



Effectiveness Of Blended Learning For Course Outcomes Attainment Of B. Ed. Program

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Abstract: The present study has been conducted to evaluate the effectiveness of blended learning with respect to attainment of course outcomes in B.Ed. Program. The purpose of this study is to examine an effectiveness of blended learning for outcome program learning. Specifically, this study examines whether blended learning is as effective instructional tool as conventional Learning in teaching learning process. This Quasi -experimental study compared the performance of two groups of students, one using the blended learning and other using the conventional Learning for attainment of course outcomes in B.Ed. Program. The students were compared on the basis of their skills .The achievement scores were measured, after the pre and the post-treatment. The study shows that blended learning is more effective for attainment of understanding, developing and analyzing level of course outcome then conventional Learning but not effective for creating and evaluating level of course outcomes. These findings indicate that blended learning have significant effective on basic level of attainment of course outcomes in B.Ed. Program.

Index Terms - Blended Learning, Outcome Program, Course Outcomes

I. INTRODUCTION

The National Education Policy 2020 (NEP-20), which has served as a catalyst for redefining the conventional norms of pedagogy, embracing technology, and fostering an inclusive and flexible learning environment. The convergence of virtual and blended learning within NEP-20 signifies a departure from traditional chalk-and-talk methodologies towards a dynamic, learner-centric approach that transcends geographical barriers, promotes personalized learning experiences, and augments accessibility to education. NEP-20's overarching vision of inclusivity and accessibility in education aligns seamlessly with the transformative potential of virtual and blended learning. These modalities have emerged as powerful tools to bridge the educational divide, offering opportunities for learners from diverse socio-economic backgrounds, rural areas, and marginalized communities to access quality education.

1.1 Theoretical Framework of Study

In India, converges with the policy objectives of fostering holistic development, innovation, and global competitiveness among students. The theoretical underpinnings of blended learning in India draw from pedagogical theories such as constructivism, where learners actively construct knowledge through experiences and interactions. Blended learning environments facilitate this by offering a spectrum of learning opportunities, encouraging active participation, collaboration, and critical thinking. Additionally, theories of technology-enhanced learning, cognitive load theory, and social learning theories contribute to shaping the framework of blended learning in India, guiding the integration of technology into pedagogical practices and optimizing learning experiences.

Furthermore, the NEP 2020's emphasis on flexibility and learner-centric education resonates with the adaptive nature of blended learning. This pedagogical approach allows for personalized learning pathways, catering to individual learning styles and preferences while promoting skill development aligned with 21st-century demands. In essence, the concept of blended learning encapsulates a dynamic fusion of traditional and digital educational paradigms. Its theoretical framework in India integrates pedagogical theories, technological advancements, and policy directives, envisioning an educational landscape that is responsive, inclusive, and geared towards nurturing well-rounded, adaptable, and competent learners.

1.3 Blended Learning Technology

Blended learning technology encompasses various components and hardware that facilitate the integration of online and in-person learning experiences. These components serve to create an interactive and engaging educational environment for students. Blended learning, a pedagogical approach gaining prominence, seamlessly merges traditional face-to-face instruction with the dynamic opportunities afforded by online learning. This hybrid model represents a harmonious fusion, leveraging the strengths of both methodologies to create a holistic educational experience that accommodates diverse learning styles, maximizes engagement, and fosters deeper comprehension. At its core, blended learning seeks to capitalize on the advantages of in-person interaction while harnessing the flexibility and accessibility offered by digital resources. The traditional classroom setting provides invaluable opportunities for direct teacher-student interaction, immediate feedback, and collaborative activities. Through face-to-face sessions, educators can cultivate personal connections, address individual concerns, and facilitate hands-on learning experiences, fostering a supportive environment conducive to active participation and social interaction. These platforms provide flexibility in accessing content, allowing students to revisit materials at their own pace, catering to diverse learning speeds and preferences. Multimedia elements such as videos, interactive simulations, and gamified learning modules enhance engagement and cater to varied learning styles, making complex concepts more accessible and stimulating.

1.4 Outcome Based Program Learning

Outcome-Based Learning is an educational approach centered around defining specific learning outcomes or objectives that students should achieve by the end of a course or program. Unlike traditional education, which often focuses on content coverage, OBE emphasizes what students should be able to do or demonstrate after completing their studies. In an outcome-based program, educators begin by clearly defining measurable and achievable learning outcomes. Program and Course Outcomes are fundamental components of Outcome-Based Program (OBP), designed to articulate the specific knowledge, skills, abilities, and attitudes that learners are expected to attain by the end of a program or course.

a. **Program Outcomes (POs):**

Program Outcomes define the overarching learning objectives of an entire academic program. They encapsulate the comprehensive set of skills and knowledge that students are expected to acquire by the time they complete the program.

b. **Course Outcomes (COs):**

Course Outcomes delineate the specific learning objectives for individual courses within a program. They are more granular and targeted, focusing on the knowledge and skills students should acquire from each course. Program and Course Outcomes form the foundation of an Outcome-Based Education framework, providing clarity and direction for curriculum design, teaching strategies, and assessment practices. They ensure that educational objectives are explicit, measurable, and aligned with the expectations of stakeholders, fostering the holistic development of learners throughout their academic journey. Properly formulated and executed, POs and COs enhance the quality and relevance of education by emphasizing the acquisition of specific competencies necessary for success in academic, professional, and societal contexts.

1.5 Significance of Course Outcome of B.Ed. Program

In the field of education, the significance of Course Outcomes (COs) within a Bachelor of Education (B.Ed.) program extends far beyond a mere checklist of academic objectives. Instead, COs serve as the foundational pillars that uphold the quality, relevance, and efficacy of educator preparation. The B.Ed. program's COs delineate the specific competencies, skills, and knowledge that aspiring teachers are expected to acquire and demonstrate upon completion of their studies. These outcomes are meticulously crafted to encompass a multifaceted spectrum, ranging from pedagogical expertise and content knowledge to the cultivation of critical thinking, communication skills, and socio-emotional intelligence. **Garcia, & Martinez, (2019)** conducted a study on Evaluating the Impact of Outcome-Based Assessment in Nursing Curricula and **Smith & Johnson (2021)** and **, Muhammad , Vaz , Ahmed & Sadiq(2021)** conducted similar study on Outcome Based Education " the analysis of these studies indicated that qualitative feedback highlighted the perceived value of clearly defined learning outcomes, aiding students in understanding the relevance of their education to real-world contexts and enhancing their problem-solving abilities. In other hand **Wang (2018) , Lee & Park, S. (2017)** indicating a need for continued emphasis on practical skill development within curricula. **Brown, (2020)** identified key challenges in implementing outcome-based programs in higher education and after Qualitative analysis underscored that resistance stemmed from a lack of clarity in defining outcomes, suggesting a need for better communication and training to overcome implementation barriers. The findings of these studies, many times, are based on different parameters under study. The concept of outcome based program learning employed in these studies is also altogether different. Therefore, it is not being possible to arrive at some kind of generalization based on the review of these studies. There are no strong studies undertaken in India with reference of B.Ed. Program. In this context to study the various dimension of blended learning, such as outcomes attainments and achievement are main focus of this study.

1.6 Objectives of the Study

To find out effectiveness of blended learning for B.Ed. program in terms of course outcomes attainments.

2.0 Research Design of the Study

The present study aimed at examining the effectiveness of the blended learning on the attainment of outcomes of program. The effect of blended learning was evaluated in term of outcomes attainments through end semester evaluation process. To achieve these objectives an experimental design is selected. Selection of experimental design was based upon the purpose of the study, the type of variables to be controlled and the condition or limiting factors under which it may be conducted. The essential condition of a true experimental design was that of random selection of subject to form equivalent control group design. This is the most wide spread experimental design, which is used in educational research. The experiment was in the form of blended learning method while the control group was real face to face class .In experimental design pre-posttest was employed.

2.1 The Sample

For conducting the present study keeping in view the school selection for the purposive sampling has been used. Sample of the study consisted of B.Ed. students of 07 NCTE approved college of Bihar. These colleges were identified looking to the availability of equipped real classes, computer lab and willingness of management and staff for allowing to blended learning mode. From the selected colleges of Begusaray district of Bihar of purposive sampling of students was done from the available students studying in academic year 2021.

3.0 Findings, Analysis and Discussion

objectives of the study are to access the effectiveness of the blended learning for outcome based program learning, it is in this context it was felt necessity to design a tool i.e. matrix of mapping. Program outcomes and course outcomes matrix is essential to map attainment of outcomes of course in program.

The conclusion and discussion emerged from the present study have been presented in following table and graph.

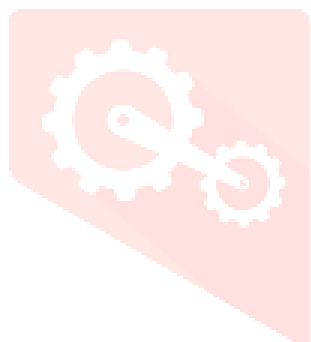
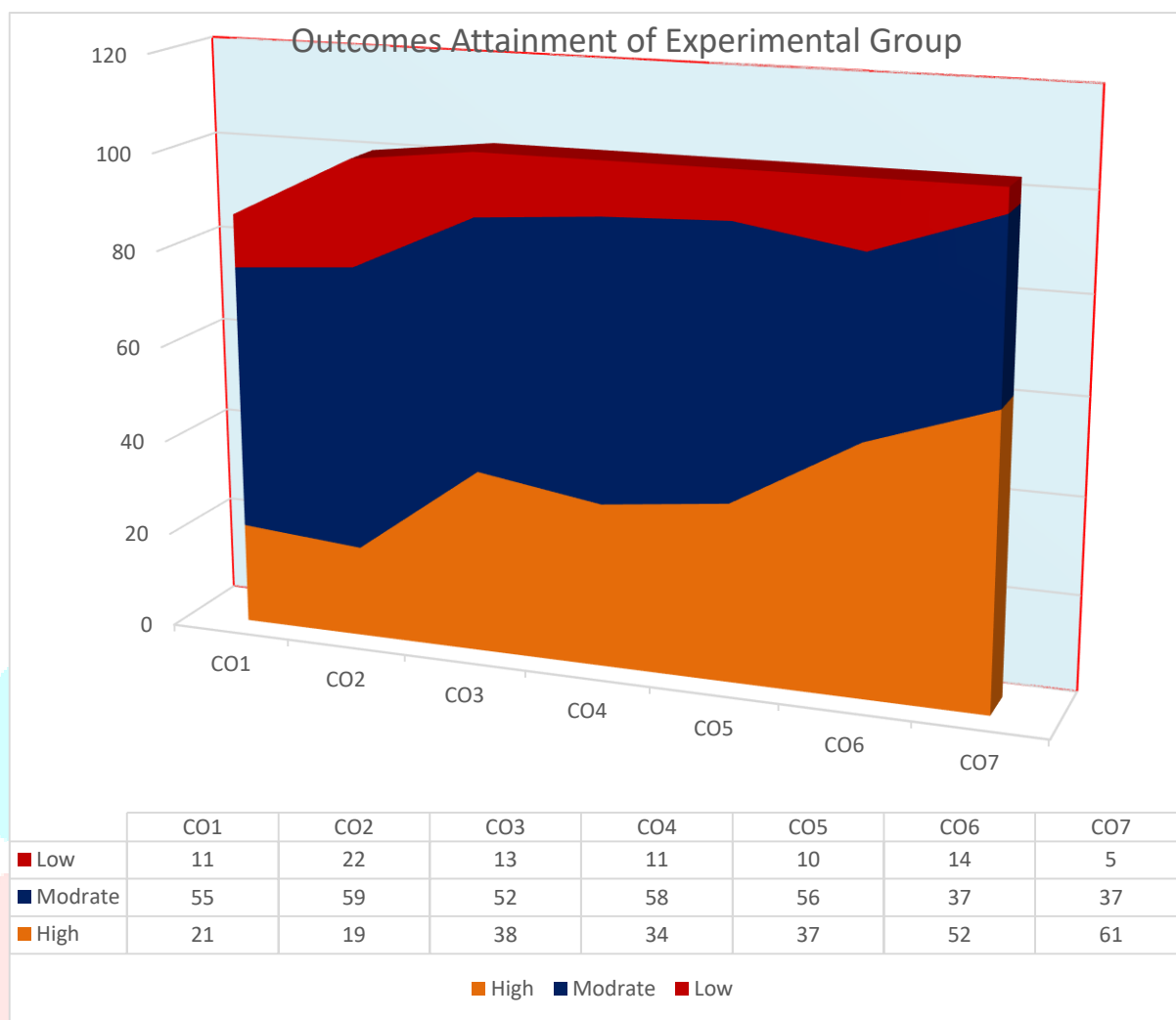


TABLE 1.1

Outcome Attainment Mapping Matrix		
S. No.	Bloom's Taxonomy Level	Course Outcome
CO1	Creating	Design inclusive teaching practices to accommodate diverse linguistic backgrounds
CO2	Creating	Create sensitivity to language diversity in the classroom
CO3	Evaluating	Evaluate functions of language and its use as a tool
CO4	Analysing	Analyse reading comprehension and writing in content areas
CO5	Developing	Develop strategies for using oral language in the classroom
CO6	Understanding	Explain Theories related to language acquisition deficits
CO7	Knowledge	Examine language usage across the curriculum and society



GRAPH- 1.2

Outcome Attainment Mapping Chart of Experimental Group

On the basis of above graph we can infer that though overall 50% of the attainment were affirmative, but blended learning is better for attainment level of understanding skills with average 52% high attainment in comparison to 38 -40% for attainment of analyzing and developing level of course outcomes. Under this objective the researcher analyzed the level of attainment of formulated course outcome of B.Ed. Program, which are learned by the blended learning. The study shows that blended learning is more effective for attainment of understanding, developing and analyzing level of course outcome then conventional Learning but not effective for creating and evaluating level of course outcomes. These findings indicate that blended learning have significant effective on basic level of attainment of course outcomes in B.Ed. Program. The findings of this study pave the way for future implementations and offer valuable insights for educators and institutions seeking to enhance language learning outcomes through blended learning. Several recommendations and suggestions emerge from the study's outcomes, providing a roadmap for effective future implementations. The dynamic and interactive nature of blended learning environments proves instrumental in bridging gaps among language learners and promoting inclusivity. Moreover, the research suggests that

future implementations should focus on diverse blended learning models, explore the long-term impact and sustainability of such initiatives, adapt strategies to different academic disciplines, incorporate adaptive learning technologies, and investigate the role of student engagement and motivation. These recommendations provide a comprehensive framework for future research, emphasizing the need for a nuanced and adaptable approach to maximize the benefits of blended learning in outcome-based programs. At the same time, the qualitative research has uncovered several issues not explored by the quantitative research.

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