

Students' Attitudes Towards The Implementation of WhatsApp Messenger as Online  
Platform in Teaching Writing

Ela Mulia Al Husna

Universitas Slamet Riyadi

[elahusna01@gmail.com](mailto:elahusna01@gmail.com)

ABSTRACT

This research was concerned with the students' attitudes on the implementation of WhatsApp Messenger in teaching writing. The aim from the research are : (1) To analyze the activities are carried out in using WhatsApp messenger in the learning process at the Eighth Grade Students of SMP N 18 Surakarta in Academic Year 2019/2020, (2) To analyze the students' perceive the applications towards WhatsApp at the Eighth Grade Students of SMP N 18 Surakarta in Academic Year 2019/2020, (3) To analyze student's utilization in the use WhatsApp Messenger to teach writing the Eighth Grade Students of SMP N 18 Surakarta in Academic Year 2019/2020. In this research, the researcher used qualitative method. The source from this research are : the interview with the English teacher, the questionnaire that distribute to the research subject via google form, and document. . The result from the research were : The Activities Carried Out in Using WhatsApp Messenger was explaining the learning material and instruction by the teacher, the students used WhatsApp Messenger as communication and discussion tools, used WhatsApp Messenger to sent an assignment to the teacher. The result of students attitudes toward use WhatsApp Messenger were : students felt happy because they could finish their assignment without felt interrupted or copied by their friends, they enjoyed the learning process because could study anytime and anywhere. The students utilization in using WhatsApp Messenger were : They used WhatsApp Messenger as place to discussed with the teacher or their friends, WhatsApp Messenger as tools to discussed about writing learning material for two hours in a day, and WhatsApp Messenger as media to practice arrange a sentence in English.

Keyword : WhatsApp Messenger, Teaching Writing, Students' Attitudes, ICT

**INTRODUCTION**

The existence of ICT is no longer something that is rarely heard by the whole community. The existence of ICT has been used in all areas of life such as economy, health, agriculture, law and education. The use of ICT is very common in human daily activities as well as in teaching and

learning process in the world of education.

The benefits that can be taken from the application of ICT in the world of education especially help in the teaching and learning process, so that it can prepare the students with the 21st century skills where ICT integration is very important and also as a lifelong learning ability. ICT

is an important tool for improving the quality of education in every country. ICT makes the learning process more active and interactive so that it provides broad opportunities for students to develop the insights they have through the internet, computers, audio, video, newsrooms, and other devices that can help or support the learning process (Floris, 2014). It means that ICT can improve the students interest especially in learning English in where many of them think that English was subject that difficult to understand. In the 21<sup>st</sup> century students must mastery Information Communication and Technology. The use of ICT in learning activities provides a stronger learning environment and can enable students to better handle the knowledge they acquire in an active, independent, more directed, and constructive manner (de Corte et al., 2003). The use of ICT helps students to learn constructivism, collaboratively, and helps students build their knowledge and ability to think clearly (Zhiporah, 2014).

At this time, the participation of technology in human life cannot be separated. Technology plays several important roles in human life. Humans can access all things with the touch of a finger through their respective gadgets such as reading / watching news, shopping, interbank transactions, seeking information about health, communicating,

even in terms of education. In the world of education, many of the educators use technology to convey learning material to students so that it is easy to understand. In this case, selling technology as a culture in the world of education in Indonesia. The educational process is faced with the emergence of new technologies that are incorporated into everyday life, which leads to new ways of thinking and living together, changing existing patterns and bringing new challenges to their effectiveness (Araujo, 2013). The rapid development and use of technology has led to a digital culture in the world of education in Indonesia. According to Collins (2009) Digital culture is something about behavior, manners, and students' participation in using technology and internet connections as part of their learning process. In the application of digital culture in education, it usually takes several electronic devices that support communication and information processes. According to Mehdipour (2013) examples, some mobile devices that can be used include some portable computing such as personal digital assistants, table computers, mobile phones, or smartphones. The application of technology in education cannot be separated from the readiness of students to initiate it.

Indonesia has several regional languages which allow many students to still use their mother tongue to communicate. This makes English a foreign language in Indonesia. English learning has been applied at the primary school level to the university level. Most of them still have problems in using English, especially in writing skills. Therefore, it is necessary to use appropriate learning media so that information can be well received by students. Writing skills is an important part of learning English which refers to word coding (Floyd et al, 2007). One type of media that can be used is ICT. ICT is considered as an important learning medium in an effort to improve the quality of teaching writing skills (Melor Md Yunus, 2007). The use of online platforms is also one of ICT's involvement in learning. One type of online platform that can be used is WhatsApp Messenger, which can be used as a place to practice writing. The application of WhatsApp Messenger also has a positive impact on the learning process. This is also explained by Ta'amneh (2017), in his research he shows that learning by groups that using WhatsApp messenger shows more significant improvement when compared to the groups that using traditional methods. WhatsApp Messenger, which is used as a learning medium by teachers,

can improve students' writing skills (Ajid 2018). Learning writing skills using WhatsApp Messenger provides many benefits, such as teachers can send learning materials to the WhatsApp Messenger group in the form of images, videos, audio, or documents. So that the learning material can be understood by students easily. The continuous using of WhatsApp Messenger by the students make it easy for the teacher as learning media, especially in learning writing skill (Ma'aruf & Fadilah et al, 2019).

Based on the description above, the author wanted to know about learning activities during the application of WhatsApp Messenger, how students' attitudes during learning using WhatsApp Messenger, and the students' utilization of WhatsApp Messenger in learning writing skills in class VIII students of SMP N 18 Surakarta in academic year 2019/2020.

## **LITERATURE REVIEW**

Writing skills is one of the skills in English that must be mastered by students to communicate with others in written form. Furthermore, in order for learning to write well, a support system in the form of grammar and vocabulary is needed. Writing skills are an important feature of language learning that can be thought about and practiced, this is a good way to change or learn vocabulary, spelling, and

sentences (Pateel, 2008). Writing skills are an activity that can help students express their ideas or feelings in written form. Writing skills is kind skills that must be mastered by students when learning English because it can help them to develop the creative ideas and expressions in written form (Meiranti, 2012). In the writing process, students are required to know several elements of writing skills so that their writing has more points. There are several elements in writing skills, namely organization which relates to introduction, body, and conclusion; logical development of ideas it concern about the content of the paragraph; grammatical; punctuation, and style quality of expression, it is dealing with the vocabulary that choose when writing a paragraph (Brown and Bailey, 2003).

The use of ICT in education has shown a significant increase. This is shown by using ICT enabling students to learn English with the material they get visually and interactive learning which causes increased interest in learning and knowledge in students. Interactive technology can increase learning productivity which encourages rapid technological development, so as to increase student understanding in learning material (Kember et al 2010). Many studies from around the world have identified the benefits of implementing

ICT in foreign language learning. The application of ICT in English learning makes the learning process more interesting, fun, not teacher-centered, and leads to student satisfaction and involvement (Hashmi, 2016). In addition, there are several positive results for ICT participation in the English learning process, namely that they are more confident when using English as the language of communication and complete their tasks using technology. One kind of technology that used was smartphone. In smartphone many kinds of online platform that could be used as learning media. But, many of teacher that choose to used WhatsApp Messenger. According to Susanti (2016) WhatsApp Messenger is included as a cheap and flexible online platform which can help learning to write in English. Several technicalities are presented when optimizing the features of WhatsApp Messenger such as : sharing audio, video, images, links, documents, texts and creating groups. The implementation of online learning using WhatsApp Messenger also show the big integration better than traditional method. According to Ta'ameh (2017) Learning English using WhatsApp Messenger has become easier to learn and more effective than implementing traditional methods. By using WhatsApp Messenger students can write by composing short messages in

English to improve their writing skills. According to Fattah (2015), the use of WhatsApp Messenger can make students practice and learn to make short texts with each student to write one or two sentences and then send them via the WhatsApp group and other students are required to continue the sentence until it's finished. The used of WhatsApp Messenger also be a learning media that could made the students more enjoyed the learning process. The use of WhatsApp Messenger in learning process give positive impact for the students, because they can enjoy the learning process, but also WhatsApp Messenger can be a tools for study offer the internet amenities as a top urgency for contemporary instruction (Mbukusa ,2018).

## **METHOD**

This research used qualitative method to obtained the data. According to Shank (2002), qualitative method as an empirical research that is systematic into meaning. Qualitative research is a research that involves personal experience, analysis of people's behavior, history, and meaning in life (Yin, 2016: 8). It could be concluded that qualitative is a study that involves personal experience, behavior and history in to systematic meaning.

The subject of the research was the students of VIII E and VIII H of SMO N

18 Surakarta in the academic year 2019/2020. The researcher use random sampling to determine the research subject. The data from this research were Interview, Questionnaire, Observation, and Documents. The researcher interview the English Teacher Mrs. M and gave 15 question of interview about the implementation of online learning in SMP N 18 Surakarta. The Questionnaire was distribute to the students via google form. Before distribute the questionnaire, the researcher did an tryout to knew the statements of questionnaire that valid. The result of tryout was only 30 statements from 50 statements that valid. After that the researcher distribute the questionnaire that consist f 30 statements to the research subject. In observation, the researcher observed the activity in WhatsApp group that consist of teacher and students.

## **RESEARCH FINDINGS**

In this stage, The researcher explained the result from observation and questionnaire from each problem statement. The result was below :

1. The activities were carried out in using WhatsApp Messenger in the learning process.

The first problem statement was divided into two indicators of questionnaire about the use of WhatsApp Messenger in learning

writing skill and the students learning strategy. From the observation of WhatsApp Messenger group there were some activity that could be observed such as : The teacher greets the students, the teacher checked the students attendance by asked them to write down their name in a blank space, the teacher explained the learning material and instruction how to finished the assignment to the students.

Table 4.1 The Result of The Activities Carried Out in Using WhatsApp Messenger.

No	Statement	Answer					S A
		SD	D	N	A	S A	
1	I use WhatsApp Messenger to communicate with other friends in the outside school hours.	0	3.3 (1)	3.3 (1)	83.3 (25)	10 (3)	10 (3)
2	I use WhatsApp Messenger to improve my writing skill to practice make a paragraph in English appropriate with the topic that given by the teacher.	3.3 (1)	13.3 (4)	13.3 (4)	66.7 (20)	3.3 (1)	3.3 (1)
3	I use WhatsApp Messenger to collect the assignments to the	0	0	3.3 (1)	73.3 (22)	23.4 (7)	23.4 (7)

teacher.							
4	I am free to finish my assignment without fell interrupted or copied by my friends.	0	10 (3)	23.3 (7)	0	66.7 (2)	66.7 (2)
5	Learning Activities through WhatsApp Messenger is very efficient and saves time.	6.7 (2)	10 (3)	3.3 (1)	73.3 (21)	6.7 (2)	6.7 (2)
6	I am difficult to understand the learning material about writing skills in English through WhatsApp Messenger.	0	6.7 (2)	30 (9)	56.7 (17)	6.7 (2)	6.7 (2)
7	I am difficult to understand the instruction given by the teacher through WhatsApp Messenger.	0	6.7 (2)	26.7 (8)	63.3 (19)	3.3 (1)	3.3 (1)
8	I am difficult to discuss with my friends through WhatsApp Messenger .	6.7 (2)	13.3 (4)	16.7 (5)	53.3 (16)	10 (3)	10 (3)
9	I feel happy when learning English writing skills through WhatsApp Messenger.	6.7 (2)	10 (3)	23.3 (7)	50 (15)	10 (3)	10 (3)

The table 4.1 was about The Result of The Activities Carried Out in Using WhatsApp Messenger. The result of

activities when online learning toward WhatsApp Messenger were : 1) 28 respondents it showed from 93.3% of respondents use WhatsApp Messenger to communicate with their friends in the outside of school hours, 2) 21 respondents it showed from 70% of respondents use WhatsApp Messenger to practice developed topic that given by the teacher into good paragraph, 3) 29 respondents that showed from 96.7% of respondents used WhatsApp Messenger to collect assignment to the teacher, and 4) 20 respondents from 66.7% of respondents felt free to finished the assignment without felt interrupted or copied by their friends. The result from second indicator about the students learning strategy were : 5) 23 respondents that showed from 80% of respondents though that learning through WhatsApp Messenger was efficient and saves time, 6) 19 respondents that showed from 63.4% of respondents though that difficult to understand the writing learning materials when learning toward WhatsApp Messenger, 7) 20 respondents that showed from 66.6% of respondents though that difficult to understand the instruction that given by the teacher, 8) 19 respondents that showed from 63.3% of respondents felt difficult to discuss with their friends toward WhatsApp Messenger, and 9) 18 respondents that showed from 60% of

respondents felt happy when learning writing skill toward WhatsApp Messenger.

2. The students' attitudes when learning toward WhatsApp Messenger.

The second problem statements divided into three indicators about students perceived usefulness of WhatsApp Messenger, students attitudes towards the use of WhatsApp Messenger in learning writing skill, and the problem faced by the students in learning writing skill toward WhatsApp Messenger. The result from observation of group WhatsApp Messenger were : the students looked so happy and enthusiast when learning process that could be seen when they were gave love emoticon or sticker in the group WhatsApp Messenger and always on time to full fill the students attendance.

Table 4.2 The result of students attitudes toward WhatsApp Messenger.

No	Statements	Answer				
		SD	D	N	A	SA
1.	WhatsApp Messenger help me to have a discussion with my friend or the teacher related the English learning material.	0	20 (6)	26. (8)	50 (15)	3.3 (1)
2.	WhatsApp Messenger help me to understand the leaning material easily	3.1 (1)	13.3 (4)	26.7 (8)	56.7 (17)	0
3.	WhatsApp	6.7	0	13.3	66.7	13.3

Messenger help me to study in anywhere and anytime.	% (2)		% (4)	% (20)	% (4)	the homework towards WhatsApp Messenger.							
4. WhatsApp Messenger help me to get more information about the English learning material in fastly.	0	10.3 % (3)	10.3 % (3)	58.6 % (17)	24.1 % (7)	12. Online learning towards WhatsApp Messenger only effective in a place that have good mobile data.	0	3.3 % (1)	33.3 % (10)	43.3 % (13)	20 % (6)		
5. WhatsApp Messenger help me to develop ideas in English Writing	3.3 % (1)	0	33.3 % (10)	56.7 % (17)	6.7 % (2)	13. Learning towards WhatsApp Messenger waste internet quota.	3.3 % (1)	23.3 % (7)	33.3 % (10)	13.3 % (4)	26.7 % (8)		
6. Learning writing in English towards WhatsApp Messenger difficult to understand.	3.3 % (1)	13.3 % (4)	50 % (15)	33 % (9)	3.3 % (1)	14. The teacher less explain the learning material when online learning towards WhatsApp Messenger.	0	0	30 % (9)	50 % (15)	20 % (6)		
7. Learning grammatical in English difficult to understand when online learning towards WhatsApp Messenger.	0	13.3 % (4)	21.7 % (8)	60 % (18)	0	15. Online learning towards WhatsApp Messenger to much homework that given by the teacher.	0	16.7 % (5)	20 % (6)	60 % (18)	3.3 % (1)		
8. Learning towards WhatsApp Messenger sometimes make me bored.	3.3 % (1)	3.3 % (1)	26.7 % (8)	50 % (15)	20 % (6)	16. Online learning towards WhatsApp Messenger sometimes the teacher less in give instruction about how to finish the homework.	3.3 % (1)	3.3 % (1)	16.7 % (5)	70 % (21)	6.7 % (2)		
9. I am less to pay attention to punctuation, capital letters, and spelling when writing in English through WhatsApp Messenger.	6.7 % (2)	6.6 % (2)	46.7 % (14)	40 % (12)	0	17. I am fell bored when always study towards WhatsApp Messenger.	0	6.7 % (2)	33.3 % (10)	50 % (15)	10 % (3)		
10. The teacher always give much of assignment when learning English towards WhatsApp Messenger.	3.3 % (1)	13.3 % (4)	13.3 % (4)	53.3 % (16)	16.7 % (5)								
11. The teacher always give suggestion or make a discussion about	0	10 % (3)	23.3 % (7)	53.3 % (16)	13.3 % (4)								

Table 4.2 was about The result of students attitudes toward WhatsApp Messenger. The result of second problem statements explained below : The result from first indicator about the students



perceived usefulness of WhatsApp Messenger were : 1) 16 respondents that showed from 53.3% of respondents argued that WhatsApp Messenger helped them to discussion with their friends of teacher, 2) 17 respondents that showed from 56.7% of respondents argued that WhatsApp Messenger helped them to understand the learning material, 3) 24 respondents that showed from 80 % of respondents argued that WhatsApp Messenger helped them to study in anytime and anywhere, 4) 24 respondents that showed from 82.7% of respondents argued that WhatsApp Messenger helped them get more information, and 5) 19 respondent that showed from 60.4% of respondents argued that WhatsApp Messenger helped the to developed ideas.

The result from second indicator about the students perceived toward the used of WhatsApp Messenger were : 6) 10 respondents that showed from 36.3% of respondents argued that learning writing through WhatsApp Messenger was difficult to understand, 7) 18 respondents that showed from 60% of respondents argued that learning about grammatical was difficult, 8) 21 respondents that showed from 70% of respondents felt bored when learning toward WhatsApp Messenger, 9) only 12 respondents that showed from 40% of respondents less in pay attention about punctuation capital

letters and spelling, 10) 21 respondents that showed from 70% of respondents argued about the teacher gave more assignment to the students, and 11) 20 respondents that showed from 66.6% of respondents argued that the teacher always give suggestion when learning toward WhatsApp Messenger.

The result from the third indicators about the problems that faced by the students when online learning were : 12) 19 respondents that showed from 63.3% of respondents argued that online learning through WhatsApp Messenger only effective in a place that available of internet mobile data, 13) only 12 respondents that showed from 40% of respondent though about learning through WhatsApp Messenger caused waste internet mobile data, 14) 21 respondents that showed from 70% of respondents argued that the teacher less in explain the learning material when learning through WhatsApp Messenger, 15) 19 respondents that showed from 63.3% of respondents argued that the teacher give much of assignment to the students, 16) 23 respondents that showed from 76.7% of respondents argued that the teacher less in explained the instruction how to finished the assignment, and 17) 18 respondents that showed from 60% respondents felt bored when learning toward WhatsApp Messenger.

3. The students utilization of WhatsApp Messenger in learning writing skill.

The third problem statements were divided into two indicators about The students utilization of WhatsApp Messenger in learning process and the students behavior when learning writing skill toward WhatsApp Messenger. The result of the third problem statements was explained below :

Table 4.3 The result of utilization of the use of WhatsApp Messenger to learn writing skill.

No	Statement	Answer				SA
		SD	D	N	A	
1.	I am using WhatsApp Messenger to discuss with my friends or the teacher about learning English in two hours in a day.	0	26.7 % (8)	30 % (9)	43.3 % (13)	13
2.	I am using WhatsApp Messenger to search additional material or references related with the homework.	3.3 % (1)	6.7 % (2)	10 % (3)	70 % (21)	70
3.	I am always using WhatsApp Messenger to discuss with my friends about the writing homework in English.	0	6.7 % (2)	36.7 % (11)	50 % (15)	6.7
4.	I will use WhatsApp Messenger to practice arrange a word be a sentence in English	0	10 % (3)	33.3 % (10)	43.3 % (13)	13.3 % (4)

The result from the indicator about The students utilization of WhatsApp

Messenger in learning process were : 1) 13 respondents that showed from 43.3% of respondents used The students utilization of WhatsApp Messenger in learning process to discuss with their friends or teacher for two hours in a day, 2) 24 respondents that showed from 80% of respondents used WhatsApp Messenger to search more information related with the learning material, and 3) 17 respondents that showed from 56.7% of respondents used WhatsApp Messenger to discuss with

their friends about the writing assignment. The second indicators was about the students behavior when online learning toward WhatsApp Messenger, the result were : 4) 17 respondents that showed from 56.6% of respondents will use WhatsApp Messenger practice arrange a word be a sentence in English.

### DISCUSSION

In this study, researchers observed online learning in SMP N 18 Surakarta, especially in eighth grade students through the distribution of questionnaires to via google form. At this stage, researchers will discuss the results of research in the form of questionnaires that had answer the problem statements.

1. The activities when online learning through WhatsApp Messenger.

Some activities that found when online learning through WhatsApp Messenger were : The teacher used

WhatsApp Messenger to explain the learning material and instruction to the students; the students used WhatsApp Messenger to communicate and discussion with their friends or the teacher, sent their assignment to the teacher; and practice make short paragraph related with the topic. It was a line with the theory from Susanti (2016) that WhatsApp Messenger is included as a cheap and flexible online platform which can help learning to write in English. Several technicalities are presented when optimizing the features of WhatsApp Messenger such as : sharing audio, video, images, links, documents, texts and creating groups. It could be concluded that the implementation of ICT gave big positive impact in learning process. According to de Corte et al (2003) The use of ICT in learning activities provides a stronger learning environment and can enable students to better handle the knowledge they acquire in an active, independent, more directed, and constructive manner.

2. The students' attitudes when online learning through WhatsApp Messenger.

There were some students' attitudes that could be seen when online learning through WhatsApp Messenger such as the students looked happy, enthusiast, and spirit when online learning. Many of them that enjoyed the online

learning because they could finished their assignment without felt interrupted or copied by their friends, they could understand the learning material by discussion with their friends or the English teacher, and search some added information that they needed through WhatsApp Messenger. It is also a line with the previous research from Mbukusa (2018) The used of WhatsApp Messenger also be a learning media that could made the students more enjoyed the learning process. The use of WhatsApp Messenger in learning process give positive impact for the students, because they can enjoy the learning process, but also WhatsApp Messenger can be a tools for study offer the internet amenities as a top urgency for contemporary instruction. It is show that the implementation of ICT also changed the method of teaching that focused on the teacher but now could be students centered. According to Hashmi (2016) The application of ICT in English learning makes the learning process more interesting, fun, not teacher-centered, and leads to student satisfaction and involvement.

3. The students' utilization of WhatsApp Messenger in learning writing skill.

From this study, could be knew that the students utilization of WhatsApp Messenger in learning writing skill were :

The students used WhatsApp Messenger to discuss with their friends or the teacher for two hours in a day, WhatsApp Messenger became a tools that could helped them to discuss related the writing learning material, search some added information, and a place to practice arrange a word or sentence into good paragraph. It is also a line with the theory from Ma'aruf & Fadilah et al (2019), The continuous using of WhatsApp Messenger by the students make it easy for the teacher as learning media, especially in learning writing skill. So, it could be concluded that the used of appropriate learning media could helped the

Based on the discussion above, the result from the research could be concluded as follows :

- 1) The activities that carried in using WhatsApp Messenger when online learning were : the teacher used WhatsApp Messenger to explain learning material and instruction to the students, students used WhatsApp Messenger as media to communication and discussion, and as media to sent assignment to the teacher.
- 2) The students attitudes towards the use of WhatsApp Messenger in learning process were : the students happy and enjoyed because they could finished their assignment in freely because in anytime and anywhere.

learning process. It is also a line with the theory from Melor Md Yunus (2007), ICT is considered as an important learning medium in an effort to improve the quality of teaching writing skills.

## **CONCLUSION**

Based on the discussion above, the result from this research could be concluded as follows : The activities that carried out in using WhatsApp Messenger in online learning could be said good because not only kind of online platform but could be a platform for study such as :

- 1) Teacher used WhatsApp Messenger to
- 3) The students utilization of WhatsApp Messenger in learning writing skill were : The students used WhatsApp Messenger to discussed with their friends and teacher about writing learning material for two hours in a day, as media to got new information, and as media to practice arranged a word into good sentence.

The other researcher could used WhatsApp Messenger as learning media in their research. Before that the other researcher must prepared the media that could be used in the research. The researcher also could added others online platforms to support the research.

## BIBLIOGRAPHY

- Araujo, G. S., Matos, L. J., Fernandes, J. O., Cartaxo, S. J., Gonçalves, L. R., Fernandes, F. A., & Farias, W. R. (2013). Extraction of lipids from microalgae by ultrasound application: prospection of the optimal extraction method. *Ultrasonics sonochemistry*, 20(1), 95-98.
- Brown, D. (2003). *Language Assessment : Principle and Classroom Practice*.
- Collins A., Halverson R. Rethinking Education in the Age of Technology: The Digital Revolution and the Schools. *Distance Education*. 2009.
- D. Floris, "Using Information and Communication Technology (ICT) to Enhance Language Teaching & Learning: An Interview with Dr. A. Gumawang Jati," *TEFLIN Journal*, vol. 25, no. 2, pp. 139-146, July 2014.
- De Corte, E., Verschaffel, L., Entwistle, N., & Van Merriënboer, J. (2003). *Powerful learning environments: Unraveling basic components and dimensions*. Elsevier: Oxford.
- Floyd, R. G., Keith, T. Z., Taub, G. E., & McGrew, K. S. (2007). Cattell–Horn–Carroll cognitive abilities and their effects on reading decoding skills: g has indirect effects, more specific abilities have direct effects. *School Psychology Quarterly*, 22(2), 200-233.
- Mehdipour Y., Zerehkaf H. Mobile Learning for Education: Benefits and Challenges. *International Journal of Computational Engineering Research*. 2013; 3(6):93-101.
- Melior Md Yunus. (2007). Malaysian ESL teachers' use of ICT in their classrooms: Expectations and realities. *European Association for Computer Assisted Language Learning. ReCALL*, 19(1), 79-95.
- Patel, MF and M. Jain .2008. *English Teaching Language (Methods, Tool & Techniques)*. Jaipur: Sunrise Publishers & Distributors.
- R. Ziphorah, "Information and Communication Technology Integration: Where to Start, Infrastructure or Capacity Building? Procedia-Social and Behavior Sciences," *Elsevier*, vol. 116, pp. 3649-3658, Februari 2014.
- Susanti, A., & Tarmuji, A. (2016). Techniques of optimizing WhatsApp as an instructional tool for teaching EFL writing in Indonesian senior high schools. *International Journal on Studies in English Language and Literature (IJSELL)*, 4(10), 26-31.
- Ta'amneh, M. A. A. A. (2017). The effect of using WhatsApp messenger in learning English language among university students. *International Research in Education*, 5(1), 143-151.