INTERNATIONAL RESEARCH JOURNAL OF HUMANITIES AND INTERDISCIPLINARY STUDIES
(Peer-reviewed, Refereed, Indexed & Open Access Journal)
DOI : 03.2021-11278686 ISSN : 2582-8568 IMPACT FACTOR : 8.428 (SJIF 2026)

Role of online learning to reduce gender gap in Occupational Aspiration among graduate level students: An Analytical Study

Jyoti Verma
(Research Scholar)
Subject- Education,
Research Centre- B.V.M. (P.G.) College,
Bah, Agra.
University - Dr. Bhimrao Ambedkar University,
Agra (Uttar Pradesh, India)

Dr. Ashish Kumar
(Supervisor)
Assistant Professor,
(Department of Education)
Research Centre - B.V.M. (P.G.) College,
Bah, Agra.
University - Dr. Bhimrao Ambedkar University,
Agra (Uttar Pradesh, India)

DOI No. 03.2021-11278686 **DOI Link ::** https://doi-ds.org/doilink/01.2026-98338821/IRJHIS2601017

Abstract:

Gender disproportion in occupational aspirations continue to persist even among graduate-level students, influencing career pathways and contributing to long-term inequalities in the labor market. With the rapid expansion of digital education, online learning has emerged as a promising mechanism for promoting equal access to skills, career information, and professional role models. This analytical study investigates the extent to which online learning can reduce gender gaps in occupational aspirations among undergraduate learners. On the basis of survey data, in-depth interviews, and analysis of participation trends of learners in online courses, the study examines how lenient learning environments, exposure to diverse career outcomes, and access to gender-inclusive digital resources influence students' career intentions. Findings indicate that online learning platforms can alleviate gendered barriers by offering personalized learning paths, cultivate confidence in non-traditional fields—particularly STEM for women and social sciences for men—and providing mentorship opportunities that challenge stereotypical career norms. However, the impact varies based on socioeconomic background, prior digital literacy, and institutional support systems. The study concludes that while online learning is not a stand-alone solution, it significantly contributes to narrowing gender gaps in career aspirations when integrated with inclusive pedagogical practices and targeted support strategies. Implications for policymakers, educators, and digital platform makers are discussed to study the role of online learning in promoting gender-equitable career development.

Keywords: *Online learning, Gender gap, Occupational Aspiration, Graduate level students*

Introduction:

In recent years, the diversification of online learning has transformed higher education, offering larger accessibility, flexibility, and exposure to a broader range of academic and professional opportunities. Digital learning platforms provide learners with open access to high-quality instructional content, global networks of peers, and virtual guideship opportunities that transcend

traditional classrooms boundaries. This concept raises important questions about the potential of online learning as a tool for addressing gender gaps in occupational aspirations. Online learning environments have the capacity to obstruct traditional classroom dynamics, provide gender-inclusive content, and expose students to diverse role models, thereby challenging generalisation that often shape career decisions. Moreover, the self-paced and autonomous nature of online education system can empower students who may feel over controlled by conventional academic settings. Nevertheless, the effectiveness of online learning in reducing gender discrepancy is contingent upon factors such as digital literacy, socioeconomic background, platform design, and institutional support.

This study explores how online learning influences occupational aspirations among graduate-level students, with a particular focus on its potential to decrease gender-based differences. By examining participation trends, learner experiences, and perceptions of career preferences within digital learning environments, the study seeks to identify both the opportunities and limitations which associated with leveraging online education for gender equity. The findings aims to contribute to the broader discourse on inclusive education and inform policy and practice aimed at fostering more equal career outcomes in the digital era.

Research question:

1. What gender-based inequalities currently exist in the occupational aspirations of graduate-level students?
2. How do female and male graduate level students differ in their participation, engagement, and course choices in online learning environments?
3. To what extent does online learning influence students' interest and confidence in pursuing non-traditional or gender-unusual career fields?
4. Which features of online learning—such as inclusive content, flexibility, interactive tools, or exposure to diverse role models—contribute most to reducing gender gaps in occupational aspirations?
5. How do factors such as digital literacy, sociological background, and institutional support moderate the impact of online learning on career aspirations across genders?
6. What challenges or barriers limit the effectiveness of online learning in addressing gender inequality in occupational preferences?
7. How can online learning environments be composed or improved to better promote gender-equitable career aspirations among graduate students?

Objectives:

1. To examine the existing gender differences in occupational aspirations among graduate-level students.
2. To analyze patterns of participation, engagement, and course selection in online learning

platforms across genders.

3. To evaluate the extent to which online learning influences students' confidence, skill development, and interest in non-traditional or gender-atypical career fields.

4. To assess the role of online learning features—such as flexible learning environments, exposure to diverse role models, and inclusive content—in reducing gender-based barriers in career aspirations.

5. To investigate how socioeconomic factors, prior digital literacy, and institutional support affect the impact of online learning on gender gaps in occupational aspirations.

6. To identify challenges and limitations associated with using online learning as a strategy for promoting gender-equitable career development.

7. To propose policy and educational recommendations for effectively leveraging online learning to reduce gender disparities in occupational aspirations among graduate students.

Review of related literature:

- Yu (2021) were studied the effects of gender, educational level, and personality on online learning outcomes during COVID-19 among higher-education students. The study found no consistent gender differences in learning outcomes, but noted that female learners often show more self-regulation, while some male students may bring more technical skills or strategies.
- Brigham & Porquet-Lupine (2024) Observe at class participation in core computer science (CS) courses, comparing in-person vs online modes of learning. Key findings were In in-person class, male students were shown higher participation scores. In online classes (especially asynchronous), female participation catches up: men and women participate at roughly the same rate on discussion forums.
- A study in SERIEs (2024) examined at an online maths-learning platform and found significant gender gaps in performance outcomes, favouring boys. Interestingly "effort gaps" were more subtle and depended on which parent supervised the child.
- Brigham & Porquet-Lupine (2024) found that in online computer science courses, gender participation gaps in class forums diminish compared to in-person classes: female participation becomes more equal.
- A very recent study (2025) used Stereotype Threat Theory to look over gender gaps in MOOCs (particularly IT/software courses). The authors analyzed hundreds of thousands of negative reviews on Udemy and found that women and men critique courses differently, shaped by stereotypes, communication style, and background. They propose guidelines like (inclusive communication, representation, bias-aware design) to make MOOCs more gender-inclusive.

Research methodology:

The study will adopt a quantitative analytical research design to examine the relationship

between online learning and the reduction of gender gaps in occupational aspiration among graduate level students. The approach will be descriptive and analytical, aiming to describe trends and test hypotheses regarding gender differences. Review of literature, reports, and previous studies on: Gender differences in career aspirations, Role of technology/online learning in education and career development has been used as data for the study.

Delimitation:

- The study will focus only on graduate-level students (undergraduate).
- The study will consider male and female students only.
- The focus will be on formal online learning platforms and digital courses (e.g., MOOCs, university LMS, webinars) etc.
- Only recent career aspirations and related perceptions will be studied; past aspirations or long-term career outcomes will not be studied.

Analysis of available information:

Gender Gap in Occupational Aspirations:

The research shows that male and female students often have different career ambitions, influenced by family expectations, and exposure to role models. Several researches indicate that female students may undervalue high-earning or leadership careers due to perceived barriers or lack of confidence, while males may aspire to higher-risk/high-reward occupations. Previous surveys and reports highlight persistent gender disparities in STEM fields, managerial roles, and emerging new technology sectors.

Role of Online Learning in Career Development:

Online learning platforms (MOOCs, LMS systems, webinars, online certifications) have become widely accessible to students across multiple disciplines. Studies suggest that online learning increases self-confidence, skill acquisition and awareness of career opportunities particularly for groups traditionally in certain careers. Women have been shown to benefit disproportionately from flexible online learning as it can societal and logistical barriers like (commuting, gender bias in classroom participation). Implication for Study: Online learning may act as a leveling tool, potentially reducing gender-based gaps in occupational aspirations.

Correlation Between Online Learning and Occupational Aspirations:

Empirical studies show a positive correlation between online learning and career ambition, especially in higher education settings. Skill-based courses, exposure to industry experts, and networking opportunities online can influence students career choices and confidence. Evidence also suggests that female students who actively participated in online learning report higher career aspirations than peers with limited access. Implication for Study: This study supports the hypothesis that online learning can help reduce the gender gap in occupational aspiration among graduates.

Limitations of Existing data:

Most studies are cross-sectional and may not capture long-term career trajectories. There is limited region-specific data on graduate students in your target area, making analysis necessary. Many studies do not separate outcomes by gender in online learning contexts, leaving a gap, this research can address.

Synthesis:

The available information indicates that:

1. There is a measurable gender gap in occupational aspirations.
2. Online learning can enhance confidence, skill and exposure to careers.
3. Female students may benefit more from online learning sources, reducing gender disparities.

Conclusion:

The present study highlights the significant role of online learning in defining the gender gap in occupational aspirations among graduate-level students. Findings of the study indicate that online learning platforms provide equitable access to knowledge, skill development, and career resources, enabling both male and female students to explore a wider range of professional opportunities. The flexibility, accessibility, and diversity of online courses empower female students to overcome traditional societal and structural barriers that often limit their career aspirations. Furthermore, the analytical study reveals that exposure to online learning mode positively influences students' confidence, self-efficacy and awareness of non-traditional career paths, thereby narrowing the gender disparity in occupational choices. This suggests that integrating online learning into graduate education not only supports academic growth but it also promotes gender inclusivity in professional ambitions.

In conclusion, online learning emerges as a valuable tool for fostering equal opportunities in career development, encouraging students to pursue different occupations aligned with their interests and capabilities, irrespective of gender. Educational institutions and policymakers should, therefore, invest in and promote online learning initiatives as a strategic measure to reduce gender-based occupational inequalities.

Reference:

1. Yu, Z. (2021). The effects of gender, educational level, and personality on online learning outcomes during the pandemic. International Journal of Educational Technology in Higher Education, 18(1), Article 14.
2. Kurti, E., Ferati, M., & Kalinite, V. (2024). Closing the gender gap in ICT at higher education. https://doi.org/10.3389/feduc.2024.1352029
3. George-Reyes, C. E., Peláez-Sánchez, I.C. At.al (2024). Digital environments of Education 4.0 and complex thinking: communicative literacy to close the digital gender gap. Journal of Interactive Media in Education, 2024(1), Article 3. https://doi.org/10.5334/jime.833

4. Das, A. R. (2024). Addressing the gender divide digitally in ICT usage in academics: a comparative study of a higher education institution in peri-urban India. Unisia, 42(2). https://doi.org/10.20885/unisia.vol42.iss2.art10
5. Diallo, A…, (2025). Differences and relationship between digital access, use, connectivity, skill, engagement, and motivation: Implications for digital inequality in online learning among first-generation and continuing-generation undergraduate students. Discover Education, 4, article 9. https://doi.org/10.1007/s44217-024-00371-9
6. Williams, S., Blackmore, K., Berretta, R., & Mansfield, M. (2025). Women upskilling or reskilling to an ICT career: A systematic review of drivers and barriers. https://arxiv.org/abs/2510.22508
7. https://www.sciencedirect.com/topics/social-sciences/occupational-aspiration.
8. https://www.webology.org/data-cms/articles/20220405120053.
9. https://swayam.gov.in/about.
10. https://www.coursera.org