The Happiness Research: How does the using of different type of apps impact people's happiness level during the COVID-19

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Abstract: Using electronic applications is being a way of increase happiness among people especially during the epidemic. How does the using of different types of applications impact people's happiness during the COVID-19? According to the response of 10 people in interview before the questionnaire, the study predicts that social apps can maximize people's happiness during epidemic. 204 participants were volunteered to participate in a survey. Based on some other researches, apps were divided into eight types: social apps, video and music apps, productive apps, game apps, practical apps, news and reading, shopping reading, financial management apps and travelling apps. After collecting the data, the results demonstrates the hypothesis through the 29.9% of participants supported that greatest happiness when using social apps. In conclusion, people get higher happiness level of using social apps and lower happiness of using any apps.

Keywords: Happiness Level, COVID-19, electronic applications

1. Introduction

Along the acceleration of social and technology development, people use electronic devices more frequent in their life to improve happiness level. (Si, X. 2015) Since the global COVID-19 outbreak in February 2020, the World Health Organization and governments have banned people from going out to prevent infection. Internet occupies a larger part of our daily life and more people use mobile apps to gain happiness. The average monthly hours spent in mobile apps were increased by 40% during epidemic. (Zheng, L. 2018)

On the other hand, people have different emotions when they do different things, and the same goes for using different kinds of apps. Investigations done by several researchers demonstrate that more interactions with acquaintances increased people's sense that they belonged to a community. During the epidemic, the way of communicating with people has changed to using social apps. Therefore, this study is going to test whether happiness level will be affected by using various apps.

2. Hypothesis

During COVID-19, using social apps can maximize people's happiness level than other seven types of apps.

3. Method

3.1 Participants

204 participants, 164 female, 38 male and 2 other genders were involved in this study. All participants were randomly selected through WeChat and Weibo. They were divided into 4 groups by their ages. (Under 12 years old: 9 participants; 13-20 years old: 58 participants; 21-30 years old: 17 participants; over 30 years old: 120 participants: Appendix table 1). Some participants received financially due through WeChat when they finish the survey.

3.2 Procedure

Participants entered the survey via a link on their electronic device. When they started the survey, they saw the informed consent which includes slight deception about the aim of the study to prevent demand characteristics. It also informed them their right to withdraw their response from the experiment. Then they will see the privacy statement, and asked if they would accept the questionnaire. If participants don't accept from introduction, they can opt out of the answering. Inversely, when they choose accept, questions will appear. The survey contains 10 questions, including 2 Likert scale questions, 2 open-ended questions and 6 mandatory selection questions. The explanation after each option can help participants make a quick choice. In order to digitize well-being, participants chose the device from 1 to 7 extreme pleasures disturbed by the Likert scale. After the participants have completed the nine mandatory questions, there is one optional question. Their response as well as their response time were measured and recorded using WenJuanXing.

3.3 Result

As illustrated in Appendix 2, 2.45% participants using electronic applications within 1 hour; 32.35% participants using apps between 1-3 hours; 55.88% participants using app between 4-10 hours; 9.31% participants using apps over 10 hours. By calculate and compare the mean, the happiness level of using apps is slightly higher than the level of normal. The average degree of happiness when people are not using apps is 5.05. On the other hand, the average of people are using apps is 6.15. According to Appendix 4, 60.78% of participants used social apps the most frequent, which is much higher than other apps. Through seeing the Appendix 5, lots of participants didn't get happiness from the app that they used the most frequent. 29.9% of the participants felt the greatest happiness when using social apps，26.6% participants- video and music apps.

4. Discussion

Several limitations were presented through the research. First, female make up the majority of participants (164/204), which might caused participants bias and hard to obtain valid results. Furthermore, participants have certain degree of social desirability. This appears in people didn't want to show that they are not happy, so the happiness level might be relatively higher than real. The last consideration is about external validity of the experiment, people from the same age gather among the participants and all participants are from same culture, so the research have low population validity. The processing of the data is very simple and did not verify whether statistical differences were used, but only a comparison of sizes. To avoid the limitations mentioned above, the age and gender of sample participants need to be distributed properly. Moreover, using more ways to gain data can decrease participants' social desirability, e.g., interview observation. Also, it is necessary to ensure the diversity of sample participants to increase population validity.

References

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Appendix

Appendix 1 (Questionnaire)

1. Your gender

male

female

other

2. Your age

Under the age of 12

13-20 years old

21-30

Age 30 and above

3. Please rate your current level of happiness (4 is normal)

1, 2, 3, 4, 5, 6, 7

4. How much time do you spend on electronic devices such as mobile phones every day

Within 1 hour

1-3 hours

4 to 10 hours

Over 10 hours

5. The type of App you used most frequently during the epidemic

Social apps (e.g., We Chat, Weibo, Facebook.)

Productive apps (e.g., Zoom, notes, email, network storage, sports...)

Video and music (e.g., all kinds of video music players)

Entertainment games (e.g., games and other applications that can release the pressure of work and study)

Practical apps (e.g., life service, food, weather, calendar, practical tools...)

Photography (e.g., photo beautification, camera, gallery...)

News reading (e.g., News and information, newspapers and magazines, novels, comics, listening books...)

Shopping (e.g., takeaway group purchase, shopping guide, movie, discount sale...)

Financial management (e.g., mobile payment, banking, stock investment, bookkeeping...)

Travelling (e.g., navigation, hotel, train, high-speed rail booking, subway ticket purchase...)

6. Which of the following types of apps do you feel most happy or satisfied with

Social apps

Productive apps

Video and music

Entertainment games

Practical apps

Photography

Read the news

Shopping preferential

Financial management

Travelling

7. The happiness level when using the App, you chose in the above question (4 is a normal mood)

1, 2, 3, 4, 5, 6, 7

8. Of the types chosen, what is the specific name of the app that brings you the most happiness?

9. Compared with the non-epidemic period, are there any changes in the apps and categories that bring you the most happiness and satisfaction?
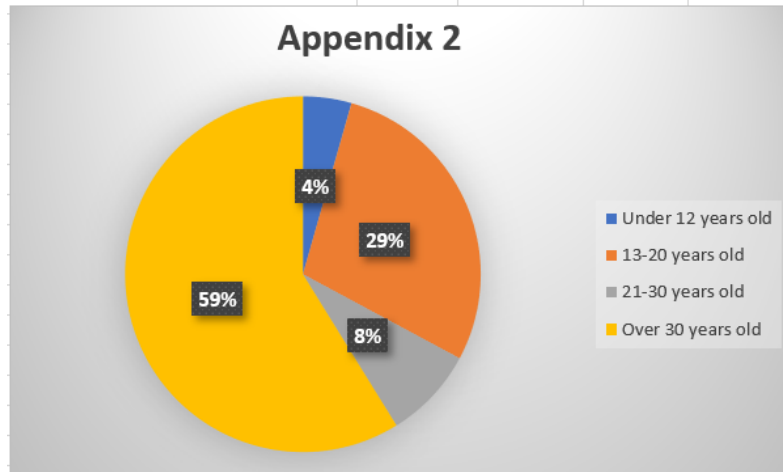
Yes

No

10. If yes, please simply list the app types or app names before and after the changes (e.g., entertainment games → social applications).
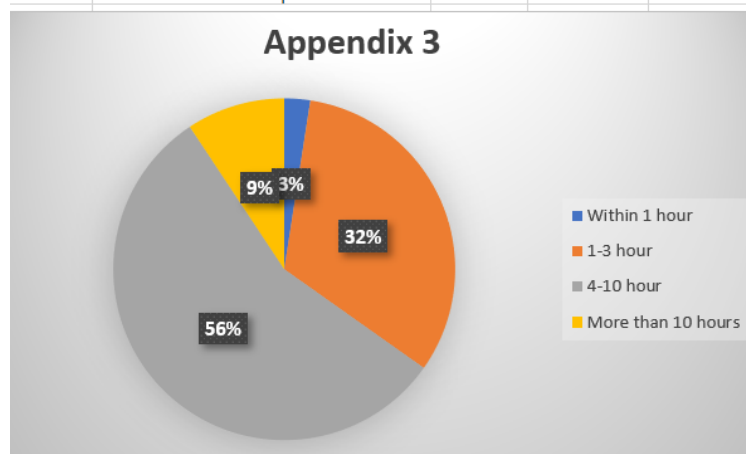
Appendix 2

Appendix 2: Age			
Your age	Number	Proportion	
Under 12 years old	9	4.41%	
13-20 years old	58	28.43%	
21-30 years old	17	8.33%	
Over 30 years old	120	58.82%	
Number of valid questionnaires	204		

Appendix 3

Appendix 3: How much time do you use electronic devices everyday			
Time spent	Number	Proportion	
Within 1 hour	5	2.45%	
1-3 hour	66	32.35%	
4-10 hour	114	55.88%	
More than 10 hours	19	9.31%	
Number of valid questionnaires	204		

Appendix 4

Appendix 4: What type of apps you use most frequent during epidemic?

App type	Number	Proportion
Social apps	124	60.78%
Productive apps	17	8.33%
Video & Music	14	6.86%
Games	11	5.39%
Practical apps	12	5.88%
Photography	2	0.98%
News and reading	13	6.37%
Shopping	7	3.43%
Financial management	3	1.47%
Travel	1	0.49%
Number of valid questionnaires	204	100%
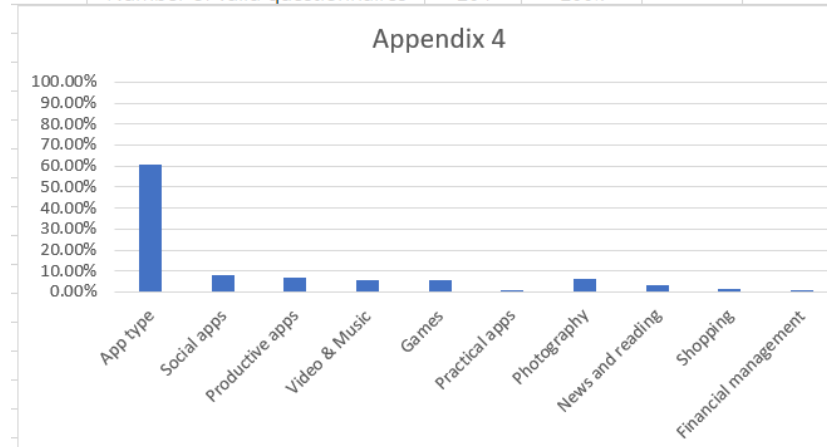
Appendix 5

Appendix 5: What type of apps can highly increase your happinesses?

App type	Number	Proportion
Social apps	61	29.90%
Productive apps	9	4.41%
Video & Music	55	26.96%
Games	13	6.37%
Practical apps	27	13.24%
Photography	3	1.47%
News and reading	17	8.33%
Shopping	14	6.86%
Financial management	3	1.47%
Travel	2	0.98%
Number of valid questionnaires	204	100%