

Implementation Of Telegram In Teaching During Pandemic

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ABSTRACT

Technology has spread all over the areas of life, including education. Many educational institutes have turned to E-learning from traditional methods due to pandemics. During Covid 19, all educational institutes were strictly prohibited for the continuation of study like traditional face-to-face methods and ordered to adopt the alternative way to follow social distancing. The purpose of social distancing is to stop the transmission of disease. The need of this time is to implement an alternative educational method of teaching, fulfils the purpose of education and needs of students by staying at home. Telegram is adopted as one of the best E-learning tools, free downloaded applications, and provides numerous benefits to students. This study aimed to empirically examine the factors Attitude, Subjective Norms and perceived control behaviour and its relationship on behavioural intention towards the use of Telegram. For this purpose, 500 respondents of Tamil school is taken as sample. The study findings show that some factors of attitude and perceived behavioural control are positively and significantly related to behavioural intention. In comparison, subjective norms show a negative relationship with behavioural intention. This study provides valuable insight into the determinant influence on teachers' intention towards using Telegram and its implementation during pandemic.

Keywords: Pandemic, Telegram, Behavior intention, Attitude, Subjective norms, Perceived Control Behavior

1. INTRODUCTION

The Covid 19 has spread rapidly and affected each and all countries and territories. The Covid 19 was firstly identified in the city of china, Wuhan (Pokhrel, 2021). As the Covid 19 started to spread and affected Human life. The government of all territories has cautioned the public for responsive care. Lockdown and staying home strategies was the first step to control the spread of disease through transmission (Sintema, 2020). School and colleges, and other institutes were closed. Bhutan is the very first country closed educational institutes and reduces business working hours (Kuensel, 2020). After some time, businesses and other working platforms were reopened with the restrictions of few hours. But educational institutes were still closed. Rapidly evolving mobile computing technology and a plethora of mobile device applications (mobile apps) make ubiquitous mobile learning possible. The technologies of mobile communiq e have considerably changed the way of interaction. Statistics provide the evidence that US people are investing twice the amount of time each day with mobile messaging apps in 2019, compared to that of 2015 (Tang & Hew, 2019). The statistics figure in Malaysia for Internet clients is 21,056,126 out of the whole public populace of 31,545,990 individuals.

This figure covers 68.5% of the Internet scattering in the country. Education was harming a lot due to the policies of social distancing. Many countries have adopted the policies of social distancing to flatten and control this disease. According to UNESCO statistics, thirty-nine countries have enforced closing the school. This step has affected a total of 421,388,462 students. The government prohibits direct educational practices and ordered other alternative mechanisms to continue the education system. There is a paradigm shift in providing quality education through the online method instead of the traditional method. The conventional teaching method was replaced by online teaching through ZOOM, Telegram, Google meets and others. These online platforms are vital as they help in providing education in social distance situations. According to Subedi et al. (2020), "E-learning tools have played a crucial role during this pandemic, helping schools and universities facilitate student learning during the closure of universities and schools". Online teaching is one of the most scare problems nowadays. Technology-based learning is preferred during the Pandemic. Due to the competencies, institutions must provide a platform where students and teachers meet up and remove the barriers to getting an education. Telegram is one of most important learning app helped the teacher and students in this pandemic situation.

Telegram is a free platform for online learning, providing teachers and students with a virtual classroom environment. During Pandemic, it aids in getting an education. It has become so popular among university students (Wiranegara & Hairi, 2020). Its intermediary server controls all encryption and communication with its users. Telegram API is used to communicate in groups. Telegram is a platform that permits students to conduct meeting in a class. In this platform, both the teacher and student connect and share the documents, teaching material in the same class. Both teachers and students can discuss the issue as well. Effective teaching-learning can be accessed if efficient means is adopted for social distancing class. Telegram is the best means of delivering numerous prospects for effective communication. Previous studies proved that quality and quantity ease student satisfaction and the learning process. According to Garret (1991), "integrating ICT in teaching and learning is not a method; rather, it is a medium in which various methods, approaches, and pedagogical philosophies may be implemented" (p: 77). It is the best way for social media users to communicate, upload assignments, share multimedia content and discussion with individuals and groups, and encourage the users to learn the knowledge (Rosen & Nelson, 2008). Telegram's default messages are cloud-based. It can be easily accessed by any connected users. Users can share photographs, recordings, sound messages and different documents up to any size. So, teachers need cloud based storage to assist their teaching and clerical task managing their multitasking. Teachers need a base that can be access at anytime. IM is an excellent tool, since the conversations can be saved and transcripts of them can be analyzed on a later stage. IM creates learning for the coaches as well as for the coach and presents the benefits with coaching IM. The current political discourses, particularly during the pandemic situation of Covid 19, quality of teaching rely upon the account that effective instructors should satisfy the courageous prime example of the benevolent, submitted, creative, and ever-tough expert, paying little heed to the confining proficient and situated conditions of their work (Day, 2017). Teachers are mostly de-motivated due too much of work pressure. So, they need a platform to regenerate their enthusiasm to be motivated. Teachers reported a rise in inspiration and a more prominent excitement and greater enthusiasm for using IM in managing their multitasking (Plana et al., 2013). This can be done via IM effectively.

The use of Telegram has changed the way of learning and teaching in Pandemic. Previous studies indicated several benefits of Telegram in educational institutes. It allows the group discussion learner-learner and learner-teacher in a more effective way. This feature has enhanced the students' outcomes in academic studies as well. Past literature show the telegram promptness and effectiveness in teaching during the Pandemic. Telegram importance requires a lot of research, but a dearth of studies focused on investigating the telegram implementation in conducting the learning in this pandemic situation. The majority of the previous studies have paying attention on empirical analysis of Telegram in different education sectors, i.e., medical education, engineering students, technology department students (Aladsani, 2021) etc. Most of the Studies were conducted on telegram focusing the universities and colleges as respondents (Bere, 2013). So, there is need of an empirical research focused on school on the implications of Telegram. Telegram has assisted a lot to the people of educational institutes throughout the pandemic to accomplish the objective of regular cases. The purpose of the study is to find out the relationship between the determinants and teachers' behavioral intention towards the use' of Telegram (IM) as shown in Figure 1. How these factors or determinants are related with the teacher's behavioral intention towards the use of Telegram? In other words, using a quantitative approach, this study intends to examine the implementation of Telegram during pandemic in the teaching sector. Teaching through telegram will result in more effective learning and retention of knowledge. This study contributes to the literature during the pandemic period in the teaching sector by implementing the telegram in different sectors. It focused on all the research on E-learning tools in teaching and implementation in Covid 19. It gives a complete report about the telegram and its implementation in the education sector. This study is helpful for the researcher to focus on the E-learning tool (Telegram), which prompts the students and teacher to perform their duties remarkably and utilizes their free time by maintaining the social distancing at home.

2. LITERATURE REVIEW

Covid 19 has created the pandemic situation simultaneously almost all over the world. The disease is spreading and transforming rapidly. To manage this outbreak, we adopted a strategy to cut the chain of Covid 19. The stratagem was to maintain social distance. For this purpose, all the institutions and educational sectors were closed. These policies severely debilitated the education sector. Online education is the only solution for maintaining social distance. The use of IT in education helped a lot in learning and brought changes (Uzunboylu, 2011). According to Garret (1991) ICT includes a technique in teaching. It is way of teaching and learning includes number of approaches and pedagogical values, may be implemented. The implementation of online learning tools is not restricted to this pandemic crisis, suggested as an alternative for face-to-face discussion (Stacey et al., 2004). Moreover, Arrival of internet paves the way for research to scientist and researchers. Through internet (Vahdat, 2020; McCarroll & Curran, 2013). As a part of online education, two-way interaction, video-based distance maintained and widely used since the 1990s (Fatonja et al., 2020). This type of online learning is just like face to face learning via the traditional method. Despite all of these, emergency teaching during this Pandemic is different from regular online learning (Wang et al., 2020). Online education in this crisis forced all students to use social network sites for continuing their studies. Teachers were allowed to perform duties at home follow the rules implement by the government.

2.1 Telegram as an interactive social tool

Pavel and Nikolai Durov first developed Telegram in Berlin, Germany (Ibrahim et al., 2016). The most crucial advantage of Telegram is that it is free of cost and easy to use. It is used to send and receive the text and audios video and provide the facility of sharing the word, excel and power points slides, which are the primary documents for assignments, etc., in the universities. Telegram application can create a forum for a maximum of 200 students. It is a good tool for teaching during Pandemic, gives the storage of a considerable amount to save or download files. At the same time, it has the facility of cloud storage to save the files on the cloud. Shared data cannot lose and be retrieved from more than one device at any time. This distinct feature of Telegram made it popular among students. Due to pandemics, education institutes were closed and strictly prohibited from opening even private institutes worldwide. Due to this countries have adopted the online education.

As the widespread popularity of internet tools: Whatsapp group, Zoom app, and Google meet, there are still some barriers in using these tools as they can't provide the facility of sharing files and provide a forum for discussion. But there is a platform that acts as an interactive social tool to cover up all the hindrances. It is a newly developed mobile application used extensively among students. Its range of advantages is vast as an audio message, sharing files, availability of web-based source connection sending files (1.5 gigabytes in size) and 5000 members maximum for broadcasting to an infinite audience (Sawers, 2016; Vahdat, 2020). These advantages formulate it as a better preference in place of its counterpart among its users. In sum, "Telegram is one of the messaging and call software that millions of users worldwide use since it is a free software" (Pirouz, 2016).

Moreover, security and encryption make it more unique among all social network sites. These security features include two steps verification, hiding phone numbers, blocking other users, etc. (Vaziripour, 2018), making it more authentic in the teaching sector. Telegram seamless network advantage is one of the most popular features. It enables students to access it on any device, learning through applications like mobile phones, laptops, etc., without discontinuing the flow of communication (Alizadeh, 2018). Both student and teacher appreciate its sharing facility of up to 1.5 GB. According to the previous study, students enjoy the Telegram in teachings as they can access the broadcast shared videos from the teacher, which help them to improve the pronunciation skills of English (Al-Abdli, 2018). Telegram group is a unique tool for communication and discussion. Its ability for discussion with maximum students makes it distinct among social network sites. Thus, this platform allows the more positive outcomes as little movement and more learning in virtual environment (Basilaia & Kvavadze, 2020).

Previous studies have investigated it with different aspects, i.e. advantages and disadvantages, its uses, and its effect on students' performance (Alkhezzi & Al-Dousari 2016; Habibi, 2018; Iksan & Saufian, 2017). A recent study conducted an empirical analysis of students' perception of Telegram during Pandemic (Solomon, 2021) conducted qualitative research through an in-depth interview. This study finding concluded that Telegram helped a lot in improving telnets abilities etc., in learning of students. Several factors influence student learning through satisfaction, ease of use, and ease of learning. A math lesson over a video was conducted in Russia in response to the pandemic situation, maintaining social distance (Mustafa, 2020).

Previous literature demonstrated that these groups provide a platform for students to improve their performance and gain high scores (Aghajani & Adloo, 2018; Khodarahmi & Heidari-Shahreza, 2018). First, these groups enable teachers and students to collaborate and discuss. It helps the students to understand the course content with more discussion with peers (Habibi, 2018). Assignments are given to peers; this platform help in completing the work in peers and learn more through chat. Thus, they expand their knowledge (Aghajani & Adloo, 2018; Habibi, 2018). Through these groups, critical thinking skills developed among the students when peer assignments are discussed with teacher comments. These assignments showing comments are discussed in class then review and evaluated by all people present in the class (Habibi, 2018). A recent empirical study was also conducted to implement Telegram in medical education during Covid 19 (Iqbal et al., 2020). This study reveals the telegram usage for teaching the classes and training the students. The finding demonstrates the Telegram is a multiple utility application. Students perceive it as easy to access, upload files in any format, and collaborate with the teachers and students. Another study investigated the telegram effect in English teaching among Iranian students. In this study experimental approach was functionally applied to evaluate the usefulness of messages sent by telegram. This study has provided the positive imoact of telegram on the students learning (Ghaem & Sayed Golshan, 2017). In the same year another study was conducted to examine the effect of telegram on TFL learners, and findings showed that students has positive attitude using telegram. Students participate in learning as it has fun for them to learn in new technological method (Zarei et al., 2017).

During Pandemic, the use of Telegram has enabled the students to subscribe to libraries for searching the journals and articles (Alizadeh, 2018; Ghaffari, 2017). They don't need to go to any other website or browser for searching anything as well. This feature is not only helping the student in learning but also minimizes the need for a library. However, it provides an excellent facility during pandemic in the teaching sector. It has some drawbacks. Lack of internet coverage is one of its drawbacks. Students get annoyed when disconnection happens due to a lack of internet coverage. It is also not user friendly, requires a valid account for entering into lecturer class. If you don't have an account, you can't log in into smartphone. In sum, "Integrating Telegram channels into existing learning practices can provide informal learning contexts and create new opportunities for learning" (Heidar & Kaviani, 2016).

2.2 Global View

Global experiences about different e leaning tools in providing education, following the distance-based learning strategy. Previous studies show the outbreak damage with Covid 19 is colossal, slowed every walk of life. This pandemic has a strong effect on social, economic and societal factors as well. Education is the only factor which harmed a lot. Due to this number of students are unable to get an education. Different countries used different e tools in learning based on technology, the extent of digital knowledge, teachers' capacity and involvement, etc. Due to lack of technology, developing or underdeveloped countries have to face colossal damage like African countries have to close the educational institutes due to pandemic. Some top-level institutes have conducted the classes through high technology, but most schools failed to teach online courses using high technology like Telegram (Bajaba, 2021). In this continent, primary and secondary students lost access to the institution, which is more disastrous.

In East Asia and the Pacific, COVID-19 also disrupted hundreds of children. Developed countries have a high level of technology, easily access the internet, and reveal the increased pervasiveness of online use, encouraging the use of social learning apps such as Telegram etc. The poorest people, who rely on school protection services, have also been found in peril. Vietnam also did a great job in these phases, with having viruses disease. The plight of education varies from country to country during this pandemic situation. The response in continuation of education during this pandemic is remarkable by the developed and industrialized countries. This continuation is because of the high technology set up in educational institutes. They also have to face some trouble, not like the countries of Africa and Asia who are economically backwards. All the universities in Canada, Australia and North America use high technology for online education (Bajaba et al., 2021). The UNICEF report shows the use of the digital tool in learning during the pandemic period. The report shows the multiple modes of learning like WhatsApp, Zoom, and Google Meet etc. Mostly television and Telegram used by students in COVID-19. As per this report, 85% of the students used distance learning for education. Out of this, 80% used broadcast through television. 49% of students used both Telegram and TV. 63% of U-reporters also indicated that teachers used the Telegram for evaluating the student work/ homework. Lack of technology in the rural area prevents students from learning through Telegram and other e-learning tools. In response to the closure of COVID-19, underdeveloped countries and developing countries can't provide the Telegram in learning institutes to both teachers and students.

Students cannot afford Telegram and other digital learning tools (Pokhrel & Chhetri, 2021). The main problem in online learning is the dissatisfaction of students, i.e., unstable network connection disrupts the classes. Networking is a significant factor in teaching. It requires a flow of internet to the continuation of classes over Telegram. So, internet coverage facility has main factor in accessing the telegram and its implementation in teaching. Without internet coverage telegram usage is impossible in underdeveloped or developing countries.

The framework for this study shown in Figure 1 was adapted from "Community of Inquiry (COI) Coding Template and "The Decomposed Theory of Planned Behaviour (DTPB)" (Garrison et al. 2000; Taylor & Todd, 1995).

The theory of planned behavior (TPB) is an expansion of the theory of rational action that envisages behavior over which individuals don't have total volitional control. TPB achieves this by "including a predictor of behavioral intention and behavior called perceived behavioral control". According to Taylor and Todd (1995) "From TBP, they develop the decomposed TPB (DTPB)". The main point of this theory (DTPB) is to clarify explain client behaviour based on connection between convictions, perspectives, aim, and conduct. According to this theory "attitudes, subjective norms, and perceived behavioral control are the elements that help to understand the reasons or factors explaining individual actions, even if the intention is considered as the best indicator of behavior" (Crespo & del Bosque, 2008). DTPB put attention on the classification of beliefs and factors which influence these determinants of behavior, called attitudes, subjective norms, and perceived behavioral control. Perceived behavioural control inculcates regarding the perception of people about their own capability to perform behaviour (Ajzen, 1991). The three measures are self-efficacy, technology conditions and facilitative conditions of resources. Self-efficacy describes about the ability of a person to perform a behaviour and discusses about his confidence. The individual should build understanding o share their personal meaning among their group members. While the other two measures: resource and facilitative

conditions includes the access of financial, time and technology which help out and enable its use (Sadaf et al., 2012). So, superiors should provide fine instructional management to define and initiate discussion topics while providing facilities. This helps the teachers to do direct instruction to focus on their discussion.

Subjective norms discusses about an individual's impression of others' perspectives either that individual ought to or ought not perform certain behaviour (Ajzen, 1991). These people include the peers like teachers in that particular school and superiors like clerical and administrators' staff. This shows social presence is very important in managing school administrative task. Social influences such as subjective expectations affect the acceptance of technology and the use of human behavior (Omer, Yasin & Eda, 2019). So, Emotional expressions, open communication and group cohesion should be initiated by superiors to manage administrative task. In assessing behavioural intention to use e-service, the attitude of DTPB has more significance than perceived behaviour regulation. The outcome is consistent with the results published in prior studies. The subjective norm of TRA refers to "the perceived social pressure to perform or not to perform the behavior." In other words, the subjective norm is related to the identified with the standardizing convictions about the assumption from others (Wu & Chen, 2005). Numerous empirical studies have shown that subjective norms have a positive and direct impact on behavioral intention, straightforwardly affect on behavioural intention, yet this impact is typically more vulnerable than that of perceived behavioral control and attitude (Ajzen & Fishbein, 1980). Based on above discussion, following hypotheses were postulated argue the relationship of Attitude factors with behavior intention towards the use of telegram.

- H1a: There is a positive relationship between triggering event (TE) and teachers' behavioural intention (BI) towards the use of Telegram (IM).
- H1b: There is a positive relationship between exploration (EXP) and teachers' behavioural intention (BI) towards the use of Telegram (IM).
- H1c: There is a positive relationship between integration (INT) and teachers' behavioural intention (BI) towards the use of Telegram (IM).
- H2a: There is a positive relationship between resolution (RESO) and teachers' behavioural intention (BI) towards the use of Telegram (IM).
- H2b: There is a positive relationship between instructional management (IM) and teachers' behavioural intention (BI) towards the use of Telegram (IM).
- H2c: There is a positive relationship between building understanding (BU) and teachers' behavioural intention (BI) towards the use of Telegram (IM).
- H3a: There is a positive relationship between direct instruction (DI) and teachers' behavioural intention (BI) towards the use of Telegram (IM).
- H3b: There is a positive relationship between emotional expressions (EE) and teachers' behavioural intention (BI) towards the use of Telegram (IM).
- H3c: There is a positive relationship between open communication (OC) and teachers' behavioural intention (BI) towards the use of Telegram (IM).

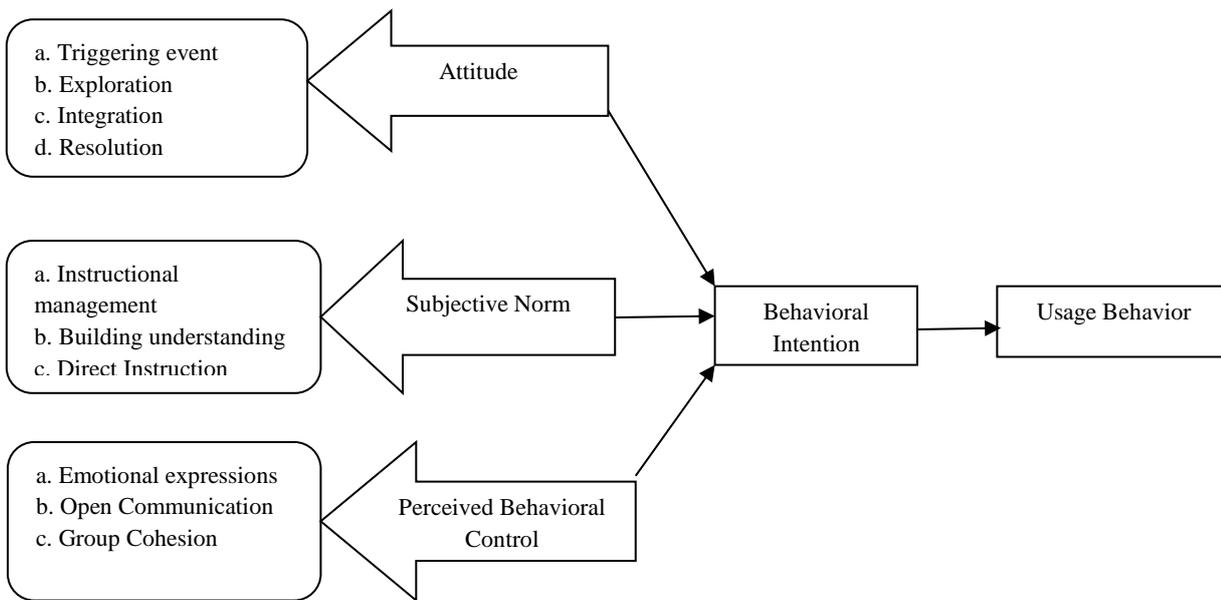


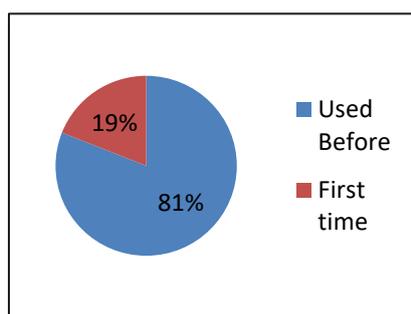
Figure 1: Conceptual Framework

3. RESEARCH METHODOLOGY

The purpose of this study is to test the hypothesis. For this purpose a questionnaire based survey was conducted. The questionnaire was distributed to 500 participants of around peninsular Malaysia from various Tamil schools (SJKT). The research design of the study is cross sectional. The study setting is non- contrived as the data is collected in natural environment with minimal inference. The aim of this study is to investigate the overall teachers’ profile on the school management experiences of using Telegram (IM). Apart from that, the purpose of this study is to find out the relationship between the determinants (triggering event, exploration, integration, resolution. emotional expressions, open communication, group cohesion, instructional management, building understanding, and direct instruction) and teachers’ behavioral intention towards the use of Telegram (IM). The participants of this study complete a survey after they have provided with the objective of this study. To test the study hypotheses, a statistical software SPSS version 23 is used.

4. RESULTS

The data is analyzed by using the SPSS version 23. The descriptive statistics and correlation is measured. For testing the study hypotheses, correlation analysis technique is applied. Initially, data is screened out from all the missing values normality and outliers. The data normality is checked by utilizing the Kolmogorov Smirnov Test. Both descriptive and inferential statistics used to present the quantitative data. The result confirms that data is normal for further analysis. When the survey was conducted in the school the respondents shared the different experience about the telegram. The figure 4.1 shows the experience of respondent about the Telegram usage. 405 respondents have already experienced with telegram. Remaining 98 respondents stated that they have never used it before.



*Figure: 4.1 Respondents Experience
Of using Telegram*

4.1 Frequency of Participation in Telegram

Figure 4.2 shows the frequency of respondents about the participation in telegram (IM). Majority of teachers, which were 255 (51.0%) respondents, participated in the Telegram (IM) two to three times a day. There are only 139 (27.8%) respondents use telegrams only one time in a week. Moreover, 67 (13.4%) respondents, who participated in the Telegram (IM) two or three times a week, and lastly, 39 (7.8%) respondents participated once a month.

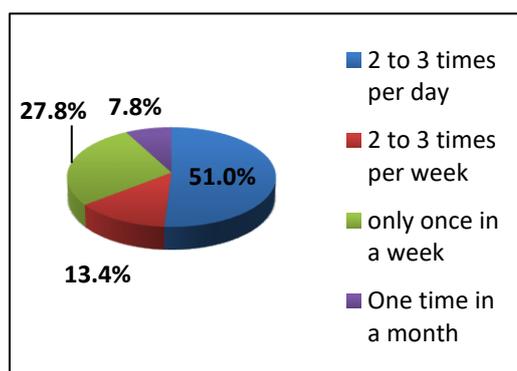


Figure 4.2 Frequency of participation in telegram

4.2 Respondents Time of using Telegram

Figure 4.7 demonstrate the number of respondents according to the time spent on using telegram. It also shows that a majority of respondents were 146 teachers (29.2%) stated that they spent two hours less working by using Telegram (IM), while 144 (28.8%) respondents spent 6 to 8 hours. A number of respondents, which were 103 (20.6%) teachers, reported that they spent nine or more than nine hours a week working by Telegram (IM), while 107 (21.4%) spent 3 to 5 hours a week.

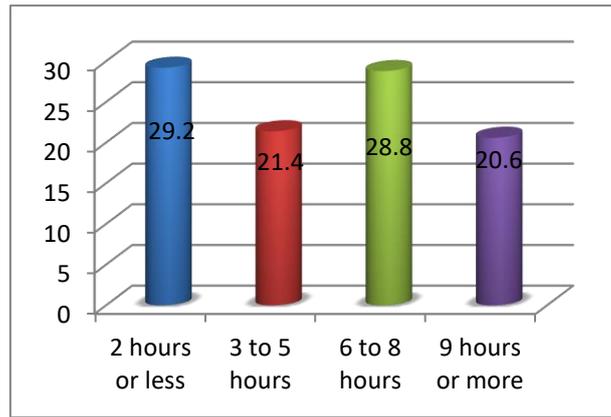


Figure 4.3: Time spent by respondents using Telegram

4.3 Teacher’s Evaluation

Table 4.1 below displays the respondent’s distribution according to students’ evaluation of Telegram (IM). The result shows the frequencies mean and standard deviation scores.

Table 4.1 Teachers Evaluation towards Telegram

Statement	Scale						
	1	2	3	4	5	Mean	SD
Teachers’ evaluation towards Telegram	SD	D	N	A	SA		
In my opinion, well worth time is utilized in telegram (IM) for doing activities and making with great effort.	33 (6.6)	4 (0.8)	14 (2.8)	197 (39.4)	252 (50.4)	4.26	1.04

Pearson correlation coefficient was conducted to test the relationship of study hypotheses. As table 4.2 indicates, there is a negative relationship between triggering event (TE) and teacher’ behavioural intention (BI) towards the use of Telegram (IM), whereby $r(500) = -0.14, p < 0.01$. The result does not provide support to H1a. While H1b stated that there is a positive relationship between exploration (EXP) and teacher’ behavioural intention (BI) towards the use of Telegram (IM), results show $r = 0.22, p < 0.01$ provide support to Hypothesis H1b. Hypothesis 1c stated a positive relationship between integration (INT) and teacher’s behavioural intention (BI) towards the use of Telegram. The result provides support to H3c that there is a significant positive relationship between integration (INT) and teacher’s behavioural intention (BI), whereby $r = 0.08, p > 0.01$. Hypothesis H1d stated that there is a positive relationship between resolution (RESO) and teacher’ behavioural intention (BI) towards the use of Telegram (IM), whereby $r(500) = 0.13, p < 0.01$. There is a significant positive relationship between resolution (RESO) and teacher’ behavioural intention (BI) towards the use of Telegram (IM).

Hypothesis 2 stated that there is a positive relationship between Instructional management (IM), Building understanding (BU) and direct instruction (DI) with teacher’s behavioural intention. The table

4.2 shows that there is negative relationship of instructional management (IM) ($r(500) = -0.17, p < 0.01$), building understanding (BU) ($r = -0.19, p < 0.01$) and direct instruction (DI) ($r = -0.17, p < 0.01$) with teachers behavioral intention. All values show significant negative relation with behavioural intention (BI) towards the use of Telegram (IM).

Hypotheses 3a stated that there is a positive relationship between emotional expression and a teacher's behavioural intention. At the same time, the result shows that there is a negative relationship between emotional expressions (EE) and teacher's behavioural intention (BI) towards the use of Telegram (IM), whereby $r(500) = -0.27, p < 0.01$, which does not provide support to H3a. Table 4.2 shows that there is a positive relationship between open communication (OC) and teacher's behavioural intention (BI) towards the use of Telegram (IM), whereby $r = 0.05, p > 0.01$, supported to H3b. In contrast, H3c stated a positive relationship between Group cohesion and teacher's behavioural intention. Results show that there is a negative relationship between Group cohesion (GC) and teacher's behavioural sense (BI) towards the use of Telegram (IM), whereby $r = -0.11, p < 0.01$ does not provide support to H3c.

Table 4.2 Hypotheses Results

Hypotheses	Variables	Behavioral intention		Direct Effect	
		M =4.42	SD= 0.48		
		M	SD	r	P
H1a	T.E	4.72	0.27	-0.14	0.00
H1b	Exp	4.55	0.27	0.22	0.01
H1c	INT	4.58	0.32	0.08	0.78
H1d	RESO	4.45	0.37	0.13	0.00
H2a	IM	4.51	0.39	-0.17	0.00
H2b	BU	4.40	0.62	-0.19	0.00
H2c	DI	4.72	0.30	-0.17	0.00
H3a	E.E	4.70	0.27	-0.27	0.00
H3b	OC	4.63	0.27	0.05	0.26
H3c	GC	4.77	0.23	-0.11	0.01

Note: ** Correlation is significant at the 0.01 level, T.E= Triggering Event, Exp= Exploration

INT= Integration, RESO= Resolution, IM= Instructional management,

E.E = Emotional Expression, OC= Open communication, GC= Group cohesion

5. DISCUSSION

Telegram is an efficient mobile erudition podium for learner during the crises of Covid 19 Pandemic. The drastic situation when all over the world educational institutes were closed and strictly remained closed due to COVID 19. This study investigated the implementation of Telegram in teaching during pandemic. Previous studies suggested that it is beneficial in teaching in the current global pandemic (Iqbal, 2020). The recent report of the united nation (2020) stated that 98.6% of learners were affected

by the pandemic in July, 2020. The provision of resources is the crucial element in online distance learning. Timely feedback to the learners about assessment is an essential aspect of online (Doucet et al., 2020). A common phrase, "Maslow before Bloom," is used in the education circle. This phrase represents the mission for online education in pandemic.

The rationale of this study is to observe the factors associated with the implementation of telegram (IM). These factors have contributed a lot in implementation of Telegram during Pandemic. It was based on the "Decomposed Theory of Planned Behaviour" by Taylor and Todd (1995) and "Community of Inquiry" (CoI) scale, intended to investigate the factors that narrate about the teachers' intention to use telegram (IM) based on ten (10) variables. The variables were: (1) triggering event (TE); (2) exploration (EXP), (3) integration (INT), (4) resolution (RESO); (5) emotional expressions (EE); (6) open communication (OC); (7) group cohesion (GC); instructional management (IM), building understanding (BU), direct instruction (DI) behavioral intention (BI). Several countries have set policies for the alternative way of education. Telegram has become the most popular social network application, providing an advanced feature of downloading videos and discussion in groups.

The study's findings show that there is a significant negative relation between Triggering events with behavioural intention. Prior studies also provide support for this result. Teachers employ assignments, tests physically in triggering events in the traditional learning environment. While in online learning classes, teachers create an environment based on computer conferencing context, a particularly democratic and non-hierarchical environment. Teachers create environment like triggering event where all the students can raise the problems about their studies. Such element encourages the participants to engage in the class and understand through proper learning process. This computer conferencing platform embarks the knowledge acquisition process and develops an unintended but decisive understanding (Hew et al., 2018). The study findings of H1b show a significant positive relationship of EXP with the behavioural intention of teachers. Previous studies also showing the consistent findings about the exploration. These findings shows the participants shift among the private and overall world to share, understand and search keenly and collaboratively. This platform has emerged the students from all over the world in a single platform. In the beginning of this phase, participants are encouraged to discuss the problem in group and work for the proper understanding which may help them to distinguish the problems and solution with relevant evidence. Previous study stated "through group activities and brainstorming and/or through more private activities such as literature searches" (Garrison, 2016).

The findings from correlational analysis also proved a significant positive relationship between integration and teacher' behavioural intention (BI) when using Telegram (IM) (H1c). This finding is as per with previous studies where participants may more concentrate on constructing meaning through integration, a transaction from exploration. Other than that, the results also provide a significant positive relationship between resolution and teacher' behavioural intention (BI). The findings of H1d show the positive relationship between Resolution and teacher's behavioral intention. The finding from this study is consistent with the past literature that cognitive dimension of using instant messaging has been explored in education, and mostly focused on outcomes. There is only one study researched on the cognitive dimension from the perspective of learning in students (Wang et al., 2016). This study scrutinizes the cognitive presence in erudition/knowledge process to communicate and construct the knowledge among students.

The findings of Hypotheses 2 shows that there is no positive relationship of subjective norms (IM, BU, DI) with teacher's behavioural intention. This finding is in line with previous study where direct instruction is a method of teaching just like traditional method where teacher gives instructions to the students. This means that the teacher comes in a class room, stands in front of a classroom, and delivers the information. The teachers give unambiguous, guided information and knowledge to the students. While only one determinant (open communication) of perceived behavioural control has positive relationship with teacher's behavioural intention of using telegram during pandemic. Statistical analysis conclude that there is a significant positive relationship between open communication (OC) and teacher' behavioural intention (BI) ($r = 0.05$, $p < 0.01$), towards using Telegram (IM). The result is consistent with past studies where it was found that communication as learning climate should facilitate all participants to feel secure and relaxed so that they can express themselves freely. This will help them to take part in the learning activities. Interpersonal interaction is most important in creating a sense of trust among learners. The relationship of GC and EE was found negative with the teacher's behavioural intention. The result is not different with previous studies where it was found that group of students forms the Group cohesion. Such groups of students perceive themselves like a community.

Therefore, all three factors of attitude, and 1 factor of perceived behavioural control (PBC) are positively related with students' behavioural intention (INT) towards Telegram (IM) for cooperation purposes. The subjective found no positive relationship with behavioural intention towards the usage of telegram.

5.1 Implications

The study findings provide several implications for the teachers and policymakers during such a massive crisis (Pandemic). The results of the study present additional imminent and more indulgent of teachers' and their intention to employ telegram (IM) in teaching and learning. Moreover, among all factors that best forecast teachers' intention. In this study, the strength of teachers' attitude works as the strongest indicator in elucidation the variance is similar to previous studies i.e. "Decomposed Theory of Planned Behaviour and Community of Inquiry (COI)". This study investigated Telegram (IM) for cooperation purposes to supplement in-class teaching from the teachers' perspectives. This study provides a platform for the teacher to better delivering the knowledge in such social distance situations.

Through researching on the phenomena of using the telegram and perception of people about its usage, this study provide a closer insight as well as give an in-depth insight into deceitful a conducive telegram (IM) based learning experience according to teachers' preference and their points of view.

This study will also endow with administrators through the elements that could encourage or hinder teachers' participation in the class activities when using the instant messaging tool, particularly Telegram (IM). Therefore, teachers need to create a dynamic online working environment to cater the individualized tasks and collaborative learning experiences.

Administrators need to categorize and present the teachers' needs and pedagogical needs first instead of technology to help achieve the intended working outcomes.

5.2 Limitations and Future Direction

This study contributes in numerous ways but still it has some limitations. First, this study implemented and focuses on the use of only one type of instant messaging, which is Telegram. Telegram (IM) may have its own uniqueness and features unique to it. Therefore, the merits and flaws of this of this particular instant messenger might be different with other tools. Therefore, it is recommended that the objectives of this study must be simulated and a study must be carried out for implementing a different type of instant messengers available online, such as Web chat or Whatsapp. Secondly, the focus of the study is on single Tamil primary school teachers, due to which results may not be generalized in other sectors (Universities, Colleges). So, in future both school and universities simultaneously can be taken as sample.

Third, it is also suggested that a future long-term study to be conducted to further comprehend whether teachers' intention are actual using the instant messaging tool for teaching and learning purposes as well as for transferring. This study might be an interesting and provide a platform to evaluate the actual use of IM tool by the teachers.

6. CONCLUSION

The Covid 19 pandemic has triggered a very paradigm change in the teaching sector. This paradigm change from traditional methods to online education methods helped the institutions to continue study. Both teachers and students are enforced for the implementation of e-learning classes, performing duties from home. This transition is essential and has a significant challenge all over the world. Telegram, a social network application, helped a lot in pandemic. Previous studies provide empirical support to the implementation of Telegram in the teaching sector as well. During the covid 19 pandemic, when all educational institutes were closed for stopping the transmission of disease and adopt the strategy of social distancing, E-learning or online application helped in continuing the studies. Telegram is a practical and most straightforward platform for conducting educational activities, a place where all teachers and students meet up and communicate in a single classroom, get notifications for upcoming activities or schedules and solve queries face to face.

This study also seeks to find out certain factors that manipulate teachers' intention to adopt Telegram (IM) to teach properly and improve the learning of students. From the perspective of Decomposed Theory of Planned Behaviour by Taylor and Todd (1995) and Community of Inquiry (COI), it was found that there is a noteworthy positive relationship between all three factors, which are attitude, subjective norm, and perceived behavioural control with teachers' behavioural intention towards the use of Telegram (IM). Among these three factors, teachers' attitude was found to be the highest significant predictor in determining teachers' intention to adopt Telegram (IM) for their teaching and learning purposes. With all these features, it is implemented in almost all over the countries in teaching. Besides several contributions, advantages and benefits, this study has some limitations. First of all, the focus of this study is only Tamil Primary school a small sample size, due to which the results could not be generalized. The findings from this study also highlight the critical importance of using the telegram for nurturing positive attitude among the students. It also helps to create a thought-provoking social environment for students in use of instant messaging tool, or Telegram (IM), in the future. Teachers and students can use it for learning purpose. The foremost technical limitation is high

implementation of telegram in teaching during pandemic

technology. This application is primarily used in developed countries. In countries with a lack of high technology, complete access over the internet are impossible, and they can't implement Telegram in the teaching sector. Like in Pakistan telegram app is not correctly used. Mostly whats append ZOOM is used in e-learning tools during a pandemic.

Finally, Telegram has made the predominant position among all E- learning tools in pandemic. The use of telegram has assisted to everyone (teachers and students) in teaching. Therefore, telegram has become one of the best digi tool of learning on social network platform. This application can also be helpful in conducting various tasks after such a huge pandemic.

REFERENCES

1. Alkhezzi, F., & Al-Dousari, W. (2016). The Impact of Mobile Learning on ESP Learners' Performance. *Journal of Educators Online*, 13(2), 73-101.
2. Ajzen, I. (1991). The theory of planned behavior. *Organizational behavior and human decision processes*, 50(2), 179-211.
3. Aladsani, H. K. (2021). University Students' Use and Perceptions of Telegram to Promote Effective Educational Interactions: A Qualitative Study. *International Journal of Emerging Technologies in Learning*, 16(9).
4. Al-Abdli, H. A. (2018). The Impact of Teaching by Using Interactive Mobile Applications on the Attitudes of Students, Faculty of Education, Hodeida University, towards the Technology of Education and its Applications. *Journal of Educational & Psychological Sciences*, 19(01), 581-612.
5. Aghajani, M., & Adloo, M. (2018). The Effect of Online Cooperative Learning on Students' Writing Skills and Attitudes through Telegram Application. *International Journal of Instruction*, 11(3), 433-448.
6. Alizadeh, I. (2018). Exploring language learners' perception of the effectiveness of an English language teaching (ELT) program in Iran. *Cogent Education*, 5(1), 1553652.
7. Bajaba, S., Mandurah, K., & Yamin, M. (2021). A framework for pandemic compliant higher education national system. *International Journal of Information Technology*, 1-8.
8. Basilaia, G., & Kvavadze, D. (2020). Transition to online education in schools during a SARS-CoV-2 coronavirus (COVID-19) pandemic in Georgia. *Pedagogical Research*, 5(4), 10.
9. Bere, A. (2013). Using mobile instant messaging to leverage learner participation and transform pedagogy at a South African University of Technology. *British Journal of Educational Technology*, 44(4), 544- 561.
10. Doucet, A., Netolicky, D., Timmers, K., & Tuscano, F. J. (2020). Thinking about pedagogy in an unfolding pandemic (An Independent Report on Approaches to Distance Learning during COVID-19 School Closure). *Work of Education International and UNESCO*.
11. Day, C. (2017). *Teachers' worlds and work: Understanding complexity, building quality*. London: Routledge.
12. Fatonia, N. A., Nurkhayatic, E., Nurdiawatid, E., Fidziahe, G. P., Adhag, S., Irawanh, A. P., ... & Azizik, E. (2020). University students online learning system during Covid-19 Pandemic: Advantages, constraints and solutions. *Systematic Reviews in Pharmacy*, 11(7), 570-576.
13. Garrett, N. (1991). Technology in the service of language learning: Trends and issues. *The Modern Language Journal*, 75(1), 74-101.
14. Garrison, D. R., Anderson, T., & Archer, W. (2001). Critical thinking and computer conferencing: A model and tool to assess cognitive presence. *American Journal of Distance Education*, 15(1), 7-23.
15. Ghaffari, M., Rakhshanderou, S., Mehrabi, Y., & Tizvir, A. (2017). Using social network of Telegram for education on continued breastfeeding and complementary feeding of children among mothers: a successful experience from Iran. *International Journal of Pediatrics*, 5(7), 5275-5286.
16. Ghaem, F. & Sayed Golshan, N. (2017). The impact of telegram as a social network on teaching English vocabulary among Iranian intermediate EFL learners. *International Journal of Intermediate and communication*, 2(200), 86-92.

17. Habibi, A., Mukminin, A., Riyanto, Y., Prasojo, L. D., Sulistiyo, U., Sofwan, M., & SAUDAGAR, F. (2018). Building an online community: Student teachers' perceptions on the advantages of using social networking services in a teacher education program. *Turkish Online Journal of Distance Education*, 19(1), 46-61.
18. Crespo, A. H., & del Bosque, I. R. (2008). The effect of innovativeness on the adoption of B2C e-commerce: A model based on the Theory of Planned Behaviour. *Computers in Human Behavior*, 24(6), 2830-2847.
19. Ibrahim, M. N., Norsaal, E., Abdullah, M. H., & Othman, A. (2016). Teaching and learning enhancement based on Telegram social media tool. *Jurnal Intelek*, 11(1).
20. Iksan, Z. H., & Saufian, S. M. (2017). Mobile learning: innovation in teaching and learning using Telegram. *International Journal of Pedagogy and Teacher Education*, 1(1), 19-26.
21. Ismaya, E. A., & Santoso, S. (2019). Tradisi Dandangan Sebagai Kajian Pembelajaran dalam Mendukung Pencapaian Visi Universitas Kebudayaan (Studi Pada Mata Kuliah Konsep Ilmu Pengetahuan Sosial). *Refleksi Edukatika: Jurnal Ilmiah Kependidikan*, 10(1), 128-137.
22. Iqbal, M. Z., Alradhi, H. I., Alhumaidi, A. A., Alshaikh, K. H., AlObaid, A. M., Alhashim, M. T., & AlSheikh, M. H. (2020). Telegram as a tool to supplement online medical education during COVID-19 crisis. *Acta Informatica Medica*, 28(2), 94.
23. Izenstark, A., & Leahy, K. L. (2015). Google classroom for librarians: features and opportunities. *Library Hi Tech News*.
24. Khodarahmi, Z., & Heidari-Shahreza, M. A. (2018). Effect of MALL on the acquisition of word stress patterns of English by Iranian EFL learners: the case of Telegram. *Journal of Applied Linguistics and Language Research*, 5(1), 40-55.
25. Kuensel. (2020). First confirmed coronavirus case in Bhutan. Kuensel.
26. Mashhadi, H. D., & Kaviani, M. (2016). The Social impact of Telegram as a social network on teaching English vocabulary among Iranian intermediate EFL learners (Payam Noor Center).
27. Markova, Tatiana, Glazkova, Irina & Zaborova, Elena. (2016) Quality Issues of Online Distance Learning. *7th International Conference on Intercultural Education "Education Health and ICT for a Transcultural World"*, 15-17 June, 685-691.
28. Mustafa, N. (2020). Impact of the 2019–20 coronavirus pandemic on education. *International Journal of Health Preferences Research*, 1-12.
29. Murtono, M., & Ahsin, M. N. (2019). PENGEMBANGAN MODEL PEMBELAJARAN ETNOLINGUISTIK BERBASIS NILAI-NILAI ISLAM NUSANTARA UNTUK MAHASISWA PGSD. *Refleksi Edukatika: Jurnal Ilmiah Kependidikan*, 9(2).
30. Pirouz, F. (2016). The relationship between using Telegram and interpersonal communication of Islamic Azad University Students of Karaj. *International Journal of Humanities and Cultural Studies (IJHCS) ISSN 2356-5926*, 1(1), 590-601.
31. Plana, M. G. C., Escofet, M. I. G., Figueras, I. T., Gimeno, A., Appel, C., & Hopkins, J. (2013). Improving learners' reading skills through instant short messages: A sample study using WhatsApp. *4th World- CALL Conference, Glasgow, 10-13 July 2013*.
32. Pokhrel, S., & Chhetri, R. (2021). A literature review on impact of COVID-19 Pandemic on teaching and learning. *Higher Education for the Future*, 8(1), 133-141.
33. Hew, K. F., Qiao, C., & Tang, Y. (2018). Understanding Student Engagement in Large-Scale Open Online Courses: A Machine Learning Facilitated Analysis of Student's Reflections in 18 Highly Rated MOOCs. *The International Review of Research in Open and Distributed Learning*, 19(3). <https://doi.org/10.19173/irrodl.v19i3.3596>.
34. Rosen, D., & Nelson, C. (2008). Web 2.0: A new generation of learners and education. *Computers in the Schools*, 25(3-4), 211-25.
35. Stacey*, E., Smith, P. J., & Barty, K. (2004). Adult learners in the workplace: Online learning and communities of practice. *Distance Education*, 25(1), 107-123.
36. Sadaf, A., Newby, T., & Ernter, P. (2012). Exploring factors that predict pre-service teachers' intentions to use Web 2.0 technologies using decomposed theory of planned behavior. *Journal of Research on Technology in Education*, 45(2), 171–195.
37. Sawers, P. (2016). Telegram pushes super-group limit to 5,000 people and makes groups viewable to anyone in the public. *Venture-Beat*. Retrieved, 18.

implementation of telegram in teaching during pandemic

38. Sintema, E. J. (2020). Effect of COVID-19 on the performance of grade 12 students: Implications for STEM education. *Eurasia Journal of Mathematics, Science and Technology Education*, 16(7), em1851.
39. solomon, g. o. (2021) Perceptions of students on the use of telegram during the covid-19 pandemic.
40. Subedi, S., Nayaju, S., Subedi, S., Shah, S. K., & Shah, J. M. (2020). Impact of E-learning during COVID-19 Pandemic among nursing students and teachers of Nepal. *International Journal of Science and Healthcare Research*, 5(3), 68-76.
41. Setyani, B., & Murtono, S. U. (2020). Pengaruh Model Pembelajaran PBL terhadap Hasil Belajar Pengaruh Model Pembelajaran PBL Terhadap Hasil Belajar Matematika Pada Siswa SDN Sari 1 Kelas V Kecamatan Gajah Kabupaten Demak. *Jurnal Pengabdian Multidisiplin*, 2, 28-43.
42. Tang, Y., & Hew, K. F. (2019). Examining the utility and usability of mobile instant messaging in a graduate-level course: A usefulness theoretical perspective. *Australasian Journal of Educational Technology*, 35(4).
43. Taylor, S., & Todd, P. A. (1995). Understanding information technology usage: A test of Teachers' Performance: Evidence from Pakistan. *Dialogue* (1819-6462), 11(1).
44. UNESCO (2020) COVID-19 educational disruption and response, 2020.
45. United Nations. (2020). Policy brief: Education during COVID-19 and beyond.
46. Uzunboylu, H., Bicen, H., & Cavus, N. (2011). The efficient virtual learning environment: A case study of web 2.0 tools and Windows live spaces. *Computers & Education*, 56(3), 720-726.
47. Utaminingsih, S., & Zuliana, E. (2019). EFEKTIVITAS MANAJEMEN PEMBELAJARAN KARAKTER BERBASIS FINANCIAL LITERASI DI SEKOLAH DASAR. *Jurnal Bidang Pendidikan Dasar*, 3(2), 33-38.
48. Vaziripour, E., Wu, J., Farahbakhsh, R., Seamons, K., O'Neill, M., & Zappala, D. (2018, February). A survey of the privacy preferences and practices of iranian users of Telegram. In *Workshop on Usable Security (USEC)* (Vol. 1).
49. Vahdat, S., & Mazareian, F. (2020). The Impact of Telegram on Learning of Collocational Knowledge among EFL High School Students. *Applied Linguistics Research Journal*, 4(03), 37-51.
50. Wang, G., Zhang, Y., Zhao, J., Zhang, J., & Jiang, F. (2020). Mitigate the effects of home confinement on children during the COVID-19 outbreak. *The Lancet*, 395(10228), 945-947.
51. Wang, Y., Fang, W-C., Han, J., & Chen, N-S. (2016). Exploring the affordances of WeChat for facilitating teaching, social and cognitive presence in semi-synchronous language exchange. *Australasian Journal of Educational Technology*, 32(4), 18-37.
52. Wiranegara, D. A., & Hairi, S. (2020). Conducting English learning activities by implementing Telegram group class during COVID-19 Pandemic. *JEASP (Journal of English for Academic and Specific Purposes)*, 3(2), 104-114.
53. Zarei, R., Heidari Darani, L., & Ameri-Golestan, A. (2017). Effect of Telegram Application on Iranian Advanced EFL Learners' Vocabulary Knowledge and Attitude. *International Journal of Foreign Language Teaching and Research*, 5(20), 96-109.