

The Impact of WhatsApp Usage on Academic Purposes among the Students of Higher Education Institutes of Sindh Province

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Abstract

Purpose- The aim of the study is to examine the use of WhatsApp for Academic performance and achievements among the students of higher education institutes (Private/Public) of Sindh province. This study used descriptive survey method to explore and describe the collected data. It utilized purposive sampling technique to gather data from this research's respondents. The sample of the population for layering the usage of WhatsApp services and academic performance was of 175 students (respondents) that categorically were 94 students from Private Institutes and 81 students from Public Institutes. The findings of the study show that students of both types of Institutes are using WhatsApp application for many academic and social purposes. Academic's purposes show that students use WhatsApp for group discussion about class assignments, class work discussion, instructor announcements regarding the subject, examination preparation, and research publication groups. Students also use WhatsApp for sending and receiving notes, audio - video lectures and books in electronic format shared from instructor or library.

Keywords: WhatsApp, Achievements, Students, Academic, Higher Education Institutes.

Introduction

WhatsApp is one of the technology applications which is commonly used on smart phones and computers in the recent years. This application has tremendously affected many aspects of our lives; especially it has become a part of youth's daily life activities and considerably affected many aspects of our youth. Since the smart phones became very popular, individuals find it difficult to be without it. The use of WhatsApp is growing continuously day by day at an inconceivable rapidity with many purposes including keeping in touch with friends and family members, sharing ideas, thoughts, and emotions to meet their information, entertainment and learning requirements, whereas many of the students have begun to use this application for their educational tasks. WhatsApp began its functioning in the year 2009. It was developed by former Yahoo managers "Brian Acton and Jan Koum" under the tagline "Simple". This application facilitates in communication among individuals and groups for free without any cost and makes it easier to create groups, send boundless messages, share images, audio and video messages, disseminate ideas with other users [1]. WhatsApp has several advantages such as multimedia, group chat, cross platform engagement (smart phones, tablets etc.), offline messages, no charges involved and pins and users name, hence instructor has also observed this new technology and explored its impact on student achievement. Consequently, these technologies have a large impact on the academic progress of students [2]. The usage of WhatsApp for academic purposes aims to send instruction to students in the classroom. It provides all the instructions when the instructor and students are separated by distance, time or both. The overwhelming adoption of this application can be linked to the fact that the students have tremendously embraced the use of mobile devices as an integral part of their everyday life. In recognition of the unprecedented adoption of WhatsApp by many people especially the young students, this trend shall never be left unused [3].

There is a need to conceptualize the experience and pattern of WhatsApp usage by students in Private and Public Institutes of Sindh province and also illuminate different effects of this application for their academic performance. However, regarding that the WhatsApp has become a growing phenomenon in academic usage for discussing academic topics of mutual interest. This study aims at exploring the usage of WhatsApp for academic purposes among the students of Private and Public Institutes of Sindh province.

Literature Review:

This literature review mainly looks at research related to the usage of WhatsApp among students for academic purposes as following:

The study found out the influence of WhatsApp on university students -applying to a sample of 105 students- the results showed that WhatsApp is a tool of faster communication and easier by reinforcing effective flow of information, idea sharing, and connecting people easily [6]. Researcher investigated the role of WhatsApp in augmenting learning among the third professional MBBS students, 82 students in total participated in the study, the results showed

that WhatsApp is capable to improve learning especially among slow learners by creating their interest and improving communication among students [7]. The author conducted a research to find out if using WhatsApp actively in English outside the school has any effect on the students' attitudes, applying to a sample of 20 students. The results proved that the application is effective in the emotions such as happiness, joy, excitement, and pride and showed that the students considerably support the use of this application [8]. The researcher carried out a study to analyze how the use of instant messaging services impacts the Spanish university context, applying to a sample of 332 students. The results showed that most of the students use instant messaging application for issues related to university besides their personal lives [9]. A study to find out how WhatsApp enhances students' academic performance, applying to a sample of 20 purposively selected students. Findings showed that WhatsApp can cause academic disruption through addiction to non-educational communities, but also, it can enhance academic performance through building and improving students' community of learning [10]. Study found out the effects of WhatsApp use for education, applying to a sample of 30 experimental group students, the results found out that students showed positive attitudes towards WhatsApp usage in their courses and they demanded the same practice in their other courses as well. The results also showed that learning could also happen unconsciously and the messages with images were more efficient for their learning [11]. A study found out the effect of WhatsApp when used as a tool to deliver instruction to 400 level trainee teachers who offered computer in education, the results revealed that there was no significant difference existed between the mean values of the two groups at post-test level [12]. Study conducted to research examine the potential effect of e-mail and WhatsApp-based instructional treatment on a sample of student found that there are statistically significant differences in the participants' mean scores on the post-test in favor of those in the WhatsApp group, combined e-mail and WhatsApp group, and e-mail group, respectively [13].

It is clear that there are many studies conducted on the usage of WhatsApp for academic purposes naturally raise an issue, while the results of some studies agree with one another. Others simply disagree with each other on the usage of WhatsApp for academic purposes in general and teaching and learning in particular.

Research Objectives:

- Identify the patterns and habits of WhatsApp usage for academic purposes
- Ascertain the amount of time spent by the students on WhatsApp for academic purposes
- Determine the academic purposes of the usage of WhatsApp by students
- Explain the topics that students exchange about the educational process
- Find out the negative effects of WhatsApp usage in academic purposes

Research Questions:

- What are the patterns and habits of WhatsApp usage among students for academic purposes?
- How frequently do students use WhatsApp for academic purposes?
- What are the academic purposes of WhatsApp usage among students?

- What are the topics students exchange regarding the educational process?
- What are the negative effects of WhatsApp in academic purposes?

Research Hypothesis

- There are significant differences in frequency of WhatsApp usage and the reasons of this usage among students in Private and Public universities.
- There are significant differences in the rate of WhatsApp usage and the reasons of this usage among students of Private and Public universities.
- There are significant differences in the topics that students communicate through WhatsApp for academic purposes and the reasons of this usage in Private and Public universities.
- There are significant differences between the patterns of WhatsApp usage among students and the reasons of this usage in Private and Public universities.

Research Methodology

The quantitative research method was used. The target population of the study was higher education institutes of Sindh province. This study used purposive sampling to gather the responses of the students. This study is a descriptive survey research in nature that used to explore and describe the data collected from sample of 175 students (94 students from Private institutes and 81 students from Public institutes) were purposively surveyed on their usage of WhatsApp services and academic performance. All respondent students were members of at least one joint instructor- student WhatsApp class group. The researcher distributed a questionnaire to 175 students in the higher education institutes of Sindh province. The questionnaire is adopted that is categorized into three-point Likert type scale responses labelling Agree, Neutral, and Disagree. The data collected was analyzed through Statistical Package for Social Sciences (SPSS) package 23 version and the tests utilized are simple frequencies, mean, standard deviation, Z-test, T-test and F-test).

Results and Discussion

1. WhatsApp usage according to the type of university

Rate of use	Private Sector		Public Sector		Total		Z- test	significant
	F	%	F	%	F	%		
Always online	61	69.32	71	81.61	132	75.43	1.89	Not significant
Often	16	18.18	12	13.79	28	16	0.79	Not significant
Sometimes	11	12.5	4	4.6	15	8.57	1.78	Not significant
Total	88	100	87	100	175	100		

Table 1: Frequency of WhatsApp usage by students according to the type of university for academic purposes

From table 1, it can be interpreted that WhatsApp is very popular among students in Private and Public universities as 75.43% used it in abundance. Only 16.00% of them used it often and 8.57% used it sometimes. The results indicate that there are no statistically significant differences between students in Private and public universities according to the type of university about the frequency of WhatsApp usage.

2. Rate of WhatsApp usage according to the type of university

Rate of use	Private Sector		Public Sector		Total		Z-test	significant
	F	%	F	%	F	%		
Less than three times	15	17.05	12	13.79	27	15.43	2.77	significant
From three times to five times	32	36.36	19	21.84	51	29.14	2.21	significant
Over than five times	41	46.59	56	64.37	97	55.43	2.37	significant
Total	88	100	87	100	175	100		

Table 2: Rate of WhatsApp usage by students according to the type of university for academic Purposes

From table 2, the results indicated that out of 175 students, 55.43% students use WhatsApp more than five times, whereas 29.14% students use from three times to five times, followed by 15.43% use it less than three times. It indicates that the students use WhatsApp frequently for academic purposes. The results of the current table are consistent with the results of the previous table in increasing the usage of WhatsApp in private and public universities. The results also indicate that there are statistically significant differences between students in Private and Public universities according to Rate of WhatsApp usage in less than three times, from three times to five times, more than five times for Private universities with percentage (17.05%, 36.36%, 46.59%) in comparison of (13.79%, 21.84%, 64.37%) for Public universities). The Z-calculated values (2.77, 2.21, 2.37) are higher than the Z-tab of 1.96 predicted that there is a significant relationship between the two variables at a (95%) level of confidence.

3. Topic of student WhatsApp communication according to university type

Topic	Private Sector		Private Sector		Total		Z-test	significant
	F	%	F	%	F	%		
Information relating the classes	53	60.23	34	39.08	87	49.71	2.8	significant
Information relating the courses (syllabus curriculum)	43	48.86	39	44.83	82	46.86	0.53	Not Significant

Information relating entertainment and events	25	28.41	29	33.33	54	30.86	0.71	Not Significant
Total	88		87		175			

Table:3 Topic that students communicate through WhatsApp for academic purposes according to the type of university

From table 3, the results indicate that out of 175 students, 49.71% students use WhatsApp for sending information to classes, whereas 46.86% students use it for sending information related to the courses (syllabus –curriculum), followed by 30.86% use it for sending information related with entertainment and events. The results indicate that there are statistically significant differences between students in Private and public universities according to topic they communicate through WhatsApp for academic purposes in: information related to the classes for Private universities with percentage (60.23%) in comparison to (39.08%) for Public universities. The Z-calculated value (2.8) is higher than the Z-tab of 2.58 predicted that there is a significant relationship between the two variables at a (99%) level of confidence.

4: Patterns of using WhatsApp according to the type of university

Patterns	Private		Public		Total		Z- test	significant
	F	%	F	%	F	%		
Instant messaging	88	100	87	100	175	100	-	-
Sending Audio and video files	54	61.36	43	49.43	97	55.43	1.59	Not significant
Exchange lectures Notes with my classmates	41	46.59	21	24.14	62	35.43	3.1	significant
Send images	49	55.68	47	54.02	96	54.86	0.22	Not significant
Voice calls	15	17.05	44	50.57	59	33.71	4.69	significant
Total		88		87		175		

Table 4: The patterns of WhatsApp usage among students according to the type of university

From table 4, the results indicate that out of 175 students, 100% students use WhatsApp for sending instant messaging, whereas 54.86% students use it for sending images, followed by 55.43% sending audio and video files, 35.43% exchanging lectures notes with their classmates. The results indicate that there are statistically significant differences between students in Private and Public universities according to the patterns of WhatsApp usage in: Exchange lectures notes with their classmates for Private universities with percentage (46.59%) in comparison to (24.14%) for public sector. The Z-calculated value (3.10) is

higher than the Z-tab of 2.58 predicted that there is a significant relationship between the two variables at the (99%) level of confidence. The results indicate that there are statistically significant differences between students of Private and Public universities according to the patterns of WhatsApp usage in: Voice calls for Public universities with percentage (50.57%) in comparison of (17.05%) for Private universities. The Z-calculated value (4.69) is higher than the Z-tab of 2.58 predicted that there is a significant relationship between the two variables at a (99%) level of confidence.

5: WhatsApp usage according to the gender variable.

T-test for the significance of differences between the average attitudes of students towards the academic purposes of WhatsApp usage according to the variable of gender

The reasons of WhatsApp usage	Gender	No.	Mean	Standard deviation	Value (T)	Freedom Degree	Significance level
	Male	90	59.3	5.827	0.145	173	0.884
	Female	85	59.2	5.972			

Table 5: WhatsApp usage according to the gender variable

The results of the table reveal that there are no statistically significant differences between the average attitudes of students towards the academic purposes of WhatsApp usage among students according to the variable of gender in Private and Public universities according to the gender variable. The value of "T" (.145) is not statistically significant at the level of (.884). The results assure moderate positive attitudes of students in Private and Public sector towards WhatsApp usage according to the gender variable.

6: WhatsApp usage according to the university level

T-test for the significance of differences between the average attitudes of students towards the academic purposes of WhatsApp usage according to the university level

The reasons of WhatsApp usage	University	No.	Mean	Standard Deviation	Value (T)	Freedom degree	Significance level
	Private Sector	88	59.7	5.916	1.82	173	0.07
	Public Sector	87	57.87	5.482			

Table 6: WhatsApp usage according to the university level

The results of the table reveal that there are no statistically significant differences between the average attitudes of students towards the academic purposes of WhatsApp usage according to the university. The value of "T" (1.820) is not statistically significant at the level of (.070). The results assure moderate positive attitudes of students in Private and Public universities towards WhatsApp usage according to the university.

7: WhatsApp usage according to the age

Source of variance	Sum of Squares	Mean Square	Freedom degree	Value of " F	Significance level
Between groups	111.245	55.623	4	1.633	0.198
Within groups	5859.189	34.065	170		
Total	5970.434		174		

Table:7 WhatsApp usage according to the age

Statistically, the “F” test was used to examine the relationship between the average attitudes of students towards the academic purposes of WhatsApp usage and their ages. The test shows that there are no statistically significant differences between the attitudes of students towards the reasons of WhatsApp usage in Private and Public universities according to the variable of age. The value of “F” is (1.633); it is not statistically significant at the level of (.198). It can be concluded that there are average positive attitudes of students in Private and Public universities towards the reasons of WhatsApp usage according to the variable of age.

Testing Hypotheses:

H:1 There are significant differences in frequency of WhatsApp usage and the academic purposes of this usage among students in Private and Public Universities.

	The academic Purposes of WhatsApp in Private University		The academic Purposes of WhatsApp in Public University	
Frequency of WhatsApp Usage	Pearson (R)	P Value	Pearson (R)	P Value
	0.643	0	0.103	0.75
N	88		87	

Table:8 Correlation between frequency of WhatsApp usage and the academic purposes of this usage among students in Private and Public universities

The study used a Pearson correlation coefficient test to analyze the relationship between frequency of WhatsApp usage and the academic purposes of this usage among students in Private universities. The results showed that there is a positive Correlation between the two variables; $R = .643$, $N=88$ and $P= .000$. So, we can accept the hypothesis and conclude that there is a significant influence of frequency of WhatsApp usage on the academic purposes of this usage. The study also used a Pearson correlation coefficient test to know the relationship between the frequencies of WhatsApp usage and the academic purposes of this usage among students in Public universities. The results showed that there is no correlation between the two variables; $R = .103$, $N=87$ and $P= .75$. So, we can reject the hypothesis and conclude that there is no significant influence of frequency of WhatsApp usage on the academic purposes.

H 2: There are significant differences in the rate of WhatsApp usage and the academic purposes of this usage among students in Private and Public Universities.

	The academic Purposes of WhatsApp in Private University		The academic Purposes of WhatsApp in Public University	
The rate of WhatsApp Usage	Pearson (R)	P Value	Pearson (R)	P Value
	0.382	0.14	0.274	0.27
N	88		87	

Table 9: Correlation between the rate of WhatsApp usage and the academic purposes of this usage among students in Private and Public universities

The study used a Pearson correlation coefficient test for assessing the relationship between the rate of WhatsApp usage and the academic purposes of this usage among students in Private universities. The results showed that there is a positive Correlation between the two variables, $R = .382$, $N=88$ and $P= .014$. So, we can accept the hypothesis and conclude that there is a significant influence of the rate of WhatsApp usage on the academic purposes of this usage. The study also used a Pearson correlation coefficient test to evaluate the relationship between the rate of WhatsApp usage and the academic purposes of this usage among students in Public universities. The results showed that there is a positive Correlation between the two variables, $R = .274$, $N=87$ and $P= .027$. So, we can accept the hypothesis and conclude that there is a significant influence of the rate of WhatsApp usage on the academic purposes of this usage.

H 3: There are significant differences in the topics that students communicate through WhatsApp and the academic purposes of this usage in Private and Public universities.

	The academic Purposes of WhatsApp in Private University		The academic Purposes of WhatsApp in Public University	
Topics	Pearson (R)	P Value	Pearson (R)	P Value
	0.651	.000	0.365	.021
N	88		87	

Table 10: Correlation between topics that students communicate through WhatsApp and the academic purposes of this usage in Private and public universities

The study used a Pearson correlation coefficient test to analyze the relationship between topics that students communicate through WhatsApp and the academic purposes of this usage among students in Private universities. The results showed that there is a positive Correlation between the two variables, $R = .651$, $N=88$ and $P= .000$. So, we can accept the hypothesis and conclude that there is a significant influence of topics that students communicate through WhatsApp and the academic purposes of this usage. The study also used a Pearson correlation coefficient test to evaluate the relationship between the rate of WhatsApp usage and the academic purposes of this usage among students in Public universities. The results showed that there is a positive

Correlation between the two variables, $R = .365$, $N=87$ and $P= .021$. So, we can accept the hypothesis and conclude that there is significant influence of topics that students communicate through WhatsApp and the academic purposes of this usage.

H 4: There are significant differences between the patterns of WhatsApp usage among students and the academic purposes of this usage in Private and public Universities

The Pattern of WhatsApp Usage	The academic Purposes of WhatsApp in Private University		The academic Purposes of WhatsApp in Public University	
	Pearson (R)	P Value	Pearson (R)	P Value
	.091	.098	.178	.043
N	88		87	

Table 11: Correlation between the patterns of WhatsApp usage among students and the academic purposes of this usage in Private and public universities

The study used a Pearson correlation coefficient test to assess the relationship between patterns of WhatsApp usage and the academic purposes of this usage among students in Private universities. The results showed that there is no Correlation between the two variables, $R = .091$, $N=88$ and $P= .098$. So, we can reject the hypothesis and conclude that there is no significant influence of patterns of WhatsApp usage on the academic purposes of this usage. The study also used Pearson correlation coefficient test to assess the relationship between the patterns of WhatsApp usage and the academic purposes of this usage among students in Public universities. The results showed that there is a positive Correlation between the two variables, $R = .178$, $N=87$ and $P= .043$. So, we can accept the hypothesis and conclude that there is significant influence of patterns of WhatsApp usage on the academic purposes of this usage.

Conclusion:

The findings revealed that most of the respondents used this WhatsApp application daily regularly and connect and communicate consistently via WhatsApp that reflected high level of WhatsApp usage among students in Private and Public universities. The motivation is to find out there is the differences among the students according to the type of university in the usage of WhatsApp. The level of usage includes the average of time that students spent on this application, and the rate of the usage of it that students used daily for academic purposes. The results also revealed that there are many obstacles contribute in this area including WhatsApp creates loss of interest for educational process; it is difficult to load some files, and create a status of non-participation in university activities. The results indicated that there is a significant influence of frequency and the rate of WhatsApp usage on the academic purposes of this usage in Private universities versus Public universities. There is no significant influence of rate of WhatsApp usage on the academic purposes of this usage in Public universities and

there is a significant influence of frequency of WhatsApp usage on the academic purposes of this usage. The results also indicated that there is a significant influence of topics that students communicate through WhatsApp and the academic purposes of this usage and there is no a significant influence of patterns of WhatsApp usage on the academic purposes of this usage in Private universities. At the same time, the results indicated that there is a significant influence of topics and patterns that students communicate through WhatsApp on the academic purposes of this usage in Public universities.

Recommendations:

This research study has the following recommendation;

- Conduct research at the same field to understand the instructors' perceptions about the usage of WhatsApp for academic purposes
- Execute research to unfold the educational environment and its impact on the students' performance
- Hold comparative research between the WhatsApp and other social networks sites including Facebook for academic purposes

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