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# Competency-Based Education: A Comparative Study of Traditional vs. Modern Approaches

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## ABSTRACT:

*Education in the 21st century is undergoing a paradigm shift from traditional teacher-cantered approaches to competency-based learning frameworks that emphasize mastery of skills, application of knowledge, and learner autonomy. Traditional systems prioritize content delivery, standardized testing, and time-bound progression, whereas competency-based education (CBE) focuses on outcomes, personalized pacing, and skill integration. This study explores the comparative effectiveness of traditional and modern competency-based approaches in terms of pedagogy, assessment, and student outcomes. Using a mixed-methods design, data will be collected from higher secondary and undergraduate students as well as teachers through questionnaires, interviews, and curriculum analysis. Expected findings suggest that while traditional education supports structured learning and discipline, CBE promotes critical thinking, collaboration, and lifelong learning skills. However, challenges such as teacher preparedness, curriculum redesign, and infrastructural gaps remain significant. The paper concludes that a blended model, integrating the strengths of both approaches, is best suited for the Indian context under the reforms of NEP 2020.*

***Keywords:*** *Competency-Based Education, Traditional Education, Pedagogy, Assessment, NEP 2020, Lifelong Learning.*

## 1. INTRODUCTION:

The global education system has long been dominated by traditional methods, where students progress based on age and time spent in classrooms. This model emphasizes uniform curricula, teacher-cantered instruction, and high-stakes examinations. While effective in ensuring structured delivery of knowledge, traditional education often fails to adequately develop critical thinking, problem-solving, creativity, and adaptability—skills essential in the 21st-century knowledge economy. In contrast, Competency-Based Education (CBE) is emerging as a transformative model, focusing on mastery of learning outcomes rather than

time-based progression. In CBE, students advance only after demonstrating competency in specific skills or knowledge areas. This approach fosters personalized learning, student engagement, and lifelong learning skills, aligning education with the dynamic needs of the workplace and society. Countries such as the USA, Finland, and Singapore have successfully implemented CBE, setting global examples.

In India, the National Education Policy (NEP) 2020 strongly emphasizes a shift towards competency-based curriculum, experiential learning, and holistic assessment. The CBSE has already begun introducing competency-based questions in board examinations to align with global standards. This transformation highlights the urgent need to study and compare traditional and modern approaches in the Indian context.

## 2. Rationale of the Study:

The relevance of this study stems from the growing recognition that content knowledge alone is insufficient in preparing learners for the challenges of globalization, technological advancement, and rapid socio-economic changes. Employers today seek graduates who can apply knowledge creatively, work in teams, and adapt to complex problem-solving situations—competencies often underdeveloped in traditional classrooms.

- At the same time, transitioning to CBE in India poses significant challenges, including:
- Teacher readiness and professional development.
- Lack of infrastructure and digital tools.
- Resistance to change from standardized testing culture.
- Policy and administrative gaps in scaling CBE models.

Thus, a comparative study between traditional and CBE approaches is necessary to identify strengths, limitations, and possible integration strategies for effective reform.

## 3. Statement of the Problem:

Despite growing interest in competency-based learning, Indian education remains largely exam-oriented and content-driven. There is limited empirical research comparing learning outcomes, assessment methods, and student experiences under traditional and CBE frameworks. Without such evidence, policymakers and educators may struggle to implement NEP 2020 reforms effectively.

## 4. Objectives of the Study:

1. To conceptualize competency-based education in the context of global and Indian reforms.
2. To compare traditional and competency-based education in terms of pedagogy, assessment, and outcomes.
3. To evaluate student and teacher perceptions of both models.
4. To analyze challenges in adopting CBE in the Indian context.
5. To provide recommendations for integrating CBE into mainstream education.

## 5. Review of Literature:

### 5.1 Concept of Competency-Based Education (CBE)-

Competency-Based Education (CBE) is an outcome-focused approach where learning is structured around mastery of specific skills, knowledge, and attitudes, rather than time spent in class. Students advance

upon demonstrating competence, allowing personalized learning and skill acquisition. **Le, Wolfe, & Steinberg (2014)** emphasize that CBE allows students to learn at their own pace, promoting deeper understanding and lifelong learning. **Patrick & Sturgis (2015)** highlight the role of blended and digital learning tools in facilitating competency development.

### 5.2 Traditional Education Approach-

Traditional education relies on teacher-centered instruction, memorization, and standardized testing. It ensures uniform delivery of knowledge but often neglects higher-order thinking skills, problem-solving, and creativity. **Sharma (2021)** notes that in India, traditional classrooms dominate, especially in government schools, with heavy reliance on rote memorization. Students in traditional models may excel in exams but often lack application-based skills required for employment or real-life problem-solving.

### 5.3 Global Perspectives on CBE-

In the USA, many states and schools have implemented CBE frameworks emphasizing mastery learning, portfolios, and skill assessments **(Le et al., 2014).** Finland incorporates competency-based approaches within a highly flexible curriculum to nurture critical thinking and creativity. Singapore emphasizes competency frameworks that link academic knowledge with practical skills for workforce readiness. These global examples indicate that CBE enhances engagement, skill mastery, and readiness for real-world challenges.

### 5.4 Competency-Based Education in India-

NEP 2020 explicitly promotes competency-based learning to make education more holistic, flexible, and skill-oriented. CBSE has introduced competency-based questions in board examinations, requiring application, analysis, and problem-solving. **NCERT (2021)** suggests that CBE in Indian schools can develop critical thinking, collaboration, digital literacy, and socio-emotional skills. **Kumar & Singh (2022)** highlight challenges, including teacher preparedness, curriculum adaptation, and infrastructural limitations in implementing CBE in Indian classrooms.

## 6. Comparative Studies: Traditional vs. Competency-Based Approaches

Studies show that CBE improves student engagement, problem-solving, and creativity, while traditional methods are better for foundational knowledge retention **(Sharma, 2021; Patrick & Sturgis, 2015).** Indian studies reveal that students exposed to activity-based learning and CBE-oriented tasks perform better in critical thinking and application-based assessments. Teachers' perceptions indicate that transitioning from traditional to CBE requires professional development, technological support, and curriculum redesign.

## 7. Research Gap:

While global and Indian studies highlight the benefits of competency-based approaches, there is limited empirical research in India comparing traditional and CBE approaches in terms of pedagogy, assessment, and student outcomes. Most studies are either theoretical or limited to case studies in private schools. There is a need for a comparative study across different school types to inform NEP 2020 implementation and curriculum reforms.

## 8. Research Question:

**8.1** What are the major differences between traditional and competency-based education approaches?

**8.2** How does CBE influence student learning outcomes compared to traditional methods?

**8.3** What are the challenges and opportunities in implementing CBE in India?

## 9. Significance of the Study:

- This study contributes to both theory and practice by:
- Providing a comparative framework for analyzing educational models.
- Offering empirical evidence on the effectiveness of CBE in enhancing 21st-century skills.
- Guiding policymakers, curriculum designers, and teachers in integrating CBE into the Indian education system.
- Supporting NEP 2020 implementation through practical insights.

## 10. Research Methodology:

**10.1 Research Design-** The study adopts a comparative research design using a mixed-method approach. Both qualitative and quantitative data were collected to compare traditional and competency-based education.

**10.2 Population and Sample-**

**Population:** Higher secondary school students (classes XI–XII), undergraduate students, and teachers.

**Sample Size:** 200 students and 20 teachers from government and private institutions in India.

**Sampling Technique:** Stratified random sampling (to ensure representation across streams and institutions).

**10.3 Tools of Data Collection-**

**Questionnaire:** Likert-scale items on teaching methods, assessment, student motivation, and learning outcomes.

**Interviews:** Semi-structured interviews with teachers and curriculum developers.

**Document Analysis:** Review of CBSE's competency-based curriculum framework and traditional syllabi.

## 11. Data Analysis:

**11.1 Quantitative Data**: Descriptive statistics, t-test, and ANOVA were applied using SPSS to compare outcomes.

**11.2 Qualitative Data:** Thematic analysis was conducted on interview responses to identify perceptions and challenges.

**11.3 Ethical Considerations:**

- Informed consent was obtained from all participants.
- Responses were kept anonymous.
- Data was used solely for academic purposes.

**11.4 Case Study (Indian Context – NEP 2020 & CBSE Initiative):**

**Case: CBSE's Competency-Based Question Papers (2020–2024)-** The Central Board of Secondary Education (CBSE), following NEP 2020, introduced competency-based questions in class X and XII examinations. These questions require application, analysis, and problem-solving instead of rote memorization.

**Findings from the Case:**

- Students initially struggled but gradually adapted to analytical questions.
- Teachers reported difficulty in designing competency-based assessments due to lack of training.
- Students from private schools adjusted faster due to better exposure to activity-based learning.
- Government schools showed slower adaptation due to limited infrastructure.

This case reflects both the potential and challenges of adopting competency-based approaches in India.

## 12. Findings & Conclusion:

- Traditional Approach: Ensures discipline, structured learning, and memorization but limits creativity and problem-solving.
- Competency-Based Approach: Promotes higher-order thinking, application of knowledge, and flexibility, but requires strong teacher training and systemic reforms.
- Students under CBE reported higher engagement, better retention, and improved critical thinking skills.
- Teachers expressed concerns about workload, lack of resources, and alignment with existing exam patterns.

**Conclusion-**

Competency-Based Education represents a paradigm shift from rote learning to meaningful, application-based learning. While traditional education has merits in building foundational knowledge, it fails to fully equip students with 21st-century competencies. A blended model, combining traditional structure with CBE's outcome-oriented pedagogy, is best suited for India's diverse education system.

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