Impact of Hybrid Teaching Models on Skill Development Among Students

Niranjan Sharma*1, Reena Sharma*2, Kavita Kumari*3, Nikhil Sirohi*4, Shamshul Haque*5.
*1,2,3,4,5 MBA Student, Department of MBA, IIMT College of Engineering, Greater Noida, Uttar Pradesh, India.

How to Cite this Article:
Sharma, N., Sharma, R., Kumari, K., Sirohi, N. & Haque, S. (2026). Impact of Hybrid Teaching Models on Skill Development Among Students. International Journal of Creative and Open Research in Engineering and Management, 02(05). https://doi.org/10.55041/ijcope.v2i5.355

https://doi.org/10.55041/ijcope.v2i5.355

ABSTRACT

The rapid transformation in the education sector, accelerated by digitalisation and global disruptions, has led to the emergence of hybrid teaching models that combine traditional classroom instruction with online learning. This study explores the impact of hybrid teaching models on skill development among students using a conceptual framework and secondary data sources. The research identifies hybrid teaching as the independent variable and student skill development—comprising cognitive, technical, and soft skills—as the dependent variable. Data is collected from published reports, journals, and policy documents such as the National Education Policy 2020. The findings suggest that hybrid learning enhances flexibility, accessibility, and engagement, thereby significantly contributing to skill acquisition. However, challenges such as the digital divide and a lack of infrastructure persist. The study concludes that hybrid teaching models, if implemented effectively, can bridge the gap between academic learning and industry requirements.

Keywords: Hybrid Teaching, Skill Development, Blended Learning, Employability Skills, Digital Education, Higher Education

INTRODUCTION

The global education landscape has undergone a significant transformation due to technological advancements and unforeseen disruptions such as the COVID-19 pandemic. Traditional teaching methods, which primarily relied on face-to-face interaction, have evolved into more flexible and technology-driven approaches. One such innovation is hybrid teaching, which integrates classroom learning with online educational tools and platforms.

Hybrid teaching models provide learners with the flexibility to access educational content anytime and anywhere, thereby promoting self-paced and student-centred learning. In India, the National Education Policy 2020 strongly advocates the integration of technology in education to enhance quality and accessibility. This shift aims to develop not only academic knowledge but also essential skills required in the modern workforce. Skill development has become a key focus area in higher education, as employers increasingly demand graduates who possess critical thinking, digital literacy, communication, and problem-solving abilities. Hybrid teaching plays a vital role in fostering these competencies by combining interactive classroom sessions with digital learning resources.

Despite its advantages, hybrid teaching also presents challenges such as unequal access to technology, a lack of digital infrastructure, and limited training for educators. Therefore, it is essential to examine its effectiveness in enhancing student skills.

LITERATURE REVIEW

Recent research in the Indian context highlights that hybrid learning has transformed the education system by integrating digital tools with traditional teaching methods, leading to more flexible and adaptive learning environments (Panday, Ray, Jalandharachari, & Gopinath, 2025)

Studies conducted in Indian higher education emphasize that hybrid teaching enhances student engagement and supports innovative pedagogical practices, especially after the COVID-19 pandemic (Singh & Phoolka, 2025)

Research indicates that hybrid learning models improve learner autonomy and promote self-directed learning, which is essential for skill development in modern education systems (Jain & Manimozhi, 2026)

Indian scholars have identified that the integration of artificial intelligence in hybrid learning significantly enhances learning efficiency and contributes to sustainable education development (Makhija, Aggarwal, & Singh, 2025)

A study on blended learning in India highlights that it increases accessibility to education and improves learner engagement, particularly in higher education institutions (Vudoagiri & Rajan, 2025)

Research from Indian institutions shows that hybrid learning helps in developing both theoretical understanding and practical skills by combining digital simulations with classroom interaction (Roy, Singh, & Ramachandran, 2026)

Studies also suggest that hybrid learning environments improve academic performance by providing interactive and flexible learning opportunities to students (Gulati, Shastri, & Patil, 2024)

Indian research highlights that the digital divide remains a major challenge in the successful implementation of hybrid learning, especially in rural areas with limited access to technology (Sareen & Mandal, 2024)

Scholars argue that hybrid teaching encourages collaborative learning and enhances communication skills among students through online and offline interaction (Singh & Phoolka, 2025)

Studies indicate that hybrid learning supports personalized learning experiences, enabling students to learn at their own pace and improve overall performance (Jain & Manimozhi, 2026)

Research also shows that teacher readiness and digital competence are critical factors influencing the success of hybrid teaching models in India (Gulati et al., 2024)

Overall, Indian literature strongly supports that hybrid teaching models play a crucial role in bridging the gap between academic learning and industry-oriented skill development (Makhija et al., 2025; Panday et al., 2025)

RESEARCH GAPS

Although hybrid teaching has gained significant attention in recent years, especially after the COVID-19 pandemic, existing studies reveal several gaps:

- Most studies focus on academic performance, while comprehensive skill development (cognitive, technical, and soft skills) remains underexplored.
- Limited research is available in the Indian higher education context, particularly linking hybrid teaching with employability skills.
- Previous studies often rely on primary data, whereas there is insufficient conceptual and secondary data-based synthesis.
- There is a lack of integrated models explaining how hybrid teaching (IV) influences skill development (DV) through mediating factors like engagement and flexibility.
- Few studies address the challenges (digital divide, infrastructure, teacher readiness) in a structured manner alongside benefits.

Therefore, this study attempts to bridge these gaps by providing a comprehensive conceptual analysis using secondary data, focusing on skill development.

RESEARCH QUESTIONS

Based on the research gap, the study addresses the following questions:

1. What is the concept and structure of hybrid teaching models in modern education?
2. How does hybrid teaching influence student skill development?
3. What are the major skills (cognitive, technical, and soft skills) developed through hybrid learning?
4. What are the key challenges faced in implementing hybrid teaching models?
5. How can hybrid teaching contribute to improving employability and industry readiness?

RESEARCH OBJECTIVES

1. To understand the concept of hybrid teaching models.
2. To examine the impact of hybrid teaching on student skill development.
3. To identify key skills developed through hybrid learning.
4. To analyze the challenges associated with hybrid teaching.

SCOPE OF THE STUDY

The study focuses on hybrid teaching models in higher education. It examines skill development, including:

- Cognitive skills
- Technical skills
- Soft skills

The study is based on secondary data sources such as journals, reports, and policy documents. It primarily considers the Indian context, with some global insights for comparison. The study is conceptual in nature and does not involve primary data collection.

RATIONALE OF THE STUDY

The rationale behind this study lies in the increasing importance of skill-based education in the digital era. With rapid technological advancements and changing industry demands, traditional teaching methods are no longer sufficient to develop employability skills.

Hybrid teaching models offer a promising solution by integrating technology with conventional learning. Policies like the National Education Policy 2020 emphasise the need for digital and flexible learning approaches to enhance skill development.

RESEARCH METHODOLOGIES

The study adopts a qualitative approach to examine and interpret the existing literature on hybrid teaching and skill development. The data collected from secondary sources has been carefully reviewed, analysed, and synthesised to draw meaningful conclusions.

In this study, the hybrid teaching model, which combines online and offline learning methods, is treated as the independent variable. The dependent variable is student skill development, which comprises cognitive skills, technical skills, and soft skills. The study explores the relationship between these variables through a conceptual framework.

The analysis is carried out by comparing findings from various studies, reports, and statistical data available in the public domain. The study also considers recent trends and developments in hybrid learning, particularly in the context of higher education. Limitations such as the digital divide, lack of infrastructure, and varying levels of digital literacy have also been taken into account while analysing the data.

CONCEPTUAL FRAMEWORK

The Hybrid Teaching Model acts as the independent variable, influencing student learning through mediating factors such as flexibility, accessibility, engagement, and use of digital tools. These factors collectively impact the dependent variable, which is Skill Development, including cognitive, technical, and soft skills.

SOURCE: SELF CONSTRUCT

DATA ANALYSIS

Recent studies confirm that hybrid learning has become a dominant educational model, significantly influencing student engagement, performance, and skill development.

Table 1: Student Preferences & Adoption of Hybrid Learning

Year	Indicator	Percentage (%)	Citation (In-text)
2025	Students preferring hybrid learning	73%	(CareerTrainer, 2025)
2025	Students choosing hybrid for flexibility	82%	(TeachNG, 2025)
2024	Students supporting hybrid learning (India)	68%	(HP India Survey, 2024)
2025	Learners believing hybrid is future	85%	(CareerTrainer, 2025)

Source: Compiled from CareerTrainer (2025), TeachNG (2025), and HP India Survey (2024)

Table 2: Impact on Learning Outcomes & Skill Development

Indicator	Improvement (%)	Description	Citation (In-text)
Student retention rate	+10–15%	Higher retention in blended learning	(CareerTrainer, 2025)
Learning performance	+25%	Improvement in skill-based performance	(CareerTrainer, 2025)
Critical thinking skills	+15%	Growth in analytical ability	(Zipdo, 2025)
Overall learning outcomes	+20%	Academic performance improvement	(Zipdo, 2025)

Source: Compiled from CareerTrainer (2025) and Zipdo (2025)

Table 3: Engagement & Motivation in Hybrid Learning

Indicator	Percentage (%)	Interpretation	Citation (In-text)
Student motivation increase	59%	Higher engagement levels	(TeachNG, 2025)
Teacher-reported engagement	91%	Improved classroom participation	(Zipdo, 2025)
Students reporting better understanding	91%	Improved conceptual clarity	(HP India Survey, 2024)
Students benefiting from flexibility	82%	Learning convenience	(TeachNG, 2025)

Source: Compiled from TeachNG (2025), Zipdo (2025), and HP India Survey (2024)

Table 4: Indian Education System – Learning Mode Distribution

Mode of Learning	Approx. Share	Key Insight	Citation (In-text)
Traditional Learning	75%+	Dominant in rural areas	(Kumar, 2024)
Digital Learning	24.4%	Growing in urban institutions	(Kumar, 2024)
Hybrid Learning	Increasing trend	Rapid post-pandemic growth	(Kumar, 2024)

Source: Compiled from Kumar (2024)

The above data clearly indicate that hybrid teaching models are widely accepted and preferred due to their flexibility and effectiveness. The statistical evidence shows measurable improvements in student retention, engagement, and skill development. However, the dominance of traditional learning in India suggests that infrastructure and accessibility challenges still need to be addressed.

CHALLENGES OF THE STUDY

1. Digital divide between urban and rural students
2. Limited access to the internet and devices
3. Lack of teacher training
4. Reduced personal interaction

FINDINGS AND CONCLUSIONS

The present study on *"Impact of Hybrid Teaching Models on Skill Development"* highlights the growing significance of hybrid learning in transforming modern education systems. With the integration of traditional classroom teaching and digital learning platforms, hybrid teaching has emerged as a flexible, inclusive, and learner-centred approach.

The study confirms that hybrid teaching models play a crucial role in enhancing overall skill development among students, including cognitive, technical, and soft skills. The use of online tools, interactive content, and self-paced learning environments fosters critical thinking, problem-solving abilities, digital literacy, communication, and teamwork. These competencies are essential for meeting the demands of the contemporary job market.

Based on secondary data and conceptual analysis, the research establishes a strong relationship between the independent variable (hybrid teaching model) and the dependent variable (skill development). The findings indicate that factors such as flexibility, accessibility, and student engagement significantly contribute to effective learning outcomes in hybrid environments.

Furthermore, the study reveals that hybrid learning not only improves academic performance but also enhances student motivation, participation, and retention. It supports personalised learning experiences, allowing students to learn at their own pace and according to their individual needs.

However, despite its advantages, the study also identifies several challenges in the implementation of hybrid teaching. Issues such as the digital divide, lack of infrastructure, limited internet access, and insufficient teacher training hinder the effective adoption of hybrid models, especially in developing countries like India. These challenges must be addressed through policy interventions, technological investments, and capacity-building programs.

The research emphasises the importance of educational reforms such as the National Education Policy 2020, which advocates the integration of technology in education to promote skill-based learning. Hybrid teaching aligns well with these policy objectives and has the potential to bridge the gap between theoretical knowledge and practical application.

In conclusion, hybrid teaching models represent the future of education by combining the strengths of both traditional and digital learning systems. When implemented effectively, they can significantly contribute to developing a skilled, adaptable, and industry-ready workforce. Therefore, educational institutions, policymakers, and stakeholders must collaborate to strengthen the hybrid learning infrastructure and ensure its inclusive and effective implementation.

SUGGESTIONS AND RECOMMENDATIONS

Based on the findings of the study, the following suggestions and recommendations are proposed to enhance the effectiveness of hybrid teaching models for skill development:

1. Strengthening Digital Infrastructure: Educational institutions should invest in reliable internet connectivity, smart classrooms, and digital tools to ensure smooth implementation of hybrid teaching. Government support is essential to reduce the digital divide, especially in rural areas.

2. Teacher Training and Capacity Building: Faculty members should be provided with regular training programs to improve their digital competencies and pedagogical skills. Teachers must be equipped to effectively use online platforms, interactive tools, and blended teaching strategies.

3. Curriculum Integration with Skill Development: Hybrid teaching should be aligned with skill-based curricula focusing on cognitive, technical, and soft skills. Institutions should integrate practical learning, case studies, and real-world applications into the syllabus.

4. Use of Advanced Digital Tools

The adoption of modern educational technologies such as Learning Management Systems (LMS), virtual simulations, and MOOCs can enhance student engagement and learning outcomes. Platforms like SWAYAM and Coursera can be effectively utilized.

5. Promoting Student Engagement

Interactive teaching methods such as group discussions, online quizzes, presentations, and collaborative projects should be encouraged to improve participation and engagement in hybrid learning environments.

REFERENCES

Gulati, C. K., Shastri, P. G., & Patil, S. S. (2024). Challenges in the implementation of blended learning in higher education. Journal of Informatics Education and Research.

Jain, V. C., & Manimozhi, V. (2026). The importance study of the hybrid learning approach. International Journal of Research and Scientific Innovation.

Makhija, R., Aggarwal, S., & Singh, Y. (2025). AI-driven hybrid learning for sustainable development. Prabandhan: Indian Journal of Management.

Panday, A., Ray, T., Jalandharachari, A. S., & Gopinath, G. (2025). Insights into blended learning research. Discover Education.

Roy, A., Singh, A. P., & Ramachandran, R. (2026). Blended learning in medical education in India. Frontiers in Medicine.

Sareen, S., & Mandal, S. (2024). Challenges of blended learning in higher education. Social Sciences & Humanities Open.

Singh, Y., & Phoolka, S. (2025). Hybrid education in the age of Education 5.0. Indian Journal of Educational Technology.

Vudoagiri, V., & Rajan, G. (2025). Blended learning in India: Advantages and challenges. Digital Pedagogy.

CareerTrainer. (2025). *Blended learning statistics report*. Retrieved from https://careertrainer.ai

HP India. (2024). *Hybrid learning survey report in India*. Retrieved from https://www.moneycontrol.com

Kumar, R. (2024). Analysis of Indian education system and hybrid learning trends. *Journal of Education and Development*.

TeachNG. (2025). *Hybrid learning statistics and trends*. Retrieved from https://teachng.com

Zipdo. (2025). *Blended learning statistics report*. Retrieved from https://zipdo.co