

USE OF SOCIAL MEDIA IN COLLABORATIVE LEARNING AND THEIR ACADEMIC ACHIEVEMENT OF B.Ed. COLLEGE STUDENTS

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Abstract

In this era, the superficial use of information technology has been exposed, especially in education sector. This study aims at finding the relationship between the use of social media in collaborative learning and the academic performance among the B.Ed. college students. Convenient sampling was employed to obtain the sample. The sample size was 120 from the B.Ed. Colleges in Madurai district. Data were collected on google form by using self-made tool by the researcher. Descriptive analysis, 't' test and Pearson correlation were used for analyzing the data. The findings of the study state that the usage of web 2.0 tools among prospective teachers is high and most of the prospective teachers use Facebook, GoogleDocs, Instagram, YouTube, WhatsApp, Wikis, Blog and Slideshare for their collaborating purposes. There is a significant difference between male and female, subject, locality and personal smart phone. The study concluded that social media are very essential in collaborative learning and enhance the activities like group discussion, clearing the doubts, understanding the course contents, preparing the PPTs, making notes and assignments. The study indicated that there is a significant relationship between the collaborative learning and academic achievement among the B.Ed. college students.

Keywords: Collaborative learning, Social media, B.Ed. college students.

INTRODUCTION

In this technological era, human beings have a tendency of adopting technology to satisfy their thirst for the ever-increasing requirements, desires and to make their actions more organised and error free within the minimum time limits (White & Churchland, 2018; Ramey, 2012). For this, the reason is convinced, functions and flexibility of technologies or “*technologies have real and particular utility and these are continually modified, challenged, are rethought through the processes by which they are used and socially intervened.*” (Burbules, 2016, p. 552). In the Indian context, it is evident that 69 million users were found to be using the Facebook daily (Gupta, 2018). Social media are touching every corner of our life, even the use

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of social media in education is a debatable issue. Many research studies revealed a positive approach in using social media in the learning environments, but the rate of adaptation of social media tools for learning purposes is not up to the expectations. It is also repeated that social media can be useful largely for both the teachers and students. Still, can social media be useful in active and collaborative learning in question to all. Therefore, this study aims to find out the usefulness of social media in collaborative learning among B.Ed. college students in Madurai districts.

Collaborative Learning

Collaborative Learning is an educational approach for teaching and learning that involves groups of students working together to solve a problem, complete task, or create a product. Collaborative Learning is a situation in which two or more people learn or attempt to learn something together. More specifically, Collaborative Learning is based on the model that knowledge can be created within the population where members actively interact by sharing experiences and take on asymmetric roles. Put differently, Collaborative Learning refers to methodologies and environments in which learners engage in a common task where each individual depends on and is accountable to each other. These include both face-to-face conversations and computer discussions (online forums, chat rooms, etc.). Thus, Collaborative Learning is commonly illustrated when groups of students work together to search for understanding, meaning, or solutions or to create an artifact or product of their learning. Furthermore, Collaborative Learning redefines the traditional student – teacher relationship in the classroom, which results in controversy over whether this paradigm is more beneficial than harmful. Collaborative Learning activities can include Collaborative writing, debates, study teams, and other activities.

Social Media

Social media allows collective content formation and edition without location and time constraints like Wikis (e.g. Wikipedia), Group ware/shared workspaces (e.g. Google Docs). Social media facilitates collaboration, contributes to the relationship development among students and provides instantaneous opportunities for curricula dissemination and enhancement that is external to the actual classroom (Fewkes & McCabe, 2012). Students can share the study materials, make collaboration, and develop analytical thinking by commenting, adding information, giving suggestion, etc. on a discussion, which will help in enhancing meaningful learning (Alshayeb, 2018). Social media are handy tools in learning especially for those

students who are introverts or shy, they can easily take benefit of these tools for voicing out their opinions, views and for making an interactive communication with fellows, peers and faculties as well (Abbas et.al., 2019).

Prior to this study, many studies were conducted on the use of social media in teaching and learning in Saudi (Alabdukarem, 2015, application of social media among research scholars (Noosheeba & Madhusudan, 2018) but the use of social media in collaborative learning among the B.Ed. college students in Indian context remains untouched. Therefore, the researcher found this as a significant gap in this direction.

However, the current study focuses on students' motivation who use social media tools among prospective teachers. It also tries to examine how social media platforms can help students' collaboration in their teaching-learning process. This study includes the motivations to communicate with faculties, friends, and personal desires, to develop a framework of collaborative learning in social media.

OBJECTIVES OF THE STUDY

The use of social media in education is an uncertain subject. Meanwhile, scope of the use of social media are widening (**Kapoor et.al, 2018**). For the sake of knowing the use of social media in collaborative learning from the students of B.Ed. colleges in Madurai District of Tamilnadu.

Therefore, the study underpinned the following objectives.

1. To find the level of using social media for collaborative learning and academic achievement among the B.Ed. college students.
2. To identify the purpose of using social media among the B.Ed. college students.
3. To find out the significant difference in the use of social media in collaborative learning in terms of various demographic variables type of the college, gender, subject, locality, and availability of personal smart phone, personal PC or Laptop and personal tablets.
4. To find out the significant difference in the use of social media in academic achievement in terms of various demographic variables type of the college, gender, subject, locality, and availability of personal smart phone, personal PC or Laptop and personal tablets.
5. To find out the relationship between the use of social media in collaborative learning in addition, academic performance among B.Ed. college students.

HYPOTHESES OF THE STUDY

1. The level of using social media for collaborative learning, academic achievement among the B.Ed. college students is high.
2. There is no significant difference in the use of social media in collaborative learning in terms of various demographic variables type of the college, gender, subject, locality, and availability of personal smart phone, personal PC or Laptop and personal tablets.
3. There is no significant difference in the collaborative learning and academic performance in terms of various demographic variables type of the college, gender, subject, locality, and availability of personal smart phone, personal PC or Laptop and personal tablets.
4. There is a relationship between the use of social media in collaborative learning and academic performance among B.Ed. college students.

METHODOLOGY

A descriptive random survey design has been used for this study with the self-made tool, which was post on google forms, by the researcher to collect data from B.Ed. college students in Madurai district. By using purposive sampling, the tool was sent to 300 students. The researcher received 158 responses. Among them, 120 students' responses were valid. The tool comprised of five sections. 1. Demographic 2. Purposes of using Social Media 3. Social media in Collaborative Learning 4. Academic Performance of the students and 5. Barriers in using social media for collaborative learning. As far as data analysis is concerned, researchers have made use of SPSS 20 version for running different kinds of statistical tests in order to get accurate and reliable results.

DATA ANALYSIS

Hypothesis 1: The level of using social media for collaborative learning and academic achievement among the B.Ed. college students is high.

Table 1.

Level of Using Social Media in Collaborative Learning, Academic Achievement of B.Ed. College Students

Variables	Low		Moderate		High	
	Count	%	Count	%	Count	%
Social media in using collaborative learning	47	39.2	55	45.8	18	15.0
Academic Achievement	42	35.0	66	55.0	12	10.0

Source: Primary Data

Table 1 reveals that, the level of using social media in collaborative learning and academic achievement of B.Ed. College students are at moderate level. This may be due to the familiarity and the frequent use of social media for their collaborative learning.

Figure 1.

Level of Using Social Media in Collaborative Learning and Academic Achievement

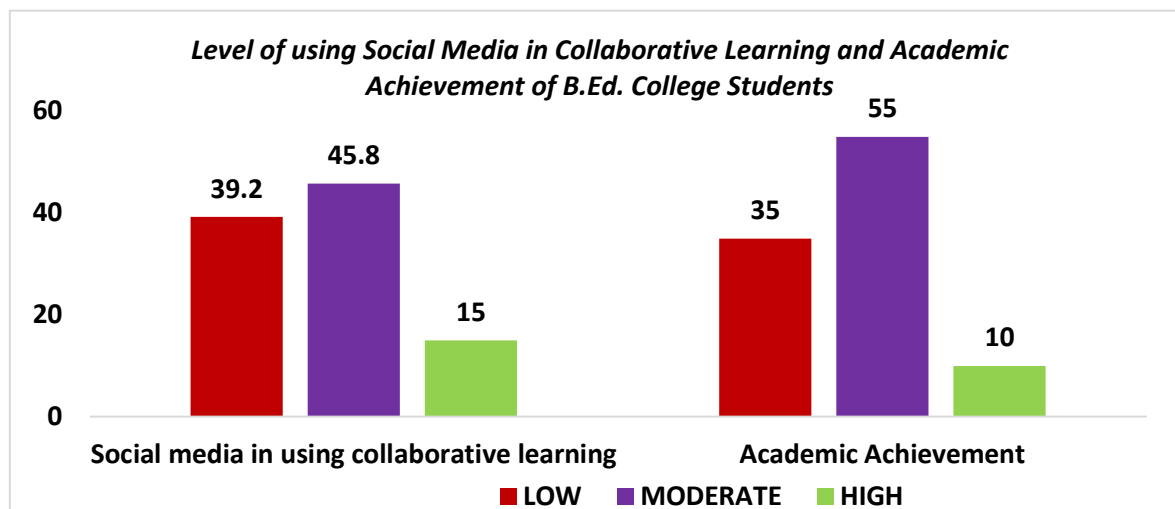


Table 2.

Use of Social Media in Understanding the Course Contents

Social Media	Facebook	WhatsApp	Instagram	YouTube	Blog	SlideShare	Wikipedia	Google Docs
Frequency	60	40	44	64	53	27	60	51
Percent	50.0	33.7	36.6	52.5	44.1	12.5	50.0	42.5

Source: Primary Data

Table 2 indicates that, most of the respondents (above 40 percent) believe that social media (Facebook (50 percent, n=60), YouTube (52.5 percent, n=64), Blog (44.1 percent, n=53), and Google Docs (42.5 percent, n=51)) are useful for understanding the course contents of B.Ed. college students.

Figure 2.

Use of Social Media in Understanding the Course Content

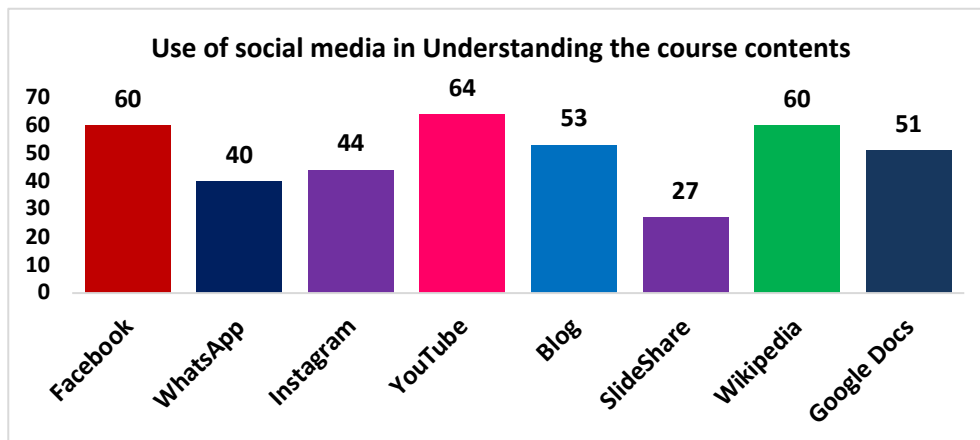


Table 3.

Use of Social Media in Preparation of PPTs

Social Media	Facebook	WhatsApp	Instagram	YouTube	Blog	SlideShare	Wikipedia	Google
Frequency	6	2	30	9	6	73	9	15
Percent	5.0	1.7	25	7.5	5.0	60.8	7.5	12.5

Source: Primary Data

Table 3 shows that, the SlideShare (60.8 percent, n=73), and Instagram (25 percent, n=30), are used for preparing PowerPoint Presentations among B.Ed. college students for their learning and teaching purposes. Whereas the other social media are having very less percent in preparing PPTs.

Figure 3.

Use of Social Media in Preparation of PPTs

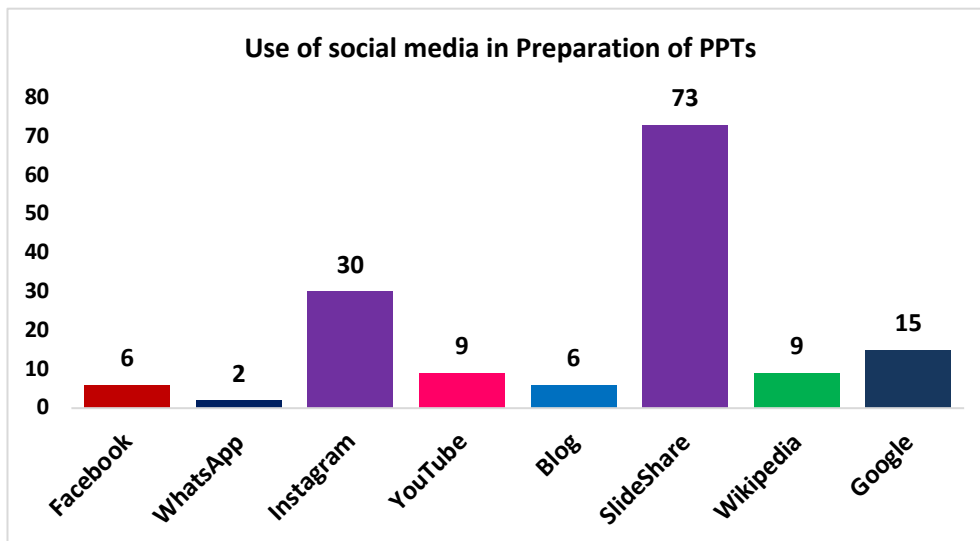


Table 4.
Use of Social Media in Assignments

Social Media	Facebook	WhatsApp	Instagram	YouTube	Blog	SlideShare	Wikipedia	Google Docs
Frequency	13	9	12	24	29	14	25	32
Percent	10.8	7.5	10.0	20.0	24.2	11.7	20.8	26.7

The above table (Table No.4) expresses that, YouTube (20 percent, n=24), Blog (24.2 percent, n=29), Wikipedia (20.8 percent, n=25), and Google Docs (26.7 percent, n=32) are used for their assignment purpose among B.Ed. College Students.

Figure 4.
Use of Social Media in Assignments

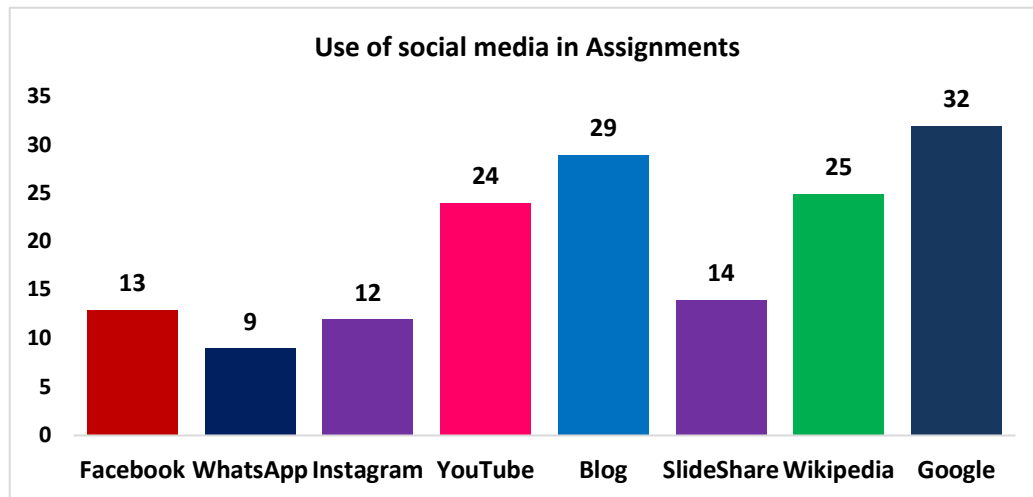


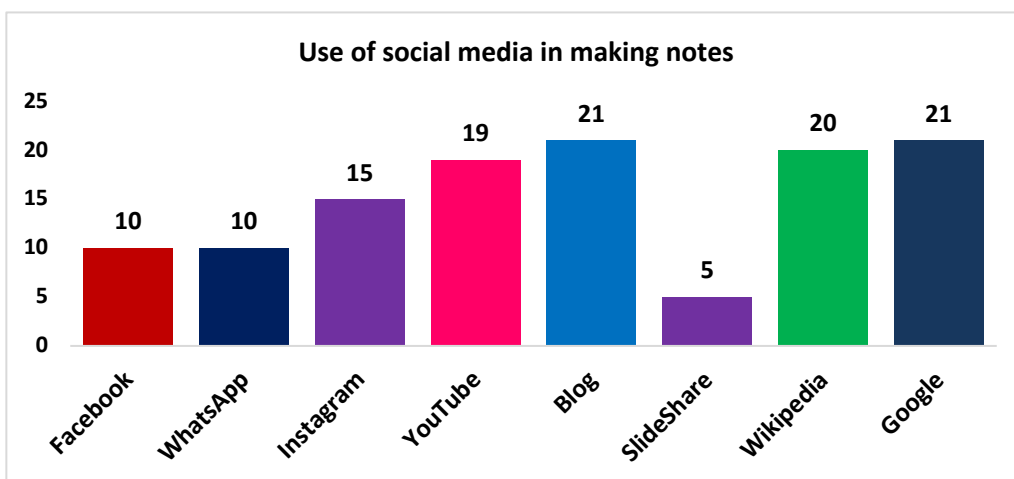
Table 5.

Use of Social Media in Making Notes

Social Media	Facebook	WhatsApp	Instagram	YouTube	Blog	SlideShare	Wikipedia	Google
Frequency	10	10	15	19	21	5	20	21
Percent	8.3	8.3	12.5	15.8	17.5	4.2	16.7	17.5

Figure 5.

Use of Social Media in Making Notes



The above table (Table No.5) states that, the social media are used (below 20 percent) for making notes. This indicates that they may use the social media only for the references.

Table 6.

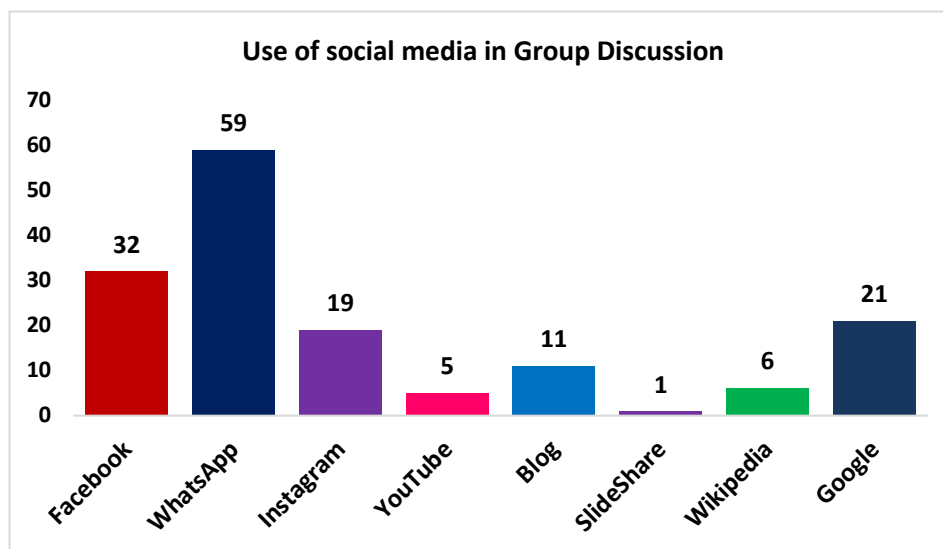
Use of Social Media in Group Discussion

Social Media	Facebook	WhatsApp	Instagram	YouTube	Blog	SlideShare	Wikipedia	Google
Frequency	32	59	19	5	11	1	6	1
Percent	26.7	49.2	15.8	4.2	9.2	0.8	5.0	0.8

The above table (Table No.6) reveals that, Facebook (26.7 percent, n=32) and WhatsApp (49.2 percent, n=59) are used for group discussion other than the social media among B.Ed. college students.

Figure 6.

Use of Social Media in Group Discussion



Hypothesis 2: There is no significant difference in the use of social media in collaborative learning in terms of various demographic variables type of the college, gender, subject, locality, and availability of personal smart phone, personal PC or Laptop and personal tablet.

Table 7.

Use of Social Media in Collaborative Learning among B.Ed. College Students

Variable	Category	N	Mean	Std. Deviation	't' test	Result
Type of the College	Aided	89	30.12	7.681	2.234	S
	Self-finance	31	31.45	6.355		
Gender	Male	45	32.07	8.164	2.183	S
	Female	75	29.09	6.601		
Subject	Arts	52	28.75	7.032	1.940	NS

	Science	68	31.32	7.420		
Locality	Urban	27	32.41	6.141	2.001	S
	Rural	93	29.57	7.559		
Mobile	Yes	118	30.16	7.390	4.173	S
	No	2	33.00	0.000		
Personal computer/ Laptop	Yes	80	29.70	7.967	1.189	NS
	No	40	31.23	5.837		
Tablet	Yes	14	28.00	8.647	1.200	NS
	No	116	30.50	7.142		

S - Significant; NS - Non – Significant at 0.05% level

Since the calculated 't' value in the above table 7 is less than table value 1.96, for the variables, subject, availability of personal computer or laptop and tablets, the null hypothesis is not accepted at 5% level of significance with regard to use of social media in collaborative learning. Hence, it is concluded that there is no significant difference between arts and science B.Ed. students and there is no significant difference between the students those who have and those who have not personal computer/laptop, tablets.

Since the calculated 't' value is greater than table value 1.96, for the variables, type of the college, gender, locality and availability of mobile phone, the null hypothesis is accepted at 5% level of significance with regard to use of social media in collaborative learning. Hence, it is concluded that there is a significant difference between aided and self-finance B.Ed. college students and male and female students. It is also resolved that there is a significant difference between urban and rural B.Ed. college students and there is a significant difference between those availed and non-availed of mobile phones.

Based on the mean score value, it is clearly noted that, the use of social media in collaborative learning among the self-finance B.Ed. college students is better than the aided college students

and male students and urban students are better than female and rural students. This may be due to the male students are more prone to use of social media than the female students.

Hypothesis 3: There is no significant difference in the collaborative learning and academic performance in terms of various demographic variables type of the college, gender, subject, locality, and availability of personal smart phone, personal PC or Laptop and personal tablets.

Table 8.

Collaborative Learning and Academic Achievement among B.Ed. College Students

Variable	Category	N	Mean	Std. Deviation	't' test	Result
Type of the College	Aided	89	13.07	3.855	0.232	NS
	Self-financed	31	12.94	2.205		
Gender	Male	45	13.69	4.316	1.962	S
	Female	75	12.64	2.855		
Subject	Arts	52	12.67	3.524	1.987	S
	Science	68	13.31	3.474		
Locality	Urban	27	13.52	2.833	0.942	NS
	Rural	93	12.89	3.667		
Mobile	Yes	118	13.02	3.523	3.031	S
	No	2	14.00	0.000		
Personal Computer / Laptop	Yes	80	13.13	3.767	0.441	NS
	No	40	12.85	2.914		
Tablet	Yes	14	12.07	3.025	1.239	NS
	No	116	13.16	3.546		

S - Significant; NS - Non – Significant at 0.05% level

Since the calculated 't' value in the above table 8 is less than table value 1.96, for the variables, type of college, locality, availability of personal computer or laptop and tablets, the null hypothesis is not accepted at 5% level of significance with regard to collaborative learning and academic achievement of B.Ed. college students. Hence, it is concluded that there is no significant difference between urban and rural students and there is no significant difference between the students those who have and those who have not personal computer/laptop, tablet.

Since the calculated 't' value is greater than table value 1.96, for the variables, gender, subject and availability of mobile phone, the null hypothesis is accepted at 5% level of significance with regard to collaborative learning and academic achievement. Hence, it is concluded that there is a significant difference between male and female B.Ed. college students. It is also shows that there is a significant difference between arts and science B.Ed. college students and there is a significant difference between those availed and non-availed of mobile phones.

Based on the mean score value, it is clearly noted that, the collaborative learning and academic achievement among male students is better than the female students are and science students are better than arts stream students.

Hypothesis 4: There is no relationship between the use of social media in collaborative learning and academic performance among B.Ed. college students.

Table 9.

Significant Relationship between the Use of Social Media in Collaborative Learning and the Academic Achievement among B.Ed. College Students

Sl. No.	Variable 1	Variable 2	N	Calculated 'γ' Value	Remark
1	Use of social media in Collaborative learning	Academic Achievement	120	0.679**	S

Note: 1. ** denotes significant at 1% level of significance

2. * denotes significant at 5% level of significance

It is inferred from the above table 9 that the correlation coefficient between the use of social media in collaborative learning and the academic achievement is 0.679, which indicates the positive relationship between these two variables at 1percent level of significance. Hence, the null hypothesis is not accepted. It shows that there is a significant relationship between the use of social media in collaborative learning and the academic achievement of B.Ed. college students. Thus, it can be concluded that the use social media in collaborative learning influences the overall academic achievement among B.Ed. college students.

FINDINGS

- The level of using social media in collaborative learning and academic achievement of B.Ed. college students are at moderate level.
- Majority of the respondents are using Facebook followed by YouTube, and Google Docs for understanding their course contents by having the discussion with their peer and their teacher beyond the classroom.
- SlideShare and Instagram are play a major role in preparing PowerPoint Presentations among B.Ed. college students for their learning and teaching purposes. In addition, it motivates the students and the teachers to share their contents among the group of classmates and others.
- YouTube, Blog, Wikipedia and Google Docs are providing 20 percent of the content for their assignment purpose among B.Ed. College Students.
- Facebook and WhatsApp play a vital role group discussion other than the social media and they lead to the collaborative learning.
- There is a significant difference between aided and self-finance B.Ed. college students and male and female students in their use of social media in collaborative learning. It is also resolved that there is a significant difference between urban and rural students. Moreover, there is a significant difference between to those availed and non-availed of mobile phones. It shows that the mobile phones are very essential to use the social media in their collaborative learning.
- There is a significant difference between male and female B.Ed. college students and there is a significant difference between arts and science students in their collaborative learning and their academic achievement. In addition, there is a significant difference between to those availed and non-availed of mobile phones in their academic

performance. It reveals that the students are using mobile phones for their understanding and sharing of the contents, which are, improves the collaborative learning.

- There is a significant relationship between the use of social media in collaborative learning and academic performance among B.Ed. college students.

DISCUSSION

Research Question 1: Does social media help in group discussion and understanding?

The result confirms that most of the respondents agree with the social media help for having group discussion with their peer and the teacher and make the students to understand the course contents by sharing and completing.

Research Question 2: Is there any correlation exist in using social media in collaborative learning and their academic performance?

Considering (-1 to +1) as perfect negative to positive correlation and (0) as no correlation, the value 0.679 ** indicates in the table 9 at 0.01 level, there is positive correlation in in using social media in collaborative learning and their academic performance among B.Ed. college students.

Research Question 3: What are the barriers in using social media in their collaborative learning?

The results indicate the barriers in using social media in collaborative learning acknowledged by the students to the survey are as follows. Lack of staff encouragement (n=25), lack of adequate Training (n=55), lack of Confidence (n=25), lack of digital literacy (n=3), lack of adequate security on the internet (n=65), lack of reliability of information (n=55), complexity of using the technology (n=53) and technophobia (n=35) are the barriers in collaborative learning by using social media.

The study has revealed that social media potentially enable collaborative learning among B.Ed. College students by providing ubiquity, accessibility, group discussion, understanding the course content and enhancing the learning outcomes. The usefulness of social media for collaborative learning to have a significant influence on the academic achievements. In addition, the study expressed that the relationship with others (peer, parents, teachers and family members) had a strong influence on their uses of social media for collaborative learning. The findings of the study stated that there are many barriers in collaborative learning among the

students. According to the respondents, the insecurity of the internet use is a dominant barrier for collaborative learning.

CONCLUSION

This explored that of social networks are very useful for collaborative learning among B.Ed. college students. The students use these networks for collaborative learning for group assignments, understanding the course contents, project works, group discussion, making notes and preparation of PPTs with their peer group, teachers and experts. It confirms that most of the students access social media platforms through smartphones. Based on the findings there are some barriers in using social media for their collaborative learning. By giving awareness and secure access, we can achieve the better academic performance among the B.Ed. college students. Finally, this study helped to understand the role of social media in collaborative teaching – learning environment among the B.Ed. College students.

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