

The Effect of mobile gaming

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The Effect of Mobile Gaming on the Quality of Family Communication

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12

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Abstract. This study examined the effect of playing the mobile game Mobile Legends: Bang Bang on family communication quality. Family communication quality was measured using a translated and slightly modified version of Olson's Family Communication Scale. Mobile Legends: Bang Bang players were recruited to take part in an online survey as a prerequisite for registration in a Mobile Legends: Bang Bang competition. In total, 204 valid responses were collected. Correlational analysis uncovered that neither how many months an individual had been a player of Mobile Legends: Bang Bang nor how long their average gaming session lasted had any effect on family communication quality. However, a significant positive correlation was found between how frequently a person played Mobile Legends: Bang Bang with family communication quality.

Keywords: mobile gaming, family communication, video games, Mobile Legends

1 Introduction

Over the past two decades, gaming has transformed from a niche hobby into a widely popular activity enjoyed by players of all ages, cultures, and genders, driving a massive multi-billion-dollar industry. This has led to increased interest from academia of the cultural impact of gaming and the effects it has on those that play video games. Video games and gaming have been the subjects of scholarship in nearly every field of study, from the effect of video games on the social development of children [1] to the causes and effects of video game addiction [2]. Mass media, too, has frequently put video games on center stage, though rarely in a positive light, with uncountable headlines associating gaming with violence, aggression, and anti-social behavior. It is surprising, then, that very little research has been conducted on how video games affect the functionality and communication of the family.

According to Statista [3], in 2019 the revenue from mobile gaming in Indonesia will reach 624 million US dollars and the number of mobile gamers in Indonesia is expected to reach 43 million by the end of the year. The same report also revealed that 15.9% of all smartphone users in Indonesia play mobile games.

Mobile Legends: Bang Bang (MLBB), a mobile MOBA (Multiplayer Online Battle Arena) heavily inspired by the PC title League of Legends, is the most popular mobile game in Indonesia; its developers, Moonton, claim that nearly half of all mobile gamers in Indonesia play MLBB [4]. MLBB is the first video game to break into the mainstream media in Indonesia,

with major brands sponsoring competitions with prize pools regularly reaching tens of thousands of dollars.

Much like in the west, this increase in popularity has also attracted the attention of academia. Many local studies exist reporting the negative effects of video games. Angela [5] found that the forming of gaming communities and gaming addiction led to increased truancy and an unwillingness to study. A study by Efendi [6] reports that online games caused children to distance themselves from their families, choosing instead to play games with their friends at internet cafes.

Redmond [7] published his thesis on the effect of video games on family communication and interaction in 2010, an exploratory study that surveyed hundreds of college students in an attempt to describe a quantifiable link between family communication quality and gaming and video games. Redmond found that there was, in fact, very little correlation between video games and the quality of family communication.

The study, while interesting, was limited to young adults in the United States, a country where video games and gaming have become an undeniable force in pop culture. The US has had several generations of gamers; a survey by the Entertainment Software Association [8] found that the average age of gamers in the US is 35. Parents and children enjoying a session of Mario Kart or Wii Sports together is hardly an oddity.

In contrast, Indonesia has only recently experienced a gaming explosion, sparked by improved internet infrastructure and the increasing affordability of powerful smartphones. Though gaming in Indonesia had been a semi-popular activity since mod chips and pirated discs made the original Playstation accessible to the average Indonesian child through game rental centers, it has only truly exploded in the past 5 years. This is the first generation of Indonesian gamers who get to enjoy a social acceptance of their hobby at this scale. For this reason, a child playing video games with their father or mother is rare and will likely remain so for at least another decade.

With such clear differences between American and Indonesian gaming culture, the question arises: how do video games affect family communication when there is a clear gap in techno literacy between generations?

2 Research Method

[11] A link to an online survey was shared with the participants of this study. Participants were Mobile Legends: Bang Bang players registered to compete in a local MLBB competition, and completing the online survey was a required part of the registration process. As the respondents were applying to participate in a MLBB tournament, the assumption was that the pool of participants would be slightly more serious about MLBB, dedicating more time to the game than the average player would.

Of the 211 participants, 7 returned incomplete or unusable data, 182 were male (89.2%) and 22 were female (10.8%). The majority of respondents had completed senior high school, totaling 160 (78.4%) of the participants. The average age was 22.3 years old with the largest segment of the participants, aged between 18-24, totaling 118 people (57.8%). Makassar was the largest ethnic group with 101 (44.6%) of the participants. The second largest ethnic group was Bugis with 63 (31.9%) of the participants.

Participants were asked to complete an online survey created using Google Forms. The survey contained ten questions taken from a previous study conducted by the writer [9] which

were adopted from the Family Communication Scale Olson [10] translated into Indonesian. The Family Communication Scale is a short questionnaire that evaluates the characteristics of the relationship between the parent and child based on a five-point scale. Reports on the Family Communication Scale have shown it to have a very high internal consistency, with a Cronbach's alpha of 0.90 [10]. The survey also contained questions about how frequently the participant's played MLBB, how long they have been playing the game, and how long the average session of MLBB lasts for them. These were designed to gain an understanding of the participant's play patterns.

3 Results and Discussion

Reliability tests were performed on the adopted and translated Family Communication Scale (FCS). Table 1 shows that the Family Communication Scale questions were still highly reliable even after having been translated to Bahasa Indonesia (Cronbach's alpha = 0.959).

Table 1. Analysis of scale reliability of the translated Family Communication Scale questions [9]

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
0.959	0.959	10

Pearson product moment correlation analysis was performed on the translated Family Communication Scale to understand how closely related each of the items were. As is clear in Tables 2a, 2b and 2c, the bivariate correlation between all item pairs was quite high, suggesting the potential for dimension reduction through factor analysis.

Table 2a. Correlation analysis (Pearson) of translated FCS items [9]

	<i>Saya dan anggota keluarga merasa puas dengan cara berkomunikasi satu sama lain. (Satisfied with how family members communicate.)</i>	<i>Saya dan anggota keluarga adalah pendengar yang baik. (My family members are good listeners.)</i>	<i>Saya dan anggota keluarga mengekspresikan kasih sayang satu sama lain. (Family members can express affection)</i>
<i>Saya dan anggota keluarga merasa puas dengan cara berkomunikasi satu sama lain. (Satisfied with how family members communicate.)</i>	1	.677**	.700**
<i>Saya dan anggota keluarga adalah pendengar yang baik. (My family members are good listeners.)</i>	.677**	1	.682**
<i>Saya dan anggota keluarga mengekspresikan kasih sayang satu sama lain. (Family members can express affection)</i>	.700**	.682**	1
<i>Saya dan anggota keluarga dapat bertanya satu sama lain tentang apa yang mereka. (Family members can ask each other what they want.)</i>	.698**	.633**	.731**
<i>Saya dan anggota keluarga dapat mendiskusikan masalah bersama dengan tenang. (Family members can calmly discuss problems)</i>	.704**	.638**	.801**
<i>Saya dan anggota keluarga dapat saling berbagi ide dan pendapat. (Family members can share ideas and opinions)</i>	.683**	.730**	.781**

<i>Saya dan anggota keluarga dapat jujur satu sama lain. (Family members are honest to one another)</i>	.746**	.675**	.675**
<i>Saya dan anggota keluarga mencoba memahami perasaan satu sama lain. (Family members make efforts to understand one another's feelings.)</i>	.637**	.675**	.722**
<i>Ketika marah, anggota keluarga jarang mengatakan hal negatif tentang anggota (When angry, family members rarely say negative things)</i>	.691**	.623**	.582**
<i>Saya dan anggota keluarga mengungkapkan perasaan yang sesungguhnya. (Family members can express their true feelings to each other)</i>	.770**	.658**	.744**

4
 ** Correlation is significant at the 0.01 level (2-tailed).

Table 2b. Correlation analysis of translated FCS items (continued) [9]

	<i>1</i> Saya dan anggota keluarga dapat bertanya satu sama lain tentang apa yang mereka. (Family members can ask each other what they want.)	Saya dan anggota keluarga dapat mendiskusikan masalah bersama dengan tenang. (Family members can calmly discuss problems)	Saya dan anggota keluarga dapat saling berbagi ide dan pendapat. (Family members can share ideas and opinions)
<i>Saya dan anggota keluarga merasa puas dengan cara berkomunikasi satu sama lain. (Satisfied with how family members communicate.)</i>	.698**	.704**	.683**
<i>Saya dan anggota keluarga adalah pendengar yang baik. (My family members are good listeners.)</i>	.633**	.638**	.730**
<i>Saya dan anggota keluarga mengekspresikan kasih sayang satu sama lain. (Family members can express affection)</i>	.731**	.801**	.781**
<i>Saya dan anggota keluarga dapat bertanya satu sama lain tentang apa yang mereka. (Family members can ask each other what they want.)</i>	1	.740**	.759**
<i>Saya dan anggota keluarga dapat mendiskusikan masalah bersama dengan tenang. (Family members can calmly discuss problems)</i>	.740**	1	.719**
<i>Saya dan anggota keluarga dapat saling berbagi ide dan pendapat. (Family members can share ideas and opinions)</i>	.759**	.719**	1

<i>Saya dan anggota keluarga dapat jujur satu sama lain. (Family members are honest to one another)</i>	.730**	.679**	.731**
<i>Saya dan anggota keluarga mencoba memahami perasaan satu sama lain. (Family members make efforts to understand one another's feelings.)</i>	.708**	.726**	.721**
<i>Ketika marah, anggota keluarga jarang mengatakan hal negatif tentang anggota (When angry, family members rarely say negative things)</i>	.668**	.676**	.660**
<i>Saya dan anggota keluarga mengungkapkan perasaan yang sesungguhnya. (Family members can express their true feelings to each other)</i>	.715**	.748**	.760**

Table 2c. Correlation analysis of translated FCS items (continued) [9]

	When family <i>Saya dan anggota keluarga dapat jujur satu sama lain.</i> (Family members are honest to one another)	Family member <i>Saya dan anggota keluarga mencoba memahami perasaan satu sama lain.</i> (Family members make efforts to understand one another's feelings.)	When angry, family <i>Ketika marah, anggota keluarga jarang mengatakan hal negatif tentang anggota.</i> (When angry, family members rarely say negative things)	Family members <i>Saya dan anggota keluarga mengungkapkan perasaan yang sesungguhnya.</i> (Family members can express their true feelings to each other)
<i>Saya dan anggota keluarga merasa puas dengan cara berkomunikasi satu sama lain.</i> (Satisfied with how family members communicate.)	.746**	.637**	.691**	.770**
<i>Saya dan anggota keluarga adalah pendengar yang baik.</i> (My family members are good listeners.)	.675**	.675**	.623**	.658**
<i>Saya dan anggota keluarga mengekspresikan kasih sayang satu sama lain.</i> (Family members can express affection)	.675**	.722**	.582**	.744**
<i>Saya dan anggota keluarga dapat bertanya satu sama lain tentang apa yang mereka.</i> (Family members can ask each other what they want.)	.730**	.708**	.668**	.715**
<i>Saya dan anggota keluarga dapat mendiskusikan masalah bersama dengan tenang.</i> (Family members	.679**	.726**	.676**	.748**

can calmly
discuss problems)

*Saya dan anggota
keluarga dapat
saling berbagi
ide dan pendapat.*
(Family members
can share ideas
and opinions)

.731**

.721**

.660**

.760**

*Saya dan anggota
keluarga dapat
jujur satu sama
lain.* (Family
members are
honest to one
another)

1

.683**

.718**

.720**

*Saya dan anggota
keluarga
mencoba
memahami
perasaan satu
sama lain.*
(Family members
make efforts to
understand one
another's
feelings.)

.683**

1

.587**

.673**

*Ketika marah,
anggota keluarga
jarang
mengatakan hal
negatif tentang
anggota* (When
angry, family
members rarely
say negative
things)

.718**

.587**

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*Saya dan anggota
keluarga
mengungkapkan
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mily members
can express their
true feelings to
each other)

.720**

.673**

.696**

1

Principal component analysis performed on the FCS items showed that all items had extremely high load on the first factor (see Table 3). This factor was labeled “family communication quality” and regression factor scores were calculated for it.

Pearson product moment bivariate correlational analyses were conducted again, this time for the purpose of discovering potential correlation between the new family communication quality factor and how frequently an individual played MLBB, how long they have been playing MLBB for, and the average duration of their MLBB game sessions.

The results of the correlation analysis can be seen in Table 4. Results showed that family communication quality had no correlation with how long an individual had been playing MLBB for. What this suggests is that there is very little – if any – long-term influence that playing MLBB has on overall family communication quality.

Table 3. Factor analysis of translated FCS items [9]

	Component
	1
<i>Saya dan anggota keluarga merasa puas dengan cara berkomunikasi satu sama lain.</i> (Satisfied with how family members communicate.)	.855
<i>Saya dan anggota keluarga adalah pendengar yang baik.</i> (My family members are good listeners.)	.817
<i>Saya dan anggota keluarga mengekspresikan kasih sayang satu sama lain.</i> (Family members can express affection)	.870
<i>Saya dan anggota keluarga dapat bertanya satu sama lain tentang apa yang mereka.</i> (Family members can ask each other what they want.)	.865
<i>Saya dan anggota keluarga dapat mendiskusikan masalah bersama dengan tenang.</i> (Family members can calmly discuss problems)	.871
<i>Saya dan anggota keluarga dapat saling berbagi ide dan pendapat.</i> (Family members can share ideas and opinions)	.884
<i>Saya dan anggota keluarga dapat jujur satu sama lain.</i> (Family members are honest to one another)	.861
<i>Saya dan anggota keluarga mencoba memahami perasaan satu sama lain.</i> (Family members make efforts to understand one another’s feelings.)	.834
<i>Ketika marah, anggota keluarga jarang mengatakan hal negatif tentang anggota.</i> (When angry, family members rarely say negative things)	.805
<i>Saya dan anggota keluarga mengungkapkan perasaan yang sesungguhnya.</i> (Family members can express their true feelings to each other)	.877

No correlation was found between family communication quality and how long the average MLBB session was for the individual. Regardless of how much time a player spent in a day playing MLBB, the overall effect on family communication quality was negligible or non-existent.

In fact, the only variable that had any correlation with family communication quality was how often an individual played MLBB. There was a significant positive correlation between how often a player played MLBB and the communication quality within that player's family. This supports the findings of Durkins & Barber [1] that children who played computer games generally scored higher in family closeness tests in comparison to children who did not play games. This finding is also contrary to the many studies conducted in Indonesia on the topic of video games and childhood development such as Efendi [6] and Angela [5] who both claimed video games were harmful to a child's social development and created rifts between parent and child. It is a finding that is worth exploring further in subsequent research.

Table 4. Correlations between family communication quality and game play patterns variables [9]

	Family communication quality	How many months have you been played the Mobile Legends game?	How often do you play the Mobile Legends game?	How many hours do you spend playing the Mobile Legends game in one session?
Family communication quality	1	.108	.279**	-.077
How many months have you been played the Mobile Legends game?	.108	1	.410**	.107
How often do you play the Mobile Legends game?	.279**	.410**	1	.031
How many hours do you spend playing the Mobile Legends game in one session?	-.077	.107	.031	1

³ ** Correlation is significant at the 0.01 level (2-tailed).

4 Conclusion

Results of this study showed no correlation between the average duration of a game session for a MLBB player and the communication quality within said player's family.

Similarly, no correlation was found between how long an individual has been playing MLBB with family communication quality. There is nothing to suggest that playing MLBB has any long-term effects, either positive or negative, on family communication quality.

A significant positive correlation MLBB was found between family communication quality and how often an individual played MLBB. A previous study by Durkins & Barber [1] also

suggested a potential link between playing games and family closeness, and it is a subject worth looking into for future studies.

This study did not find any evidence that how long an individual has been a player of MLBB or the average duration of their game sessions have any effect on the individual's family communication quality.

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