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MOTIVES FOR USING WHATSAPP AND ITS GRATIFICATIONS IN YEMENI UNIVERSITIES, (UNIVERSITIES OF TAIZ, AS A MODEL)

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ABSTRACT

The aim of the research is to uncover the motives of Taiz university students using WhatsApp, and the achieved gratifications from using it. This descriptive survey method was used to achieve the research objectives, and the research sample was chosen from students of Taiz Governmental University, and the two private universities; Al-Hikma and Alatta Universities. 180 students were randomly selected from the Faculties of Science and Probability. The most important results are that the degree of ritual motives for using WhatsApp is high, foremost among which is study, non-study studies, and spending leisure time, while utilitarian motives have a medium degree, on top of which is the cognitive motivation and communication with colleagues, where it was found that the degree of satisfaction resulting from the use of WhatsApp is medium. Satisfying gratification with escaping from reality, and creating a good and weak learning environment, as it became clear that the negative impact of using WhatsApp has a weak role, and the results showed that there is no statistical study between the averages and responses were achieved in the two areas of motivation use according to the gender variable (male, female), and there are statistically significant differences for alternatives positive effects. There are also statistically significant differences according to the age variable in regards to the motives for employment, while there are statistically significant differences in the two areas of satisfaction, and the positive effects appear between the two groups (less than 22 years old and more than 25 years) in favor of the age group (less than 22 years). And between the groups (22-25) and more than 25 years), in favor of the age group (22-25) years, and the results showed that the lack of statistical statistics according to the variables of the university and specialization (scientific - humanitarian) and type (government). However, there are statistically significant differences regarding the type of university in the motives for employing Taiz Governmental University students.

KEYWORDS

University students, Yemeni Universities and WhatsApp gratifications.

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INTRODUCTION

Research introduction

Social media networks have contributed to a quantum leap in the field of facilitating the transfer and exchange of information, expertise and skills between members of society in general, and undergraduate students in particular, and among the

most prominent of these networks are Facebook and Twitter. WhatsApp is regarded as the most used social media application among students and most used in activating the educational process for its easy handling via smart phones. Venna (Venna, 2016)¹ demonstrates the possibility of adopting WhatsApp in the educational process for facilitating fast communication between students and allowing chatting with some of them regarding academic aspects. Al-Nuwaihi (Al-Nuwaihi, 2018)² also confirmed that the WhatsApp application has a great role in supporting the educational process. It allows the university teacher to create groups of students through which he sends some educational activities. The students implement the activities individually or collectively in the spirit of one team and he reviews and evaluate their efforts and help them overcoming their difficulties through text messages, pdf files, word or multiple media such as pictures, audio recordings or videos. Then the feedback is exchanged between them.

In addition, WhatsApp provides students with opportunities to express their opinions and engage in discussions related to what they are studying at the university as well as issues of their community and their environment. Thus, their multiple needs are met. According to the study by (Mondi and Rafi, 2008)³, students aspire to educational means of communication that satisfy their cognitive, emotional, personal, social and recreational needs. Uses and gratifications theory is one of the communication theories related to the audience, who is considered as an active participant in communication, using the means that achieve its goals and meet its expectations (Kafi, 2014)⁴. According to this theory, the student is considered one of the groups of the audience who uses communication means including social networks, so he chooses content that satisfies his needs and desires and meets his motives. Satisfactions are divided into two types, gratifications that are required but they are not necessarily achieved, and gratifications that are achieved through exposure to the content of social networks and achieve the student's motives. Needs also arise according to this theory as a result of utilitarian motives related to

obtaining information or ritualistic motives related to entertainment and leisure. According to the study (Ibtisam, 2016)⁵, the theory of uses and gratifications is still adopted in the field of research in new media, despite its antiquity and the criticisms directed at it.

Based on the above, one can rely on the theory of uses and gratifications in studying the motives of students' use of WhatsApp, and the benefits achieved from it, in public and private universities in the city of Taiz, in the Republic of Yemen.

Search problem

The use of social media networks have become an essential part of daily life, and interest in it has increased in the field of education especially the WhatsApp application, which has proven a clear role in satisfying the knowledge and social needs of university students. Hence, several studies recommended that universities should pay attention for employing social media networks in the field of education, including the study (Al-Nuwaihi, 2018)² which recommended the need to spread awareness in Yemeni universities of the importance of employing social media networks associated with mobile phones in the educational process. The study (Al-Bashabsha, 2013)⁶ also suggested the necessity of conducting studies on different segments of society and showing the effects of their negative and positive social media uses. And since no previous studies were conducted on the motives and gratifications that WhatsApp achieves among university students in the city of Taiz, the research problem crystallizes in answering the following main question:

What is the reality of the motives for using the WhatsApp application among public and private university students and the gratifications achieved from it in Taiz? The following questions are derived from it:

What are the motives behind the use of WhatsApp for Taiz universities students?

What are the benefits achieved from using WhatsApp for universities students in Taiz?

What is the role of the negative effects resulting from the use of WhatsApp on universities students in Taiz?

Are there statistically significant differences in the

status of saturation achieved by students from using WhatsApp due to the variables of gender, age, specialization, academic level, and university type?

Research aims

The research aims to reveal the motives of Taiz universities students for using WhatsApp and the benefits achieved from its use. As well as knowing the role of negative effects resulting from its use. The research also aims to identify the significance of the differences about the satisfaction they have achieved from using WhatsApp according to the variables of gender, age, specialization, academic level and university type.

Research importance

The importance of the research lies in its results that may benefit the officials of Yemeni universities in general and the universities of Taiz city in particular in employing the WhatsApp application in the educational process besides directing its students towards achieving the benefits of using WhatsApp in their educational and daily lives. The research also gains its importance being one of the rare researches that deals with the application of WhatsApp according to the theory of uses and gratifications, and also one of the important communication theories which is applied in the current research.

Research terms

Motivation

An energy within an individual that drives him to carry out a specific behavior and activity - dynamically, intellectually or emotionally - to achieve a goal that satisfies an existing need for him, as he stimulates the behavior and does not stop until he achieves his goal or is unable to achieve it, so he is forced to postpone it (Taha and others, 2014)⁷. Procedurally motivation may be defined as: an internal stimulus that moves the behavior of the university student and directs him to reach the satisfaction and achievement of a goal, and this motivation may be beneficial in relation to obtaining information, or rituals related to entertainment.

Gratification

The effect that occurs to the user after being exposed to the means of communication, and procedurally it can be defined as the results of Taiz universities' students who use WhatsApp application to achieve

more responses that related to their needs as a result of their communication experiences with this application.

WhatsApp application

It can be defined operationally as a messaging application that works across multiple platforms, and it is widely used among students of Taiz universities to send multimedia messages as well as text messages.

Literature Review

There are many studies dealing with the use of the WhatsApp application in the field of education, and the results of the most prominent studies can be referred to as follows:

The study of (Al-Bashabashah, 2013)⁶ aims at identifying the motives for Jordanian university students' use of social media sites (Facebook and Twitter) and its gratifications. The study has concluded that the motive for communicating with relatives and parents is the largest, followed by the motive for enjoyment and entertainment then the motive for use as academic purposes, and finally the search motive about childhood friends. Regarding the gratifications that students seek to fulfill, social satisfaction comes first, followed by cognitive satisfaction, psychological satisfaction, and finally spiritual and emotional satisfaction.

Mansour's study (2014)⁸ aims at identifying the role of social media networks in achieving the needs of Jordanian youth. The study has showed that cognitive needs are ranked first and then comes the emotional needs which are followed by personal needs and social needs, and finally the needs to escape reality. The study has found that there are no statistically significant differences in the satisfaction achieved from the use of social networks according to the gender variable (male female) .

Abu Salah's study (2014)⁹ aims at identifying the Palestinian university students' uses of social networks and the achieved gratifications and their motives to use it. His study concludes that the motive for communicating with colleagues and friends at home and abroad comes first, followed by the drive to obtain information and gain experiences, then the drive to have fun and leisure. The gratifications of social interaction topped the first

place, followed by the gratifications of environmental monitoring, then the gratifications of sharing opinions and entertainment gratifications. The study has revealed that there were differences in use that depends on the gender and comes in favor of males.

Abdel Fattah (2015)¹⁰ has conducted a study aims at identifying the effectiveness of using WhatsApp as a communication technique to develop students' writing skills, and among its most prominent results: The effectiveness of using WhatsApp in improving participation in the English language, as it provides free language training for students, and helps to create Personal relationships between students and teachers, which improves their social relations, and their communication after the lessons.

Zawanah study, (2015)¹¹ aims to investigate the degree to which Jordanian university students use social networks as a tool for learning and education and the benefits achieved from them. Among its most prominent results are: the use of (YouTube) comes first, followed by (Facebook), then (Twitter). The questions about study materials occupies the first impulse to use Facebook, and chatting and communicating with colleagues came in the last place.

The study of Illah and Al-Wed, (2016)¹² aims at identifying the uses of Algerian university students on social media networks and their motives and the fulfilled gratifications. The study has found that there are statistically significant differences in the motives for using social media networks by gender in favor of females.

Bhatt and Arshad (2016)¹³ have conducted a study aims at investigating the impact of WhatsApp on the educational, psychological and social aspects of Indian youth and evaluating its use. The study found that (72%) of young people joined this application as it is a good source of communication between them, and (67%) of its users indicated that they had become addicted to its use, which affected their psychological state, and also caused (57%) of them social isolation, (48%) saw that they use it for chatting, entertainment and photo sharing.

Morad and Mahasnah (2016)¹⁴ conducted a study aim at revealing the degree of university students'

use of social media networking sites in the educational process, and the difficulties in using them. The results show that the degree of their use was moderate and also indicate that there were no statistically significant differences attributed to gender variables, academic program and academic level for the university students but they are found in the difficulties they face.

Cetinkayab (2017)¹⁵ has conducted a study that aims to find out the effect of using WhatsApp on the success of the educational process from the students' point of view. The study has found a high success rate for the students who use WhatsApp in their studies and they expressed the positive impact of WhatsApp on their educational life.

Al-Tuwaijri study (2017)¹⁶ aims to identify the motives behind the exposure of Saudi youth to the new media, and the benefits achieved from it. It has also found that the use of WhatsApp is ranked third within social networks, and it is found that cognitive motives come in the first place, followed by emotional motives, then personal motives, social motives, and finally motives to escape from reality. The gratifications achieved are varied between content gratifications and the most important of which are: benefiting from information, acquiring new knowledge, and practical gratifications and the most important of which are: getting pleasure and fun, and getting rid of boredom and distress.

Gon and Rawekar (2017)¹⁷ has conducted a study aims at evaluating the effectiveness of e-learning via WhatsApp in communicating knowledge to learners. The results of the post-test have reveal that the scores of learners who use WhatsApp as an educational tool were in the range of (5- 20) degrees, while the scores of the other group that did not use it within (3- 17.5) degrees even if there were no statistically significant differences between them. But facilitating learning anytime and anywhere is an important feature of learning via WhatsApp.

The Gasaymeh study (2017)¹⁸ aims to investigate the purposes of university students' use of the WhatsApp application and study their perceptions of integrating it into their education. The results show that their use of WhatsApp for educational purposes is limited, and they realize that integrating it into their

education was easy, fun and useful, and their feelings and intentions were positive towards presenting their formal learning through the use of WhatsApp.

The study of Amsha and Dubian (2017)¹⁹ aim to identify the use of Jordanian university students for interactive communication networks to enrich their knowledge and the study finds that the use of WhatsApp ranked second in the interactive network. Students' uses of these means of entertainment varied to become a source for hearing news in addition to their use in making new relationships.

Rosenfeld *et al* (2018)²⁰ aim to present a picture of using WhatsApp as an alternative to short messages (SMS), and explain how to use it. About (6 million) messages were analyzed from (100) student participants, ranging in age from (18-34) years old. The study finds different usage habits in different messages and groups according to gender and age variables, and there are also differences in user behavior and expectation models, and it is found that females use WhatsApp more than males, for general and family purposes.

Amr (2019)²¹ conducts a study aims at knowing the uses of the WhatsApp application by university youth to obtain local news, information and the achieved gratifications. The study finds that text messages are more followed by students then followed by pictures, and the cognitive needs have met the highest satisfaction, followed by emotional needs, personal needs, then social needs, and finally needs to escape from reality.

Hassan's study (2020)²² aims to identify WhatsApp's use of academic knowledge in higher education institutions among students from Saudi and Bahraini universities. The results indicate that students use this application for many reasons, including: participation in the discussion of assignments and research, the publication of some advertisements about training courses, discussing its specifications with the teacher, exchanging ideas about the course project with their colleagues, and finally exchanging previous and expected test questions.

In the local Yemeni environment, Saadan and Al-Mitami (2017)²³ conduct a study that aims at identifying the motives of students' use of

smartphones and the gratifications achieved from them, on a sample of university students (Yemeni, Saudi and Emirati). The study finds that the motives for obtaining information ranked first and that there are statistically significant differences in the ritual motives for using smartphones, in favor of Saudi university students who use smartphones for entertainment more than others.

Al-Nuwaihi (2018)² study aims at identifying the role of social media networks (WhatsApp) in supporting, enhancing and facilitating the education process in the education technologies course, and the results showed that there is a major role for social networks (WhatsApp) in support of: the educational process, Student communication, educational content, and educational activities.

Alkowihi (2020)²⁴ also conducted a study aims at identifying the negative effects of the mobile phone on students of Taiz University, and concludes that the negative effects of its use were high in the physical and behavioral fields, and medium in the social, health and psychological fields, and the lowest in the cognitive domain. The study concludes the absence of statistically significant differences for the effects of mobile phone use on Taiz University students according to the variables of gender, specialization, and academic level.

It is clear by reviewing the previous studies results that they agree on the importance of using the WhatsApp application and its effectiveness in education, and the need to activate its use to satisfy the university students requirements. It also indicates to the degree to which satisfaction is met at different levels and more particularly the cognitive, social and entertainment gratifications. It becomes clear that there are difficulties hindering the achievement of the required satisfaction. The current study differs from previous studies as it deals with an environment in which no adequate studies have been conducted, as it deals with a large sample representing the universities of the city of Taiz on the one hand and uses the theory of uses and gratifications on the other hand.

Research hypotheses

1. There are no statistically significant differences at the level of ($\alpha \leq 0.05$) in the average responses

- of the sample members to the saturation status achieved by them from using WhatsApp due to the gender variable (male - female).
2. There are no statistically significant differences at the level of ($\alpha \leq 0.05$) in the average responses of the respondents to the saturation status achieved by them from using WhatsApp due to the variable of age (less than 22 years), (from 22-25), and (more than 25 years)
 3. There are no statistically significant differences at the level of ($\alpha \leq 0.05$) in the average responses of the sample members to the saturation status achieved by them from using WhatsApp due to the variable of specialization (scientific - human).
 4. There are no statistically significant differences at the level of ($\alpha \leq 0.05$) in the average responses of the respondents to the saturation status achieved by them from using WhatsApp due to the academic level variable (first, second, third, fourth).
 5. There are no statistically significant differences at the level of ($\alpha \leq 0.05$) in the average responses of the sample members to the saturation status achieved by them from using WhatsApp due to the university variable (public - private).

Research methodology and procedures

Research methodology

The two researchers have relied on the survey descriptive method for its relevance in achieving the research objectives.

Research community and sample

The research community consists of students from public and private universities in the Yemeni city of Taiz from the second semester of the academic year (2019-2020). The research sample is chosen from: (Taiz University), as it is the only governmental university in Taiz, and two private universities from among Five universities: The University of Al-Hikma, which represents the universities of old establishment, and The University of Al-Ata'a, which represents the universities of recent establishment. In addition, 180 male and female students were selected in a random and stratified way from scientific and humanitarian colleges from the universities of the research sample.

Characteristics of the research sample: It can be summarized in the following Table No.1,

Table No.1 shows that the total of the sample is (180) individuals, the females ratio represent (66%), and males (34%), and it also appears that (57%) are between (22-25) years old, and (29 %) are under the age of (22) years while (14%) of them are over (25) years old. It is clear that (56%) of the sample members are in the fourth level, followed by the third level students (21%), then the second level (14%), and finally the first level (9%). It is noticed that (56%) of the sample members belong to scientific disciplines, while (44%) have humanitarian specializations, and finally (59%) are registered in a governmental university (Taiz University), while (61%) are registered in the two private universities (Al-Hikma and Al-Attaa Universities.)

Search tool setting

The researchers have used the questionnaire as a tool to collect data related to achieving the saturation status of using WhatsApp among university students in Taiz, and to build this tool in its final form, the following procedures were followed:

The two researchers have reviewed a set of previous researches and studies related to the topic of this research, and the tools used in them. In light of this, a questionnaire consisting of 36 paragraphs has been prepared within four basic fields.

To make sure of the tool validity (the questionnaire), its apparent validity is calculated by presenting it in its initial form to (6) arbitrators from the academic staff of the College of Education - University of Taiz, specializing in the fields of education and educational technology to determine the accuracy of the paragraphs of the questionnaire, in terms of: The extent of belonging to the paragraphs for the field in which it is placed, and the validity of its formulation, in addition to including any observations they deem appropriate. After reviewing the opinions of the arbitrators, the questionnaire has been amended according to their proposals, and thus the tool reached its final form with (31) paragraphs distributed into three areas as follows:

The scope of motivations for using WhatsApp, which contains 11 paragraphs.

The scope of the achieved gratifications from the use

of WhatsApp, the number of paragraphs 11 paragraphs.

The field of the role of the negative effects of using WhatsApp, and its number of paragraphs is 9 paragraphs.

To ensure the stability of the tool: the stability was calculated with the formula (Cronbach's Alpha), where the reliability coefficient at the level of the (31) paragraphs of the questionnaire, reached (.872), which is a high reliability coefficient, valid for the purposes of the research.

Statistical methods used

To achieve the research objectives and hypotheses, I have used the SPSS program package to implement the following statistical methods:

Alpha Cronbach equation to ensure the stability of the search tool.

T-test to find out the differences and their statistical significance for two independent samples in the average responses of the sample members according to the variables (gender, specialization, and university).

Testing ANOVA and LCD to find out the significance of the differences between the averages of the responses of the sample members according to the variable (age).

Presentation and discussion of the research results

This part reviews the results of the research and discusses them according to the research questions and their hypotheses, as follows:

To answer the first question: which states: What are the motives for students from Taiz universities to use WhatsApp? The averages and standard deviations of the student's motivation scores for using WhatsApp are calculated as shown in Table No.2 following:

It is evident from Table No.2 that the total averages of the motives of the sample members from using WhatsApp is (2.19), with a standard deviation (.335) and with a medium degree, where the total average of ritual motives got (2.33) with a high degree. Scholastic, and leisure time averages at a high score (2.85), (2.72), (2.33) respectively. In this way, I agree with the study of Zwanah, (2015)¹¹ and disagree with the study of the Bashabsha, (2013)⁶ and the motives for getting to know other friends, and the entertainment motives (entertainment and escaping

from reality) got averages of (2.14), (2.04), (1.88) respectively, and with a medium degree, and agree with that with Studies of Amr, (2019)²¹ Abu Salah, (2014)⁹ and Al-Tuwaijri, (2017)¹⁶ in arranging this motive.

As for utilitarian motives, their total average is (2.04) and their degree is medium, as the cognitive motivation and communication with colleagues are averaged (2.44) and (2.41) respectively and with a high degree, and thus I agree with the studies of Abu Salah, (2014)⁹ Saadan and Al-Tamimi (2017)²³, Tuwaijri, (2017)¹⁶, and it disagree with the studies of Mansour, (2014)⁸, Amr (2019)²¹, Abu Salah (2014)⁹ and Gasaymeh, (2017)¹⁸ in which the cognitive drive is delayed, and finally the search for general news, media news, and the exchange of pictures and video clips on averages of (2.18), (1.73), and (1.45) of medium degrees. A straight weak score.

To answer the second question, it states: What are the benefits achieved from using WhatsApp among university students in Taiz? The averages and standard deviations of the degrees of saturation use of WhatsApp are calculated, as shown in the following Table No.3.

It is evident from Table No.3 that the total averages of the sample members satisfaction from using WhatsApp is (1.82), with a standard deviation (.424) and with a moderate degree, as paragraphs (1-8) have received averages ranging between (2.24) and (1.72). In the forefront of which is cognitive saturation, and thus I agree with the studies of Mansour, (2014)⁸ and Amr, (2019)²¹ and differ with the studies of Al-Bashabsha, (2013)⁶ and Abu Salah, (2014)⁹ which conclude that social satisfaction comes first. Also, the satisfaction of escaping from reality and creating a virtual learning environment get a weak degree averaging (1.63) and (1.63) respectively. This result is in agreement with the studies of Abu Salah, (2014)⁹ Amr, (2019)²¹ and Al-Tuwaijri (2017)¹⁶ where they conclude that the satisfaction of escaping from reality is ranked late. In general, obtaining a degree (average) is due to the weakness of the communication infrastructure, and the weak ability of students to provide the costs of communicating via the Internet.

To answer the third question, which states: What is

the role of the negative effects resulting from the use of WhatsApp on university students in Taiz? The averages and standard deviations of the degrees of the negative effects of using WhatsApp are calculated. Table No.4 shows the responses of the sample members as follows:

Table No.4 shows that the total averages of the negative impact of using WhatsApp are (1.60), with a standard deviation (.455) and with a weak degree, as paragraphs (1-4) have averages ranging between (1.99) and (1.69), all of which are of a moderate degree. And in this way, it is consistent with the study of Bhatt and Arshad¹³ with regard to the psychological impact, social isolation, and the loss of study time. Paragraphs (5-9) obtained averages between (1.58) and (1.26), all of which are weak.

The weak role of the negative effects in using WhatsApp is due to WhatsApp achieving the desired satisfaction of the sample members, and in this way they agree with the studies of Abdel Fattah (2015), Bhatt and Arshad (2016)¹³ Cetinkayab, (2017)¹⁵ Gon and Rawekar, (2017)¹⁷ Gasaymeh, (2017)¹⁸ and Al-Noihi, (2018) who agreed on the positive and effective application of WhatsApp in the educational process.

To answer the fourth question: which states: Are there statistically significant differences at the level of ($\alpha \leq 0.05$) in the average responses of the respondents to the saturation status achieved by them from using WhatsApp due to variables: gender, age, specialization, academic level, and university type? The validity of the hypotheses was tested as follows:

Research hypothesis test

Presenting and discussing the results related to the first hypothesis

To verify the validity of this hypothesis, which states that: There are no statistically significant differences at the level of ($\alpha \leq 0.05$) in the average responses of the sample members to the saturation status achieved by them from using WhatsApp due to the gender variable (male-female.). The significance of the differences is calculated through the calculation of (T-test) as shown in Table No.5.

It is evident from Table No.5 that there are no statistically significant differences between the averages of the respondents' responses to their

saturation cases according to the gender variable (male, female), in the fields of motivation for use and fulfilled gratifications, as the value T for them reached (1,183) and (1,630) respectively which are non-statistically significant values, which indicates that there is no difference in these two fields due to the gender variable, and this convergence may be due to the cultural level of male and female students. This finding is consistent with the studies of Mansour (2014)⁸, Morad and Mohasnah (2016)¹⁴, and Alkowihi (2020)²⁴. Regarding the field of the role of negative effects, its value was T (2.008), which is statistically significant in favor of males as their average (1.69) is greater than the average for females (1.55). These differences are due to the fact that males may not see negative effects of using WhatsApp to the extent What females see, in addition to the fact that females may refrain from dealing with what offends modesty, and this result is consistent with Abu Salah's study, (2014)⁹, and differs with studies of Illah, and Al-Wed (2016)¹².

Presenting and discussing the results related to the second hypothesis

To verify the validity of the second hypothesis, which states that: There are no statistically significant differences at the level of ($\alpha \leq 0.05$) in the average responses of the sample members to the saturation status achieved by them from using WhatsApp due to the variable of age (less than 22), (22-25), (More than 25). A single analysis of variance (ANOVA) test is used to find out the differences and their significance between the averages of the responses of the sample members to the status of the gratifications they achieved from using WhatsApp according to the age variable.

It is evident from Table No.6 that there are no statistically significant differences according to the age variable between the average responses of the sample members with respect to the motives of use, while there are statistically significant differences in the cases of gratifications achieved at the level of the tool as a whole, as the default value reaches (4.299), as well as at the level of its two domains: the achieved satisfaction and the negative impact of the use of WhatsApp, where the default value for them was (3.183) and (5.132), respectively, which are

statistically significant values. To find out the trends of the differences between the averages according to the age variable of the sample members, a dimensional (LCD) test was used to analyze the single variance, and Table No.7 shows the direction of the differences according to the age variable.

Table No.7 shows that there are differences between the age categories with respect to the range of the fulfilled gratifications between the two categories (less than 22) years and (over 25) years, and when comparing the averages we find that the average is (1.86) for the age category (less than 22) years, (Greater than the average (1.63) for the age group (over 25) years. This means that the differences are in favor of the age category (less than 22). It also becomes clear that there are differences between the two categories (22-25), and (more than 25) Years, and when comparing their averages (1.85) and (1.63) respectively it becomes clear that the differences are in favor of the age category (22-25).

As for the field of the negative effects in the use of WhatsApp it becomes clear that the differences are in favor of the same two age categories' (less than 22) years and (22-25) years, as in the field of the fulfilled gratifications which is confirmed in the total areas as well, and these differences may be due to the fact that the age group (over 25) may not have sufficient time to use WhatsApp; as some of them have special jobs and businesses that they practice besides studying. This finding is in agreement with the studies by Rosenfeld *et al* (2018)²⁰.

Presenting and discussing the results related to the third hypothesis

To verify the validity of the third hypothesis which states that there are no statistically significant differences at the level of ($\alpha \leq 0.05$) in the averages of the respondents' responses to the saturation status achieved by them from using WhatsApp attributable to the academic level variable (first, second, third, fourth). The significance of differences has been calculated through the calculation of (T-test) as in Table No.8.

It is evident from Table No.8 that there are no statistically significant differences due to the academic level variable between the averages of the sample members responses to the status of the

achieved satisfaction by the sample members at the level of the tool as a whole, and at the level of its fields, where the total fatality value reaches (1.783) and at the level of fields (0.691), (0.271) and (0.144) respectively. This similarity is due to the fact that the academic level variable may not affect the use of WhatsApp. This study agrees with the studies of Morad and Mahasnah (2016)¹⁴, Rosenfeld *et al* (2018)²⁰ and Alkowihi (2020)²⁴.

Presenting and discussing the results related to the fourth hypothesis

To verify the validity of this hypothesis which states that: there are no statistically significant differences at the level of ($\alpha \leq 0.05$) in the average responses of the sample members to the saturation status achieved by them from using WhatsApp due to the specialization variable (scientific - human), the significance of the differences is measured through Calculation of (T-test) as shown in Table No.9.

It is evident from Table No.9 that there are no statistically significant differences according to the specialization variable in the cases of achieved saturation by the sample members, where the total T-value reaches (-0.155) and at the level of fields the T-value is (-1.335), (0.456), (0.223) .These values are not statistically significant and this may be due to the fact that the effect of the specialization variable is weak compared to the social environment that has the greatest impact of saturation cases as a result of students' exposure to the same programs and information published via WhatsApp. This result is consistent with the studies of Morad and Mahasnah (2016)¹⁴, and Alkowihi (2020)²⁴ and Altuwajiri, (2017)¹⁶.

Fifth: Presenting and discussing the results related to the fifth hypothesis

To make sure of the validity of this hypothesis which states that: there are no statistically significant differences at the level of ($\alpha \leq 0.05$) in the averages of the responses of the sample members to the status of saturation achieved by them using WhatsApp due to the university variable (public-private). The significance of the differences is measured through calculation of (T-test) as in Table No.10.

It is evident from Table No.10 that there are no statistically significant differences due to the

university variable (public - private) in the cases of the achieved gratifications by the sample members, where the total T-value reached (0.841), and reached (0.001-), and (0.076) for the two areas of the achieved gratifications and the negative impact respectively, which are not statistically significant values. This can be explained by the fact that student's culture and awareness of the importance of using WhatsApp are similar in public and private universities.

As for the field of employment motives, their averages differed in favor of students of Taiz Governmental University, and this may be due to the fact that public university students' positivity in searching for information may not be available to the same degree among private university students.

Table No.1: Distribution of the characteristics of the research sample

S.No	Characteristics of the sample		N	%	Total	
					N	%
1	Gender	Male	62	34%	180	100%
		Female	118	66%		
2	Age	Less than 22	52	29%	180	100%
		22-25	102	57%		
		Over 25	26	14%		
3	Academic level	the first	17	9%	180	100%
		The second	25	14%		
		the third	38	21%		
		the fourth	100	56%		
4	Specialization	Scientific	101	56%	180	100%
		Humanitarian	79	44%		
5	University type	Governmental	107	59%	180	100%
		Private	73	41%		

Table No.2: Means averages and standard deviations of students' motivation scores for using WhatsApp

S.No	The motives for using WhatsApp	Mean	Std. Deviation	Degree
Ritual motives				
1	Fulfill my academic requirements	2.85	.442	High
2	Executing non-academic work	2.72	.540	High
3	Spending spare time	2.33	.852	High
4	Get to know other friends	2.14	.707	Medium
5	Have fun and share anecdotes	2.04	.731	Medium
6	Escape from reality problems	1.88	.682	Medium
7	Total	2.33	.377	High
Utilitarian motives				
8	Searching for information and knowledge	2.44	.645	High
9	Communicate with colleagues and friends	2.41	.632	High
10	Find general news	2.18	.705	Medium
11	Get the news broadcasted by the media	1.73	.788	Medium
12	Sharing videos and photos	1.45	.619	Weak
13	Total	2.04	.413	Medium
14	total amount	2.19	.335	Medium

Table No.3: The averages and standard deviations of the degrees of saturation achieved from using WhatsApp

S.No	gratifications achieved from the use of WhatsApp	Mean	Std. Deviation	Degree
1	It enhanced my academic achievement opportunities	2.24	.821	Medium
2	Help me spend my spare time	2.02	.721	Medium
3	Enhance my communication skills with the environment in which I live	1.92	.672	Medium
4	It boosted my self-confidence and relieved me of isolation	1.85	.728	Medium
5	I am gratified with a state of cognitive curiosity	1.83	.773	Medium
6	It boosted my psychological comfort and happiness	1.78	.662	Medium
7	It made me connected with novelties and inventions	1.73	.682	Medium
8	I am gratified with the desire to have fun and forget the worries	1.72	.711	Medium
9	Help me create a comfortable environment that relieves stress	1.68	.666	Medium
10	Help me escape reality	1.63	.725	Weak
11	Help me create a virtual learning environment that feels like the world is in my hands	1.63	.709	Weak
12	Total	1.82	.424	Medium

Table No.4: Means averages and standard deviations of the degrees of the role of negative effects from using WhatsApp

S.No	The role of negative effects from using WhatsApp	Mean	Std. Deviation	Degree
1	Lament the loss of time	1.99	.791	Medium
2	Fatigue due to the long stay up	1.73	.754	Medium
3	Isolation from my family and friends	1.71	.691	Medium
4	Wasting time	1.69	.703	Medium
5	Causing problems with others	1.58	.762	Weak
6	Negative impact on academic achievement	1.56	.679	Weak
7	Acquiring habits that are inconsistent with the values of my religion	1.46	.758	Weak
8	The cause of problems between me and my colleagues and friends	1.39	.629	Weak
9	Causing the deviation of some morals	1.26	.543	Weak
10	Total	1.60	.455	Weak

Table No.5: T-test results to find out the differences between the averages of individuals' responses to a sample and their significance according to the gender variable

S.No	Domains	Gender	N	Mean	Std. Deviation	T	Dt	Sig. (2-tailed)	Statistical Significance
1	Motives for use	Male	62	2.24	.323	1.183	178	.238	Non-Sig.
		Female	118	2.18	.338				
2	gratifications achieved	Male	62	1.89	.470	1.630	178	.105	Non-Sig.
		Female	118	1.78	.395				
3	The role of negative effects	Male	62	1.69	.496	2.008	178	.046	Sig.
		Female	118	1.55	.425				
4	Total	Male	62	1.94	.326	2.100	178	.037	Sig
		Female	118	1.84	.310				

Table No.6: The results of the mono-analysis of variance test to find out the differences between the averages of the responses of the sample members to the status of saturation achieved according to the age variable

S.No	Domains	sources of contrast	Sum of Squares	Df	Mean Square	Mean Square	Sig.	Statistical Significance
1	Motives for use	Between Groups	.099	2	.049	.441	.644	Non-Sig.
		Within Groups	19.79	177	.112			
		Total	19.89	179				
2	gratifications achieved	Between Groups	1.119	2	.559	3.183	.044	Sig
		Within Groups	31.10	177	.176			
		Total	32.22	179				
3	The role of negative effects	Between Groups	2.028	2	1.014	5.132	.007	Sig
		Within Groups	34.98	177	.198			
		Total	37.00	179				
4	Total	Between Groups	.841	2	.421	4.299	.015	Sig
		Within Groups	17.31	177	.098			
		Total	18.16	179				

Table No.7: Dimensional test (LCD) for analysis monochromatic contrast in the direction of the differences between the averages according to the age variable

S.No	Domains	Age	N	Mean	Mean Difference (I-J)		
					Less than 22	22-25	Over 25
1	gratifications achieved	Less than 22	52	1.86	-	.013	.233(*)
		22-25	102	1.85	-.013	-	.219(*)
		Over 25	26	1.63	-.233(*)	-.219(*)	-
2	The role of negative effects	Less than 22	52	1.71	-	.107	.342(*)
		22-25	102	1.60	-.107	-	.235(*)
		Over 25	26	1.36	-.342(*)	-.235(*)	-
3	Total	Less than 22	52	1.93	-	.045	.216 (*)
		22-25	102	1.88	-.045	-	.171 (*)
		Over 25	26	1.72	-.216(*)	-.171 (*)	-

Table No.8: The differences between the average's responses of the sample members and their significance according to the academic level

S.No	Domains	sources of contrast	Sum of Squares	Df	Mean Square	Mean Square	Sig.	Statistical Significance
1	Motives for use	Between Groups	.232	3	.077	.691	.559	Non-Sig.
		Within Groups	19.66	176	.112			
		Total	19.89	179				
2	gratifications achieved	Between Groups	.802	3	.267	1.498	.217	Non-Sig.
		Within Groups	31.42	176	.179			
		Total	32.22	179				
3	The role of negative effects	Between Groups	1.116	3	.372	1.824	.144	Non-Sig.
		Within Groups	35.88	176	.204			
		Total	37.00	179				
4	Total	Between Groups	.535	3	.178	1.783	.152	Non-Sig.
		Within Groups	17.62	176	.100			
		Total	18.15	179				

Table No.9: Shows the differences between the averages of individuals' responses to a sample and its significance according to the specialization variable

S.No	Domains	Specialization	N	Mean	Std. Deviation	T	dt	Sig. (2-tailed)	Statistical Significance
1	Motives for use	Scientific	101	2.17	.324	-1.335	178	.184	Non-Sig.
		Humanitarian	79	2.24	.343				
2	Gratification achieve	Scientific	101	1.83	.458	.456	178	.649	Non-Sig.
		Humanitarian	79	1.80	.379				
3	The role of Negative effects	Scientific	101	1.60	.488	.223	178	.824	Non-Sig.
		Humanitarian	79	1.59	.410				
4	Total	Scientific	101	1.868	.3390	-.155	178	.877	Non-Sig.
		Humanitarian	79	1.876	.2923				

Table No.10: The differences between the averages of individuals' responses to a sample and its significance according to the university type variable (public, private)

S.No	Domains	University type	N	Mean	Std. Deviation	T	dt	Sig. (2-tailed)	Statistical Significance
1	Motives for use	Governmental	107	2.24	.311	2.149	178	.033	Sig
		Private	73	2.13	.357				
2	Gratifications achieved	governmental	107	1.82	.392	.001	178	.999	Non-Sig.
		private	73	1.82	.470				
3	The role of Negative effects	governmental	107	1.59	.438	-.076	178	.940	Non-Sig.
		private	73	1.60	.481				
4	Total	governmental	107	1.885	.2908	.705	178	.481	Non-Sig.
		Private	73	1.851	.3563				

RECOMMENDATIONS

In the light of the research objectives, testing its hypotheses and analyzing its results, the researchers recommend the following:

1. The necessity of practicing the WhatsApp application by the Yemeni Universities in education to achieve cognitive, social and psychological gratifications for students.
2. Yemeni Universities should direct the academic staff members and students to use WhatsApp in educational aspects.
3. The need for Yemeni Universities to organize discussion sessions and prepare studies on activating students' use of WhatsApp in the educational process.
4. The Yemeni Universities should give lectures at the beginning of the academic year in which they explain the importance of WhatsApp

application and its role in the success of the educational process.

5. The necessity to study the obstacles that students face in using WhatsApp and to provide appropriate treatments and solutions for them.

THE PROPOSALS

Based on the findings of the research, the researchers suggested conducting the following studies:

1. Attitudes of the academic staff members towards social media networks, including WhatsApp in Yemeni universities.
2. The reality of employing faculty members to apply WhatsApp in their university teaching.
3. The effect of employing social media networks on student's educational achievement.
4. Student attitudes towards employing WhatsApp in education in the Yemeni Universities.

CONCLUSION

The results of this research concluded that the degree of Ritual motives among students of Taiz city Universities for using WhatsApp is high, while the degree of utilitarian motives is medium and that the degree of gratifications achieved from using WhatsApp, most of them are medium, and some are weak, while the degree of the role of negative effects on using WhatsApp was weak. Hence, it is imperative to study the obstacles to WhatsApp gratification of utilitarian motives, and provide appropriate solutions to them.

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CONFLICT OF INTEREST

We declare that we have no conflict of interest.

BIBLIOGRAPHY

1. Venna G and Lokesha M. The effect of whatsapp messenger usage among student in Mangaiore University: A case study, *Inter Jour of Lib and Info Stu*, 6(2), 2006, 121-129.
2. Al-Nuwaihi, Ahmad. The role of social media networks (whatsapp) in supporting the teaching of the teaching techniques course for students of the college of Education In Khallan, Sanaa University, *Jour of Edu Sci and Psycho Stu*, 2018, 1-29.
3. Mondi M, Woods P, Rafi A. A 'Uses and gratification expectancy model' to predict students' 'Perceived e-learning experience, *Educa Tech and Soc*, 11(2), 2008, 241-261.
4. Kafi, Mustafa Yusef. Theories of communication and mass media, *Amman: Dar Al-Esyar Al-Alalmi for Publishing and Distribution*, 2014, 245.
5. Ibtisam Rise Ali. The Theory of Uses and gratifications and their applications to new media (theoretical introduction), University of Wahran, *Jour of Stud and Res*, 25, 2016, 12.
6. Al-Bashabshah, Wissam. Motives for Jordanian University students' use of social media sites and their gratifications, study on students of the University of Jordan and the University of Petra as a model, master thesis, *College of Arts and Sciences, University of Petra*, 2013, 96.
7. Taha, Faraj Abdel Qader. Dictionary of psychology and psychoanalysis, *Beirut: Dar Al-Nahda Al-Arabiya for Printing and Publishing*, 1st Edition, 2014, 191.
8. Mansour, Tahseen. The role of social media networks in achieving the needs of Jordanian University Youth, *The Jordanian Journal of Social Sciences*, 7(2), 2014, 287-306.
9. Abu Salah, Salah. Palestinian university students' use of social networks and the gratifications achieved, field study, master's thesis, *Islamic University - Gaza, College of ARTSP*, 2014.
10. Abdel-Fattah, Saeed. The effectiveness of using Whatsapp as an educational communication technology to develop writing skills for students, *Education and Training Journal*, 6(32), 2015, 115-127.
11. Zawanah, Amani. Degree of the use of social networks as a tool for learning and education among Jordanian University students and the gratifications achieved, a master's thesis from the Middle East University, *College of Media*, 2015.
12. Illah, Aisha, Al-Wed, Nouri. The gratifications achieved from the use of social networks among university students, *Journal of Prevention and Ergonomic, University of Algiers* 2, 6, 2016, 166-190.
13. Bhatt Anshu and Arshad Mohd. Impact of WhatsApp on youth: A Sociological study, *International Journal of Management and Social Sciences*, 4(2), 2016, 376-386.
14. Morad, Awdh, Mohasnah, Omar. The degree of University students' use of social networks in the educational process and the difficulties of their use, *Studies, Educational Sciences*, 43, 2016, 1693-1709.

15. Cetinkaya, Levent. The impact of WhatsApp use on success in education process, *International Review of Research in Open and Distributed Learning*, 18(7), 2017, 59-74.
16. Al-Tuwaijri, Faisal Bin Abdullah. Patterns of Saudi Youth exposure to new media and achieved gratifications, master thesis, Naif University for security sciences, *College of Social Sciences*, 2017. <http://repository.nauss.edu.sa/123456789/64869>.
17. Gon, Sonia, Rawekar, Alka. Effectivity of E-Learning through Whatsapp as a teaching learning tool, *MVP Journal of Medical Sciences*, 4(1), 2017, 19-25.
18. Gasaymeh M, Al-Mothana. University Students' use of Whatsapp and their perceptions regarding its possible integration into their Education *Global Journal of Computer Science and Technology*, 17(1), 2017, 1-10.
19. Amsha, Walid, Dobian, Arwa. The uses of Jordanian university students to enrich the innovations of interactive communication networks and achieved gratifications, a survey study, *Journal of Al-Quds Open University for Research and Studies*, 42(2), 2017, 322-337.
20. Rosenfeld *et al.* WhatsApp usage patterns and prediction of demographic characteristics without access to message content, *Demographic Research*, 39, Article Id: 22, 2018, 647-670.
21. Amr, Bashar Muhammad. University Youth uses of whatsapp in obtaining local news, information and achieved gratifications, master thesis, *Middle East University, Amman, Jordan*, 2019.
22. Hassan, Abdulsadek. The impact of Whatsapp utilization patterns among mass communication students of Saudi and Bahraini Universities for academic purposes, *International Journal of Scientific and Technology Research*, 9(1), 2020, 507-519.
23. Saadan, Fuad, Al-Mitami, Mueen. Motives for University students' use of smartphones and the gratifications achieved from them: a comparative survey study between Gulf and Yemeni students, *The Arab Journal of Media and Communication*, 18, 2017, 113-168.
24. Alkowihi, Ghaleb. Prevalence and associated factors use of mobile phone among students of Taiz University, *International Journal of Arts and Science Research*, 7(1), 2020, 29-41.

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