



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)

Knowledge of College Students towards E-learning in Bikaner District of Rajasthan

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DOI No. **03.2021-11278686** DOI Link :: <https://doi-ds.org/doi/10.2026-95139223/IRJHIS2606005>

Abstract:

E-learning has emerged as a significant mode of education in recent years, especially among college students. The present study was conducted to assess the knowledge of college students towards e-learning in Bikaner district of Rajasthan. A descriptive research design was adopted for the study. The sample comprised 120 postgraduate students selected from two universities, including both traditional and professional colleges. Data were collected through a structured questionnaire and analyzed using frequency and percentage.

The findings revealed that the majority of respondents belonged to the middle age group (22–25 years) and had medium family income. Most students had access to the internet (100%) and were aware of e-learning (100%), but access to e-learning facilities varied between traditional and professional colleges. The study also indicated that professional college students had comparatively higher exposure and knowledge of e-learning platforms.

Overall, most respondents (68.3%) had a medium level of knowledge regarding e-learning, followed by low (16.7%) and high (15%) levels. The study highlights the need to improve awareness, technical skills, and access to digital learning resources among college students, especially in traditional institutions.

Keywords: *E-learning, Knowledge, College students, Digital education, Rajasthan*

Introduction:

Information and Communication Technology (ICT) has become a fundamental component of contemporary society, bringing significant transformations across various sectors. Among these, education has been one of the most profoundly influenced areas. As education serves as the backbone of societal development, it must continuously evolve alongside technological advancements to maintain its relevance and effectiveness. The integration of ICT into educational systems has therefore become essential for improving the quality of teaching and promoting innovative learning practices.

The incorporation of ICT has led to the emergence of online learning systems and internet-based educational models, which have expanded access to education and transformed traditional teaching methods. These developments emphasize learner-centered approaches, enabling students to actively participate in the learning process. The increasing adoption of virtual and blended learning environments has encouraged colleges and universities to implement Learning Management Systems (LMS), cloud-based technologies, and various digital tools to enhance instructional delivery and student engagement.

The COVID-19 pandemic further accelerated the adoption of ICT in education, highlighting its critical role in ensuring continuity of learning during unforeseen disruptions. The strategic use of ICT in higher education institutions has improved accessibility, flexibility, and teaching effectiveness, making it a key driver of academic excellence in today's knowledge-based global society.

ICT refers to a broad range of technologies that facilitate access to information through communication networks. While it is closely related to information technology, ICT places greater emphasis on communication tools such as the internet, wireless networks, computers, and multimedia systems used for creating, storing, transmitting, and managing information (UNESCO, 2007).

The term "e-learning" was first introduced in October 1999 during a seminar on computer-based training in Los Angeles. Since then, advancements in technology and the widespread use of the internet have significantly increased the importance of e-learning in the education sector. E-learning has made education more accessible by allowing learners to access study materials at their convenience, thereby enabling them to balance academic pursuits with personal and professional responsibilities. It has also transformed the process of knowledge dissemination by making it faster, more flexible, and more diverse in terms of teaching and learning methods.

E-learning plays a crucial role in improving educational quality by providing access to global learning resources and facilitating continuous professional development for educators (Gamal and Aiz, 2011). However, despite its growing popularity, the adoption and effective utilization of e-learning in developing regions remain slower compared to developed countries (Kanwal and Rehman, 2017).

E-learning can be defined as the process of acquiring knowledge through electronic technologies, primarily via the internet. It utilizes various network systems such as Local Area Networks (LAN), Wide Area Networks (WAN), and web-based platforms to deliver educational content across geographical boundaries. Web-based learning, a key component of e-learning, offers interactive and personalized learning experiences through multimedia tools, online platforms, and digital storage systems.

Furthermore, e-learning integrates both synchronous (real-time) and asynchronous (self-paced) modes of learning, enabling students to interact through tools such as video conferencing, discussion forums, and chat systems. This flexibility enhances learner engagement and supports diverse learning

needs beyond the limitations of traditional classroom settings.

Objectives:

- To study the socio-personal characteristics of college students.
- To assess the knowledge of students regarding e-learning.

Methodology:

The respondents were selected using a random sampling technique. Two universities from Bikaner district were selected for the study. From each university, postgraduate students were chosen as respondents. A total of 60 students were selected from each university, comprising 30 boys and 30 girls, ensuring equal gender representation. Thus, the total sample size for the study was 120 respondents.

A structured questionnaire was developed to collect the data. The tool was prepared in accordance with the objectives of the study and with the guidance of experts in the field of Extension Education and Communication Management. The questionnaire was divided into different sections, including socio-personal characteristics, access to e-learning, awareness, exposure, and knowledge regarding various e-learning platforms and tools.

The research instrument was pre-tested on a small group of non-sample respondents to ensure clarity, reliability, and validity. Necessary modifications were made based on the feedback received before final data collection.

The data were collected through personal contact with the respondents. After collection, the data were classified, tabulated, and analyzed using appropriate statistical tools such as frequency and percentage for meaningful interpretation of the results.

Data statistical analysis:

The collected data were tabulated and analyzed using simple statistical tools such as frequency and percentage.

Result and Discussion:

The data collected from the students of traditional and professional colleges in Bikaner district were analyzed to assess their knowledge regarding e-learning. The findings of the study have been systematically organized and presented under the following sections:

1. Socio-personal characteristics of the respondents
2. Knowledge of respondents about e-learning

Table 1: represent the socio-personal characteristics of the respondents (N=120)

| Parameter | Category | Traditional College | | | | | | Professional College | | | | | | Total (N=120) | |
|---------------------|------------------------------------|---------------------|------|--------------|------|--------------|------|----------------------|------|--------------|------|--------------|------|---------------|------|
| | | Boys (n=30) | | Girls (n=30) | | Total (n=60) | | Boys (n=30) | | Girls (n=30) | | Total (n=60) | | | |
| | | f | % | f | % | f | % | f | % | f | % | f | % | f | % |
| Age | Lower age group (<22Years) | 5 | 16.7 | 2 | 6.7 | 7 | 11.7 | 3 | 10 | 3 | 10 | 6 | 10 | 13 | 10.8 |
| | Middle age group (22 - 25 Years) | 23 | 76.6 | 22 | 73.3 | 45 | 75 | 27 | 90 | 25 | 83.3 | 52 | 86.7 | 97 | 80.8 |
| | Upper age group (>25 years) | 2 | 6.7 | 6 | 20 | 8 | 13.3 | 0 | 0.0 | 2 | 6.7 | 2 | 3.3 | 10 | 8.4 |
| | Mean Score: 23.4, S.D. 1.57 | | | | | | | | | | | | | | |
| place of residence | Rural | 14 | 46.7 | 14 | 46.7 | 28 | 46.7 | 25 | 83.3 | 22 | 73.3 | 47 | 78.3 | 75 | 62.5 |
| | Urban | 16 | 53.3 | 16 | 53.3 | 32 | 53.3 | 5 | 16.7 | 8 | 26.7 | 13 | 21.7 | 45 | 37.5 |
| Residential status | Day scholar | 30 | 100 | 21 | 70 | 51 | 85 | 3 | 10 | - | - | 3 | 5 | 54 | 45 |
| | Hosteller | - | - | 9 | 30 | 9 | 15 | 27 | 90 | 30 | 100 | 57 | 95 | 66 | 55 |
| Medium of education | Hindi | 24 | 80 | 18 | 60 | 42 | 70 | - | - | - | - | - | - | 42 | 35 |
| | English | 6 | 20 | 12 | 40 | 18 | 30 | 30 | 100 | 30 | 100 | 60 | 100 | 78 | 65 |
| Family type | Nuclear | 22 | 73.3 | 25 | 83.3 | 47 | 78.3 | 21 | 70 | 20 | 66.7 | 41 | 68.3 | 88 | 73.3 |

| | | | | | | | | | | | | | | | |
|----------------------|--|----|------|----|------|----|------|----|------|----|------|----|------|----|------|
| | Joint | 8 | 26.7 | 5 | 16.7 | 13 | 21.7 | 9 | 30 | 10 | 33.3 | 19 | 31.7 | 32 | 26.7 |
| Family size | Small | 13 | 43.3 | 14 | 46.7 | 27 | 45.0 | 12 | 40 | 15 | 50 | 27 | 45 | 54 | 45 |
| | Medium | 12 | 40 | 11 | 36.7 | 23 | 38.3 | 12 | 40 | 11 | 36.7 | 23 | 38.3 | 46 | 38.3 |
| | Large | 5 | 16.7 | 5 | 16.7 | 10 | 16.7 | 6 | 20 | 4 | 13.3 | 10 | 16.7 | 20 | 16.7 |
| Father's occupation | Agriculture | 8 | 26.7 | 8 | 26.7 | 16 | 26.7 | 10 | 33.3 | 14 | 46.7 | 24 | 40 | 40 | 33.3 |
| | Farming + Livestock | 4 | 13.3 | 4 | 13.3 | 8 | 13.3 | 9 | 30 | 5 | 16.7 | 14 | 23.3 | 22 | 18.3 |
| | Business | 5 | 16.7 | 7 | 23.3 | 12 | 20 | 4 | 13.3 | 5 | 16.7 | 9 | 15 | 21 | 17.5 |
| | Service | 13 | 43.3 | 11 | 36.7 | 24 | 40 | 7 | 23.3 | 6 | 20 | 13 | 21.7 | 37 | 30.8 |
| Mother's occupation | Agriculture | 5 | 16.7 | 1 | 3.3 | 6 | 10 | 2 | 6.7 | 7 | 23.3 | 9 | 15 | 15 | 12.5 |
| | Farming + Livestock | 10 | 33.3 | 13 | 43.3 | 23 | 38.3 | 20 | 66.6 | 14 | 46.7 | 34 | 56.7 | 57 | 47.5 |
| | Business | 1 | 3.3 | 2 | 6.7 | 3 | 5.0 | 2 | 6.7 | 3 | 10 | 5 | 8.3 | 8 | 6.7 |
| | Service | 4 | 13.3 | 2 | 6.7 | 6 | 10 | 3 | 10 | 3 | 10 | 6 | 10 | 12 | 10 |
| | Housewife | 10 | 33.3 | 12 | 40 | 22 | 36.7 | 3 | 10 | 3 | 10 | 6 | 10 | 28 | 23.3 |
| Family annual income | Low (< 2.6 lakh) | 8 | 26.7 | 10 | 33.3 | 18 | 30 | 6 | 20 | 3 | 10 | 9 | 15 | 27 | 22.5 |
| | Medium (2.6 – 6 lakh) | 19 | 63.3 | 17 | 56.7 | 36 | 60 | 22 | 73.3 | 21 | 70 | 43 | 71.7 | 79 | 65.8 |
| | High (>6 lakh) (Mean Score: 4.15, SD: 1.54) | 3 | 10 | 3 | 10 | 6 | 10 | 2 | 6.7 | 6 | 20 | 8 | 13.3 | 14 | 11.7 |

| | | | | | | | | | | | | | | | |
|------------------------------------|--------------------------------|----|------|----|------|----|------|----|------|----|------|----|------|-----|------|
| Access to e-learning | Access | 9 | 30 | 11 | 36.7 | 20 | 33.3 | 25 | 83.3 | 27 | 90 | 52 | 86.7 | 72 | 60 |
| | No access | 21 | 70 | 19 | 63.3 | 40 | 66.7 | 5 | 16.6 | 3 | 10 | 8 | 13.3 | 48 | 40 |
| Awareness about e-learning | Aware | 30 | 100 | 30 | 100 | 60 | 100 | 30 | 100 | 30 | 100 | 60 | 100 | 120 | 100 |
| | Not Aware | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Mass media exposure | Low exposure (< 2.53) | 6 | 20 | 9 | 30 | 15 | 25 | 2 | 6.7 | 3 | 10 | 5 | 8.3 | 20 | 16.7 |
| | Medium exposure (2.53 to 3.93) | 8 | 26.7 | 12 | 40 | 20 | 33.3 | 17 | 56.7 | 14 | 46.7 | 31 | 51.7 | 51 | 42.5 |
| | High exposure (> 3.93) | 16 | 53.3 | 9 | 30 | 25 | 41.7 | 11 | 36.7 | 13 | 43.3 | 24 | 40 | 49 | 40.8 |
| (Mean Score=3.23 , SD=0.70) | | | | | | | | | | | | | | | |
| Access to internet | Access | 30 | 100 | 30 | 100 | 60 | 100 | 30 | 100 | 30 | 100 | 60 | 100 | 120 | 100 |
| | No access | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Place of using Internet | College /Institute | - | - | - | - | - | - | 30 | 100 | 30 | 100 | 60 | 100 | 60 | 50 |
| | Cyber Library | 13 | 43.3 | 9 | 30 | 22 | 36.7 | 6 | 20 | 7 | 23.3 | 13 | 21.7 | 35 | 29.2 |
| | Hostel | - | - | - | - | - | - | 27 | 90 | 30 | 100 | 57 | 95 | 57 | 47.5 |
| | Internet cafe | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| | Home | 30 | 100 | 30 | 100 | 60 | 100 | 3 | 10 | - | - | 3 | 5 | 63 | 52.5 |

The findings presented in the table reveal that the majority of respondents (80.8%) belonged to the middle age group (22–25 years), followed by 10.8 percent in the lower age group (<22 years) and 8.4 percent in the upper age group (>25 years). The mean age of the respondents was found to be 23.4 years (SD = 1.57), indicating that most of the respondents were within a similar age range. A similar trend was observed in both traditional (75%) and professional colleges (86.7%), where the majority of respondents belonged to the middle age group.

With regard to place of residence, a higher proportion of respondents (62.5%) belonged to rural areas, whereas 37.5 percent were from urban areas. It was observed that in traditional colleges, the majority (53.3%) were from urban areas, while in professional colleges, most respondents (78.3%) belonged to rural areas.

In terms of residential status, more than half of the respondents (55%) were hostellers, while 45 percent were day scholars. It was evident that students from professional colleges were predominantly hostellers (95%), whereas traditional college students were mostly day scholars (85%). Regarding the medium of education, the majority of respondents (65%) had English as their medium of instruction, while 35 percent studied in Hindi medium. This difference was mainly due to the dominance of English medium education in professional colleges (100%), whereas in traditional colleges, most students (70%) studied in Hindi medium.

A large proportion of respondents (73.3%) belonged to nuclear families, whereas 26.7 percent were from joint families. This pattern was similar in both traditional (78.3%) and professional colleges (68.3%), where nuclear families were predominant. In terms of family size, the majority of respondents (45%) had small families, followed by 38.3 percent with medium-sized families and 16.7 percent with large families.

The occupational status of fathers indicated that the majority (33.3%) were engaged in agriculture, followed by service (30.8%), business (17.5%), and farming combined with livestock (18.3%). In traditional colleges, most fathers (40%) were engaged in service, whereas in professional colleges, the majority (40%) were involved in agriculture. Similarly, most mothers (47.5%) were involved in farming along with livestock activities, followed by 23.3 percent as housewives. This trend was more prominent in professional colleges (56.7%).

In terms of family annual income, the majority of respondents (65.8%) belonged to the medium income group (₹2.6–6 lakh), followed by 22.5 percent in the low-income group and 11.7 percent in the high-income category. A higher proportion of professional college students (71.7%) belonged to the medium income group compared to traditional colleges (60%). The mean income score was 4.15 (SD = 1.54), indicating a moderate economic background of most respondents.

Regarding access to e-learning, 60 percent of respondents reported having access, whereas 40 percent did not have access. It was observed that in traditional colleges, the majority (66.7%) had no

access, whereas in professional colleges, most respondents (86.7%) had access to e-learning. However, all respondents (100%) were aware of e-learning. The analysis of mass media exposure revealed that the majority of respondents (42.5%) had medium exposure, followed by 40.8 percent with high exposure and 16.7 percent with low exposure. In traditional colleges, a higher proportion (41.7%) had high exposure, whereas in professional colleges, most respondents (51.7%) had medium exposure. The mean score for mass media exposure was 3.23 (SD = 0.70), indicating a moderate level of exposure among respondents.

All respondents (100%) had access to the internet. Regarding the place of internet use, more than half of the respondents (52.5%) accessed the internet at home, followed by 50 percent in colleges/institutes and 47.5 percent in hostels. It was observed that traditional college students primarily used the internet at home, whereas professional college students mainly accessed it through colleges and hostels.



Table 2: Distribution of respondents by knowledge about e-learning

| Parameter | Category | Traditional College | | | | | | Professional College | | | | | | Total (N=120) | |
|--|---------------|---------------------|------|--------------|------|--------------|------|----------------------|------|--------------|------|--------------|------|---------------|------|
| | | Boys (n=30) | | Girls (n=30) | | Total (n=60) | | Boys (n=30) | | Girls (n=30) | | Total (n=60) | | | |
| | | f | % | f | % | f | % | f | % | f | % | f | % | f | % |
| Knowledge about blended learning | Know | 23 | 76.7 | 15 | 50 | 38 | 63.3 | 24 | 80 | 26 | 86.7 | 50 | 83.3 | 88 | 73.3 |
| | Don't know | 7 | 23.3 | 15 | 50 | 22 | 36.7 | 6 | 20 | 4 | 13.3 | 10 | 16.7 | 32 | 26.7 |
| awareness about e-learning platforms and tools | Aware | 26 | 86.7 | 14 | 46.7 | 40 | 66.7 | 30 | 100 | 30 | 100 | 60 | 100 | 100 | 83.3 |
| | Unaware | 4 | 13.3 | 16 | 53.3 | 20 | 33.3 | - | - | - | - | - | - | 20 | 16.7 |
| knowledge about e-learning platforms and tools | Google meet | 21 | 70 | 21 | 70 | 42 | 70 | 30 | 100 | 30 | 100 | 60 | 100 | 102 | 85 |
| | Zoom | 22 | 73.3 | 24 | 80 | 46 | 76.7 | 30 | 100 | 30 | 100 | 60 | 100 | 106 | 88.3 |
| | Webex | 4 | 13.3 | 2 | 6.7 | 6 | 10 | 14 | 46.7 | 11 | 36.7 | 25 | 41.7 | 31 | 25.8 |
| | Krishikosh | 3 | 10 | 2 | 6.7 | 5 | 8.3 | 30 | 100 | 30 | 100 | 60 | 100 | 65 | 54.2 |
| | Sodhganga | - | - | - | - | - | - | 30 | 100 | 30 | 100 | 60 | 100 | 60 | 50 |
| | CERA | - | - | 2 | 6.7 | 2 | 3.3 | 15 | 50 | 13 | 43.3 | 28 | 46.7 | 30 | 25 |
| | Research gate | - | - | - | - | - | - | 19 | 63.3 | 13 | 43.3 | 32 | 53.3 | 32 | 26.7 |
| | Coursera | 7 | 23.3 | 6 | 20 | 13 | 21.7 | 10 | 33.3 | 11 | 36.7 | 21 | 35 | 34 | 28.3 |
| | J-gate | - | - | - | - | - | - | 8 | 26.7 | 6 | 20 | 14 | 23.3 | 14 | 11.7 |
| | E-library | 13 | 43.3 | 10 | 33.3 | 23 | 38.3 | 12 | 40 | 12 | 40 | 24 | 40 | 47 | 39.2 |
| | SWYAM | 5 | 16.7 | 12 | 40 | 17 | 28.3 | 14 | 46.7 | 8 | 26.7 | 22 | 36.7 | 39 | 32.5 |
| | IGNOU | 19 | 63.3 | 17 | 56.7 | 36 | 60 | 19 | 63.3 | 19 | 63.3 | 38 | 63.3 | 74 | 61.7 |
| | Udemy | 7 | 23.3 | 19 | 63.3 | 26 | 43.3 | - | - | - | - | - | - | 26 | 21.7 |
| | Khan academy | 26 | 86.7 | 22 | 73.3 | 48 | 80 | 5 | 16.7 | 7 | 23.3 | 12 | 20.0 | 60 | 50 |
| | LinkedIn | 5 | 16.7 | 8 | 26.7 | 13 | 21.7 | 8 | 26.7 | 15 | 50.0 | 23 | 38.3 | 36 | 30 |
| | Quora | 7 | 23.3 | 2 | 6.7 | 9 | 15 | - | - | - | - | - | - | 9 | 7.5 |
| | Youtube | 30 | 100 | 30 | 100 | 60 | 100 | 30 | 100 | 30 | 100 | 60 | 100 | 120 | 100 |
| Google classroom | 9 | 30 | 7 | 23.3 | 16 | 26.7 | 14 | 46.7 | 13 | 43.3 | 27 | 45.0 | 43 | 35.8 | |
| e-pathshala | 21 | 70 | 19 | 63.3 | 40 | 66.7 | - | - | - | - | - | - | 40 | 33.3 | |
| utkarsh | 27 | 90 | 23 | 76.7 | 50 | 83.3 | 2 | 6.7 | 8 | 26.7 | 10 | 16.7 | 60 | 50 | |

| | | | | | | | | | | | | | | | |
|--|--|----|------|----|------|----|------|----|------|----|------|----|------|----|------|
| Knowledge MOOCs | Known | 5 | 16.7 | 10 | 33.3 | 15 | 25 | 16 | 53.3 | 12 | 40 | 28 | 46.7 | 43 | 35.8 |
| | Unknow | 25 | 83.3 | 20 | 66.7 | 45 | 75 | 14 | 46.7 | 18 | 60 | 32 | 53.3 | 77 | 64.2 |
| Knowledge about NPTEL | Known | 6 | 20 | 13 | 43.3 | 19 | 31.7 | 17 | 56.7 | 15 | 50 | 32 | 53.3 | 51 | 42.5 |
| | Unknow | 24 | 80 | 17 | 56.7 | 41 | 68.3 | 13 | 43.3 | 15 | 50 | 28 | 46.7 | 69 | 57.5 |
| knowledge about abilities required for e-learning platforms | yes | 9 | 30 | 9 | 30 | 18 | 30 | 7 | 23.3 | 8 | 26.7 | 15 | 25 | 33 | 27.5 |
| | Some extent | 10 | 33.3 | 9 | 30 | 19 | 31.7 | 18 | 60 | 15 | 50 | 33 | 55 | 52 | 43.3 |
| | no | 11 | 36.7 | 12 | 40 | 23 | 38.3 | 5 | 16.7 | 7 | 23.3 | 12 | 20 | 35 | 29.7 |
| knowledge about technical skills needed for efficiently use of e-learning | yes | 14 | 46.7 | 13 | 43.3 | 27 | 45 | 21 | 70 | 15 | 50 | 36 | 60 | 63 | 52.5 |
| | Some extent | 12 | 40 | 14 | 46.7 | 26 | 43.3 | 9 | 30 | 15 | 50 | 24 | 40 | 50 | 41.7 |
| | no | 4 | 13.3 | 3 | 10 | 7 | 11.7 | - | - | - | - | - | - | 7 | 5.8 |
| Overall knowledge of respondents about e-learning (Mean score-13.6, S.D 2.96) | Low level knowledge (<10.63) | 10 | 33.3 | 9 | 30 | 19 | 31.7 | - | - | 1 | 3.3 | 1 | 1.7 | 20 | 16.7 |
| | Medium level knowledge (10.63 – 16.57) | 16 | 53.4 | 21 | 70 | 37 | 61.6 | 21 | 70 | 24 | 80 | 45 | 75 | 82 | 68.3 |
| | High level knowledge (> 16.57) | 4 | 13.3 | - | - | 4 | 6.7 | 9 | 30 | 5 | 16.7 | 14 | 23.3 | 18 | 15 |

The findings presented in the table 2 reveal that the majority of respondents (73.3%) had knowledge about blended learning, whereas 26.7 percent did not know about it. A comparatively higher proportion of respondents from professional colleges (83.3%) had knowledge regarding blended learning as compared to traditional colleges (63.3%).

With regard to awareness about e-learning platforms and tools, the majority of respondents (83.3%) were aware, while only 16.7 percent were unaware. It was observed that all respondents (100%) from professional colleges were aware of e-learning platforms and tools, whereas in traditional colleges, 66.7 percent were aware.

The analysis regarding knowledge of e-learning platforms and tools showed that YouTube was the most commonly known platform, with cent percent respondents being aware of it. This was

followed by Zoom (88.3%), Google Meet (85%), and IGNOU (61.7%). Knowledge regarding Krishikosh and Khan Academy was reported by 50 percent respondents each. Awareness about other platforms such as E-library (39.2%), Google Classroom (35.8%), SWAYAM (32.5%), LinkedIn (30%), Coursera (28.3%), ResearchGate (26.7%), CERA (25%), Udemy (21.7%), and J-gate (11.7%) was comparatively lower. Quora was the least known platform, with only 7.5 percent respondents being aware of it.

It was further observed that respondents from professional colleges had comparatively higher knowledge regarding academic and research-oriented platforms such as Krishikosh, Sodhganga, ResearchGate, CERA, and J-gate, whereas respondents from traditional colleges had greater awareness regarding platforms such as Khan Academy, Utkarsh, Udemy, and e-Pathshala.

Regarding knowledge about MOOCs, the majority of respondents (64.2%) were unaware of MOOCs, whereas only 35.8 percent had knowledge about them. Similarly, more than half of the respondents (57.5%) were unaware of NPTEL, while 42.5 percent reported having knowledge regarding it. Awareness regarding MOOCs and NPTEL was comparatively higher among professional college students than traditional college students.

The findings further indicated that 43.3 percent respondents had knowledge about abilities required for e-learning platforms to some extent, whereas 29.7 percent reported having no knowledge and 27.5 percent had adequate knowledge regarding such abilities. In professional colleges, the majority of respondents (55%) reported knowledge to some extent, whereas in traditional colleges, a considerable proportion (38.3%) reported no knowledge.

With regard to technical skills needed for efficient use of e-learning, more than half of the respondents (52.5%) reported having knowledge, while 41.7 percent had knowledge to some extent and only 5.8 percent reported no knowledge. Knowledge regarding technical skills was found to be higher among professional college students (60%) as compared to traditional college students (45%). The overall knowledge level of respondents about e-learning revealed that the majority of respondents (68.3%) possessed medium level knowledge, followed by 16.7 percent with low level knowledge and 15 percent with high level knowledge. The mean score of overall knowledge was found to be 13.6 with a standard deviation of 2.96, indicating a moderate level of knowledge among respondents. A comparatively higher proportion of respondents from professional colleges (75%) belonged to the medium knowledge category, whereas in traditional colleges, 61.6 percent respondents had medium level knowledge.

Conclusion:

The present study was conducted using a descriptive research design to assess the knowledge of college students towards e-learning in Bikaner district of Rajasthan. The study was carried out in two universities comprising traditional and professional colleges. A random sampling technique was

adopted for the selection of respondents, and accordingly 60 students from each university, including equal representation of boys and girls, were selected, making a total sample of 120 respondents. Data were collected through a well-structured and pre-tested interview schedule consisting of socio-personal characteristics, awareness, accessibility, utilization, and knowledge regarding e-learning platforms and tools. The collected data were analyzed using frequency, percentage, mean score, and standard deviation. The findings revealed that the majority of respondents belonged to the middle age group, nuclear families, and medium income category. All respondents were aware of e-learning and had access to the internet, while access to e-learning facilities was comparatively higher among professional college students than traditional college students. The study further indicated that YouTube, Zoom, Google Meet, and IGNOU were the most commonly known e-learning platforms among respondents. Professional college students had greater awareness regarding research-oriented platforms such as Krishikosh, Sodhganga, ResearchGate, and CERA, whereas traditional college students were more familiar with platforms like Khan Academy, Utkarsh, and e-Pathshala. Overall, the majority of respondents possessed medium level knowledge regarding e-learning, indicating the need to further improve technical skills, awareness, and effective utilization of advanced e-learning resources among college students.

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