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Women Academics and Digital Competency: Challenges and Opportunities

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Abstract: In light of the National Educational Policy 2020, the whole education system has been revolutionized by shifting away from rote memorization to technology and digital integration. Digital Literacy become the basic requirement for every educator and particularly for women academics so that they can engage effectively in teaching, research, and leadership roles in higher education. Emphasizing digital literacy as a crucial 21st -century skill, this present paper aims to investigate the perception and the state of digital competence among women in Higher Education, in the context of Arunachal Pradesh. and also, to identify institutional factors and barriers on adaptation to their digital skills. The sample for the study consists of 80 female faculty from Government and Private Colleges of Arunachal Pradesh. This study employs qualitative as well as quantitative research to dive into the experiences, challenges, and progression of women academics in higher education. Through Google form an online survey included close-ended questions and open-ended questions was distributed to women faculty members across higher education institutions to gather data on demographic background, career progression, institutional support, and barriers. In the study it is found out that the moderate section of women academia is confident in managing the digital tools for the teaching learning process and though it urges for more institutional support. The key barriers reflected in the study are lack of ICT tools, insufficient institutional support, work-life conflict, inaccessibility to devices and internet connectivity, limited resources and support structures. The study comes up with the actionable recommendations through which digital fluency may be achieved by women' academia in higher education.

Keywords: Digital Literacy, 21st Century Skills, Women academia, Higher Education.

1. Introduction

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The 21st Century demands 21st Century skills in the teachers. The teachers are looked with higher expectations and responsibilities in the new education era. They must go beyond the old school of instruction by adapting to new educational landscapes which is shaped by the digital transformation. Mastery of 21st Century skills become fundamental and basic for every educator to became effective in their teaching and most important for preparing oneself dynamics, efficient, vibrant, thriving in the ever-evolving society. Women academia in particular, need to engage deeply with digital tools and platforms instead of merely knowing the basic level. Today's academic environment echoes for a more comprehensive, integrated understanding of digital knowledge, skills, and attitudes.

The development of education in Arunachal Pradesh has been a relatively recent phenomenon. A major milestone in its academic history was the establishment of Jawaharlal Nehru College in 1964, which became the state's first institution of higher education. After that the education system in state started gradually. With this, Digital learning initiatives became a new concept. The number of higher education institutions have increased over time, and today it witnesses 60 educational institutions including, Central Universities, the deemed Universities, other Central University Status institutions, Government and Private colleges, polytechnics, and other professional institutions. Even though the digital learning initiatives are still at an infant stage. Many learners face limited access to digital resources due to the state's challenging topography. Nevertheless, proficiency in navigating digital spaces has become a necessity for the state for promoting equity, fostering innovation, and ensuring meaningful educational transformation.

2. Statement of the Problem

"Women Academicians and Digital Competency: Challenges and Opportunities".

3. Objectives of the study

i. To identify the perception and the level of digital competence among women academician in higher education institution of Arunachal Pradesh.

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ii. To identify institutional factors and barriers that influence the adoption and digital skills of women academicians in higher education institutions of Arunachal Pradesh.

4. Delimitation of the Study

i. Undergraduates Government and Private Colleges were selected for the study.

ii. The study contains only the regular Female academician from the both types of institutions.

5. Methodology

The study adopted a descriptive survey via sending questionnaire through google form to examine the level of digital competence, confidence, and institutional support among women academicians in higher education institutions of Arunachal Pradesh. The population of the study comprised female faculty members working in government and private colleges. The total population included 60 higher educational institutions. From that only 7 private colleges and 18 government colleges are taken for the study. In these institutions the number of female faculty are 154 from private colleges and 254 from government colleges, gives a picture of 408 numbers of women educators working in higher education. A representative sample of 80 women academicians was drawn.30 women academicians from private colleges and 50 women academicians from government college by using the purposive sampling method, as the focus was specifically on women academics. The sampling consists of adequate representation of different institutional types and geographical locations.

The researcher prepared the questionnaire and collected the data through on-line survey. The questionnaire consisted of both closed-ended, open-ended and Likert-scale items focusing on key dimensions of the study such as promotion and recognition to digital literacy, collaboration, institutional support for digital learning, confidence and self-efficacy in digital tool usage, attitude towards continual digital skill development and barriers in adoption to digital skills competency.

To check the reliability and validity of the questionnaire a pilot study was conducted with 10 respondents and afterwards necessary revisions were made based on feedback. The questionnaire was distributed to the selected colleges through google forms. Participants were well informed beforehand about the purpose of the study, and were assured of the confidentiality.

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6. Data Analysis

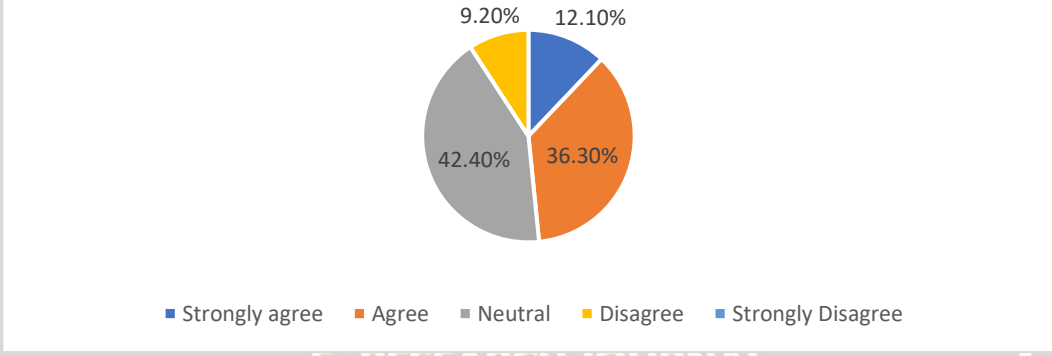
Data has been analyzed using descriptive statistics, including frequency, percentage, and mean scores. Pie diagrams were used to visually represent key results for better clarity.

7. Findings and Discussions

a. **Promotion and Recognition**: The figures show 36.3% of respondents 'agree' that their chances of promotion or recognition increase with digital literacy, whereas 42.4% remain 'neutral', and only 12.1% 'strongly agree' showing moderate optimism but uncertainty regarding the career benefits of digital literacy is significant.

This indicates that although digital competence is valued, its benefits in career advancement are not strongly perceived or systematically rewarded. This is a matter of concern. Overall, it suggests for strong institutional recognition mechanisms for digital engagement.

Fig: 1. Perception of Digital Literacy in Career Promotion and Recognition



b. **Collaboration with Peers**: The figure shows 63.6% 'strongly agree', that digital literacy has helped women academicians in collaborative learning with national and international peers. This suggests a high perceived value of digital competency in fostering academic networking.

This highlights the importance, potentiality and accessibility of digital platforms in overcoming the various geographical and institutional barriers, promoting an environment

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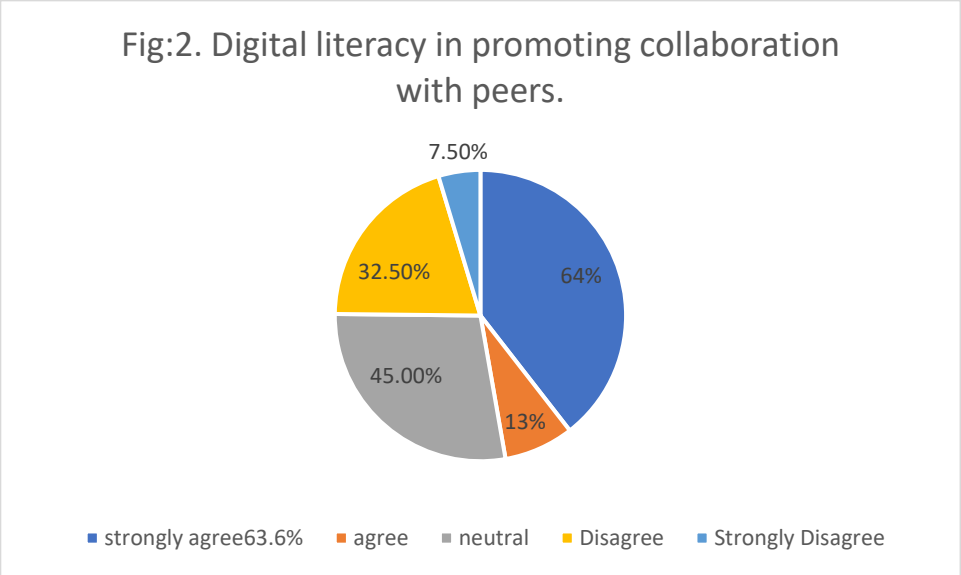
of academic networking, knowledge exchange and research partnerships and most importantly in case of the remote or resource-constrained settings



c. **Institutional Support for Teaching**: For integrating digital technology in teaching, the figures show 45.5% of respondents are 'neutral', with 30.3% disagreeing or strongly disagreeing. Only a minority of 8.1% 'agree' and 16.1% 'strongly agree' feel supported. Indicating a perceived deficit in institutional assistance.

Here it indicates a remarkable deficit in institutional supports. The institution lacks in providing infrastructure, incentives, or policy frameworks which is very much needed for effective digital adoption.

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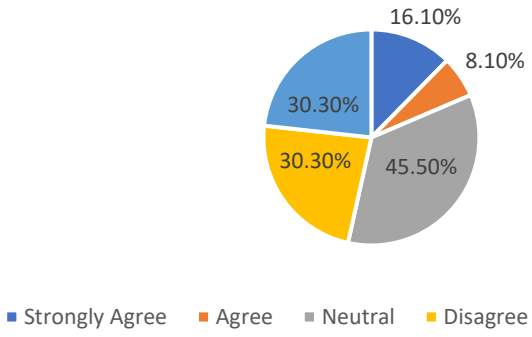
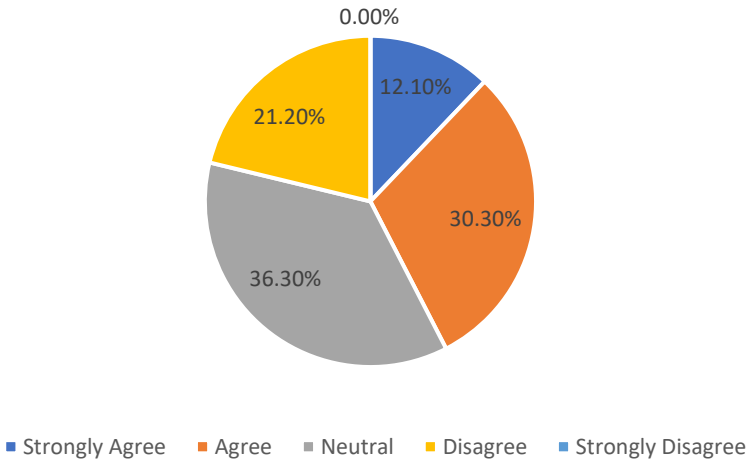
Fig: 3. Institutional Support for Integrating Digital Technology in Teaching



d. **Encouragement of Digital Training**: Regarding encouragement from institutions to enhance digital literacy through training, responses are mixed, 36.3% 'neutral', 30.3% 'agree', 21.2% 'disagree', and just 12.1% 'strongly agree'. Most academics do not perceive strong, proactive encouragement from their institution for digital skills development.

This pattern reflects a lack of consistent institutional initiatives or structured programs aimed at continuous professional development in digital literacy. The overall neutrality also suggests limited motivation or unclear communication from institutions about available training opportunities.

Fig: 4. Encouragement for Digital Training



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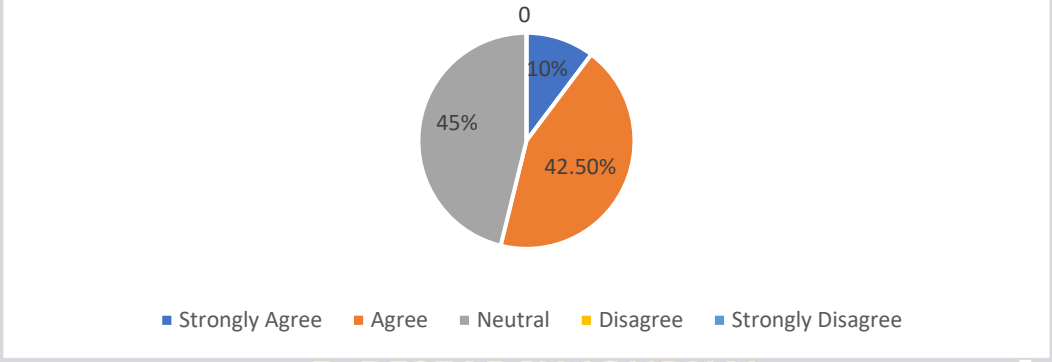
e. **Favorable Confidence Level:** Most women academics report at least moderate confidence in using digital tools for teaching, with nearly 10% 'strongly agree' and 42.50% 'agree' expressing a positive view. However, a significant 45% remain 'Neutral', pointing towards a remarkable uncertainty or lack of pronounced confidence. There is a urgent need for continued support and training to help move more women academicians from neutrality to confidence. Filling this gap ensure that all women academicians feel fully equipped to use digital platforms in their teaching practice. Overall, confidence levels give a favorable respond, but targeted interventions are needed for further boosting in digital self-efficacy.

The results suggest that while women academics are becoming increasingly open and confident to digital teaching methods. Still But they need to move them from moderate to high confidence levels for which the sustained professional development skills are mandatory.

Fig:5. Confidence Level in using digital tools for teaching



f. **Positive attitude towards continual digital skill development.** The figures show that for the statements regarding upgradation of digital skills, 60% of respondents agree and 10% strongly agree,20% are neutral and 10% disagree. Overall, this indicates that most of the women academicians regularly engage in skill upgrading activities.

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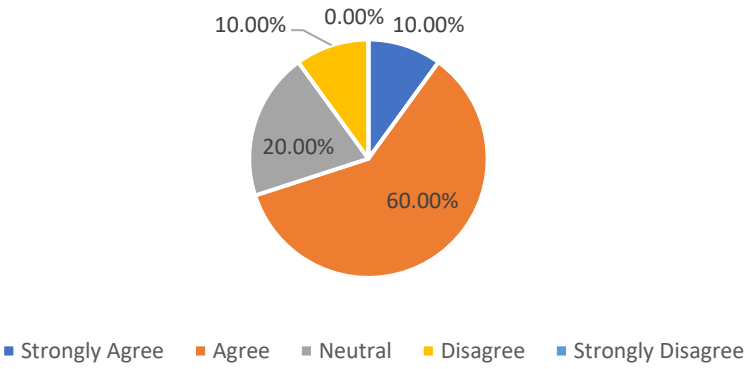
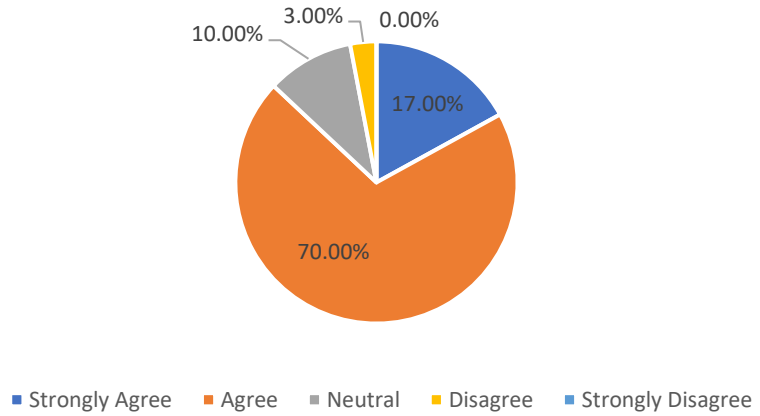
Fig: 6. Continual upgradation of Digital Skills



g. **Utility of Digital Tools in Research**: For statements regarding utility of digital tools in research ,70% agree and 17% strongly agree that digital tools are useful for organizing and conducting academic research,10% neutral and 3% disagrees regarding the usefulness of digital tools in research. This indicates a generally broad acceptance of the usefulness of digital tools for academic research among the women academicians.

Fig: 7. Utility of Digital Tools in Research



Overall, these findings reflect an encouraging shift toward digital adaptability and awareness among women academics. Yet, the persistence of neutrality and partial engagement indicates the need for targeted institutional efforts to reinforce confidence, improve accessibility to training, and foster a culture of continuous digital learning.

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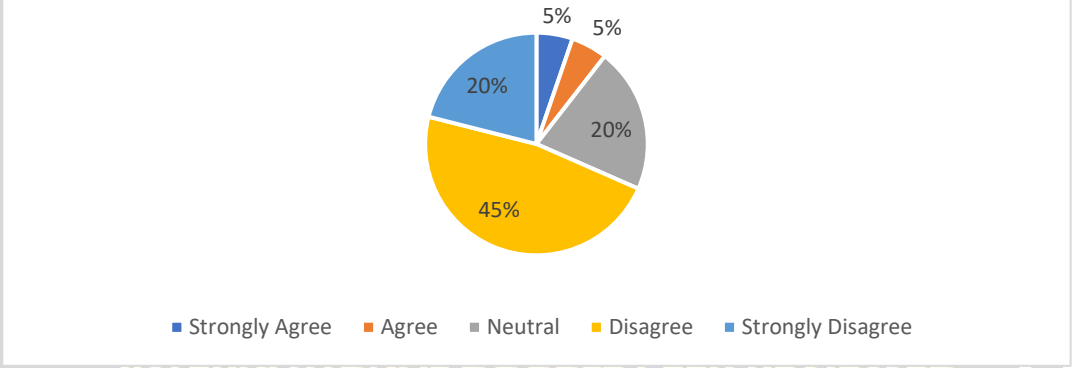
h. **Positive perception:** The study indicates that a higher number of women academicians discarded that gender-related biases as a barrier in the digital initiatives' participation. About 20% strongly disagree and 45% disagree on considering gender-related biases as barriers.20% remain neutral, while 5% agree and 5% strongly agree on this. These numbers reflect an encouraging sign of relative gender equity progress in the higher education institution of Arunachal Pradesh. The lower percentage of women academicians being neutral, agree or strongly agree maybe of the existing complexity of gender dynamics. Institutions should recognize and take into considerations these dynamics for fostering inclusive and equitable environments by ensuring that all women academicians have equal opportunities to participate and excel. Institutions can opt for vigilance and proactive policies to sustain the equity in digital participation.

Fig: 8. Gender-biasness as barriers in ditigal literacy



8. Recommendations

1. Institution can opt for intensive digital skill enhancement program which would focus on practical application of digital tools for various academic related activities. Experiential, ongoing, hands-on training programs would serve great work in this regard.
2. Institution can work on initiatives for greater exposures, like mentorship programs, peer - learning sessions, and collaborative projects so to encouraged the faculty members in building self-efficacy in digital dealings.

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3. Women academicians with digital proficiency should be formally recognized by the institutions through certificates, career advancement credits, or inclusion in performance appraisals for motivating them to actively participate in digital learning opportunities.
4. Workshops and seminars on the use of digital tools in research design, data analysis, and academic publishing, should be organized by the institutions regularly for promoting research oriented digital literacy among the women academicians.
5. Institutions should adopt customized intervention for addressing the various problems behind "neutral" responses, which may be due to access issues, lack of awareness, or motivational factors.
6. For timely assistance and sustained engagement in digital competency building among women academicians, each institutions needs a strong support system with digital helpdesks, resources centers, and technical support units.
7. A mindset of lifelong learning, collaboration and innovations in digital learning should be cultivated and encouraged through policy reformation and community support.

9. Conclusion

The study reveals that in Arunachal Pradesh the number of women representations in higher education has increased, though when it comes to leadership and senior faculty positions in higher education, the women academicians remain underrepresented. Hence, based on the findings of the study, the institutions should cultivate an environment where women academicians can actively participate, lead, and thrive in academia. For turning it into reality the Higher education institutions, policymakers, and the private sector of the state need to stand together for enabling collaboration to create inclusive, empowering learning environments that enable the women academicians of higher education in Arunachal Pradesh to achieve digital competency and thrive in the demands of 21st century skills.

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References

Akram, H., Abdelrady, A.H., Al-Adwan, A.S., &Ramzam, M. (2022) "Teachers' Perceptions of Technology Integration in Teaching-Learning Practices: A Systematic Review", Front.Psychol.,06 June 2022, Sec.Educational Psychology, Vol.13-2022, | https://doi.org/10.3389/fpsyg.2022.92031

Khatun.R., & Kumar.V., (2024). "Digital Competencies and Women Empowerment". International Journal of Family and Maternal Health Resaerch,2(4) Vol.6, Issue 2.https://doi.org/10.36948/ijfmr.2024.v06i02.14577

Panda, A., & Gope, L. (2024). "Breaking Barriers: The Digital Revolution in Girls' Education in India". Journal of Interdisciplinary Studies in Education ISSN 2166-2681Print 2690-0408 Online https://ojed.org/jise

Kumar, R.V., & Sri, P.M. (2023). "Perceived ICT Competencies of Female Student Teachers in Relation to Selected Variables", MIER Journal of Educational Studies, Trends and Practices. Vol.13, Issue 2, Nov 2023 https://doi.org/10.52634/mier/2023/v13/12/2425

Quino Bacus Jeddah & Corpuz Galua Gerlinda, (2021). "Self-efficacy and practices in teaching 21st century skills", International Journal of Scientific & Engineering Research, vol 12, issues 6, June.