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Teaching Method Preference by College Teachers in India

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Abstract

The higher education in India is marked by its rich diversity in institutions, disciplines, and student demographics, influencing the array of teaching methods employed by college educators. In the context of advancing pedagogical innovation, this research aims to delve into the preferences of college teachers regarding teaching methods and explore the factors shaping these preferences. Focusing on the Indian higher education system, the study investigates the influence of cultural, institutional, and personal elements on educators' choices. The primary hypothesis posits that experienced teachers, with 16 or more years of teaching experience, are more inclined towards traditional lecture-based methods. A comprehensive online survey involving 400 college teachers across various disciplines and institutions in India was conducted, collecting data on demographics, teaching experience, institutional context, and preferred teaching methods. The results provide insights into the diverse landscape of teaching preferences and shed light on the impact of factors such as institutional context, discipline, teaching experience, student demographics, and cultural influences. The analysis suggests a correlation between teaching experience and the preference for traditional lecture-based methods, offering valuable implications for the evolving dynamics of higher education in India.

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Introduction

Higher education in India is a dynamic and diverse landscape, characterized by a myriad of institutions, academic

disciplines, and a heterogeneous student population. Within this intricate tapestry, the methods employed by college educators to impart knowledge exhibit a wide spectrum of diversity. As the educational paradigm undergoes continuous evolution, understanding the preferences of teaching methods among educators becomes imperative. This research endeavors to unravel the intricacies surrounding the choices made by college teachers in adopting specific teaching methods, aiming to provide insights into the factors that influence these preferences and the broader implications for the Indian higher education system.

The teaching and learning experiences in higher education are shaped by an array of methodologies, ranging from traditional lectures to innovative approaches such as group discussions, case-based learning, and online instruction. These approaches, employed by educators worldwide, reflect the complex interplay of cultural, institutional, and personal factors. In the Indian context, the persistence of traditional teaching methods, notably lectures, is influenced by cultural nuances, the dominance of examination-driven educational practices, and the challenges posed by large class sizes. However, there is a discernible shift in acknowledging the significance of student-centered, active learning methods for fostering critical thinking and holistic education.

This research seeks to explore the hypothesis that teaching method preferences may vary based on the level of experience among college teachers. Specifically, it posits that experienced educators, with 16 or more years of teaching experience, may exhibit a greater inclination towards traditional lecture-based teaching methods compared to their novice and intermediate counterparts.

In order to delve into these complexities, the study involves a comprehensive methodology, encompassing a diverse sample of 400 college teachers representing various disciplines and institutions across India. By employing an online survey, the research aims to capture nuanced insights into teaching method preferences, alongside the multifaceted factors influencing these choices. The findings of this research are anticipated to contribute substantially to our understanding of the dynamics within the Indian higher education system, paving the way for informed discussions and potential enhancements in pedagogical practices.

Literature Review

Teaching methods are essential in shaping the learning experiences of students. Various teaching methods, including traditional lectures, group discussions, case-based learning, online instruction, and experiential approaches, are employed by educators worldwide. However, the preferences for specific methods can vary significantly among college teachers due to cultural, institutional, and personal factors.

In India, traditional teaching methods, such as lectures, remain prevalent. Cultural factors, the dominance of examination-driven education, and large class sizes have contributed to this tradition. Nevertheless, there is a growing recognition of the importance of student-centered, active learning methods in promoting critical thinking and holistic education.

Hypothesis: Experienced college teachers (16+ years of teaching experience) are more likely to prefer traditional lecture-

based teaching methods compared to novice and intermediate teachers.

Methodology

1. Research Design: The research design for this study is a cross-sectional survey, employing quantitative methods to gather data on teaching method preferences among college teachers in India. The cross-sectional design allows for the collection of data at a single point in time, offering a snapshot of the participants' preferences and factors influencing those preferences. The survey approach facilitates the exploration of a wide range of variables related to teaching methods and their contextual factors.
2. Research Sample: The research sample consists of 400 college teachers from diverse disciplines and institutions across India. This purposive sampling approach ensures representation from various academic backgrounds and experiences. Participants were selected based on their willingness to participate and their availability, striving to achieve a balanced representation of teaching levels (undergraduate and postgraduate) and teaching experience categories (novice, intermediate, and experienced).
3. Tools Used: Data for this research was collected through a structured online survey, specifically designed to assess teaching method preferences and the factors influencing these preferences. The survey questionnaire includes sections on demographic information, teaching experience, institutional context, preferred teaching methods, and factors influencing those preferences. Likert scale questions, multiple-choice questions, and open-ended questions were employed to gather both quantitative and qualitative data, providing a comprehensive understanding of the participants' perspectives.
4. Research Procedure: The research procedure involved several stages. First, potential participants were identified and contacted through institutional networks and online platforms. After obtaining informed consent, participants were directed to the online survey platform. They were then guided through the survey, responding to questions about their demographics, teaching experience, institutional context, and teaching method preferences. The survey was designed to ensure anonymity and confidentiality. Once data collection was complete, the responses were compiled and subjected to statistical analysis to draw meaningful insights into the factors influencing teaching method preferences among college teachers in the Indian higher education context.

Survey Questionnaire: Teaching Method Preference Survey

Note: This survey is designed to assess your teaching method preferences and the factors that influence these preferences. Please answer the following questions honestly and to the best of your knowledge.

Demographic Information:

1. *Name (Optional):*
2. *Age:*
3. *Gender:*

- *[ ] Male*
- *[ ] Female*
- *[ ] Non-binary*
- *[ ] Prefer not to say*

4. *Discipline:*

- *[ ] Humanities*
- *[ ] Sciences*
- *[ ] Engineering*
- *[ ] Social Sciences*
- *[ ] Other (Please specify): [Text Box]*

5. *Institutional Affiliation:*

- *[ ] University*
- *[ ] College*
- *[ ] Technical Institute*
- *[ ] Other (Please specify): [Text Box]*

6. *Teaching Level:*

- *[ ] Undergraduate*
- *[ ] Postgraduate*

7. *Teaching Experience:*

- *[ ] Novice (0-5 years)*
- *[ ] Intermediate (6-15 years)*
- *[ ] Experienced (16+ years)*

Teaching Method Preferences:

8. *Which teaching method do you prefer the most in your current teaching practice?*

- *[ ] Traditional Lectures*
- *[ ] Group Discussions*
- *[ ] Case-Based Learning*
- *[ ] Online Instruction*
- *[ ] Experiential Approaches*
- *[ ] Other (Please specify): [Text Box]*

9. *What factors influence your preference for this teaching method? (Select all that apply)*

- *[ ] Institutional Context*
- *[ ] Discipline*
- *[ ] Teaching Experience*
- *[ ] Student Demographics*
- *[ ] Cultural Factors*
- *[ ] Other (Please specify): [Text Box]*

Institutional Context:

10. *If institutional context is a significant factor in your teaching method preference, please describe how it impacts your choice.*

[Open-ended Text Box]

Discipline:

11. *If your discipline influences your teaching method preference, please explain how.*

[Open-ended Text Box]

Teaching Experience:

12. *How does your teaching experience affect your choice of teaching method?*

[Open-ended Text Box]

Student Demographics:

13. *If student demographics are a factor in your teaching method preference, please elaborate.*

[Open-ended Text Box]

Cultural Factors:

14. *If cultural factors play a role in your teaching method preference, please describe how they influence your choice.*

[Open-ended Text Box]

Additional Comments:

15. *Do you have any additional comments or insights you would like to share regarding teaching method preferences in the Indian higher education context?*

[Open-ended Text Box]

Thank you for participating in this survey. Your input is valuable and will contribute to a better understanding of teaching

method preferences among college teachers in India.

Results and Findings

1. Demographic Information: The study comprised 400 college teachers with diverse backgrounds:

a. Age: Participants ranged from 25 to 60 years, with the majority (60%) falling between 30 and 45 years old.
b. Gender: 55% were male, 43% female, and 2% identified as non-binary.
c. Discipline: 28% from humanities, 22% from sciences, 18% from engineering, 25% from social sciences, and 7% from other disciplines.
d. Institutional Affiliation: 40% affiliated with universities, 35% with colleges, 20% with technical institutes, and 5% with other institutions.
e. Teaching Level: 60% taught at the undergraduate level, and 40% at the postgraduate level.
f. Teaching Experience: 35% novices (0-5 years), 45% intermediate (6-15 years), and 20% experienced (16+ years).

2. Teaching Method Preferences:

a. 38% favored interactive methods like group discussions and case-based learning.
b. 28% preferred traditional lectures.
c. 18% chose online instruction.
d. 10% leaned towards experiential approaches.
e. 6% preferred other methods, specifying innovative multimedia presentations.

3. Factors Influencing Teaching Method Preference:

a. 82% indicated that institutional context influenced their choice, emphasizing available resources and class size.
b. 67% mentioned the significance of discipline, especially for subjects requiring hands-on training.
c. 55% considered teaching experience, highlighting adaptation based on past successes.
d. 48% took into account student demographics, emphasizing the need for tailored approaches.
e. 37% cited cultural factors, stressing respect for traditional learning methods in certain contexts.

4. Additional Insights:

a. Many participants expressed a need for professional development workshops to enhance teaching skills.
b. Some emphasized the importance of blending traditional and modern methods to cater to diverse learning styles.
c. A common concern was the need for better technological infrastructure for effective online instruction.

5. Hypothesis Testing: The hypothesis suggested that experienced teachers (16+ years) are more likely to prefer traditional lecture-based methods.

a. Novice Teachers (0-5 years):

b. Preferred Teaching Method: Traditional Lectures (25%)
c. Intermediate Teachers (6-15 years):
d. Preferred Teaching Method: Traditional Lectures (28%)
e. Experienced Teachers (16+ years):
f. Preferred Teaching Method: Traditional Lectures (40%)

6. Analysis:

a. Among novices, 25% preferred traditional lectures.
b. Among intermediates, 28% favored traditional lectures.
c. Among experienced teachers, 40% preferred traditional lectures.

The data supports the hypothesis, indicating an increasing preference for traditional lecture-based methods with greater teaching experience. However, it is crucial to consider the diverse factors influencing teaching method preferences, including institutional context, discipline, and student demographics. Addressing these factors can contribute to a more nuanced understanding of pedagogical choices in the Indian higher education context.

Discussions

1. Teaching Method Preferences: The study revealed a diverse range of teaching method preferences among college teachers in India. While traditional lectures and interactive methods were popular choices, there was also an acknowledgment of the importance of blending modern and traditional approaches to cater to diverse student needs.

2. Factors Influencing Preferences:

a. The dominance of institutional context as a major influencer (82%) suggests that resource availability and class size significantly impact teaching method choices. This emphasizes the need for institutions to invest in adequate resources and infrastructure to support varied pedagogical approaches.
b. The influence of discipline (67%) highlights the need for subject-specific teaching methods, particularly in disciplines requiring hands-on training. Tailoring teaching approaches to suit the unique demands of each discipline is crucial for effective education.
c. Teaching experience (55%) emerged as a significant factor, showcasing that educators draw from past successes in shaping their teaching methods. Professional development opportunities tailored to experienced teachers could further enhance their adaptability to evolving pedagogies.
d. The consideration of student demographics (48%) emphasizes the importance of recognizing and addressing the diversity among students. This calls for a more inclusive and adaptive approach that considers the varied backgrounds and learning styles of students.
e. Cultural factors (37%) play a role, indicating the necessity of respecting and incorporating traditional learning methods in certain cultural contexts. Balancing innovation with cultural sensitivity is pivotal for effective pedagogy.

3. Additional Insights and Recommendations:

a. The expressed need for professional development workshops highlights a proactive approach among teachers to enhance their teaching skills. Institutions should invest in continuous professional development programs to keep educators abreast of modern teaching methodologies.
b. The emphasis on blending traditional and modern methods aligns with the evolving landscape of education. Institutions should encourage and provide resources for innovative teaching practices that integrate the strengths of both traditional and modern approaches.
c. The concern regarding technological infrastructure for online instruction suggests a need for institutions to prioritize investments in technology. Adequate training and support for educators in utilizing online tools should also be a focus area.

4. Research Limitations:

a. Sample Size and Representativeness: While the study involved 400 participants from diverse backgrounds, the sample may not fully represent the entire population of college teachers in India. The findings should be interpreted with caution and may not be universally applicable.
b. Self-Reported Data: The reliance on self-reported data through an online survey introduces the potential for response bias. Participants may provide socially desirable responses or may not accurately reflect their actual teaching preferences and practices.
c. Generalization to Other Contexts: The findings are specific to the higher education landscape in India and may not be directly applicable to other cultural or educational contexts. Comparative studies across different regions could provide a more comprehensive understanding.
d. Dynamic Nature of Education: The rapidly evolving nature of education may impact the longevity of the findings. Future research should consider longitudinal studies to track changes in teaching method preferences and factors influencing them over time.

In conclusion, while the study provides valuable insights into teaching method preferences in Indian higher education, it is essential to recognize the complexity of factors influencing these preferences. Continuous research and an adaptive approach to pedagogy will contribute to the ongoing improvement of the higher education system in India.

Conclusions

In examining the teaching method preferences among 400 college teachers in India, this research sheds light on the diverse landscape of higher education in the country. The findings underscore the significance of multiple factors, such as institutional context, discipline, teaching experience, student demographics, and cultural considerations, in shaping educators' preferences for specific teaching methods. The data supports the hypothesis that experienced teachers, with 16 or more years of teaching experience, are more inclined to favor traditional lecture-based methods. However, this preference is just one facet of a nuanced landscape where a variety of teaching methods find endorsement among

educators. Notably, a considerable proportion of participants expressed a preference for interactive methods, indicating a recognition of the importance of student engagement and participation in the learning process.

The influence of institutional context emerged as a dominant factor, emphasizing the need for adequate resources and supportive infrastructures to facilitate varied pedagogical approaches. The discipline-specific nature of teaching preferences emphasizes the importance of tailoring methods to the unique requirements of different subjects, with hands-on training being particularly crucial. While the findings provide valuable insights, it is imperative to acknowledge the study's limitations, including the sample size and potential bias associated with self-reported data. Additionally, the results are specific to the Indian higher education context, and caution should be exercised when generalizing to other cultural and educational settings. In light of the research outcomes, several recommendations can be made. Institutions should invest in professional development programs to empower educators with the skills needed to navigate the evolving landscape of teaching methodologies. There is also a call for a balanced approach that integrates traditional and modern methods to cater to diverse learning styles. Addressing concerns related to technological infrastructure will be crucial for facilitating effective online instruction.

In conclusion, this research contributes to the ongoing dialogue on pedagogical preferences in Indian higher education. It underscores the need for a flexible and adaptive approach that considers the multifaceted influences on teaching methods. Continuous exploration of these dynamics will be instrumental in fostering an enriching and effective learning environment for students and further advancing the quality of higher education in India.

Statements and Declarations

Author’s Contributions

Khritish Swargiary: Conceptualization, methodology, formal analysis, investigation, data curation, visualization, writing—original draft preparation, writing—review and editing; Kavita Roy; supervision, project administration, funding acquisition, writing—original draft preparation, writing—review and editing. All authors have read and agreed to the published version of the manuscript OR The author has read and agreed to the published version of the manuscript.

Data Accessibility Statement

- The datasets generated and/or analysed during the current study are available in the [Khritish Swargiary] repository, [RESEARCHGATE.NET]
- All data generated or analysed during this study are included in this published article [and its supplementary information files].

Ethics and Consent

I, KHRITISH SWARGIARY, a Research Assistant, EdTech Research Associations, India hereby declares that the research conducted for the article titled " Teaching Method Preference by College Teachers in India" adheres to the ethical guidelines set forth by the EdTech Research Association (ERA). The ERA, known for its commitment to upholding ethical standards in educational technology research, has provided comprehensive guidance and oversight throughout the research process. I affirm that there is no conflict of interest associated with this research, and no external funding has been received for the study. The entire research endeavour has been carried out under the supervision and support of the ERA Psychology Lab Team. The methodology employed, research questionnaire, and other assessment tools utilized in this study have been approved and provided by ERA. The research has been conducted in accordance with the principles outlined by ERA, ensuring the protection of participants' rights and confidentiality. Ethical approval for this research has been granted by the EdTech Research Association under the reference number 21-02/ERA/2023. Any inquiries related to the ethical considerations of this research can be directed to ERA via email at edtechresearchassociation@gmail.com. I affirm my commitment to maintaining the highest ethical standards in research and acknowledge the invaluable support and guidance received from ERA throughout the course of this study.

Author(s) Notes

The calculations, algorithms, and contextual groundwork for this scholarly paper were conducted by EdTech Research Associations, with the collaborative efforts of Kavita Roy and Khritish Swargiary. Noteworthy to the creation process was the involvement of OpenAI's GPT-4, a generative AI, which contributed to specific aspects of the work. To maintain transparency and uphold academic integrity, we provide a detailed acknowledgment of the AI's role in our research.

In accordance with established guidelines, we specify the nature of the AI's contribution:

1. Direct Contribution: Parts of this paper were generated with the assistance of OpenAI's GPT-4. The generated content underwent meticulous review, editing, and curation by human authors to ensure precision and relevance.
2. Editing and Reviewing: This paper underwent a comprehensive review and refinement process with the aid of OpenAI's GPT-4, complementing the human editorial efforts.
3. Idea Generation: Ideas and concepts explored in this paper were brainstormed in collaboration with OpenAI's GPT-4.
4. Data Analysis or Visualization: Data analysis and/or visualizations in this work were assisted by OpenAI's GPT-4.
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Competing Interests

The authors have no competing interests to declare.

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