International Journal of Enhanced Research in Educational Development, IJERED,
ISSN: 2320-8708, Vol. 13 Issue 3, May.-June, 2025

To Study Challenges of Implementing CBE Under NEP 2020

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ABSTRACT

The future of people and communities is greatly influenced by education. The need for a learning system that goes beyond memory and concentrates on practical skills has emerged in the twenty-first century due to the quick development of technology, globalization, and the needs of the labor market. The National Education Policy (NEP) 2020, which anticipates a paradigm change from rote-based learning to holistic, transdisciplinary, and competency-driven approaches, was introduced by the Indian government in response to this demand. NEP 2020's emphasis on competency-based education (CBE) may be its most notable feature. Instead of emphasizing theoretical memory, CBE emphasizes the development of measurable skills, abilities, and applied knowledge. Unlike traditional exam-focused systems, CBE promotes critical thinking, creativity, problem-solving, and experiential learning. It aims to give students the tools they need to thrive both personally and professionally by connecting education with employment and lifetime learning. India's determination to build a strong foundation for a knowledge economy is demonstrated by the inclusion of CBE in NEP 2020. In order to meet the many needs and goals of students, it seeks to make education adaptable, inclusive, and student-centered. Technology and digital platforms are intended as catalysts for broadening the reach of CBE throughout schools and institutions.

Keyword: ***Holistic, Transdisciplinary, Memory, Students, Approaches, Catalysts***

1. INTRODUCTION

India has a long history of education in addition to its rich cultural and historical heritage. India had no organized educational system in the past. The Vedic system, which was centered on the Vedas, Vedangas, and Upanishads, developed a few years later. For the course of the study, the students were expected to leave their homes and live in the Gurukuls with their Gurus (teachers). Each person's skills and abilities were the focus of these Gurukuls, who helped them reach their full potential. Additionally, Gurukuls helped the children acquire the art of life, which is far more important than math and science. In the ancient educational system, debates, discussions, and skill development were important components. Although teaching in groups was a popular and prevalent practice, pupils were also given individual instruction according to their aptitude and ability. The most popular mode of teaching was oral recitation, which was practiced through a variety of techniques such as narrative, memorization, critical analysis, introspection (listening, contemplation, and focused contemplation), practical study, and seminars. Analytical use and value instillation were more prevalent in earlier education.

The educational system developed from Guru-Shishya Parampara to classroom instruction, then instruction using projectors or LEDs, and finally online instruction via e-learning portals or Web-Based E-Learning (WBEL). Online education, often known as e-learning, has become a strong candidate for a new educational system over the last few years. It has been discovered that a number of online courses have been offered recently to educate millions of people worldwide on a variety of subjects. Despite cultural and linguistic differences as well as a diverse population, e-learning has become quite popular, boosting the affordability and purchasing power of Indians. The only factor contributing to the expansion of e-learning systems is the rapid evolution of technology and information technology.

The process of obtaining systematized knowledge is called education. Education is the accumulation of skills and knowledge from any source; it is not limited to school or college. Education promotes a variety of developments, including cognitive, physical, social, and spiritual. The Indian Constitution pledges to give everyone access to high-quality education, and the government has established several educational categories in an attempt to meet the nation's educational needs, particularly for its diverse societies and cultures. Elementary education, secondary education, higher education, adult education, and technical and vocational education are all about developing the full person and fostering

their innate qualities. E-learning is a helpful way for India to reach the unreached in rural areas, inspiring students to pursue higher education and empowering women via education. Education can be a helpful instrument to enhance knowledge of the environment, peace, culture, social diversity, and increased competitiveness in today's fast-paced, globalized society. One must be competent enough to survive in order to work in this more competitive society. Education provides us with a potent weapon that allows us to innovate in our educational programs and build on values and ethics. E-learning is a complex field that includes many different approaches and strategies. E-learning, which includes computerized electronic learning, online learning, internet learning, distance education, and many other formats, can also be defined as learning that is provided online through the internet. Because of this, e-learning is interactive, allowing students to interact with instructors, professors, and other students. It has been demonstrated that e-learning is a successful training and educational approach.

1.1 Objectives Of The Study

1. To determine challenges of implementing CBE under NEP 2020.
2. To discuss CBE with respect to conventional learning models in India.

2. REVIEW OF LITERATURE

Brigida Floropia, Prakash Barve, and Vijay Borges (2021) determined the function of educators from Web 5.0 to 0.0. The researcher outlined the difficulties instructors have during the teaching-learning process and developed methods for utilizing the best pedagogy and technology while creating learning management systems. The impact of technology on the function of teachers has been the primary focus of current research. Teachers' evolving roles due to new technology have received little attention. The study examined the difficulties and modifications to the role of teachers due to unanticipated events using the research design of the Document Analysis technique.

Gaspard Denise Richards (2020) examined how teacher educators may cultivate digital fluency as a critical competency and defined dimensions of digital fluency as a concept through a survey of the literature. The results demonstrated that both institutional mechanisms—specifically, training, infrastructure, and the provision of online programs—and individual mechanisms—specifically, individualized learning, practice, participation in research, and consulting—contributed to the growth of teacher educators' digital fluency. Therefore, ongoing training should be focused on professional development and bolstered by ongoing practice.

Fatimah A. Albrahim (2020) reviewed and analyzed literature in light of the skills and abilities needed to teach online in order to investigate the difficulties surrounding online learning and teaching. the little knowledge and abilities required to instruct in an online setting. In order to assist in creating professional development programs for online educators, the online teaching abilities and competencies were identified. Six categories were used to group these competences and skills: a) educational skills; b) content skills; c) design skills; d) technical skills; e) managerial and institutional skills; and f) social and communication skills. These skill sets could be used by online instructors to assess their own online teaching abilities and determine what training they need.

3. RESEARCH METHODOLOGY

3.1 Research Design

Since the researcher looked into the current state of CBC implementation among primary school teachers, a mixed method design was suitable for this study. For quantitative data on teaching competencies, the researcher used a teaching competency measure to observe thirty primary school instructors. Using a checklist, quantitative information about teachers' practices was gathered. Focus groups and open-ended questionnaires were used to collect qualitative data on teachers' practices and difficulties. The three main subjects covered in the primary school curriculum—mathematics, English, and environmental studies—were taken into consideration. To make interpretation meaningful and get the right conclusion, data gathered via several methods was triangulated. The results could be applied to the entire population thanks to the mixed technique.

3.2 Variables Of The Study

When a nation adopts a new curriculum, the content, methods, and systematic structure of how the curriculum is implemented are all altered. Teachers' competencies and practices are impacted by the implementation of new curricula, and they may encounter difficulties during the syllabus enactment process. The traits or circumstances that the researcher notices are known as variables. The competencies, practices, and difficulties of implementing competency-based curricula of primary school teachers were the variables of this study.

3.3 Sample Size and Sampling Technique

Sample Size: 100 respondents (40 school teachers, 30 higher education staff, 20 teacher trainees, and 10 educational administrators).
Sampling Technique: Convenience sampling is employed owing to ease of accessing participants in schools.
Methods of Data Collection

Primary Data: Gathered with the help of a structured questionnaire consisting of close-ended and open-ended questions.
Secondary Data: NEP 2020 reports, NCERT reports, NCTE reports, research papers, policy briefs, and government documents.

3.4 Research Tools

The following research tools were used to gather data for this study: i) Teaching Competencies Scale (TCS), (ii) Checklist on teachers' practices (iii) Open ended questionnaire on practices and challenges (iv)Schedule for Focus Group Discussion.

3.5 Procedure For Data Analysis

The data generated in this study was obtained from teaching competency scale based on classroom teaching observation, checklist, questionnaires and focus group discussions. Both qualitative and quantitative analysis was used to analyse the data in this study. Calculation of means, frequencies, percentages and standard deviation on data collected through TCS were analysed with help of SPSS version 23. ANOVA were used to test hypotheses. Qualitative data analysis was to make meaning from respondents' feelings and experiences on teaching practices and challenges in implementing competency based curriculum. Data was presented qualitatively as narratives in the form of words developed around themes which emerged from the data collected through questionnaire and focus group discussion. This is a method of identifying, analyzing, organizing, describing and reporting themes found within a data set. It is making sense of the raw data from the participants' interpretation of their experiences of the phenomenon. It involves identifying patterns from the transcribed data and generating categories and themes.

4. RESULTS AND DATA INTERPRETATION

Table 4.1. – Frequency and Percentage of the subjects taught by the Respondents

Subjects taught	Frequency	Percentage
Languages	47	47%
Math	21	21%
Science	18	18%
Sports	01	01%
Arts	04	04%
Any other	09	09%
Total	**100**	**100%**

Interpretation: It is clear from table 4.1 that language teachers make up the majority of the respondents. 47% of secondary teachers teach language, 21% teach math, 18% teach science, 01% teach sports, 04% teach the arts, and 09% teach other subjects.

Professional Course Diploma/Degree by the Respondents

Table 4.2. – Frequency and Percentage of the Professional Course diploma/Degree by the Respondents

Teaching course completed	Frequency	Percentage
D.Ed.	14	14%
B.Ed.	69	69%
MEd	05	05%
Any other	12	12%
Total	**100**	**100%**

Interpretation: Table 4.2 shows that 69% of respondents have earned a B.Ed., 14% have earned a D.Ed., 12% have completed relevant courses, and 5% have earned an MEd.

Background

Table 4.3. – Frequency and Percentage of the Background

Background:	Frequency	Percentage
Urban	78	78%
Rural	22	22%
Total	**100**	**100%**

Interpretation: Table 4.3 indicates that the majority of respondents work as teachers in urban schools. 22% of secondary teachers work in rural schools, whereas 78% of responders are from urban backgrounds. This suggests that the majority of online instruction occurred in urban schools, with rural institutions lagging far behind.

DISCUSSION

The introduction of online instruction has fundamentally altered how people communicate and share information in the classroom. The demographic data about the respondents' gender, age, years of traditional and online teaching experience, qualifications, subjects taught, students the secondary teachers interact with online, and institutional background sheds light on how the secondary teacher drifted to the clicks from the arena chalk and board. Emerging technologies are creating new learning spaces that defy traditional educational practices.

Online Teaching Competencies

Finding the online teaching competences for secondary teachers' professional development was the initial goal. In order to do this, the researcher delivered the Online Teaching Competence for Professional Enhancement Scale (OTCPES), a self-developed instrument, to the participants. The statements for the Cognitive (to Know) Domain competencies—academic and assessment, digital, managerial and administrative, and cross-disciplinary—were included in the scale. The statements on the Psychomotor (to Act) domain competencies—creativity and innovation, behavioral and adaptability, problem-solving and critical thinking, and communication and collaboration—were included in the OTCPE Scale. The Affective (to Value) Domain competency statements focused on life skills, cultural competence, ethical competence, and emotional competence.

The secondary teachers were given the OTCPE Scale. The researcher created the norms, or standard score, after gathering the replies. For every domain, the raw scores were transformed into insightful interpretive data. The scoring levels were Poor level, Beginner level, Intermediate level, and Advanced level, in order of lowest to highest.

Norms and Interpretations

Standard scores, or norms, indicate a typical performance level for a given group. Norms have been developed for both the Scale as a whole and for each of the Scale's individual dimensions in order to transform the questionnaire's raw scores into useful interpretive data. The table displays the range of scores for the whole OTCBS.

Table 4.4- Norms and Interpretations of Online Teaching Competence Scores

Sr No	Scoring Range	Level
1	Below 30	Poor Level
2	30 – 45	Beginner Level
3	46 – 60	Intermediate Level
4	Above 60	Advanced Level

Levels such as Poor level (below 30%), Beginner level (31%–45%), Intermediate level (46%–60%), and Advanced level (above 61%) were used to classify the item-wise proportion of each competency in the three domains.

The Cognitive domain competencies of the Secondary teachers for online teaching.

Table 4.5 . – Frequency, Percentage and Levels of respondents' for Cognitive Domain

Competencies of Cognitive Domain	Frequency of Average Responses	Percentage	Level
Academic & assessment Competence	59	59%	Intermediate level
Digital Competence	54	54%	Intermediate level
Managerial & Administrative Competence	41	**41%**	**Beginner Level**
Cross Disciplinary Competence	59	59%	Intermediate level

Interpretation: Table shows that in the Cognitive Domain, the Digital Competence is 54% and the Academic & Assessment Competence and Cross Disciplinary Competence are 59%. There is just a 41% managerial and administrative competency.

Results: The managerial and administrative competencies are at the beginner level. Digital competency, cross-disciplinary competency, and academic and assessment competency are all at the intermediate level.

CONCLUSION

"The sky is the limit" in terms of improvement, and given the speed at which the "virtual world" is expanding, there is a great demand for educators who can instruct students both in-person and virtually. Therefore, it can be concluded that a teacher needs to be open to learning how to use technology and digital tools into the teaching and learning process in addition to having professional development skills in order to be an effective teacher in all of these areas. Before allowing the teachers to put what they have learned into practice, let them be armed. Our students must get guidance in order to develop meaningful, moral, and healthy digital competency. They must develop critical evaluation skills, constructive online interactive and collaborative competencies, and creative potential—all of which are essential for successful 21st-century digital citizenship. With a teacher who has improved their online teaching competency, we can hope for a better generation with humanizing technology.

REFERENCES

1. Bisht, D. (2013). Integration of ICT in Teacher Education for Enhancing Teaching Competence. Te c h n o L E A R N : An International Journal of Educational Technology, 3(1), 1-10.
2. Borkar, U. (2013). A Study of Teacher Effectiveness of Secondary School Teachers in Relation to Teacher Stress. International Journal of Humanities and Social Science Invention, 2(12), 13-16.
3. Borthwick, A., & Hansen, R. (2017). Digital Literacy in Teacher Education: Are Teacher Educators Competent? Journal of Digital Learning in Teacher Education, 33(2), 46–48.
4. Brigida, F. (2020). Emergence of Blended Acedemia during Covid-19 Pandemic and its Impact on Soft Skill Development in Students: A Study among the Secondary School Teachers in Nashik City. Mukt Shabd, 9(6), 844-860.
5. Brigida, F., & Barve, P. (2021). Impact of Web Technologyon Role of Teacher: Challenges and Changes. Journal of Education: RabindraBharathi University, 23(4), 156-160.
6. Budhrani, K., & Martin, F. (2019). Award-Winning Faculty Online Teaching Practices: Roles and Competencies. Online Learning Journal, 23(1), 189-204.
7. Burce, A., & O'Sullivan, N. (2014). Teaching and Learning in Competency-Based Education. The Fifth International Conference on e-Learning (pp. 7-12). Belgrade, Serbia: e-Learning.
8. Bushra, M. A., & Sumaiya. (2017). Reflection of the New National Policy of Education. The Signage, 5(2), 25-39. Bybee, R. W. (2009). The BSCS 5E Instruction Model & 21st Century Skills. National Academies, 1-24.
9. Cakir, N. K. (2017). Effect of 5 E Learning Model on Academic Acheivement, Attitude & Science Process Skills: Meta-Analysis Study. Journal of Education and Training Studies, 5(11), 157-170.
10. Cantabrana, J. L., & Cervera, G. M. (2015). Professional Development in Teacher Digital Competence and improving school quality from the teachers' perspective: a case study. New Approaches in educational Research, 4(2), 115-122.
11. Cantner, U., & Henderman, A. F. (2018). Soft Skills, Hard Skills and Individual Innovativeness. Eurasian Business & Economic Society, 8(2), 139-169.
12. Carmona, M. G., & Gracia, J. M. (2021). Analysis of Digital Competence of Educators (DigiCompEdu) in Teacher Trainees: the Context of Melilla,Spain. Knowledge and Learning Technology, 183-205.
13. Cartelli, A. (2010). Frameworks for Digital Competence Assessment: Proposals, Instruments, and Evaluation . InSITE 2010 (pp. 561-573). Italy: Informating Science & IT Education Conference (InSITE) .
14. Cator, K., Ark, T. V., & Schneider, C. (2014). Preparing Teachers for Deeper Learning: Competency-Based Teachers Preparation and Development. New York: Digital Promise & Getting Smart.
15. Chan, K., & Banny, S. (2017). Digital Literacy Learning in Higher Education Through Digital Storytelling Approach. Journal of International Education Research, 7(1), 34-43.
16. Chang, M. W. (2016). Digital Competence and Professional Development of Vocational Education and Training Teachers in Queensland. ResearchGate online, 1-347.
17. Chi, P., Tu, N., & Minh, P. (2020). Assessment of Information Technology Use Competence for Teachers: Identifying and Applying the Information Technology Competence Framework in Online Teaching. Journal of Technical Education and Training,, 243-254.