

Time for Attitudinal Change and Critical Thinking: Implementing Blended Learning in an Indian Elementary Classroom

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ABSTRACT

The main purpose of this empirical study was to investigate the effects of blended learning on students' learning attitude and critical thinking. Secondly to probe into teachers' perceptions on blending potentials in an underprivileged elementary classroom, a design study was conducted among 50 children from a fifth standard class of a government-run Indian elementary school. Findings revealed a significant difference in students' learning attitude towards the designed courses between the two cycles, in favour of the post blended implantation stage. This difference, which emerged during 10 weeks, was found gender-neutral. The blended model was more effective for inspiring students' critical thinking compared to the traditional learning model. Further, this study exclusively reports a positive correlation between students' learning attitude and critical thinking faculties. The study concludes that blending was more effective for students' learning attitudes and critical thinking even in a school with poor technological infrastructure and underprepared yet willing teachers.

KEYWORDS

Attitudinal Change, Blended Learning, Critical Thinking, Elementary Education, India, Learning Attitude

INTRODUCTION

Time changes leaving behind reasons to change our thoughts and approaches. The earlier behaviouristic or cognitivist learning thoughts have been facing severe hurdles that made us think towards constructivism with new hopes. Fast-changing technologies have forced educational institutions globally to rethink the way they deliver lessons, cater to rising student numbers respecting their individuality, and flame their inborn potentials (Bates, 2015). Based on this constructivist approach e-learning, hybrid learning, and blended learning methods have evolved and gained traction. The limitations and inabilities of traditional teaching strategies and methods to keep pace with these changes, given the changing role of both teacher and student (Kundu, 2018). Besides their global obligations that every nation has pledged like SDG-4 (UNESCO) to implement to ensure inclusive and equitable quality education and promote lifelong learning opportunities for all. Pushed by these sentiments of change India has expressed a dramatic motif to change through its National Education Policy (NEP-2020) leaving behind its earlier hesitations on technology adoption and changing roles of teachers (Kundu & Bej, 2021). The authors also noted this country has emotionally moved to embrace

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educational technology at all levels starting from elementary to the universities through a pre-planned to be transformed physically and psychologically. Recently the country has experienced a skeletal picture of online learning during the COVID-19 pandemic and prolonged school closures (Kundu & Bej, 2020). Insufficiencies were evident throughout. Insufficiencies of device, skills, and attitudes-the three major pillars of technology adoption (Mukhopadhyay, 2020). But we can't stop or lose ourselves in desperations rather we need to question ourselves. How far our grass-root level establishments are ready for the incremental change? How technological adoption has been effective to our majority yet marginal schools? This research has been a calculative move towards this direction that went to find out answers to these development questions whether BL is effective for Indian classrooms putting an incremental effect on students learning attitude and critical thinking (henceforth CT).

BLENDING CONVEYS PROGRESSIVE CONVERGENCE

Dissatisfaction is the root of any human invention. Blended Learning (BL) is a natural outcome of this dissatisfaction with the two archetypal learning environments - the traditional face-to-face (F2F) learning environment, and the computer-mediated distributed learning environment. Both these environments had their inherent strengths and weaknesses (Kundu, 2018). While humane and spontaneity are strongholds with the first one, the second one came up with a new vision of flexibility and depth of reflection where the first environments cut a sorry figure. Garrison & Vaughan (2008, p.5) defined blended learning as "the thoughtful fusion of face-to-face and online learning experiences". The simplest definition of BL as asserted in Cleveland-Innes & Wilton (2018) is the use of traditional classroom teaching methods together with the use of online learning for the same students studying the same content in the same course.

Graham (2006) found its appearance not accidental rather a clear line of progressive convergence is clear. In the past, both environments operated separately as the authors presented here in Fig.1. But as time passed by technological miracles started taking human attentions over the past half-centuries especially with the proliferation of computers, the internet, www, and ICT, computer-mediated distributed learning started intruding into whole instructional terrain over all four dimensions- time, space, human, and fidelity. Today online learning or e-learning has taken up a considerable portion of classroom instruction especially after the COVID-19 pandemic (Kundu & Bej, 2021).

Blending Rationales

The blending of two environments as Kundu, Bej, & Dey (2021) sum up ensures increased access, autonomy, knowledge creation, added flexibility, increased cost-effectiveness, greater reflection, greater attention to learners' individuality, greater human connection, and improved pedagogy. The theoretical lineage of BL could be found in the Community of Inquiry (CoI) Model introduced by Garrison, Anderson & Archer (1999) grounded in John Dewey's (1938) view of practical inquiry to address a shared issue, to support critical thinking, critical inquiry, and discourse among students and teachers. The CoI framework (see Fig. 2) highlights social presence, teaching presence, and cognitive presence as essential elements to facilitate successful educational experiences (Shea & Bidjerano, 2012). It can help teachers blending online and offline work to cultivate a blended classroom characterized by respect, dialogue, inquiry, self-directedness, and exploration (Pool, Reitsma, & van den Berg, 2017). Osguthorpe & Graham (2003) identified six rationales that one might choose to design or use a blended learning system: pedagogical richness, access to knowledge, social interaction, personal agency, cost-effectiveness, and ease of revision. For Graham (2006, p.6), the most common reason for adopting blended learning is that "BL combines the best of both worlds". Graham, Allen, & Ure (2005) stated that people choose blended learning for improved pedagogy, increased access and flexibility, and cost-effectiveness. Kundu, Bej, & Dey (2021) have found BL effective in enhancing students' engagement and achievement. But does BL affect students' attitude and creativity in an unfamiliar setting?

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