

The Impact of Social Media on Creativity and Collaborative Learning in Higher Education: A Student's Perspective

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ABSTRACT

This study examines the impact of social media on creativity and collaborative learning among university students from Lahore, Pakistan. Using a quantitative research design, a cross-sectional survey was conducted, and data was collected through a structured questionnaire. A sample of 600 students from six universities, including public and private institutions, participated in the study. Stratified random sampling was employed, and responses were analyzed using SPSS. Descriptive statistics, independent sample t-tests, and One-Way ANOVA were used to assess variations in student perceptions. The findings highlight the role of social media as a tool for enhancing creativity and fostering collaborative learning among students. The study also explores gender-based and institutional differences in social media usage for academic collaboration. Ethical considerations were strictly followed, ensuring voluntary participation and data confidentiality. The results contribute to a deeper understanding of digital learning environments in higher education.

Introduction

In the modern era of technology, digital transformation has significantly influenced the education sector, shifting traditional classroom learning to online platforms (Alkhatlan & Al-Daraiseh, 2017). Higher education institutions in Pakistan have also integrated modern technology to enhance teaching and learning processes (Khan et al., 2021). The objective of this study is to

explore the factors influencing students' perceptions of social media as an educational tool. The increasing ubiquity and significance of social media in education make this an important area of research.

With the advent of new technologies, e-learning has become an integral part of students' daily academic routines. Academics argue that learning has evolved into an anytime, anywhere process, facilitated by information technology (IT) (Mason & Rennie, 2008). E-learning platforms offer students extensive opportunities for knowledge acquisition, collaborative learning, and critical thinking. The shift to digital learning environments enables students to take a more active role in their education compared to traditional classroom settings (Alloff & Aratt, 2007). The integration of information technology into various aspects of life has significantly influenced recruitment practices, increasing productivity through digital tools (Surahio et al., 2025).

Students use social media as a search engine, content-sharing platform, and collaborative learning space. Al-Rahmi and Zeki (2017) describe social media as an asset that provides personalized user experiences for education, entertainment, and marketing. These tools enhance students' digital literacy by enabling them to research topics, collaborate on projects, and develop new skills. Ansari and Khan (2020) assert that modern students have constant access to vast online resources, including digital libraries and social networks, which they find both useful and acceptable for academic purposes (Voorn & Kommers, 2013).

Social media fosters peer teaching and cooperative learning, as students share interests and insights through interactive engagement (Al-Samarraie & Saeed, 2018). Unlike traditional learning environments, online platforms eliminate geographical barriers, making knowledge more accessible. The usability and flexibility of these digital spaces distinguish them from conventional classroom settings. Moreover, social media tools facilitate informal learning within homes and communities, supplementing formal education (Zachos et al., 2018). Informal learning, as defined by Al-Rahmi et al. (2018), involves self-directed activities such as exploration, experimentation, socialization, and storytelling, which enhance students' engagement and academic growth.

Cloud computing has emerged as an effective instrument for promoting behavioral change by delivering real-time feedback and data-driven insights, particularly in the domains of health and education (Sarfaraz & Moussavi, 2024).

Despite the widespread adoption of social media in daily life, higher education institutions still rely primarily on traditional learning management systems (LMS) that do not fully leverage social media's educational potential (Manca, 2020). Universities need to adopt more interactive, student-centered digital learning environments that promote collaborative engagement across different platforms (Robinson, Kilgore, & Warren, 2017). This study aims to assess how university students in Pakistan perceive social media as a tool for enhancing their academic experiences and collaborative learning.

Statement of the Problem

Electronic tools of learning are included social media technologies that helped the students in learning from different cultures, well known teachers from all over the world, and meet with the professionals online. With the help of modern technology, people especially students can share their ideas, information and resources in academics worldwide. Online help in learning is the most important part of the study nowadays. It is noted that in Pakistan at higher education level, students are using social media technologies at a large scale, but it is also noted that learning from social media impact on students' learning effectively. For addressing this problem and issue, current

study was intended to investigate the perceptions of the university students towards social media support in learning.

Literature Review

Social Media

According to Kaplan and Haenlein (2010), social media is defined as Internet based platforms for creating and sharing user generated content in the basis of Web 2.0 principles. Interaction, collaboration and self-expression are served by these platforms that make up a key component of digital communication. Initially, Web 2.0 is referred to by O'Reilly (2007) as an evolution from static web pages to web pages through which users are able to interact and are able to socially generate and spread information (Alexander, 2006). Web 2.0 technologies bring some advantages compared to traditional Web 1.0 tools, in this case Karasavvidis (2010) highlights that there are advantages with Web 2.0 technologies regarding to the interactivity, the engagement and opportunities for collaborative learning.

User-Generated Content (UGC)

User generated content (UGC) constitutes the most fundamental part of social media as it consists in the creation, editing and sharing of digital content (Kaplan & Haenlein, 2010). This dynamic feature has provided a new way of how students interact with online educational resources and learning from other peers (Lenartz, 2013).

Social Software

Social software is a technology that enables online collaboration and knowledge sharing, which is sometimes taken as Web 2.0 and User Generated Content (UGC). Social software is defined to be a digital application that helps users to build virtual communities, discuss with each other and exchange information (Bragg, 2005). According to Shirky (2003), social software allows people to interact socially and provides environmental conditions for the improvement of educational experiences through digital collaboration.

Role of Social Media in Higher Education

Higher education has been influenced greatly by social media in that it has enhanced student engagement and communication. According to Lenartz (2013), it plays an important role in innovative teaching methods such as virtual campuses at institutions such as City University of New York (CUNY) and Arizona State University. They are platforms for academic and emergency alerts as well as collaborative or managerial tools (Mendoza, 2010). Likewise, the London School of Business and Finance and other universities have taken advantage of social media by introducing social media in online degree programs to facilitate student interaction (Kaka, 2010).

Social Media and Creativity in University Students

The role that social media serves in promoting and developing creativity in university students is to create a forum for idea generation and collaboration as well as create content. Students in these platforms, YouTube, Instagram, TikTok can express themselves through videos, blogs and digital art (Wang et al., 2021). Social media, as per Greenhow and Gleason (2014), encourages participatory learning because the students can remix, reinterpret the content, and hence use their creative thinking skills. Digital collaboration through Facebook et al. platforms also provides

students with an opportunity to discuss and generate innovative ideas as well as problem solving approaches (Ranieri et al., 2012). Nevertheless, several researches argue that oversocial media use contributes to distraction and impaired deep thinking capacities that are critical to prolonged creative development (Richtel, 2012). However, the interactive and multiplicity of social media as a space for learning has continued to assist in the establishment of creative learning in higher education.

Social Media and Learning—E-Learning Web 2.0

According to Hrastinski and Dennen (2012) most of learning environment contains both formal and informal learning, and social media supply latter. It is Selwyn (2007) who highlights the growing role of informal learning through digital networks. According to Attwell (2007), social media tools enhance learning by bridging the gap between formal instruction and independent exploration. Studies by Harrison (2011) and Ebner et al. (2010) suggest that microblogging and blogs enhance student engagement, critical thinking, and collaborative discussions.

The Lack of Instructional Pedagogy

A significant challenge in integrating social media into education is the lack of instructional design and pedagogical strategies. Seo (2013) states that the primary barrier is not educators' willingness to adopt technology but the absence of structured educational models. Wang et al. (2012) argue that social media lacks sufficient academic content, posing challenges for its integration into formal curricula. Karasavvidis (2010) also notes that many e-learning initiatives fail due to inadequate pedagogical planning.

Language Barriers

Language proficiency affects students' ability to utilize social media for learning. Alaugab (2007) found that limited English proficiency hinders online education adoption. Students with stronger English skills tend to have a more favorable perception of digital learning (Zhou, 2011). Lai and Kuo (2007) report gender differences in language learning, with female students generally displaying greater interest in acquiring new languages than male students (Sunderland, 2000).

Costs and the Lack of Funding

Financial constraints also limit the integration of social media in education. Seo (2013) points out those budget limitations restrict access to advanced digital tools, making it difficult for universities to fully incorporate social media into their learning environments. Lenartz (2013) emphasizes the need for institutions to address financial and logistical barriers to maximize the benefits of social media in higher education.

Theoretical Framework

This study is grounded in multiple theoretical perspectives that provide a comprehensive understanding of the role of social media in learning and collaboration. The research primarily draws from Bandura's (1977) Social Learning Theory and Vygotsky's (1962, 1978) Sociocultural Theory, both of which emphasize the role of social interactions in cognitive development and learning. Observational learning leads to skill acquisition according to Bandura yet Vygotsky shows that students succeed through social learning under teacher guidance. This research uses the Technology Acceptance Model (TAM) created by Davis (1989) and explains how people adopt technology. The TAM shows individuals start using technology based on how useful and easy they

see new technology as which then shapes their behavior and actions towards adopting such technology (Venkatesh & Bala, 2008). This standard assists researchers in examining the different ways students use social media for education.

This research incorporates Fishbein and Ajzen's (1980) TRA framework as part of its study. TRA works well to understand what students think and feel about social media in education since it shows how attitudes and peer opinions affect what students plan to do next (Ajzen, 1991). The research applies Rogers' 1995 (DOI) theory which shows how new ideas spread across social systems to study students' social media adoption in education.

Rogers' 2003 study highlights five characteristics that determine how individuals accept new technology including benefits versus alternatives and practical application ease (Rogers, 2003). Students and educational institutions use the DOI framework to understand how they embrace social media in their academic environments. This study bases its examination of student views on social media learning and thinking on adapted versions of TAM, TRA, and DOI.

Objectives of the study

The objectives of the current study were to:

1. Identify the major social media tools students are using for support their learning.
2. To examine the role of social media in collaborative learning, interaction with teachers, interaction with peers.
3. To measure the role of social media in developing creativity among the students studying in higher education.
4. Explore the challenges and issues university students facing in using social media for learning.
5. Find out the students perspective about the use of social media for collaborative learning and creativity in higher education.

Research Questions

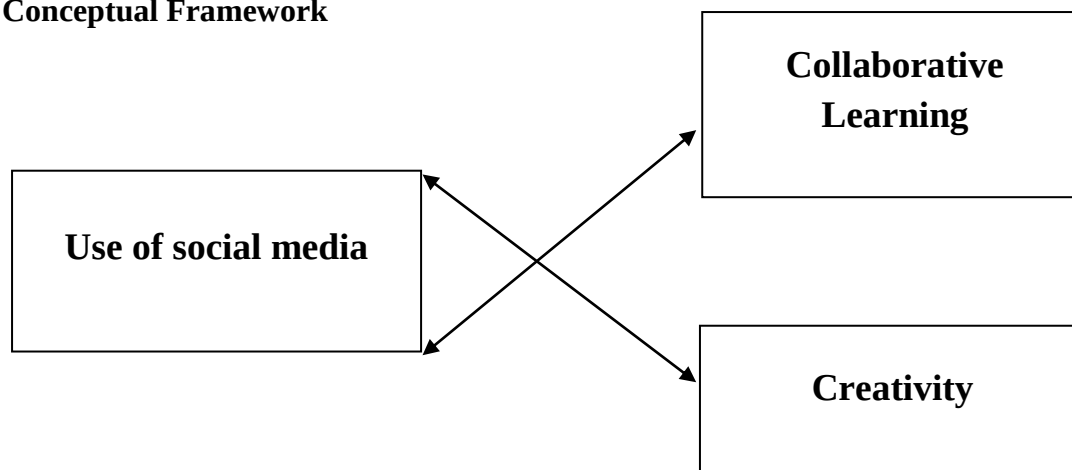
On the base of objectives, following research questions were designed:

1. What are the major social media tools students are using to support their learning?
2. How social media is effective in collaborative learning, interaction with teachers, and interaction with peers?
3. What is the role of social media in developing creativity among the students studying in higher education?
4. What are challenges and issues university students facing in using social media for learning?
5. How the students think about the use of social media for collaborative learning and creativity in higher education?

Significance of the study

Researchers believe that in 21st century, social media is not only the source of getting information, but students can create and share knowledge through social media technology. This research study may help the government, administrators, and teachers and as well students to use the social media for better quality of education in modern era. This study may provide the guideline for university administration in Pakistan to focus on the social media components and include the content in curriculum.

Conceptual Framework



Research Methodology

The study was quantitative in design. Cross sectional type of survey was used to collected data through questionnaire from university students. The research was descriptive in nature.

The population for this study was the six universities students from Lahore district. Two public sector and four private sector universities were the part of the study. All the male and female students from six universities were target population of this study. The public sector universities were University of the Punjab and University of Education. Private universities were consisted of, University of Management and Technology, University of Lahore, University of Central Punjab and Lahore University of Management Sciences.

Stratified random sampling technique was used to select the sample of the study. Total sample size was 600 students. 100 students from each university were selected as sample on convenient basis.

Student questionnaire was used as instrument in this study. Instrument was adapted and modified. After modifying the questionnaire, the validity of the instrument was ensured by the 3 research experts. Instrument was based on Likert scale on five point, from strongly disagree to strongly agree. The demographical information included students university, semester and name.

The reliability of the instrument was .83 by using Cronbach Alpha. Certain academic institutions paid the researcher a visit. Researchers initially sought approval from relevant department heads. Students' information was gathered with their consent. In order to analyse the data, we used SPSS (Statistical Package for the Social Sciences). With the help of descriptive statistics, we were able to determine the frequency, mean, and standard deviation of the data. The perception gap between male and female students was investigated using an independent sample t-test. One Way ANOVA statistics were used to determine the significance of the mean-score difference between groups of university students.

Before starting to collect data, the researcher met with the department head. The procedure of data collection was initiated after convincing them. Everyone who took part reported feeling at ease. The participation of any individual was voluntary. In this case, we took into account all potential ethical issues.

Data Analysis and Results

Table 1: Comparison among different Universities' students perception about the effects of internet on quality of research

University Name	N	Mean	SD	df	F	Sig.
University of the Punjab	100	216.6600	31.85168	5	1.937	.086
University of Education	100	221.9900	29.59883	594		
UMT	100	218.9500	32.77853	599		
UOL	100	228.5300	32.62101			
UCP	100	223.8900	26.28165			
LUMS	100	224.5400	28.58919			
Total	600	222.4267	30.49746			

To know the extent of difference in different university students' perception on the effect of internet on research quality, I conducted a one way between groups analysis of variance in table 1. Five university groups divided participants. Scores for the six age groups did not yield a statistically significant difference at the $p < .05$ level: $F(5, 594) = 1.937$, $p = .086$. Although statistically significant, the difference of the mean scores between the groups was moderate.

Table 2: Compare the Difference between Males and Females responses about the effects of internet on quality of research

Groups	N	Mean	SD	Mean Difference	t-value	Sig.
Male	205	223.1610	2.30675	1.11541	-1.112	.116
Female	395	222.0456	1.46591			

Table 2 represent the male and female mean score regarding effects of internet on research quality. As mean score of male is higher than mean score of female (Male= 223.1610, Female=222.0456) which shows that males were more agreed that internet effected on quality of research than females. There was no significant difference between male and female mean scores.

Table 3: Compare the Difference between different semester students' responses about the effects of internet on quality of research

Semester	N	Mean	SD	Mean Difference	t-value	Sig.
2 nd	316	221.1139	1.78356	-2.77340	.425	.040
4 th	284	223.8873	1.72563			

Table 3 represent the second and fourth semester students' mean score regarding the effects of internet on research quality. As mean score of 4th semester students' is higher than 2nd semester students' (2nd= 221.1139, 4th=223.8873) which shows that fourth semester students' were well aware about the effects of internet on research quality than 2nd semester students. There was significant difference was found between them as sig. (.040) in mean scores.

Table 4: Mean and standard deviation of factor 1 "Technology Skills" statements

Statements	N	Mean	SD
I am familiar with the fundamentals of computer hardware, including the central processing unit, the display screen, and the various input/output devices connected to it.	600	4.0033	1.04968

I am familiar with the process of storing and retrieving files on and off of a hard drive or other portable media.	600	4.0550	.88880
Email attachments are no problem for me to read or send.	600	4.1633	.88955
I am able to access an ISP and browse the web (ISP)	600	3.7467	.87965
Web pages are a breeze for me to navigate (go to next, or previous page)	600	4.0133	.94762
I am familiar with using browsers for file downloads (Internet Explorer, Firefox, etc.)	600	3.8500	1.19717
In addition, I am familiar with the workings of various online databases and libraries.	600	2.3250	1.40333
Prior to this, I have participated in online forums and discussions.	600	3.9567	.99319
The term "Portable Document Format" is familiar to me, and I am able to access and read PDF files.	600	3.8667	1.00527
I am proficient in the use of word processing software.	600	3.9833	.86273

Table 4 shows that the statement “Email attachments are no problem for me to read or send” has higher mean score and “In addition, I am familiar with the workings of various online databases and libraries” this statement lower mean score. It shows mostly students do not know the use of online library.

Table 5: Mean and standard deviation of factor 2”Study Habits and Skills” statements

<i>Statements</i>	<i>N</i>	<i>Mean</i>	<i>SD</i>
I am a highly independent learner because I always finish assignments early when they are particularly important to me	600	3.7383	1.04484
I prefer to work alone	600	3.7433	.91224
I have the ability to focus on a single task at a time, whether at work or in university	600	3.8667	.94182
I am capable of evaluating course content	600	3.8217	.85503
I am able to think critically about my knowledge	600	3.4383	1.11876
I am resolute in my commitment to my education despite setbacks	600	3.7350	.97281
I am not one to put off or avoid learning new technologies.	600	3.4750	1.03335
I can focus on my work or university work without getting sidetracked	600	3.4483	1.07047
I usually figure out how to complete assignments on my own.	600	3.6750	.97859

In table 5, it is represented that in factor 2 study habits and skills, statement “I have the ability to focus on a single task at a time, whether at work or in university” have the highest mean score and statement “I am able to think critically about my knowledge” have the lowest mean score.

Table 6: Mean and standard deviation of factor 3”Life Style Factors” statements

Statements	N	Mean	SD
I can devote 10-20 hours per week to studying.	600	3.9617	.87262
Because of this, I am able to adjust my schedule as needed to make up for unexpected obligations or study time lost.	597	3.5377	1.09176
There is no noise or distractions in my designated study area.	600	3.8017	.94188
My home network frequently causes phone congestion and frustration for my neighbours.	600	3.7350	.81192
My studies may be impeded by my responsibilities to my family.	600	3.6850	1.02185
My work schedule may conflict with my academic progress.	600	3.7867	1.09231
Whenever possible, the teacher should give immediate responses.	600	3.6117	.99793
My loved ones would totally back me up if I decided to enrol in an online university.	600	3.7650	1.05117
I have a strong desire to continue my education through online means.	600	3.8917	.93705
When I was going through tough times, my loved ones would be there for me.	600	3.5817	1.05286

In table 6 it was represented that in factor 3 life style skills, statement “I can devote 10-20 hours per week to studying.” showing highest mean score. And the statement “Because of this, I am able to adjust my schedule as needed to make up for unexpected obligations or study time lost.” has the lowest mean score.

Table 7: Mean and standard deviation of factor 4”Cognitive Presence” statements

Statements	N	Mean	SD
If I were taking a course online, I think I'd be more compelled to look into the topics that interested me.	600	3.6500	1.01615
A number of resources would be available to me, allowing me to thoroughly investigate questions raised in an online course.	600	3.8050	1.07962
I could get answers to my content-related questions by collaborating with other online participants.	600	3.8500	1.19717
I think that by participating in online discussions, I can gain a	600	2.3250	1.40333

better understanding of the course material from a variety of angles.			
Participating in online course activities would aid in my developing of rationales and approaches.	600	3.9567	.99319
In an online course, I could better grasp fundamental concepts by reflecting on course material.	600	3.8667	1.00527
In an online course, I think I could do better if I took some time after each discussion to think about what I had learned.	600	3.9833	.86273
I am able to explain various methods that can be used to assess the acquired knowledge in an online course.	600	3.7383	1.04484
I am able to explain how to put the skills learned in an online course to use.	600	3.7433	.91224
When taking an online course, I am better able to come up with workable answers to course problems.	600	3.8667	.94182

Table 7 shows that in factor 4 cognitive presence, statement “In an online course, I think I could do better if I took some time after each discussion to think about what I had learned” have the highest mean score. The statement “If I were taking a course online, I think I'd be more compelled to look into the topics that interested me” has the lowest mean score.

Table 8: Mean and standard deviation of factor 5”Teaching Presence” statements

Statement	N	Mean	SD
In my opinion, it is the instructor's responsibility to effectively convey the course's central concepts to online students.	600	3.8217	.85503
In my opinion, it is crucial for the instructor of an online course to make the course objectives crystal clear to the students.	600	3.4383	1.11876
In my opinion, a teacher leading an online class should spell out in detail how students can take part in various assignments and discussions.	600	3.7350	.97281
In my opinion, it is crucial for a teacher teaching an online course to make sure their students are aware of any important deadlines or time constraints for course work.	600	3.4750	1.03335
The instructor should help me learn by pointing out where we agree and where we disagree about the course material.	600	3.4483	1.07047
I would benefit from the teacher's direction as I attempt to make sense of the course material.	600	3.6750	.97859
The teacher has a responsibility to keep the class interested and stimulate meaningful discussion.	600	3.5583	1.00911

The best way for me to learn in a class is if the teacher does a good job of keeping everyone on track.	600	3.9617	.87262
As a student, I would benefit from the teacher's assistance in narrowing the focus of class discussions to more pertinent topics.	597	3.5377	1.09176
The instructor needs to tell me where I went wrong so I can improve.	600	3.8017	.94188

Table 8 shows that in factor 5, statement “In my opinion, it is the instructor's responsibility to effectively convey the course's central concepts to online students” have the highest mean score. Statement “The instructor should help me learn by pointing out where we agree and where we disagree about the course material” have the lowest mean score.

Table 9: Mean and standard deviation of factor 6 “Social Presence” statements

<i>Statements</i>	<i>N</i>	<i>Mean</i>	<i>SD</i>
Becoming familiar with other online students in the course would help me feel more at home there.	600	3.7350	.81192
Through virtual interaction, I would gain clearer insights into the personalities of some of my classmates.	600	3.6850	1.02185
Communication over the Internet or a similar platform is great for fostering relationships with others.	600	3.7867	1.09231
In my opinion, nothing beats learning from a live instructor.	600	3.6117	.99793
As for me, I have no qualms about carrying on a conversation via the internet.	600	3.7650	1.05117
It is feasible for me to contribute to discussions in an online class.	600	3.8917	.93705
I have no worries about chatting with other students in the course online.	600	3.5817	1.05286
In an online course, I could respectfully disagree with other students without losing their trust.	600	3.6500	1.01615
Since this course is being taken online, I believe that my perspective will be respected by other students.	600	3.8050	1.07962
As a student, I have no hesitation about taking part in asynchronous discussions in an online course.	600	3.8917	.93705

Table 9 shows that in factor 6, social presence, statement “As a student, I have no hesitation about taking part in asynchronous discussions in an online course.” have the highest mean score. The statement “I have no worries about chatting with other students in the course online” have the lowest mean score of the students about the social presence of the material related to research and its quality.

Discussion

The present study examined the impact of social media on creativity and collaborative learning in higher education, with a specific focus on university students' perceptions. The findings provide insights into students' internet usage for research, their technological skills, study habits, cognitive presence, teaching presence, and social presence in an online learning environment.

A one-way ANOVA analysis revealed that students from different universities had varying perceptions regarding the effect of the internet on research quality. However, the differences were not statistically significant ($F(5, 594) = 1.937, p = .086$). However, since there are minor variations, students are rather in agreement regarding the use of the internet in improving research quality (Al-Samarraie & Saeed, 2018). Also, the results obtained from using the independent t test for the mean of male students ($M = 223.1610$) were found later than the female students ($M = 222.0456$) which was not significant ($p = .116$). These findings are in line with previous research on gender having little impact on perceptions of digital tools in academic context (Maduku, 2015). Additionally, the study demonstrated a significant difference between second semester and fourth semester students to their perceptions regarding the role of the internet in research ($p = .040$).

The mean score indicated that fourth semester students were more aware and familiar with the processes of research made easier by online resources. This was supported by previous studies that showed that senior students are more digitally lithe and more research proficient compared to their junior counterparts (Henderson, Ho et al, 2017). On issues of technological skills students were competent in handling email attachments and navigating web pages. In terms of knowledge of online databases and digital libraries, highest mean score was observed, while the lowest mean score was registered in this category.

By focusing on this need for universities to embed digital literacy training into curricula intended to strengthen students' ability to seek and use academic resources, it is clear that Tenopir et al. (2015) point to the importance of universities incorporating digital literacy training into their curricula. When it came to study habits, students self-regulated and used time management skills well, and showed the highest mean score of focusing on only one task at a time. However, the mean score of the students' score for critical thinking skills was relatively lower, which suggests that more work should be done on the development of students' analytical skills when digital learning environments come into play (Benson, 2015). The analysis of life style factors showed that students can devote much time (10-20 hours a week) to study. However, improving flexibility to make up study schedules was not considered as good. This finding in line with previous research (Broadbent & Poon, 2015) suggests that students could find it difficult to manage time between doing their academic and personal commitments. The results of cognitive presence showed that students responded with the highest score to review discussion after online sessions, as a 1 of the statements about reflective learning. This supports that a reflective process is a part of a cognitive learning process as stated by Garrison et al., (2001).

Nevertheless, students displayed relatively less interest in self-directed inquiry about topics of their own interest, which emphasises on the requirement for more engaging and interactive learning approaches. It emerged that this is crucial; students identified crucial role that teachers played in terms of clear communications about course objectives and their expectations. Previous research has shown that effective instruction provides for student engagement and learning outcomes in online education (Shea et al., 2005). Finally, it turned out that students find asynchronous discussions to be comfortable but are worried about the direct, peer-to-peer talk. As other research

has surmised that though online discussions encourage student academic collaboration, they tend not to foster social relationships between the students (Richardson et al., 2017), this is consistent.

Conclusion

The research depicts the essential function of social media platforms and digital resources for higher education institutions which uses them to develop creative learning approaches and teamwork abilities. Students demonstrate robust digital capabilities yet they face deficits in their abilities to search effectively online and handle their time schedule. Universities need to implement digital literacy training while creating structured online conversations with interactive teaching methods to enhance the educational experience of students in digital settings. Future scholars should investigate different methods to increase students' interaction with their academic resources found on the internet.

Recommendations

The study's author suggests a few changes based on the findings.

1. The first essential step should have universities train teachers with ready-made lesson plans which bring social media capabilities into educational environments.
2. Educational institutions must organize training sessions to support their staff members in their utilization of social media technologies for educational purposes.
3. The administrative staff should motivate teachers to join relevant workshops and conferences as a way to enhance their skills in using social media technologies within their educational settings.
4. Faculties should monitor emerging technology developments in order to adopt innovative teaching techniques.
5. To accomplish higher academic achievements students need specialized training at universities regarding social media technologies dedicated for learning purposes.
6. Universities must organize seminars along with workshops for their students regarding privacy and security aspects which arise from social media utilization in academic activities. Universities need to include digital ethics awareness teaching methods as part of their lesson plans.
7. Institutions should offer courses to help female students improve their English language skills so that they can better understand and utilise English-language social media and internet web-based applications for learning and academic purposes.
8. Faculty members who have a positive attitude toward using social media to enhance their students' education should be a top priority for any institution looking to implement this recommendation.
9. The curriculum at educational institutions should be updated so that it is compatible with web 2.0 teaching and learning tools.
10. Teachers should think about how their students would like to use social media to support their education, and teachers should take the time to learn how to use social media tools themselves so that they can help their students make the most of them.

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