teacher. Edmodo assists teachers to setup and manage their online class very easily. Hence Edmodo has unlimited option in terms of sharing digital contents and thus find and share within a broad stream of content and conversation related to the topic. It is commonly thought of as the Facebook of schools. Edmodo can be incorporated into classrooms through a variety of applications. Current uses include posting assignments, where they could be sorted for example by either who did not turned in their assignment or graded and not graded. It is also good for creating polls for student responses with the advantage of instant feedback.

Edmodo allows the students to upload assignments for their teachers to view and grade. Students who are normally shy in the classroom, can take advantage of Edmodo and use it to speak privately with the teacher. Parent can also do an account which will allow them to see their children's assignments and grades. Teachers can also send alerts to parents about school events, missed assignments, and other important notices through Edmodo.

### BENEFITS OF EDMODO

Learning is learner-centred

- ✦ Learning is synchronous or asynchronous
- ✦ Chat: allows students to increase the frequency and quality of communication, which leads to opportunities to increase their confidence and motivation
- ✦ Continuous access to classroom resources to access course documents, videos, images, assignments, assessments
- ✦ Facilitates the development of language skills: reading, writing, spelling and grammar, sharing, vocabulary, listening
- ✦ Edmodocon: online conferences with thousands of attendees
- ✦ Benefits shy students who struggle with face-to-face communication with teachers and classmates  
Collaborative affordances parallel those of scientists in the real world
- ✦ Online discussions provide students with "time to reflect upon the learned concepts and other student's ideas because immediate response is not required as in the face-to-face classroom discussion"

Google Forms: Google Forms are among the internet's most versatile tools. Whether we need a contact form or a checkout page, a survey or a student directory, a form is all you need to easily gather that information. With Google Forms, it only takes a few minutes to make one for free.

Google Forms along with Docs, Sheets, and Slides is part of Google's online apps suite of tools to help we get more done in our browser for free. It's easy to use and one of the simplest ways to save data directly to a spreadsheet, and it's the best sidekick to Google Sheets' spreadsheets. Google Forms started life as a Google Sheets feature in 2008, two years after Sheets' original launch. We could add a form to a spreadsheet, format it in a separate sheet, and see our form responses in another sheet. It was basic, but it got the job done.

Google added more features to Forms over time, and then finally turned it into its own standalone app in early 2016. Today we can make and manage forms at docs.google.com/forms, with templates and quick access to all our forms in one place.

In teaching learning process teacher can form an online platform for evaluating the students. It is very interesting platform where a teacher can his energy and time. As I told it is an online evaluating platform where a teacher formulates questions with multiple choice and sends it to every students through email. There is no time limit for the task; students can answer the question anytime anywhere when they are connected with internet. Here it is possible to get individual performance and the teacher can give the feedback accordingly.

### CONCLUSION

According to OECD, 2009 the future requirement is 21st century skills and competencies. It believes that the current century will demand a very different set of skills from people which includes communication skills and technological skills. And this is the focus of all the policies and programmes education system in India. The technological development of today provides e- platforms for effective teaching, learning and evaluation. Edmodo, Google Form and Blogs writing are of such platforms, can be utilised in a flexible manner for student centric learning. There is no doubt learners of today can be tuned to these platforms and decently effective and the country will see very efficient future citizens.

### REFERENCES

1. Akpınar, Y. & Bayramoglu, Y. (2008) Promoting teachers' positive attitude towards web use: A study in web site



- development. The Turkish Online Journal of Educational Technology, 7(3).
2. Aggarwal, P. (2014). Teacher' Competencies as Identified by NCTE. International Journal of Multidisciplinary Research and Development, 1(6), 252-253.
3. Barron, A. (1998). Designing Web-based training. British Journal of Educational Technology, 29(4), 355-371.
4. Bhattacharya, I. & Sharma, K. (2007). India in the knowledge economy - an electronic paradigm. International Journal of Educational Management, 21, 543-568.
5. Baslanti, U. (2006) Challenges in preparing tomorrows teachers to use technology: Lessons to be learned from research.
6. Cavas, B. et al. (2009). A study on science teachers' attitudes toward information and communication technologies in education. The Turkish Online Journal of Educational Technology. <http://www.tojet.net/articles/822>.
7. NPE (1986). Ministry of Human Resource Development. New Delhi.
8. National Curriculum Framework (2005). Position paper, National Focus Group on Education of children with Special Needs, New Delhi, NCERT.
9. NCERT (2005). National Curriculum Framework. Author, New Delhi.
10. NCFTE (2010). Towards Preparing Professional and Human Teacher. NCTE, New Delhi.
11. Sime, D., & Priestley M. (2005). Student teachers' first reflections on information and communications technology and classroom learning: implications for initial teacher education. Journal of Computer Assisted Learning, 21, 130-142.
12. Zhao, Y. & Cziko, G. A. (2001). Teacher adoption of technology: a perceptual control theory perspective. Journal of Technology and Teacher Education, 9 (1), 5-30.

# Publish Research Article International Level Multidisciplinary Research Journal For All Subjects

Dear Sir/Mam,

We invite unpublished Research Paper, Summary of Research Project, Theses, Books and Books Review for publication, you will be pleased to know that our journals are

## Associated and Indexed, India

- ★ Directory Of Research Journal Indexing
- ★ International Scientific Journal Consortium Scientific
- ★ OPEN J-GATE

## Associated and Indexed, USA

- ✦ DOAJ
- ✦ EBSCO
- ✦ Crossref DOI
- ✦ Index Copernicus
- ✦ Publication Index
- ✦ Academic Journal Database
- ✦ Contemporary Research Index
- ✦ Academic Paper Database
- ✦ Digital Journals Database
- ✦ Current Index to Scholarly Journals
- ✦ Elite Scientific Journal Archive
- ✦ Directory Of Academic Resources
- ✦ Scholar Journal Index
- ✦ Recent Science Index
- ✦ Scientific Resources Database

Review Of Research Journal  
258/34 Raviwar Peth Solapur-  
413005, Maharashtra  
Contact-9595359435

E-Mail-ayisrj@yahoo.in/ayisrj2011@gmail.com