

# Assessment of the Use of Digital Technologies by the Overseas Filipino Workers on Coping Up With The Global Pandemic

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**Abstract-** The global pandemic has affected the Overseas Filipino Workers across the world. Digital technologies have paved way on coping up with the difficulties in the new normal. The study aimed to determine the significant difference in the use of digital technologies by the Overseas Filipino Workers in coping up with the global pandemic. The study used a descriptive research design and used non-probability sampling techniques specifically quota sampling. An adaptive research questionnaire and 55 OFWs answered the survey. Result revealed that majority of the respondents are female, 18 years old to 30 years old, and working for 1 to 10 years as OFW. Further, the confirmed that the level of the OFW in Dubai often use digital technology all the time to cope with the pandemic. The study concluded that there is no significant difference in the use digital technology all the time to cope with the pandemic when analysed according to gender, age, and year of experience. This study suggested the government specifically the POEA and OWWA to conduct trainings and workshops in the use of digital technology. This program will help enhance the digital competence of the OFWs specially in the use of digital technologies most especially in coping up with the pandemic.

**Keywords:** Digital Technology, OFW, COVID- 19, Quantitative Research, Philippines

## I. INTRODUCTION

### A. Background of the Study

The global pandemic have affected the Overseas Filipino Workers across the world. Digital technologies have paved way on coping up with the difficulties in the new normal. Recently, more or less there are 2.3 million Overseas Filipino Workers working across the globe and being considered as the largest transnational labor migrant populations in the world (Liem, Garabiles, Pakingan, Chen, Lam, Burchert, & Hall, 2020). The OFWs are looking for different ways in order to communicate with their family since communicating with them becomes a challenge. When the modern technology comes to the line, it attempts to bridge OFWs from their families and help to improve their quality of life (Ocenar & Sabio, 2014).

When COVID-19 hits the world, there are a lot of sectors that are being affected. During this outbreak, there is a severe impact in the world of work especially in the global economic and labor market (International Labour Organization, 2020). When this worst scenario happens, migrant workers are

among the hardest hit and most vulnerable to displacement, unemployment, and the loss of income (Liao, 2020). According to East Asia Forum written by Lorenzo (2020 September 5) many of the migrants who are still in abroad suffer from loss of income because of the no work, no pay scheme due to the pandemic. This loss of job does not only affects the OFW, this also has direct effect to their family back home. Aside from financial problem, they also suffered depression because of the possibility of contracting the virus.

Because of this situation now, government of the countries where OFWs are living made sure that they have access to social protection which includes employment related support and social assistance, as well as health services. In Singapore, migrant workers are given assistance which includes setting up medical facilities, clinics in dormitories, and food and other necessities including Wifi (Takenaka, Villafuerte, Gaspar, & Narayanan, 2020). The use of wifi and digital technologies can help everyone to overcome the impact of COVID-19 pandemic (The World Bank, 2020 October 5). According to Vargo, Zhu, Benwell, and Yan (2020), there are approximately 15 types of hardware technologies and over 50 types of software technologies have been used during COVID-19. These digital technologies are used not only for the improvement of health system's ability to detect, and track and contain people with suspected infection, but also this is used in the field of education, work, and daily life. These technologies include the use of computers, laptop, and video-based communication platforms.

Though digital technology becomes essential now a days, there are still migrant workers who are considered low-skilled especially in digital skills. Those migrants who are deployed in areas which is located far from the city of those who are living where signal is bit challenging received disadvantage in terms of speed and quality of service. Moreover, having mobile devices will allow the migrant workers to access digital connectivity but still there are migrants who have no access internet connection like mobile data and are reliant to Wi-Fi connection (Migrant Forum Asia, 2012).

The researchers have identified a seeming evidence gap in the prior research concerning the use of digital technologies of OFW on coping up with the pandemic. Past researches

addressed several aspects of the use of digital technologies by the OFWs. First, it is believed that the use of technology has high impact in the family relationship (MSN, 2011). Second, the use of digital technology had helped in easing the anxiety of the OFWs due to separation (Alampay, Alampay, & Raza, 2012). Lastly, the use of digital technologies allows OFWs to continue their role as parent (Madianou & Miller, 2011). However, the abovementioned researches has not addressed several results on the use of digital technologies during the pandemic. The researcher has identified evidence gap in the prior studies that have not addressed in the findings.

### B. Theoretical Framework

The study is anchored on Bronfenbrenner's Ecological Systems Theory (1989), the theory posited that a development of the child is influenced by the environment and is affected by the multiple levels of the surrounding environment. Ecological System Theory discussed that in order for a human to be developed there should be a combination of describing and interrelating structures and processes in both the main and more remote environment (Johnson & Pupilampu, ND).

Moreover, when the world adapted changes especially in technological developments, the Ecological System Theory expanded specifically the exosystem since social media, video gaming, and other modern- day interactions within the ecological system (Guy-Evans, 2020). The use of ICT also becomes a medium of change which provides learning environment that contributes to the development of human's cognitive and social- emotional development. This change takes place to the structures of Ecological System Theory- microsystem, mesosystem, exosystem, macrosystem, and chronosystem (Ramos, ND).

According to Bronfenbrenner (1989) microsystem talks about the change which is influenced from a direct contact of individual. The mesosystem is the interaction of an individual's direct contact to its outside environment. The exosystem incorporates other formal and informal structures. The macrosystem focuses on how cultural elements affects individual's development such as socioeconomic status, wealth, poverty, and ethnicity. Lastly, chronosystem discussed that the development of an individual is based on the environmental change which occur over the lifetime such as major life transition and historical events (Guy- Evans, 2020).

In relation to this research, the Ecological System Theory is used to determine if there is a change in the use of digital technology by the OFWS the pandemic. Specifically, how the direct contact of the OFWs changed their usage of the digital technology. Also, how the outside environment of the OFWs influenced the use of digital technologies. Moreover, this study also would like to determine if the major life transition such as the onset of the pandemic influenced the use of digital technologies by the OFWs especially in coping up.

### C. Conceptual Framework

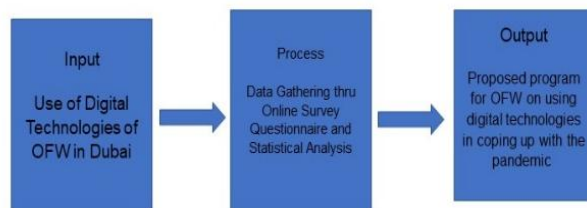


Figure 1 Conceptual Paradigm of the Study

### D. Research Questions

The study aimed to determine the significant difference in the use of digital technologies by the Overseas Filipino Workers in coping up with the global pandemic. Specifically, it sought answers to the following questions:

1. What is the profile of the respondents in terms of:
  - 1.1. gender;
  - 1.2. age group; and
  - 1.3. years of experience as OFW?
2. What is the level of usage of digital technologies by the Overseas Filipino Workers, in terms of:
  - 2.1. information and data literacy;
  - 2.2. communication and collaboration;
  - 2.3. digital content creation;
  - 2.4. safety; and
  - 2.5. problem solving?
3. Is there significant difference between the level of use of digital technologies by the Overseas Filipino Workers before the pandemic and during the pandemic when analysed according to:
  - 3.1. gender;
  - 3.2. age group; and
  - 3.3. years of experience as OFW?
4. What is the appropriate intervention scheme to propose in the usage of digital technologies for the OFW in Dubai on coping up with the global pandemic?

#### Null Hypothesis

The hypothesis was tested at 0.05 level of significance

1. There is no significant difference between the level of use of digital technologies among Overseas Filipino Workers when analysed according to gender, age group, and years of experience as OFW.

## II. METHODOLOGY

### A. Research Design

The research employed Descriptive Research Design. This research design is one of the types of quantitative research which is used to describe a situation or phenomenon and its characteristics and which is usually used survey tools

in gathering the data (Creswell, 2014). In this study, descriptive research design was used to describe the usage of digital technologies by the OFW on coping up with the global pandemic. Moreover, the study used survey on gathering data that determined the use of digital technologies by the OFW in coping up with the pandemic. Descriptive studies look at the characteristic of a population, identify problems that exist within a unit, an organization or a population or look at variations in characteristics or practices between institutions or even countries.

### B. Research Locale



Figure 2. Research Locale

The study was conducted in the United Arab Emirates specifically in Dubai. Dubai is one of the wealthiest of the seven emirates that constitute the federation of the UAE. More than 450,000 Filipinos are living and working in Dubai which is considered as the largest population of Filipinos in UAE.

### C. Participants of the Study

The participants of the study were the Overseas Filipino Workers who are working in Dubai for one to five years. The participants of the study are OFW aged 25 years old to 30 years.

### D. Sampling Techniques

The study used quota sampling. This type of sampling method of non-probability sampling is used when the samples are chosen based on the probability proportionate to the distribution of a variable in the population. Moreover, quota sampling is used so that the proportion samples for each category will have the same assumed proportion to exist in the population (Rukmana, 2014). In this study, researchers were only looking for 55 OFWs who are working for one to five years in Dubai aged 25 years old to 30 years old.

### E. Statistical Treatments

The following statistical tools was used in order to treat the data

*Mean.* This is used to measure the central tendency and this is used in the study to determine the level of use of digital technologies by OFW in coping up with the pandemic.

*T-Test.* This is used to determine the significant difference between the means of two groups. In this study, this will be used to determine the significant difference in the level of use of digital technologies by the OFW in coping up with the pandemic when analysed according to gender.

*ANOVA.* This is used to determine the significant differences between means of three or more independent variables. In this study this will be used to determine the significant difference in the level of usage of digital technologies by the OFW in coping up with the pandemic when analysed according to age group and years of experience as OFW.

### F. Data Gathering Procedure

After a long search, the researcher finally found the appropriate survey tools to be used in measuring the usage of digital technology by OFW on coping with the global pandemic. This was presented to the research instructor for comments, and suggestions.

Next, the researcher personally administered the survey to the OFWs. This is done for the researcher to explain the objectives of the study and also to discuss the significance of the study to the OFWs. All questionnaires accounted for and retrieved after two days and within a week, the questionnaires was collected, collated, and tallied for statistical analysis.

The tabulated data of survey responses placed by the researcher in an Excel spread sheet and then emailed to the statistician for statistical treatment. Descriptive statistics including mean, was used to the level of use of digital technologies by OFW in coping up with the pandemic. T-test was used to determine the significant difference in the level of use of digital technologies by the OFW in coping up with the pandemic when analysed according to gender. And, ANOVA was used to determine the significant difference in the level of usage of digital technologies by the OFW in coping up with the pandemic when analysed according to age group and years of experience as OFW. Soon after, the tables of statistical results were released by the statistician for the researcher to interpret.

### G. Research Instrument

The research used an adapted research questionnaire to determine the level of usage of digital technologies by the OFW on coping with the global pandemic. The questionnaire used was from Cebi and Reisoglu (2020). The questionnaire was divided into three parts. Part I asks the profile of the respondents which includes gender, age, and years of experience as OFW. Part II of the research instrument asks how often the OFWs used the digital technologies in terms of information and digital literacy, communication and collaboration, digital content, safety, and problem solving. The questionnaire was simplified and contextualized in the setting.

The research instrument undergone pilot testing to test the reliability of the instrument. There were 30 participants who were not part of the research samples answered the

survey questionnaire. After the pilot testing was done, the data were submitted to the statistician to test the reliability of the questionnaire with the use of Cronbach Alpha.

The result showed that questionnaire was reliable since it posted a score of 0.896 which means that the instrument has an excellent level of internal consistency. The instrument also used a Likert Point. Above showed the Range of Means used in the questionnaire.

*H. Ethical Consideration*

One of the important factors that is being considered in this study is the Republic Act 10173 or also known as Data Privacy Act of 2012. In this act it is mandated to set requirements designed to protect personal information in government organizations. The confidentiality and integrity of the data are being considered. Further, the researcher also protected the gathered data and protected the privacy and confidentiality of the participants' information. The researcher will keep the record especially the confidential details to protect the rights and welfare of the participants. A non-disclosure agreement will be provided to protect the integrity and confidentiality of both parties. Participants will be informed about the purpose of the study and their signatures will be the proof of their voluntarily participation. Further, the participants will be oriented about the importance of the study and how they will benefit on the result and the same how the institution will be benefited from this.

III. RESULTS AND DISCUSSIONS

*Results*

This part of the paper presents the result of the study in tabular and contextual form.

*Profile of the Respondents*

Table 1 shows the demographic profile of the respondents. It is revealed that 63.6% of the total number of the respondents were female and 36.4% were male. Also, the table presented that 54.5% of the total number of respondents were coming 18 years old to 30 years old. This is followed by 31 years old to 45 years old with 29.1% and 46 years old to 57 years old with 16.4% of the total number of respondents. The result also confirmed that 58.2% of the respondents were working as an OFW in Dubai for one to ten years. 25.5% of the OFW working in Dubai were there for 10 to 20 years. Moreover, 10.9% were working for less than a year and only 5.5% of the respondents said that they were working in Dubai for 21 year and above.

Table 1. Demographic Profile of the OFW Working in Dubai

Characteristic (n=55)	Level	No.	%
Gender	Female	35	63.6
	Male	20	36.4
Age Group	18 Years Old-30 Years Old	30	54.5
	31 Years Old to	16	29.1

	45 Years Old		
	46 Years Old to 57 Years Old	9	16.4
Years as OFW in Dubai	1 to 10 Years	32	58.2
	10 to 20 years	14	25.5
	21 years and Above	3	5.5
	Less than 1 year	6	10.9

*Assess the Level of Usage of Digital Technologies by the Overseas Filipino Workers*

The level of usage of digital technologies by the OFW is shown in Table 2. Result revealed that the overall mean is 3.85 with a descriptive equivalent of Agree. This means that the OFW in Dubai often use digital technology all the time to cope with the pandemic.

Table 2. Level of Usage of Digital technologies by the Overseas Filipino Workers

Indicators	n	SD	Descriptive Equivalent
Information and Data Literacy	3.83	.795	Agree
Communication and Collaboration	3.80	.792	Agree
Digital Content Creation	3.72	.780	Agree
Safety	4.21	.785	Strongly Agree
Problem Solving	3.71	.677	Agree
<b>Overall</b>	<b>3.85</b>	<b>.634</b>	<b>Agree</b>

The result further revealed that the indicator who got the highest mean is *Safety* with a mean score of 4.21 with a standard deviation of .785. This means that the OFWs are using the digital technology safely all the time to cope with the pandemic. This is followed by *Information and Data Literacy* with a mean of 3.83 and a standard deviation of .795, *Communication and Collaboration* with a mean of 3.80 and a standard deviation of .792, *Digital Content Creation* with a mean of 3.72 and a standard deviation of .780, and lastly *Problem Solving* with a mean of 3.71 and with a standard deviation of .677 all have descriptive equivalent of Agree. This means that the OFWs in Dubai often use digital technology in terms of information and data literacy, communication and collaboration, digital content creation, and problem solving to cope with the pandemic

*Determine the Significant Difference in the Level of Usage of Digital technologies by the Overseas Filipino Workers*

The significant difference in the level of usage of digital technologies by the OFWs in Dubai when analysed according to gender is shown in Table 3. The result revealed that the F-value is 0.219 with p- value of 0.641. It is revealed that the p-value of 0.641 is greater than 0.05 level of significance. The null hypothesis of no significant difference in the level of usage of digital technologies by the Overseas Filipino Workers when analysed according to gender is accepted. This



means that level of usage of digital technologies by the Overseas Filipino Workers do not vary significantly when group according to gender.

Table 3. Significant Difference on the Level of Use of Digital Technologies by The Overseas Filipino Workers before the Pandemic and During the Pandemic When Analysed According to Gender

Test Variables (Independent T-test)	Gender	Mean	Std. Deviation	F	Sig.	Decision
Information and Data Literacy	Male	3.76	.620	0.556	0.459	Accept HO
	Female	3.88	.884			
Communication and Collaboration	Male	3.60	.649	0.628	0.431	Accept HO
	Female	3.91	.850			
Digital Content Creation	Male	3.65	.661	0.391	0.534	Accept HO
	Female	3.76	.757			
Safety	Male	4.04	.756	0.008	0.930	Accept HO
	Female	4.31	.794			
Problem Solving	Male	3.56	.560	1.722	0.195	Accept HO
	Female	3.80	.728			
Use of Digital Technologies	Male	3.72	.565	0.219	0.641	Accept HO
	Female	3.93	.665			

Table 4 below showed the significant difference of the level of use of digital technologies by the Overseas Filipino Workers when analysed according to age. The result revealed the F- value of 0.671 and the p- value of .052. The result showed that the p-value of 0.52 is greater than 0.05 level of significance. The null hypothesis of no significant difference of the level of use of digital technologies by the Overseas Filipino Workers when analysed according to age is accepted. This means that the level of use of digital technology by Overseas Filipino Workers do not vary significantly when grouped according to age.

Table 4. Significant Difference on the Level of Use of Digital Technologies by The Overseas Filipino Workers before the Pandemic and During the Pandemic When Analysed According to Age Group

Test Variables (ANOVA)	Age Group	Mean	Std. Deviation	F	Sig.	Decision
Use of Digital Technologies	18-30 years old	3.77	.723	0.671	0.52	Accept HO
	31-45 years old	3.99	.393			
	46-57 years old	3.92	.680			

The significance difference in the level of use of digital technologies by OFWs when analysed according to years of experience is shown in Table 5. The result of this study revealed the F- value is 0.931 and the p- value is 0.432. This

revealed further that the p-value of 0.432 is greater than 0.05 level of significance. This study confirmed that the null hypothesis if no significance difference in the level of use of digital technologies by OFWs when analysed according to years of experience is accepted. This means that the level of use of digital technologies by OFWs does not vary significantly when grouped according to years of experience.

Table 5. Significant Difference on the Level of Use of Digital Technologies by The Overseas Filipino Workers before the Pandemic and During the Pandemic When Analysed According to Years of Experience

Test Variables (ANOVA)	Age Group	Mean	Std. Deviation	F	Sig.	Decision
Use of Digital Technologies	Less than 1 year	3.62	.818	0.931	0.432	Accept HO
	1-10 years	3.93	.601			
	10-20 years	3.88	.564			
	21 and above years	3.41	0.979			

Discussion

This part of the presents the discussion of the data on level of use of digital technologies by OFWs on coping up with the pandemic. The discussion in this section started with the discussion of the demographic profile of the respondents followed by the discussion of the indicators of the use of digital technologies by OFWs on coping up with the pandemic. Then, the discussion on the significant difference in the level of use of digital technologies by OFWs on coping up with the pandemic when analysed according to gender, age, and years of experience.

In the recent survey conducted by the Philippine Statistics Office last 2019 there are more or less 2.2 million Filipinos are working abroad. In this number, female OFWs are dominating compare male OFWs which is also confirmed in this study that in there are more female OFWs than male OFWs who responded in this study. Further, the survey conducted by the PSA also revealed that majority of the OFWs belonged to age group 30 to 34 years old, in the study aged 18-30 years old dominates to number of participants who responded in this study. As to the years of experience, the result confirmed that majority of the respondents were working in Dubai for 1 to 10 years. The PSA further confirmed that 13.2% of the total number of OFWs are working in United Arab Emirates in which Dubai is located.

Digital technologies create an impact to what, why, where, and how individual learn and who they learn from. The use of digital technology such as computers, smartphones, and video- based communication platforms brought unique changes in the lives of many especially those in work and in

daily use. It is the main goal of digital technology to connect individual rapidly, effortlessly, and cost-effective. During the advent of COVID-19 the use of digital technologies no matter what kind of technology is being used, workers act as receivers and providers of technology (Vargo, et.al., 2020; Kapur, 2018).

The OFWs often use digital technology during the pandemic, they frequently used digital technology in order to cope up with the pandemic. According to Cleofas, Eusebio and Pacudan (2021), during the pandemic, engagement of the OFWs in online and virtual communication patterns have been interrupted, this disruptions of communication which one of the digital technology brought changes in the routine and increased caregiving burden and challenges brought about online classes.

The safely used of digital technology has found to be the indicator of digital technology which is used all the times by the OFWs during the pandemic since it posited the highest mean. It is very important that everyone who is using digital technology to feel safe especially in protecting their personal data and digital identity (Fraile, Peñalva- Velez, & Lacambra, 2018). Moreover, it is also important that each must how to protect themselves from the threats that may come from the devices and they must be aware on the physical, psychological, and environmental effects of digital technologies (Cebi & Reisoglu, 2020).

Digital technologies is seen as one of the solutions to solve many of the problems arising during this crisis. The study confirmed that the OFWs are also found to frequently use digital technology in coping up with the pandemic especially on information and data literacy. Information and data literacy is a life skill for everyday problem solving which include enabling community engagement, citizen empowerment, activity tracking, and personal health management (Corrall, 2019). It is important that one should have competence in searching information, and screening and assessment (Cebi & Reisoglu, 2020).

It is also found in this study that communication and collaboration is an indicator of level of digital technologies used by the OFWs in coping up with the pandemic is often used. During the pandemic, the world needs technologies that enable communication and collaboration (Byrnes, et.al., 2020). The use of communication is to ensure that one is creating his/her on content. This is to ensure that the right information will reach to the right person. While collaboration is helping to solve problems and operate productively and to work together (Finklestein & Wong, 2011). In, addition the use of videoconferencing technology is a very powerful tool for communication and collaboration (Byrnes et.al. 2020). The use of digital and mobile technologies in communication ties and performing parenting can caregiving to protect the well-being of members in a time of pandemic (Cleofas, Eusebio, & Pacudan, 2021).

This study confirmed that the OFWs used digital technology specifically in digital content creation as often used. Digital content creation is simply creating digital forms using video, visual, and animation using digital technologies. This is also paying attention to copyrighting and licensing when developing digital content and producing content by making changes to ready-made content (Cebi & Reisoglu, 2020). During the pandemic, sharing of digital content is through the use of social media. Social media facilitates the creation or sharing of not only information, but also includes ideas, career interests, and other forms of expression through virtual communities and networks (Wong, Ho, Olusanya, Antoinin, & Lyness, 2020).

Problem-solving is also found to be frequently used indicator in digital technologies by the OFWs in coping up with the pandemic. Problem solving is the ability of a person to identify causes of technical problems when using digital technologies, solve technical problems, use different digital technologies to create innovative solutions, identify opportunities for development of digital competence, and develop digital competence by following new developments. In addition, solving technical problems when using digital media and devices have found to have a low average as compare to other (Cebi & Reisoglu, 2020)

The study confirmed that the usage of digital technology by the OFWs in coping up with the pandemic has found no significant difference when analysed according to gender, age group, and years of experience. The result of the study is contrary to the result of the study of Cebi & Reisoglu which found gender has significant difference. Their study confirmed that male respondents are better at information and data literacy, digital content creation, safety, and problem solving. This result was confirmed by Keskin and Yazar (2015) that males are found to be digital competent in the use of basic computer and acquiring information in digital media. In this study though, there is no significant difference in the use of digital technology in coping with the pandemic mean score of females is greater than the male which means that female used frequently digital technologies during the pandemic than male OFWs.

In terms of significant difference when analysed according to age group, there is no difference however, when analysing the mean score of each group those who belonged to 33 years old to 45 years old used frequently digital technology during the pandemic. This is confirmed by a study that posited that mature persons have used technology for a longer time and use technology less often as compared to younger ones. The reason may be because mature persons adopted technologies earlier than the young ones and they are more selective with the technology they used (Staddon, 2020). Lastly, there is no significant difference in the level of usage of digital technologies when analysed according to years of experience as OFWs. But when we analysed the mean score of each group according to years of experience, those OFWs

who are working for 10 to 10 years frequently used the digital technologies in coping up with the pandemic.

#### IV. CONCLUSION AND RECOMMENDATION

##### Conclusions

The following conclusions were drawn based on the result of the study. The study concluded that there are more female respondents than male. Those OFWs belonged to 19-30 years old occupy the large number of respondents. This is followed by those who belong to 21-45 years old, then 46-57 years old. As to the years of experience, the majority of the respondents were coming from 1- 10 years, followed by 1- 20 years, 21 years and above, and less than one year. The study concluded that the OFWs often used digital technology in coping up with the pandemic. The study further concluded that safety is the only indicator which is always used in coping up with the pandemic. The study proved that the use of digital technology by the OFWs in coping up with the pandemic does not vary significantly when analysed according to gender, age group, and years of experience.

##### Recommendations

The following recommendations are suggested based on the results and conclusions of the study. Since the use of digital technology is used frequently by OFWs in coping up with the pandemic specifically on the information and data literacy, communication and collaboration, digital content creation, and problem solving it is highly suggested the government specifically the POEA and OWWA to conduct trainings and workshops in the use of digital technology. This program will help enhance the digital competence of the OFWs specially in the use of digital technologies most especially in coping up with the pandemic. Since, it is proven that there is no significant difference in use of use of digital technology by the OFWs in coping up with the pandemic when analysed according to gender, age group, and years of experience, it is recommended that when program will be planned it would be open to all since all aspects such as gender, age group, and years of experience have the same level of used of digital technology in coping up with the pandemic. For the future researchers, a wider scope is suggested to further confirm the result of this study. Also, by adding type of jobs of the OFWs can also be considered in conducting future research.

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#### REFERENCES

- [1] A. K. Takenaka, J. Villafuerte, R. Gaspar, and B. Narayanan, "COVID-19 impact on international, remittances, and recipient households in developing Asia," *Asian Development Bank*, Aug-2020. [Online]. Available: <https://www.adb.org/sites/default/files/publication/622796/covid-19-impact-migration-remittances-asia.pdf>. [Accessed: 22-Apr-2021].
- [2] A. Liem, M. R. Garabiles, K. A. Pakingan, W. Chen, A. I. Lam, S. Burchert, and B. J. Hall, "A digital mental health intervention to reduce depressive symptoms among overseas Filipino workers: protocol for a pilot hybrid type 1 effectiveness-implementation randomized controlled trial," *Implementation Science Communications*, vol. 1, no. 1, 2020.
- [3] A. Çebi and İ. Reisoğlu, "Digital Competence: A Study from the Perspective of Pre-service Teachers in Turkey," *Journal of New Approaches in Educational Research*, vol. 9, no. 2, p. 294, 2020.
- [4] Alampay, E.A., Alampay, L.P., & Raza, K. (2012). ICTs and connectedness in families of Filipino migrant workers. *IDIA 2012 Conference [Conference Paper]* Available: [https://www.researchgate.net/publication/263755230 ICTs\\_and\\_Connectedness\\_in\\_Families\\_of\\_Filipino\\_Migrant\\_Workers](https://www.researchgate.net/publication/263755230 ICTs_and_Connectedness_in_Families_of_Filipino_Migrant_Workers). Accessed [April 22, 2021]
- [5] A. Ramos, "ICT IN EDUCATION – THE TECHNO-MICROSYSTEM IN THE CONTEXT OF BRONFENBRENNER'S ECOLOGICAL THEORY," *EDULEARN11 Proceedings*. [Online]. Available: <https://library.iated.org/view/RAMOS2011ICT>. [Accessed: 22-Apr-2021].
- [6] A. Wong, S. Ho, O. Olusanya, M. V. Antonini, and D. Lyness, "The use of social media and online communications in times of pandemic COVID-19," *Journal of the Intensive Care Society*, p. 175114372096628, 2020.
- [7] C. D. Mapa, "Total Number of OFWs Estimated at 2.2 Million," Philippine Statistic Authority, 04-Jun-2020. [Online]. Available: <https://psa.gov.ph/statistics/survey/labor-and-employment/survey-overseas-filipinos>. [Accessed: 26-May-2021].
- [8] D. Rukmana, "Quota Sampling," *Encyclopedia of Quality of Life and Well-Being Research*, pp. 5382–5384, 2014.
- [9] D. Vargo, L. Zhu, B. Benwell, and Z. Yan, "Digital technology use during COVID -19 pandemic: A rapid review," *Human Behavior and Emerging Technologies*, vol. 3, no. 1, pp. 13–24, 2020.
- [10] İ. Keskin and T. Yazar, "Examining digital competence of teachers within the context of lifelong learning based on of the twenty-first century skills Öğretmenlerin yirmi birinci yüzyıl becerileri ışığında ve yaşam boyu öğrenme bağlamında dijital yeterliliklerinin incelenmesi," *International Journal of Human Sciences*, vol. 12, no. 2, p. 1691, 2015.
- [11] International Labour Organization (2020). "COVID-19 labour market impact in the Philippines: Assessment and national policy responses. *Publication of the International Labour Office*". [Online]. Available: [https://www.ilo.org/wcmsp5/groups/public/---asia/--ro-bangkok/--ilo-manila/documents/publication/wcms\\_762209.pdf](https://www.ilo.org/wcmsp5/groups/public/---asia/--ro-bangkok/--ilo-manila/documents/publication/wcms_762209.pdf). Accessed [April 22, 2021]
- [12] J. V. Cleofas, M. C. S. C. Eusebio, and E. Joy P. Pacudan, "Anxious, Apart, and Attentive: A Qualitative Case Study of Overseas Filipino Workers' Families in the Time of COVID-19," *The Family Journal: Counseling and Therapy for Couples and Families*, Apr. 2021. [Accessed: 26-May-2021].

- [13] J. W. Creswell, *Research design: qualitative, quantitative, and mixed methods approaches*. USA: SAGE Publication Ltd, 2015.
- [14] Johnson, G.M. & Puplampu, K.P. (2008). Internet use during childhood and the ecological techno-subsystem. *Canadian journal of Learning and technology*, 34 (1). [Online] Available: [https://www.researchgate.net/publication/261773488\\_Internet\\_use\\_during\\_childhood\\_and\\_the\\_ecological techno-subsystem](https://www.researchgate.net/publication/261773488_Internet_use_during_childhood_and_the_ecological techno-subsystem). Accessed: April 23, 2021
- [15] K. A. Liao, "Operation 'Bring Them Home': learning from the large-scale repatriation of overseas Filipino workers in times of crisis," *Asian Population Studies*, vol. 16, no. 3, pp. 310–330, 2020.
- [16] M. Napal Fraile, A. Peñalva-Vélez, and A. Mendióroz Lacambra, "Development of Digital Competence in Secondary Education Teachers' Training," *Education Sciences*, vol. 8, no. 3, p. 104, 2018.
- [17] M. P. Lorenzo, H. A. S. Jr, M. Roces, S. Kuroda, N. Hosoda, B. Weeraratne, J. R. Albert, C. Fang, J.-jin Yang, Y. Liang, C. Freeman, S. Zhao, M. Barr, J. Fraenkel, H. White, and N. \*, "Saving the Philippines' overseas workers," *East Asia Forum*, 06-Sep-2020. [Online]. Available: <https://www.eastasiaforum.org/2020/09/05/saving-the-philippines-overseas-workers/>. [Accessed: 15-May-2021].
- [18] Madianou, M. & Miller, D. (2011). Mobile phone parenting: reconfiguring relationships between Filipina migrant mothers and their left- behind children. [Abstract]. Available: [https://www.researchgate.net/publication/258173669\\_Mobile\\_Phone\\_Parenting\\_Reconfiguring\\_Relationships\\_between\\_Filipina\\_Migrant\\_Mothers\\_and\\_their\\_Left-behind\\_Children](https://www.researchgate.net/publication/258173669_Mobile_Phone_Parenting_Reconfiguring_Relationships_between_Filipina_Migrant_Mothers_and_their_Left-behind_Children). Accessed [April 23, 2021].
- [19] Ocenar, C. & Sabio, G.S.S. (2014). "Bridging the gap between overseas Filipino workers and their families through social media". *XVII ISA World Congress of Sociology: A Conference Paper* [Abstract]. Available: [https://www.researchgate.net/publication/268091755\\_Bridging\\_the\\_Gap\\_Between\\_Overseas\\_Filipino\\_Workers\\_and\\_Their\\_Families\\_through\\_Social\\_Media](https://www.researchgate.net/publication/268091755_Bridging_the_Gap_Between_Overseas_Filipino_Workers_and_Their_Families_through_Social_Media) [Accessed April 22, 2021].
- [20] O. Guy-Evans, "Bronfenbrenner's Ecological Systems Theory," *Bronfenbrenner's Ecological Systems Theory | Simply Psychology*, 09-Nov-2020.
- [21] P. Finklestein and C. Wong, "The Digital Workplace: Think , Share, Do Transform your employee Experience," Deloitte, 2011. [Online]. Available: [https://www2.deloitte.com/content/dam/Deloitte/mx/Documents/human-capital/The\\_digital\\_workplace.pdf](https://www2.deloitte.com/content/dam/Deloitte/mx/Documents/human-capital/The_digital_workplace.pdf).
- [22] R. Kapur, "Significance of Digital Technology," *Research Gate*, 2018. [Online]. Available: [https://www.researchgate.net/publication/323829721\\_Significance\\_of\\_Digital\\_Technology](https://www.researchgate.net/publication/323829721_Significance_of_Digital_Technology). [Accessed: 26-May-2021].
- [23] R. V. Staddon, "Bringing technology to the mature classroom: age differences in use and attitudes," *International Journal of Educational Technology in Higher Education*, vol. 17, no. 1, 2020.
- [24] S. Corral, "Repositioning Data Literacy as a Mission-Critical Competence," *D- Scholarship @ Pitt*, Apr-2019. [Online]. Available: <http://d-scholarship.pitt.edu/36975/1/Data%20literacy%20discussion%20handout.pdf>. [Accessed: 26-May-2021].