

Knowledge and Attitude towards Social Media Use in Online Learning among College Teachers with regard to Gender, Academic Stream and Age Group

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Abstract

The present research paper aimed to explore the Knowledge and Attitude of college teachers towards the use of social media in online learning with regard to their gender academic stream and age group. The sample selected for the study included 100 assistant professors from various government Colleges of Shimla district, Himachal Pradesh. The data was collected with the help of a standardised tool developed by Jogezi et al., (2021). The results indicated that there was no significant difference existing in the knowledge and attitude of college teachers towards their usage of social media in online learning with regards to their gender and academic stream. However, there were significant differences observed with with regard to different age groups among college teachers.

Keywords: Social Media Uses, Online Learning, College Teachers, Digital Competence, Gender Differences, Educational Technology.

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I. Introduction

The exceptional growth of digital technologies has revolutionized educational practices across the world. In the context of online learning these technologies shows a massive impact on education. Online learning has created many opportunities for teacher and students to access quality education from anywhere in the world. Among these technological advancements, Social media platforms have developed into game changing tools that extend beyond social interaction to become integral resources in educational settings. Their potential to enhance online learning environments has captured the attention of educators and researchers alike (Friedman & Friedman, 2013; Bexheti, Ismaili & Cico, 2014). These platforms including Facebook, YouTube, Twitter (X), and LinkedIn, have been widely adopted by higher education faculty members. These tools are used to assist teaching and learning, providing platform for content sharing, learning and student engagement (Moran, Seaman & Tinti-Kane, 2011; Jogezi et al., 2021). Studies indicate that many educators integrate social media as part of their teaching assignments to boost student engagement and learning outcomes. Despite the challenges related to privacy concerns, lack of infrastructure, internet and insufficient formal training on these technologies (Moran, Seaman & Tinti-Kane, 2011; Murire& Cilliers, 2019). Primarily, the adoption of these tools tends to be higher among younger, tech-savvy educators, though social media use spans across various age groups and disciplines, indicating a widespread acceptance of these digital tools in academia (Moran, Seaman & Tinti-Kane, 2011; Murire& Cilliers, 2019).

The COVID-19 pandemic further accelerated the integration of digital media and online platforms in education. This drastically transforms traditional modes of instruction to a fully virtual environment. This sudden shift has drawn critical attention to college teacher's knowledge, and attitudes toward the use of social media in facilitating online learning (Afroz, Islam, Rahman & Anny, 2021; Dutta, 2020). Research emphasizes that positive attitudes and sufficient digital competence among educators are vital to successfully implement social media as instructional tools in online education (Gururaja, 2021; Jogezi et al., 2021). Demographic factors such as gender, stream of specialization, and age group play significant roles in influencing educators' familiarity and comfort with social media technologies, affecting the extent and manner of their adoption in educational contexts (Afroz et al., 2021; Prakasha, Sangeetha, Almeida &Chellasamy, 2022).

Significance of the Study

This research on the issue of college teachers' knowledge and attitude regarding the use of social media in online learning is important to that which gender, academic stream, and age play a role in educational practices. We see that there is a gender gap in social media use which research presents women tend to use these platforms

more for learning, men report to have higher digital skills, which in turn plays into traditional gender stereotypes. Also we see difference across academic streams which in turn may require that we tailor our teaching methods to each discipline's needs thus improving overall effectiveness. Age also comes into play with tech adoption which is an element we must study to put in place support which in turn will support all educators. We see social media platforms like Facebook and YouTube to play key roles in the improvement of communication and collaborative learning which in turn makes it very important for institutions to get behind the effective use of these tools at the same time as they address issues of privacy and infrastructure.

II. Review of Related Literature

Research has shown that as online learning expanded, social networking platforms such as YouTube, Facebook, and blogs became valuable tools for improving student participation and learning outcomes, despite the fact that concerns regarding privacy, academic integrity, and insufficient faculty training continued to pose challenges (Seaman & Tinti-Kane, 2011). Studies further revealed that higher education teachers generally hold positive attitudes towards e-learning, still awareness and acceptance vary across academic disciplines, particularly among arts faculty and female educators (Krishnan & Rajesh, 2011). In addition, social media has been recognized as an effective means of promoting student engagement, , and collaboration, encouraging the adoption of more innovative and learner-centred instructional approaches (Friedman & Friedman, 2013). Correspondingly, teachers have acknowledged the instructional value of online media platforms despite ongoing concerns related to privacy and academic integrity (Bexheti et al., 2014). The increasing use of mobile technology in teacher education has further emphasized the need for stronger technological infrastructure and continued research to support its effective implementation (Baran, 2014). Positive perceptions of social media have also been reported among management students, suggesting its potential to improve both academic performance and student engagement (Singh, Goel, & Islamia, 2016).

Similarly, teachers have expressed strong support for blended learning and multimedia-based instruction, although many remain hesitant to completely replace traditional teaching methods, with gender differences also influencing acceptance (Suri & Sharma, 2016). Beyond classroom communication, social media has been found to support collaborative learning, innovative teaching practices, and continuous professional development, highlighting the need for further research in this area (Mnkandla & Minnaar, 2017). Positive attitudes towards mobile learning have also been observed among teachers, particularly among experienced educators who demonstrated greater acceptance of technology integration (Baek, Zhang, & Yun, 2017). Furthermore, the successful adoption of social media in educational institutions depends on institutional support, ICT infrastructure, faculty training, and effective leadership, while demographic factors such as age also influence technology adoption (Murire & Cilliers, 2019). During the COVID-19 pandemic, digital social media became an essential medium for institutional communication, learning continuity, and student decision-making in Indian higher education (Dutta, 2020). More recent evidence has also indicated that students developed favourable attitudes towards online learning during the pandemic, particularly female students, while researchers recommended seminars, workshops, and awareness programmes to strengthen technology integration in education (Prakash et al., 2022). Recent studies indicate that social media has evolved into an essential component of digital pedagogy, promoting collaborative learning, learner engagement, and knowledge sharing, while its successful integration depends on digital literacy and institutional support (Perez et al. 2023). Platforms such as WhatsApp, YouTube, Facebook, LinkedIn, Instagram, and X have become widely used for teaching and academic networking, although concerns related to privacy, misinformation, and digital ethics persist (Sengupta, 2024).

Objective of the Study

1. To study the knowledge and attitude towards social media use in online learning among college teachers with regard to their gender.
2. To study the knowledge and attitude towards social media use in online learning among college teachers with regard to their academic stream.
3. To study the knowledge and attitude towards social media use in online learning among college teachers with regard to different age groups.

HYPOTHESES OF THE STUDY

1. There will be no significant difference in knowledge towards social media use in online learning among college teachers with regard to Gender (H_{01}).
2. There will be no significant difference in attitude towards social media use in online learning among college teachers with regard to Gender (H_{02}).
3. There will be no significant difference in knowledge towards social media use in online learning among college teachers with regard to their academic stream (H_{03}).

4. There will be no significant difference in attitude towards social media use in online learning among college teachers with regard to their academic stream (H_{04}).
5. There will be no significant difference in knowledge towards social media use in online learning among college teachers with regard to different age group (H_{05}).
6. There will be no significant difference in attitude towards social media use in online learning among college teachers with regard to different age group (H_{06}).

DELIMITATIONS OF THE STUDY

1. The study was confined to assistant professors working in Government colleges of the district Shimla of Himachal Pradesh.
2. The study was confined to 100 assistant professors of Shimla district working on a regular basis.
3. The study was delimited only to assistant professors of social science and science streams.
4. The scope of the study was delimited to assistant professors belonging to the age groups of 25-35 years, 35-45 years, and 45-55 years.

Methodology

The study surveyed 100 college teachers from Shimla district using a questionnaire on online media platforms use in online learning. Teachers were selected randomly and categorized by gender, stream, and age. Data was collected via Google Forms and analyzed using t-tests to compare group differences.

Sample

The sample consisted of 100 assistant professors from government colleges in Shimla district, Himachal Pradesh. Among them, 46 were male and 54 female; 74 belonged to the arts stream, and 26 to the science stream. The age groups included 32 teachers aged 25-35 years, 55 aged 36-45 years, and 13 aged 46-55 years. The sample was randomly selected to represent the target population of college teachers in the district.

Research Tool

The research tool used in the study to assess the knowledge and attitude of college teachers towards social media use in online learning was developed by Nazir Ahmed Jomezai, Fozia Ahmed Baloch, Muhammad Jaffar, Tariq Shah, Gulab Khan Khilji and Siraj Bashir (2021). This tool originally comprised four dimensions: Social Distancing, Social Media (SM) Use during Physical Distancing, Social Media Knowledge, Attitude, and Digital Media Use among Religious Scholars. However, for this study, only two dimensions were utilized: Social Media Knowledge and Attitude regarding the use of social networking sites for educational purposes in online learning

III. Result and Discussion

1. KNOWLEDGE AND ATTITUDE TOWARDS SOCIAL MEDIA USE IN ONLINE LEARNING AMONG COLLEGE TEACHERS WITH RESPECT TO GENDER

To figure out the significance of the difference between Male and Female college teachers in knowledge and attitude towards social media use in online learning, the t-value was computed as shown in Table 1

Table 1
Comparison of Mean Scores of Knowledge and Attitude towards Social Media Use in Online Learning of College Teachers regarding their Gender

Sr. No.	Social Media Use In Online Learning	Gender		t value df=98
		Male N=46	Female N=54	
1	Social Media Knowledge	M=30.91 SD=7.24	M=31.37 SD=7.40	t=0.31 Non Significant
2	Attitude	M=40.17 SD=8.86	M=40.22 SD=9.23	t=0.027 Non Significant
3	Total	M=71.08 Sd=15.48	M=71.59 SD=16.28	t=0.158 Non Significant

Table 1 shows the first t-value 0.31 was not statistically significant at the 0.05 level of significance. As a result hypothesis H_{01} is accepted. This means that male and female college teachers had similar knowledge regarding the use of social networking sites for educational purposes in online learning.

Table 1 also shows that the second t-value i.e. 0.027 was not statistically significant at 0.05 level of significance. As a result the hypothesis H_{02} is accepted. This means that male and female college teachers had similar attitude regarding the use of social networking sites for educational purposes in online learning.

2. KNOWLEDGE AND ATTITUDE TOWARDS SOCIAL MEDIA USE IN ONLINE LEARNING AMONG COLLEGE TEACHERS WITH RESPECT TO STREAM

To figure out the significance of differences among Arts and Science college teachers in knowledge and attitude towards social media use in online learning, the t-value was calculated as shown in Table 2

Table 2
Comparison of Mean Scores of Knowledge and Attitude towards Social Media Use in Online Learning among College Teachers having Arts and Science Streams

Sr. No.	Social Media Use In Online Learning	STREAM		t value df=98
		ARTS N=74	SCIENCE N=26	
1	Social Media Knowledge	M=31.52 SD=6.82	M=30.11 SD=8.57	t=0.84 Non Significant
2	Attitude	M=40.58 SD=8.54	M=39.11 SD=10.35	t=0.71 Non Significant
3	Total	M=72.10 SD=14.98	M=69.23 SD=18.23	t=0.79 Non Significant

Table 2 shows that the first t-value i.e. 0.84 was not statically significant at 0.05 level of significance. As a result the hypothesis H_{03} is accepted. This means that arts and science college teachers had similar knowledge regarding the use of social networking sites for educational purposes in online learning.

Table 2 also shows that the second t-value i.e. 0.027 wasn't statically significant at 0.05 level of significance. As a result hypothesis H_{04} is accepted. This means that arts and science college teachers had similar attitude regarding the use of social networking sites for educational purposes in online learning.

3. KNOWLEDGE AND ATTITUDE TOWARDS SOCIAL MEDIA USE IN ONLINE LEARNING AMONG COLLEGE TEACHERS WITH RESPECT TO AGE GROUP (AT&BT)

To find out the significance of the difference between age group (AT&BT) of college teachers in knowledge and attitude towards social media use in online learning, the t-value was computed as shown in Table3

Table 3				
Sr. No.	Social Media Use in Online Learning	AGE GROUP (In years)		t value df=85
		AT (Above Thirty-Five) (35-45) N=55	BT (Below Thirty-Five) (25-35) N=32	
1	Social Media Knowledge	M=32.78 SD=5.80	M=31.21 SD=7.58	t=1.08 Non Significant
2	Attitude	M=42.40 SD=6.54	M=39.87 SD=9.34	t=1.47 Non Significant
3	Total	M=75.18 SD=11.63	M=71.09 SD=16.57	t=1.34 Non Significant

Table 3 shows that the first t-value i.e. 1.08 wasn't significant at a 0.05 level of significance. As a result hypothesis H_{05} is accepted. This means that age group of AT and BT college teachers had similar knowledge regarding the use of social networking sites for educational purposes in online learning.

Table 3 also shows that the second t-value i.e. 1.47 wasn't significant at a 0.05 level of significance. As a result the hypothesis H_{06} is accepted. This means that age group of AT and BT college teachers had similar attitude regarding the use of social networking sites for educational purposes in online learning.

4. KNOWLEDGE AND ATTITUDE TOWARDS SOCIAL MEDIA USE IN ONLINE LEARNING AMONG COLLEGE TEACHERS WITH RESPECT TO AGE GROUP (AF & BT)

To figure out the significance of the difference between age group (AF&BT) of college teachers in knowledge and attitude towards social media use in online learning, the t-value was computed as shown in Table 4

Table 4 Comparison of Mean Scores on Knowledge and Attitude towards Social Media use in Online Learning of College Teachers regarding their Age Group (AF&BT)

Sr. No.	Social Media Use In Online Learning	AGE GROUP (In years)		t value df=43
		AF (above forty-five) (45-55) N=13	BT (below Thirty-Five) (25-35) N=32	

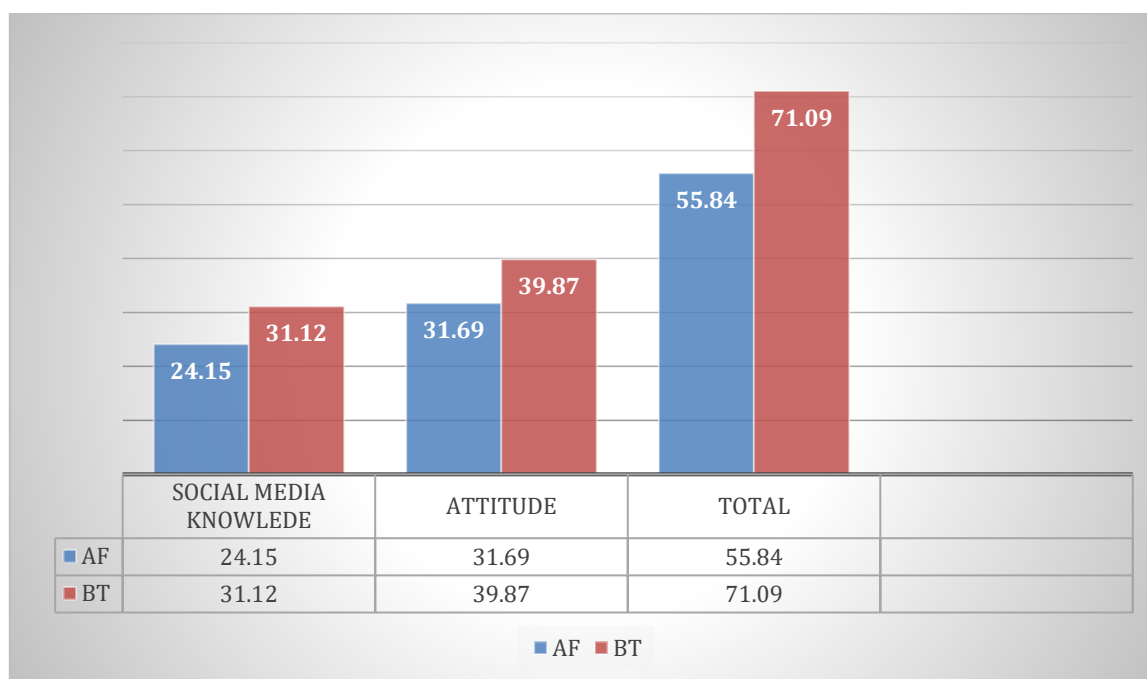
1	Social Media Knowledge	M=24.15 SD=8.62	M=31.21 SD=7.58	t=2.72 Significant
2	Attitude	M=31.69 SD=12.29	M=39.87 SD=9.34	t=2.42 Non-Significant
3	Total	M=55.84 Sd=20.61	M=71.09 SD=16.57	t=2.60 Non-Significant

Table 4 displays that the first t-value of 2.72 was significant at a 0.01 level of significance. Therefore, hypothesis Ho₅ is rejected. This means that age group of AF and BT college teachers had significant difference in knowledge regarding the use of social networking sites for educational purposes in online learning with degree of freedom 43.

According to Table 4, the second t-value 2.42 was not significant at the 0.01 level of significance. Therefore, hypothesis Ho₆ is accepted. This means that age group of AF and BT college teachers had similar attitude regarding the use of social networking sites for educational purposes in online learning.

Table 4 shows that the age groups (AT and BT) had similar attitudes toward social media use in online learning. However, a significant difference was observed in their knowledge of social media use in online learning between the same age groups.

Fig. 4.1 Displays the significant difference in mean scores of knowledge and statically difference in attitude regarding the use of social networking sites for educational purposes in online learning among college teachers. The difference is based on the age group of above forty-five (AF) and below thirty-five (BT).



5. KNOWLEDGE AND ATTITUDE TOWARDS SOCIAL MEDIA USE IN ONLINE LEARNING AMONG COLLEGE TEACHERS WITH RESPECT TO AGE GROUP (AF&AT)

To figure out the statically significance of the difference between age group (AF&AT) of college teachers in knowledge and attitude towards social media platforms use in online learning, the t-value was computed as shown in Table 5

Table 5

Sr. No.	Social Media Use In Online Learning	AGE GROUP (in years)		t value df=66
		AF(above forty-five) (45-55) N=13	AT (above thirty-five) (35-45) N=55	
1	Social Media Knowledge	M=24.15 SD=8.62	M=32.78 SD=5.80	t=4.36 Significant
2	Attitude	M=31.69 SD=12.29	M=42.40 SD=6.54	t=4.39 Significant

3	Total	M=55.84 Sd=20.61	M=75.18 SD=11.63	t=4.57 Significant
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Comparison of Mean Scores on Knowledge and Attitude towards Social Media use in Online Learning of College Teachers regarding their Age Group (AF&AT)

Table 5 shows that the t-values comparing significant differences in mean scores of knowledge and attitude of college educators regarding the use of social networking sites for educational purposes in online learning with regards to age group of above forty-five (AF) and above thirty-five (AT) came out to be 4.36 and 4.39 was emerged as significant at .01 level with degree of freedom 66.

According to Table 5, the first t-value of 4.36 is bigger than the table value of 2.65 at a 0.01 level of significance. This means that the null hypothesis H_{05} must be rejected. Therefore, there is a significant difference in knowledge of social media use in online learning between the AF (45-55 years) and AT (35-45years) age groups of college teachers.

As a result, a significant difference exists in the knowledge of social media platforms use in online learning among different age groups of college teachers. Further, the mean value of college teachers with the age group AF (45-55 years) is higher than the average score of college teachers belonging to the age group of AT (35-45years).

Also, the Table 5, the second t-value of 4.39 is greater than the table value of 2.65 at a 0.01 level of significance. This means that the null hypothesis H_{06} is rejected. This means that college teachers of different age groups have significant differences in attitudes regarding the use of social networking sites for educational purposes in online learning.

As a result, a statically significant difference exists in the Attitude regarding the use of social networking sites for educational purposes in online learning among different age groups of college teachers. Further, the mean value of college teachers with the age group AF (45-55 years) is higher than the average score of college teachers belonging to the age group of AT (35-45years).

It means that Knowledge and Attitude of college educators regarding the use of social networking sites for educational purposes in online learning differ significantly with regards to age group of Above Forty-Five (AF) and

Above Thirty Five (AT). Since mean value of social media knowledge 32.78 mean value of Age Group Above Forty-Five (AF) and Above Thirty-Five (AT)

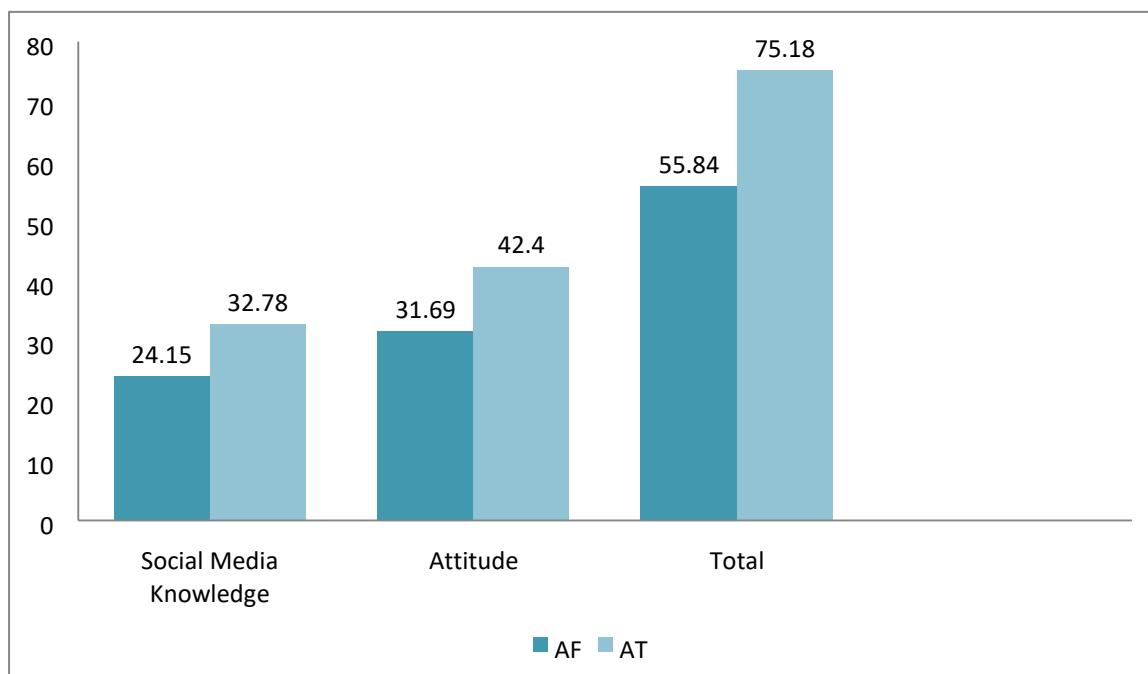


Fig. 4.2 Displays the significant difference in mean scores of knowledge and attitude regarding the use of social networking sites for educational purposes in online learning among college teachers. The difference is based on the age group of above forty-five (AF) and above thirty-five (AT).

Based on the data shown in tables 3, 4, and 5, we can conclude that the hypotheses "There will be no significant difference in knowledge of social media use in online learning among college teachers based on age group (H_{05})"

and "There will be no significant difference in attitude regarding the use of social networking sites for educational purposes in online learning among college teachers based on age group (H_{06})" are partially supported.

IV. CONCLUSIONS

The analysis of data shows that there were no significant differences in knowledge and attitude regarding the use of social networking sites for educational purposes in online learning between male and female college teachers, as well as between teachers from different streams. Similarly, no statically significant differences were found between the age groups of above thirty-five and below thirty-five. Whereas, a statically difference was noted in the knowledge towards social media use in online learning between the above forty-five and below thirty-five years, also a significant difference was observed between the age groups of above forty-five and above thirty-five years, indicating that knowledge and attitude regarding the use of social networking sites for educational purposes in online learning vary between these two age groups.

EDUCATIONAL IMPLICATIONS

1. By Understanding gender, stream, and age group differences can more effective implementation strategies and support systems for online education and social media uses.
2. Gender disparities may differ in terms of familiarity and comfort with social media platforms, influencing how male and female teachers utilize these tools (Applications) for educational purposes, and how effectively they use these platforms.
3. Stream-related variations could indicate different needs based on disciplinary backgrounds, impacting the selection of appropriate digital resources to make effective online learning.

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