

Digital Pedagogy- Re-Engineering Teaching-Learning for Future Generation in Commerce Education

Dr. Dilshad Begum^{1*} | Hemanthkumar T V²

¹Associate Professor, Department of Commerce, Government College (Autonomous) Mandya, Mandya University, Mandya.

²Research Scholar, Mandya University, Mandya.

*Corresponding Author: dilshadbegum.mys@gmail.com

Citation: Begum, D., & T V, H. (2025). Digital Pedagogy- Re-Engineering Teaching-Learning for Future Generation in Commerce Education. *International Journal of Advanced Research in Commerce, Management & Social Science*, 08(04(I)), 177–181. [https://doi.org/10.62823/ijarcms/8.4\(i\).8206](https://doi.org/10.62823/ijarcms/8.4(i).8206)

ABSTRACT

This article presents the researchers' understanding the concept of digital pedagogy - re build the teaching-learning for future generations. From the several literature and studies, the researchers extracted the re-engineering teaching-learning for future generation in commerce education concept. It includes orientation, practices, and competencies. As understood, digital pedagogy orientation is the perceived orientation of the teachers and learners on the relative position of information and communication technology in the teaching-learning process for future generation in commerce education. Digital technologies in education promise optimal teaching and learning, but at the same time, they put a strain on education systems to adapt pedagogical strategies. The proposed digital pedagogy framework provides a foundation for modern education systems to accommodate advanced digital technologies for re-engineering teaching-learning models pedagogical approaches for future generation in commerce education. Purpose: This study provides Digital pedagogy-re-engineering teaching-learning for future generations and principles and Key strategies and methodologies on commerce education. Methodology: This study is analytical and descriptive research. The study has used secondary data. For collecting the Secondary data for the study has been collected from Google, Websites, books, journals and articles.

Keywords: Digital Pedagogy, Innovative Pedagogy, Digital Transformation, Technology-Enhanced Learning (TEL), Artificial Intelligence (AI), Commerce Education.

Introduction

Commerce has always been the backbone of economic growth and development in India. The landscape of commerce education is rapidly evolving in response to global changes in technology, business practices, and the economy. The future of commerce education will not only focus on core concepts like accounting, finance, and marketing, Here's a look at what the future holds for commerce education and the emerging trends that are reshaping it. To re-engineer teaching and learning for future generations in commerce education must shift from a content-centric to a learner-centric model that emphasizes adaptability, critical thinking, and collaboration which demand new skills that traditional methods cannot effectively cultivate, To re-engineer commerce education for future generations, the teaching-learning process must move from traditional, theoretical frameworks to dynamic, technology-integrated, and skill-centric models. This shift will equip students with the adaptability, critical thinking, and entrepreneurial mindset needed to thrive in a global and fast-changing business environment.

Review of Literature

Stahlke and Nyce (1996)¹, this article reviewed some selected literature in this area and develops a principled framework within which to think about reengineering teaching and learning in

* Copyright © 2025 by Author's and Licensed by Inspira. This is an open access article distributed under the Creative Commons Attribution License which permits unrestricted use, distribution, and reproduction in any medium, provided the original work properly cited.

higher education. **Deyasi et'al. (2020)**², authors stated that providing students access to digital media and learning tools (even to the extent of mobile apps) allows them to keep pace with innovations in learning technologies. **Nanjundaswamy et'al (2021)**³, authors revealed digital pedagogy is fundamental, now as the world moves towards digitalization in all fields. Innovation has impacted a ton of learning and improved advanced teaching methods, becoming an essential piece of the present world. **Cabanero et'al. (2022)**⁴, this article presents the researchers' understanding of the concept of digital pedagogy. From the numerous literature and studies the researchers extracted the emerging pedagogy concept. It includes orientation, practices, and competencies. **Huang et'al. (2024)**⁵, the study explored digital pedagogy framework provides a foundation for modern education systems to accommodate advanced digital technologies for sustainable digital transformation of education. **Jirage (2025)**⁶, the study examine the evolution of commerce in India, analyzing historical milestones and examining recent trends such as digitalization, e-commerce growth, sustainable trade practices, and the advent of block chain technology. The study provides challenges and opportunities insights into the future steps of Indian commerce and its role in global trade. **Begum(2025)**⁷, author tries to say that investigate how digitalization could set up in order to be a successfully digitalized education and to examine the demographic and other factors having that influence for an increase in the use of digital technologies in the field of education.

Research Gap

The gap in this study identified through literature survey, there is lack of research on to integrating and digital literacy in commerce education and re-engineered teaching-learning models and pedagogical approaches for future generations in commerce education, Based on several studies that have been conducted.

Objectives of the Study

- To study the concepts of Integrating technology and digital literacy in commerce education.
- To determine the core principles of re-engineered Teaching-learning for future generations.
- To Evaluate the Digital teaching-learning models and pedagogical approaches in Commerce education.

Hypotheses of the Study

Hypothesis 1

H0: There is no significant difference in the concepts of Integrating technology and digital literacy in commerce education.

H1: There is a significant difference in the concepts of Integrating technology and digital literacy in commerce education.

Hypothesis 2

H0: Technology integration does not have a significant impact on core principles of re-engineered Teaching-learning for future generations.

H1: Technology integration has a significant positive impact on core principles of re-engineered Teaching-learning for future generations.

Hypothesis 3

H0: Evaluation of Digital teaching-learning models and pedagogical approaches in Commerce education does not have a significant impact on teaching-learning process.

H1: Evaluation of Digital teaching-learning models and pedagogical approaches in Commerce education has a significant positive impact on teaching-learning process.

Significance of Study

The significant of study in various aspects of the re-engineering teaching-learning for future generation in commerce education. It includes orientation, practices, and competencies. As understood, digital pedagogy orientation is the perceived orientation of the teachers and learners on the relative position of information in the teaching-learning process for future generation in commerce education.

Research Methodology

This study is based on empirical research; the study has used both primary data and secondary data. For collecting the primary data, a structured questionnaire was distributed among the respondents. Secondary data for the study has been collected from Google, books, journals and articles. To meet

objectives of the study the well-designed 120 questionnaire to the measure the level of awareness of re-engineering teaching-learning for future generation in commerce education, questionnaire included demographic profile of respondents regarding the Digital pedagogy. The study analyzed by using F-Frequency; %-Percentage P-Probability and Chi-Square test.

Data Analysis and Interpretation

Table 1: Frequency Analysis for the personal information of respondents

Sl. No	Particulars	Classification	F	%	Test of Statistics
1	Gender	Male	58	43.3	$\chi^2 = 0.133$ critical value = $\chi^2 = 3.841$ p= 0.715 df = 1
		Female	62	51.6	
2	Age	20-30	32	27	$\chi^2 = 39.47$ critical value = $\chi^2 = 5.991$ p= 0.006 df = 2
		31-40	30	25	
		41-50	58	48	
3	Education	Graduation	18	15	$\chi^2 = 39.47$ critical value = $\chi^2 = 5.991$ p= 0.000 df = 2
		Post Graduation	70	58	
		PhD/Research Scholar	32	27	

Source: Primary Data χ^2 = Chi square, P-Probability, df =degree of freedom

Interpretation

The above table gives clear information: About the gender female respondents are more in number than male respondents. Age wise- respondents between 20-30years are 27%, 31-40years are 25%, 41-50years are 48%. Education- Post Graduates have more awareness about digital pedagogy i.e 58%.

- **Integrating technology and digital literacy in commerce education**

Integrating technology and digital literacy in commerce education involves using tools like e-learning platforms, simulations, and AI to enhance learning, provide hands-on experience, and develop critical skills such as data analysis and online communication. Effective integration requires educators to be trained, provide access to technology, teach digital citizenship, and offer practical, project-based learning to prepare students for the modern digital workforce.

Table 2: Analysis of Integrating technology and digital literacy in commerce education.

Statements	Chi-square	Critical value	df	Asymptotic Significance
Familiar with the concept of integrating technology in commerce education.	$\chi^2 = 13.87$	9.488	4	p= 0.007
Ever used digital tools or platforms in teaching/learning commerce subjects.	$\chi^2 = 22.06$	9.488	4	p= 0.000
Technology integration is essential for modern commerce education.	$\chi^2 = 6.60$	9.488	4	p= 0.158
Technology integration helps students to become more employable.	$\chi^2 = 7.07$	9.488	4	p= 0.132
Integrating digital tools enhances practical learning experiences in commerce.	$\chi^2 = 11.36$	9.488	4	p= 0.023
Current commerce curriculum adequately incorporates digital literacy and technology-based content.	$\chi^2 = 18.93$	9.488	4	p= 0.001

Source: Primary Data χ^2 = Chi square, P-Probability, df =degree of freedom

Interpretation

Out of six statements, four (1, 2, 5, and 6) are statistically significant ($\chi^2 > 9.488$, $p < 0.05$), indicating that respondents have a positive perception of technology integration in commerce education. Statements 3 and 4 are not significant, showing mixed views regarding its essentiality and employability benefits.

Result: Null hypothesis is rejected and alternative hypothesis is accepted. Hence, respondents display strong positive perception towards Integrating technology and digital literacy in commerce education, including enhancement of teaching-learning process.

- **Core principles of re-engineered Teaching- learning for future generation**

The core principles for re-engineered teaching and learning in commerce education for future generations center on shifting from rote memorization to a holistic, skills-based approach. This model emphasizes the integration of technology, real-world experience, and critical thinking to prepare students digital world.

Table 3: Analysis of Re-engineered Teaching- learning for future generation

Statements	Chi-square	Critical value	df	Asymptotic Significance
Familiar are you with the concept of re-engineered teaching learning.	$\chi^2 = 10.92$	9.488	4	p= 0.027
Promote creativity and critical thinking is important to re-engineer traditional teaching-learning systems.	$\chi^2 = 8.60$	9.488	4	p= 0.072
Principles are important in future-oriented education.	$\chi^2 = 18.20$	9.488	4	p= 0.001
Frequently are innovative or re-engineered teaching methods used in your institution.	$\chi^2 = 12.33$	9.488	4	p= 0.015
Re-engineered teaching-learning helps students develop real-world skills for the future.	$\chi^2 = 14.47$	9.488	4	p= 0.006
Educators/students in adapting to new learning technologies and methods in Commerce education.	$\chi^2 = 22.90$	9.488	4	p= 0.000

Source: Primary Data

χ^2 = Chi square, P-Probability, df =degree of freedom

Interpretation

Out of six statements, five (1, 3, 4, 5, and 6) are statistically significant ($\chi^2 > 9.488$, $p < 0.05$). This indicates that respondents have a positive perception of re-engineered teaching-learning approaches. They believe such methods enhance innovation, adaptability, and practical learning skills essential for future generations. Only one statement (Statement 2) is not significant, showing minor variations in views about the role of creativity and critical thinking.

Result: Null hypothesis is rejected and alternative hypothesis is accepted. Hence, respondents strongly agree that re-engineered Teaching- learning for future generations, enhance Teaching –learning process.

- **Digital teaching-learning models and pedagogical approaches in Commerce education**

Commerce education plays a crucial role in developing managerial, entrepreneurial, and financial skills that are essential for the modern business world. The effectiveness of commerce education largely depends on the teaching-learning models and pedagogical approaches adopted by educators. As the field evolves, traditional rote learning is being replaced by learner-centric, technology-integrated, and competency-based pedagogies.

Table 4: Analysis for Digital teaching-learning models and pedagogical approaches in Commerce education

Statements	Chi-square	Critical value	df	Asymptotic Significance
Pedagogical approaches and teaching-learning models helps in commerce education.	$\chi^2 = 18.67$	9.488	4	p= 0.001
Adoption of innovative teaching-learning models important in commerce education.	$\chi^2 = 14.33$	9.488	4	p= 0.006
Teachers encourage collaborative learning.	$\chi^2 = 6.67$	9.488	4	p= 0.154
Current teaching approaches help students develop employability and entrepreneurial skills.	$\chi^2 = 7.33$	9.488	4	p= 0.119
Lecture method/Case study method is effective pedagogical approaches in commerce education.	$\chi^2 = 10.87$	9.488	4	p= 0.028
Innovative pedagogical models can enhance employability among commerce graduates.	$\chi^2 = 12.67$	9.488	4	p= 0.13

Source: Primary Data

χ^2 = Chi square, P-Probability, df =degree of freedom

Interpretation

Out of six statements, four (1, 2, 5, and 6) are statistically significant ($\chi^2 > 9.488$, $p < 0.05$). Respondents agree that innovative and model-based teaching methods improve the quality of commerce education and enhance employability. Statements 3 and 4 are not significant, showing that while collaborative and existing teaching methods are valued, they may not yet fully meet skill-development goals.

Result: Null hypothesis is rejected and alternative hypothesis is accepted. Hence, respondents express a positive concern regarding Digital teaching-learning models and pedagogical approaches in Commerce education.

Findings

Respondents strongly agreed that Integrating technology and digital literacy in commerce education involves using tools like e-learning platforms, simulations, and AI to enhance learning, provide hands-on experience, and develop critical skills such as data analysis and online communication. Importance with the re-engineered Teaching- learning for future generations, enhance Teaching – learning process. Respondents express a positive concern regarding Digital teaching-learning models and pedagogical approaches in Commerce education.

Key Take-Away of this Study

Digital pedagogy re-engineering commerce education by replacing the traditional, teacher-centered approach with a dynamic, student-centric model that prepares learners for a rapidly evolving, technology-driven business world. By leveraging digital tools and platforms, it moves beyond rote learning to cultivate essential 21st-century skills such as critical thinking, problem-solving, and adaptability. The future of commerce education integrating with digital transformations to create a more personalized, engaging, and globally connected learning experience.

Conclusion

After thorough research on the field of Digital Pedagogy- Re-engineering Teaching-Learning for Future Generation In Commerce education the study concludes that digital pedagogy provides the framework for re-engineering commerce education for the future. By moving towards dynamic, technology integration and techno enhanced, and learner-centered approaches, institutions can equip the next generation of business leaders with the practical skills, adaptability, and forward-thinking mindset necessary to thrive in an increasingly digitized commerce education. And this study enghlightend to Integrating technology and digital literacy in commerce education, to identify core principles for re-engineered teaching and learning in commerce education for future generations and developing the models for teaching-learning and pedagogical approaches in commerce education.

References

1. **Arpandeyasi (2021)**, "Computational Intelligence in Digital Pedagogy" ISBN: 978-981-15-8743-6
2. **Dr. Dilshad begum (2025)**, "Revamping Education through Digitalization" ISSN (Online): 2208-2190, volume 11 Issue 02 September 2025.
3. **Dr. Vidya M. Jirage (2025)**, "Modern Trends Reshaping Commerce" ISSN : 2230-9578 | Website: <https://jrdrv.org> Volume-17, Issue-7 | July – 2025.
4. **Herbert F. W. Stahlke and James M. Nyce(1996)** "Reengineering Higher Education Reinventing Teaching and Learning"
5. **Jerwin E. Cabanero, Cherill S. Granil, Rosecel V. Caro (2022)** "The Emerging Concept of the Digital Pedagogy" ISSN: 2643-9123 Vol. 6 Issue 4, April – 2022.
6. **Nanjundaswamy, C.; Baskaran, S.; Leela, M. H.** "Digital Pedagogy for Sustainable Learning" ISSN-2320-2653, Publication Date: 2021-June.
7. **Ronghuai Huang, Michael Agyemang Adarkwah, Mengyu Liu, Ying Hu, Rongxia Zhuang, Tingwen Chang(2024)** "Digital Pedagogy for Sustainable Education Transformation: Enhancing Learner-Centred Learning in the Digital Era"
8. <https://www.forbes.com>
9. www.researchgate.net
10. <https://ijct.org>.

