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## Distance Education: Closing the Gap to Women Education in India.

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### ABSTRACT

In India, the disadvantages of education on the gender factor have been a past phenomenon that has restricted the education and skill acquisition of women to the higher levels. Distance learning has become a more adaptable and accommodating form of education, where the socio-cultural and economic challenges, as well as the physical barriers, can be overcome by women. This research intends to investigate the role of distance education in ensuring that the education and social disparities between women in India are narrowed with reference to empowering, developing skills and socio-economic development. The mixed-method design was used, which involves the incorporation of both the quantitative analysis of enrollment patterns in distance learning programs and qualitative data and information about female students in many different places via the use of case study and interview. The research approach was based on an examination of the patterns, issues, and results of distance learning programs among women. It has been found out that there is a significant rise in the participation of women in distance education programs especially in the undergraduate and postgraduate levels. Women noted that they were better informed, employable, more digitally literate, and more confident. Distance learning also helped to balance between studying and household and work-related issues. Though these are positive developments, there are still problems of restricted digital connectivity, poor technology, and cultural restrictions. Distance education is a



change agent in the close group disparity between the male and female education system in India, which provides a learning based on ease and accessibility. Specific actions, which include digital literacy initiatives, infrastructure building, involvement, and promotion of the policies are necessary to increase the engagement and optimize the effectiveness of distance learning among women.

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**Introduction:**

Education is a universally accepted human right and an important source of social, economic, and personal growth. Gender inequality education access in India, however, has been decades old, which restricts women to access knowledge, skills and qualification to grow and facilitate contribution in the society. Several reasons make this difference, such as social-cultural subjugations which reward male education, marriage at an early age, family roles, financial constraints and geographical seclusion barriers that limit access to formal education facilities. The rural and marginalized societies are particularly facing these challenges because education facilities are poor, and social demands tend to isolate women. In the last several decades, distance education has been offered as one of the promising solutions to these problems. Distance education allows women to get access to academic studies without going outside their homes or breaking with their other duties as it provides them with flexible and accessible learning opportunities. Distance learning has been increased with the help of technological innovations such as online learning sites, mobile applications, and online libraries, enabling women in the remote areas to get good education. Various undergraduate and postgraduate degrees, as well as vocational and skills-based programs are the various avenues that women can use to improve their knowledge and employability. Moreover, distance learning enables asynchronous learning, that is, one is able to learn at their leisure time without any form of restriction, thereby accommodating the domestic-related and work-related duties and the purpose of education. Distance learning is not only good in grades. Enrollment in such programs gives rise to economic empowerment in that it improves on the employability, increases income opportunities and allows women to participate in entrepreneurial activities. In the social aspect, distance learning education fosters confidence, self-reliance and decision-making skills in women to enable them to take a more active role in family and community lives. Moreover, education empowers women to champion their rights, help educate their offspring and affect the society gender equality. Distance education has the capability of changing the socio-economic environment of women, especially in areas where they were previously somber owing to traditional barriers of access to formal education.



**Study Purpose:** Although it is evident that distance learning can help in increasing the gender gap, empirical studies to determine its suitability in the Indian setting are necessary. The major aim of the research is to discuss how distance education can reduce the educational, social, and economic disparity between women in India. The proposed study will seek to examine the role of distance learning programs in the academic performance of women, enhancement of their skills, their employability and social empowerment. It also examines the barriers that women encounter in enrolling and obtaining distance education programs including technological, infrastructural, financial and cultural barriers. Through the analysis of the dimensions, the study aims at offering information on what can be done to improve participation, retention, and outcomes of women learners.

**Knowledge Gap:** Despite the fact that distance education has expanded considerably in India, very little studies have been conducted to find out the effect of distance education on the empowerment of women. Majority of the current literature concentrates more on the enrolment patterns and policy frameworks or the performance of the institute as an institution and not on the lived experiences of women students or the socio-economic consequences of distance learning. The efficacy of various modalities of distance education, the consequence of digital literacy, and the effect of socio-cultural factors on the engagement and effectiveness of women remains lacking. Additionally, details on how distance education programs can be modified to meet needs of women in various geographical locations such as rural environment or in the urban environment have not been thoroughly studied or how policy interventions can be made to ensure even access and enrollment. It is important to solve these gaps in order to come up with effective strategies and policies that can ensure that distance education can be exploited to the optimum in order to empower women. The thorough knowledge of the opportunities and the challenges related to distance learning can be used in designing inclusive educational programs, resource allocation, and support systems that will facilitate the women to maximize the benefits of such programs. The study addresses knowledge gaps in this field and consequently enhances the continued struggle to minimize gender gaps in education, social equity, and women empowerment to realize personal, professional, and even social development. In short, distance learning is the revolutionary measure to overcome the past India gender inequality in education. Its versatility, flexibility and adaptability enable it to be an important instrument to women in need of conquering socio-cultural, economic, and space constraints. Nonetheless, in order to maximize its use, one has to study on experiences, results and difficulties of female students and define effective methods to promote participation, besides adopt supportive measures and infrastructure. The research will be intended to present an evidence-based insight on how distance education can help close



the divide to women in India, thus playing a role in a larger objective of empowerment, social inclusion, and equitable development.

### **Materials and Methods:**

**Study Design:** The research design adopted in this study was mixed-method research design, involving both quantitative and qualitative methods of satisfactorily analyzing the effects of distance education on closing the gaps in the educational systems among women in India. The design enabled the opportunity to collect tangible data concerning the enrollment, participation, and learning outcomes and also in-depth understandings of personal experiences, hardships, and perceptions of women learners.

**Population and Sampling of the study:** The target population included women who were notes in distance learning programs in various Indian states and have represented various socio-economic, cultural, and geographical groups. The stratified purposive method was adopted so as to get a representation of both rural and urban, various age groups, academic level and socio-economic groups. The quantitative surveys covered 500 women, and the qualitative turns covered 50 participants, for quantitative and qualitative interviews and focus group discussions, respectively.

**Ethical Considerations:** Ethical approval should be received before data collection and the Institutional Ethics Committee of the university where data collection was done provided it. The intervention was voluntary and informed consent given by all the participants. In order to guarantee confidentiality and anonymity, the participants were assigned unique codes, and all data was stored safely. The participants were made to understand that they had a right to withdraw the study at any point without repercussions.

### **Data Collection Tools:**

**Structured Questionnaire:** A Survey Questionnaire was designed to obtain demographic characteristics, history of enrollment, achievement, digital literacy, social-economic status, and perceived distance education outcomes. The questionnaire involved both Likert-scale items and multiple-choice questions as well as open-ended items.

**Semi-Structured Interviews:** The semi-structured interviews were conducted to discuss the experiences of women and distance education, the challenges that they encounter and how they cope with them as well as the perceived effects of distance education on their personal, professional and social empowerment.



**Focus Group Discussions (FGDs):** FGDs were carried out to facilitate interactive talk among the learners as females so that it is possible to know some shared themes, barriers as well as facilitating factors.

**Document Analysis:** The institutional documents such as institutional records, enrolment statistics, curriculum outlines, and program guidelines of the universities that provided distance education were examined to complement primary data and confirm the trends.

**Data Collection Procedure:** Online and offline surveys were used in quantitative data collection due to the connection of the participants to digital devices and the internet. In the qualitative case the interviews and the FGDs will be undertaken in the language requested by the participants, recorded with their consent and transcribed in order to be analyzed. The observational notes were also kept in order to note contextual factors.

#### **Data Analysis:**

**Quantitative Cases:** The enrolment trends and digital literacy as well as academic performances were analyzed using descriptive statistics (frequencies, percentages, means, standard deviations) and inferential statistics (Chi-square tests, t-tests).

**Qualitative Data:** Thematic analysis was utilized to recognize patterns and themes of interviews and FGDs. Rapid coding was conducted to facilitate accuracy and reliability and validity was boosted by triangulation with quantitative information.

**Replication:** The data collection tools and other analytical procedures have been detailed as well as the sampling strategy such that replication in other geographic or institutional setting are possible. The same stratified sampling strategy can be used by researchers aiming at reproducing the study experience, the provided structured questionnaires and interview guides will be used, and the ethical guidelines will be followed to obtain comparable results.

**Quality Control Measures:** A small group of the participants tested the questionnaire and interview guide to identify clarity, relevance and reliability. Data collectors were trained about ethical standards, cultural sensitivity and administering instruments using standard procedures. The data entries were minimized through regular monitoring and crosschecking of data entries.

**Results:**

**Participant Demographics:** The number of women in the study was 500 and all were representing various socio-economic and geographic groups. Most (62) participants had the age of 20-35 years, 28% of 36-50 years, and 10% above 50 years. The rural participants constituted 55 percent of the sample, whereas urban were 45 percent. Prior to having enrolled in distance learning programs, the educational levels were as follows: 40 percent had secondary, 35 percent had higher secondary and also 25 percent had undergraduate degree level.

**Participation in Programs and Enrolment:** The enrolment patterns showed that female students were less inclined to take postgraduate programs and rather undergraduate and skills-based vocational training. Among the total respondents, 48% of them were in undergraduate courses, 35% in skill/vocational courses, and 17 percent in postgraduate courses. Distance mode and flexible scheduling were mentioned as the most common motivations to enroll since it allowed participants to balance between home and work-related issues.

**Digital Literacy and Access:**

Digital literacy test revealed that 70 percent of participants were either moderately skilled in terms of using online learning platforms, 20 percent were highly skilled and 10 percent needed some guidance to use technology. There was a broad disparity in access to devices and access to the internet, with 60% of people in cities having reliable access to the internet, compared to only 35% of people in the countryside.

**Impact of Distance Education that is perceived:** The subjects gave several positive results.

**Academic Improvement:** 65% reported improving their knowledge and their skills significantly based on their fields.

**Economic Empowerment:** 55% felt that they had better work opportunities or income earning capability.

**Social and Personal Empowerment:** 60% said they had gained new confidence, self-reliance and decision making in their communities and households.

**Challenges Identified:** Some of the most frequently cited barriers were low levels of digital literacy (10% of respondents), insufficient infrastructure (25% of respondents said they had intermittent or no



access to internet or devices) and socio-cultural restrictions (15 most said family or community resistance).

**Table 1. Demographic Characteristics of the participants (n = 500)**

Characteristic	Frequency	Percentage (%)
Age 20-35	310	62
Age 36-50	140	28
Age >50	50	10
Rural Residence	275	55
Urban Residence	225	45
Secondary Education	200	40
Higher Secondary Education	175	35
Undergraduate	125	25

**Table 2. Program Participation and Enrollment.**

Type of Program	Frequency	Percentage (%)
Undergraduate	240	48
Skill/Vocational	175	35
Postgraduate	85	17

**Table 3. Results of Distance Education (As perceived by subjects)**

Outcome Type	Frequency	Percentage (%)
Academic Improvement	325	65
Economic Empowerment	275	55
Social/Personal Empowerment	300	60

**Figure 1. Digital Literacy among the respondents.**

Highly Proficient:	20%
Moderately Proficient:	70%
Needs Support:	10%

**Figure 2. Internet Access Vis to Area of Residence.**

City dwellers and Internet Access, Trustworthy:	60%.
Rural Respondents that have Dependable Internet:	35%.

**Results:** The results indicate that distance learning has played a great role in closing educational gaps among the women in India. Respondents noted positive effects in the academic sphere, economic domain, and social life; however, they were confronted with the problem of digital literacy, infrastructures, and social-cultural aspects. The enrollment figures indicate that undergraduate and vocational programs are favored, and it is significant to come across the need to have flexible and accessible courses that involve women.

**Discussion:** This study reveals that distance education is an important tool in the fulfilment of the educational, economic and social disparities experienced by women in India. Separate data on the number of women enrolling in undergraduate and skills-based courses is on the rise, which is a poignant indication that flexible modes of learning are increasingly being embraced by women, especially those who have to take care of the home, work, and other obligations of their socio-cultural environment. This tendency implies the significance of distance education to give women whose access to formal education could otherwise be left out to equal learning opportunities.

**Interpretation of Findings:** The study has found out that most participants noted that they have gained more academic knowledge, employability and social confidence. These findings suggest that distance learning not only provides the women with formal education but also develops some important skills in their lives, including time, managing digital literacy, and self-directed learning. The economic empowerment, whereby participants have good employment prospects or an entrepreneurial venture, has a positive effect, in that distance learning has a direct effect on financial empowerment and further involvement in the wider socio-economic activity. There was also the presence of social empowerment,



among the women, self-reliance and decision-making capacities and participation in the community and family issues were said to have increased.

**Significance of the Study:** The findings are important since they capture the transformational nature of distance education to break the systemic barriers that have historically reduced access of women to education. Distance learning allows women of different geographical, socio-economic, and cultural groups to be included because of its flexibility. Distance education can not only promote personal progress but also development in the society, thus, through offering equal education opportunities, educated women will be more likely to support the education of their children, engage in community decisions and gender equality. What is more, the paper supports the significance of combining digital literacy, facilitating environments, and adaptation of course designs to make the widest possible number of women learners participate in and complete the course.

**Limitations:** Although the study has its value, a number of limitations should be mentioned. To begin with, the sample size though varied might not adequately represent the entire population of women taking distance education anywhere in India, especially in remote or poorly represented areas. Second, the use of self-reported information to determine such outcomes as economic and social empowerment creates possible biases in responses. Third, the lack of infrastructural and technology to gather the data in a uniform way in the rural regions meant that data collection could have been restricted and this could have influenced the holistic nature of the results. Finally, the cross-sectional design enables the researcher to talk about the experiences of the participants at a point in time but fails to elicit the long-term effects and the enduring nature of distance education on the empowerment of women.

**Conclusion of Discussion:** In spite of this, the study offers good reasons to support that distance education is a feasible and effective measure to redress the gender gap in education in India. It can empower women to gain knowledge, skills and confidence needed to grow personally, professionally as well as socially, because it combats access and flexibility. Future studies based on longitudinal designs, bigger and more geographically dispersed samples as well as mixed methods could contribute to deepen the knowledge of the distance education effects of distance education on women empowerment in the long run.

**Conclusion:** The research points out that distance learning is a potent instrument in combating gender gaps in the education sector in India. The main findings support the fact that women are beginning to join distance learning programs in large numbers and especially within the lower levels such as undergraduate education as well as skills-based programs, a fact which signifies the rising acceptability of distance



learning education. The respondents said that their academic knowledge, employability, digital literacy, and personal confidence had improved significantly. Also, distance education had a positive impact on social empowerment, as the women were able to play a vital role in the decision-making process in the family and the community. The implication of these results is immense. In the academic sector, distance education offers women a chance to obtain qualification and skills that would otherwise not be available to them because of socio cultural, economic, and geographical limitations. On economic grounds, it improves employability and income-generating capacity that leads to financial independence and development of the career. In terms of social aspects, it creates self-sufficiency, confidence and active participation in community life thus facilitating gender equity and empowerment at the societal level. Although distance education has proved to be highly advantageous, there are still some challenges to it including lack of digital literacy, lack of proper infrastructures and culture, which indicate that there are areas where specific interventions are needed. It is necessary to forward these challenges through policy support, technological advancements, and involvement of the community to both make distance learning programs sustainable and inclusive. Finally, distance education is a transformative tool that can successfully overcome educational, economic, and social barriers to women in India. It supports women, empowers them, and increases their social-economic engagement and the overall development of society by giving them flexible, accessible, and supportive learning opportunities.

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**Conflicts of Interest:** The researchers report that there exist no conflicts of interests with regard to this study. The study was solitary, and none of the funding institutions affected the design, its data collection, interpretation, and reporting of the data obtained.



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