KESANS: International Journal of Health and Science
e-ISSN: 2808-7178, p-ISSN: 2808-7380
Web: http://kesans.rifainstitute.com/index.php/kesans/index

The Description of Smartphone Addiction in Teenager 15-18 Years Old in Surabaya

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Article Information
Submitted: **31 January 2023**
Accepted: **04 February 2023**
Online Publish: **20 February 2023**

Abstract
Introduction: *The research was conducted by Aulia in 2019 observed that in their research sample 2.2% of teenagers showed a high risk of addiction and 9.3% moderate risk, while among teenagers, only 1% showed an increased risk of addiction and 6, 7% moderate risk.* ***Objective:*** *Therefore, this study aims to determine the description of smartphone addiction based on the components of smartphone usage, self-regulation, self-efficacy in teenagers aged 15-18 years in Surabaya city.* ***Method:*** *This research is a quantitative descriptive study with a cross-sectional approach.* ***Result and Discussion:*** *The results of this study indicate that addiction in teenagers aged 15-18 years which includes components of smartphone usage, self-regulation, and self-efficacy show that the results of smartphone usage in teenagers aged 15-18 years in Surabaya in a day 5-6 hours using a smartphone and 10-20 minutes they check their smartphone in a day. The results of the highest percentage of smartphone addiction obtained from the average respondents' answers on self-regulation indicators are 53.9% of teenagers do not experience addiction, because as many as 53.9% of teenagers have good self-regulation.* ***Conclusion:*** *The results of the highest percentage of smartphone addiction obtained from the average respondents' answers on self-efficacy indicators are 55.3% of teenagers do not experience addiction, because as many as 55.3% of teenagers have good self-efficacy.*
Keywords: Smartphone Addiction; Smartphone Usage; Self-Regulation; Self-Efficacy;

How to Cite **Alvina Basiro, Abdul Hakim Zakkiy F, Wiwik Afridah, Satriya Wijaya/The Description of Smarthpone Addiction in Teenager 15-18 Years Old in Surabaya, Vol. 2, No. 5, 2023**
DOI https://doi.org/10.54543/kesans.v2i5.136
e-ISSN/p-ISSN **2808-7178 / 2808-7380**
Published by **Rifa'Isntitute**

Introduction

Smartphone addiction is a maladaptive pattern or behavior (not according to environmental demands) that arises due to excessive smartphone use (Mau and Gabriela 2021). Kwon et.al. as for *withdrawing*, namely feeling impatient, upset, suffering/not being able to bear if you don't use a smartphone, constantly thinking about *smartphones* even though you are not using them, trying to continue using smartphones, feeling irritated when disturbed while using a *smartphone*. This is very dangerous and can make a person very addictive (Kwon et al. 2013).

In 2017 *smartphone* users reached 143.26 or around 54.7% of the total Indonesian population. The majority of internet users live on the island of Java (86.3 million users or 65% of the total Indonesian population). The majority of smartphone users are children and adolescents consisting of 79.5% of all *smartphone* users in Indonesia (Dhamayanti, Dwiwina, and Adawiyah 2019).

The results of the research study revealed that the level of adolescent internet addiction in Indonesia was 42.4% (Sari, Ilyas, and Ifdil 2017). The results of a preliminary study conducted on several state high school students in Surabaya on July 28, 2020 involving 20 students, obtained data that the *student's smartphone* addiction rate was 64% which is classified as a moderate addiction category, this if left unchecked will cause a person to become addicted (Rini and Huriah 2020).

The results of interviews with several students showed that there were still students who felt sad, anxious, upset and even angry when their smartphones ran out of battery or when they were confiscated by teachers. Confiscation by teachers due to use that is not in accordance with school rules and the use of chat application that often disrupts student concentration while classroom learning is underway (Azizah and Muslikah 2021).

Southeast Asian countries have identified that this smartphone addiction is a serious public health problem, which requires governments to seek urgent regulatory mechanisms to protect the population, especially young people, and the implementation of special care programs (Sari et al. n.d.)

The duration of smartphone use is related to how long a person is using a smartphone, and the duration of *smartphone* use is one aspect in measuring the intensity of *smartphone* use. This duration affects the self-control that the individual has. (Anon n.d.)

Based on the analysis of the literature that self-regulation mechanisms have an important role in smartphone addiction disorders, self-regulation which means a person's ability to regulate and control behavior can be a bulwark for a person to be able to use *the smartphone* properly and controlled (Deursen et al. 2015). Adolescents in this modern era do not understand what *self-regulation* is, so adolescents must be able to manage their own achievements and actions (Deursen et al. 2015).

This can certainly be a big problem when many teenagers are unable to regulate themselves in order to follow the rules in society. Adolescence is described as a time of emotional turmoil, because it often experiences excessive stress on certain events, has an

unstable attitude. This factor occurs due to age, hormones, environment, and mind so it needs proper treatment (Sugiarta Purba and Eko Yulianto 2019).

Number of studies state that there is a moderate level of positive influence on self-efficacy with *smartphone* addiction (Go et al. 2016). Strong emotions will usually reduce performance, when a person experiences acute fear and anxiety and high levels of stress, is likely to experience low self-efficacy, adolescence is a transition period for self-discovery, therefore adolescents have a high emotional level. Low self-efficacy is associated with symptoms of anxiety, stress or depression (Swastiratu and Izzaty 2021)

From all the descriptions above, the author wants to know the picture of smartphone addiction to teenagers aged 15-18 years in Surabaya. From a literature search, this research has never been conducted before in Surabaya, East Java, Indonesia.

Method

This type of research is quantitative descriptive research with *a correctional* approach. The population in this study was all adolescents aged 15-18 years who were willing to fill out the questionnaire. The size of the sample obtained was 250 which was taken using the *snowball sampling* technique in this study. Calculated using the slovin formula with a final total calculation of 154 respondents.

The type of data used is primary data, primary data obtained through filling out a questionnaire that has been developed by A.J.A.M Van Deursen (Deursen et al. 2015).

Results and Discussion

Results

Smartphone use in teenagers aged 15-18 years in Surabaya

The following is a table of the distribution of the frequency of smartphone use in adolescents aged 15-18 years in Surabaya.

Table 1

Distribution of Smartphone Frequency of use in Adolescents aged 15-18 years in Surabaya

No	Item		Frequency	Percentage
1	Check *smartphone* in a day	Once every 50> minutes	22	13,4%
		Once every 30-40 minutes	23	14%
		Once every 20-30 minutes	35	22%
		Once every 10-20 minutes	59	36%
		Once every 10 minutes	24	14,6%
2	Using *a smartphone* in a day	< 1 hour	4	2,4%
		1-2 hour	20	12,2%
		3-4 hour	42	25,6%
		5-6 hour	70	42,7%
		6 > hour	28	17,1%

Based on Table 1, the results of the study for the two question items that have the highest percentage of the first question, namely in the fourth item, were 59 teenagers in the city who often checked *smartphones* reaching 36% with a frequent rate of 10-20 once in 1 day.

While in the second question item as many as 70 teenagers with a duration of use of 5-6 hours with a percentage reaching 43.7% in 1 day.

Self-regulation in adolescents

Here is a table of self-regulation frequency in adolescents.

Table 2

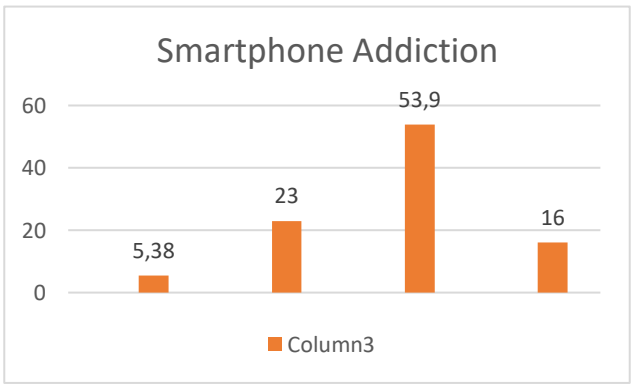
Self-regulation in adolescents aged 15-18 years in Surabaya

No.	Item		Frequency	Percentage
1	Can concentrate for a long time	Completely Wrong	9	5,5%
		Wrong	32	19,5%
		True	92	56,1%
		Completely True	31	18,9%
2.	If distracted can return to the previous stub quickly	Completely Wrong	11	6,7%
		Wrong	36	22%
		True	92	56,1%
		Completely True	25	15,2%
3.	Can calm down when there are many thoughts	Completely Wrong	7	4,3%
		Wrong	36	22%
		True	93	56,1%
		Completely Wrong	28	15,2%
4.	Can be oriented to a problem and can control feelings	Completely Wrong	11	6,7%
		Wrong	44	26,8%
		True	87	53%
		Completely True	22	13,4%
5.	Focus on the goal and not let anything distract me	Completely Wrong	6	3,7%
		Wrong	50	30,5%
		True	79	48,2%
		Completely True	29	17,7%

It can be concluded that some teenagers aged 15-18 years in Surabaya have good self-regulation, as teenagers are able to concentrate on one activity for a long time as needed, if my activities are interrupted can return to the previous topic, can calm down so that they can immediately resume activities, can control feelings if there is a problem, and can stay focused on the goal and not let anything distract me to my plan of action.

Table 3

Smartphone addiction based on self-efficacy in adolescents



Description

Addiction	: 5,38
Medium Addiction	: 23
No Addiction	: 53,9
Very Unaddicted	: 16

It can be informed that the results of the percentage of addiction are obtained from the average answer to the self-regulation questionnaire filled out by the respondent. The highest percentage gain on the smartphone addiction rate is not addiction.

Self-efficacy in adolescents

The following is a table of the frequency of self-efficacy in adolescents.

Table 4

Self-efficacy in adolescents aged 15-18 years in Surabaya

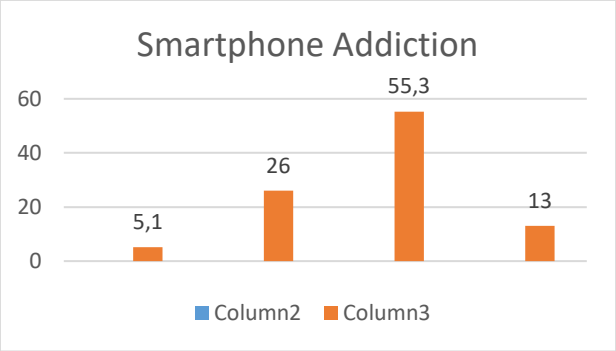
No	Item		Frequency	Percentage
1.	Can find a way if someone defies what I want	Completely Wrong	11	6,7 %
		Wrong	50	30,5%
		True	83	50,6%
		Completely True	20	12,2%
2.	Stay on my goal until it is achieved	Completely Wrong	11	6,7%
		Wrong	49	29,9%
		True	80	48,8%
		Completely True	24	14,6%
3.	Can handle unexpected events easily efficiently	Completely Wrong	9	5,5%
		Wrong	40	24,4%
		True	91	55,5%
		Completely True	24	14,6%
4.	Can handle unforeseen situations	Completely Wrong	7	4,3%
		Wrong	43	26,2%
		True	94	57,3%
		Completely Wrong	20	12,2%
5.	Investing my efforts into solving a problem	Completely Wrong	7	4,3%
		Wrong	38	23,2%
		True	96	58,5%
		Completely True	23	14%
6.	Stay calm when facing adversity by relying on my abilities	Completely wrong	10	6,1%
		Wrong	40	24,4%
		True	95	57,9%
		Completely True	19	11,6%
7.	Can find solutions in difficult situations	Completely Wrong	4	2,4%
		Wrong	40	24,4%
		True	97	59,1%
		It's as true as it is	23	14%

It can be concluded from all respondents' answers that the efficacy of adolescents in Surabaya has a good level of effort and resistance as well as good skills and trust. As teenagers are able to get what they want, it is easy to stay on goal until it is achieved, can handle unexpected events efficiently, can know how to handle unexpected situations, can

solve problems if they invest the necessary efforts, can remain calm when facing difficulties by relying on their abilities, and if they get the ability to easily think of solutions.

Table 5

Smartphone addiction based on self-efficacy in adolescents



Description

Addiction	: 5,1
Medium Addiction	: 26
No Addiction	: 55,3
Very Unaddicted	: 13

It was informed that the results of the percentage of addiction were obtained from the average answer to the self-efficacy questionnaire filled out by the respondents. The highest percentage gain on the level of *smartphone* addiction is not addiction

Discussion

***Smartphone* addiction based on self-regulation in some teenagers aged 15-18 years in Surabaya**

The measurement of self-regulation in adolescents in the city of Surabaya in this study uses five question items to determine the ability of individuals to regulate themselves by regulating behavior, creating behavioral standards for themselves, giving consequences for their own behavior which is calculated on a likert scale that brarti point 1 is completely wrong, point 2 is wrong, point 3 is right, and point 4 is entirely correct.

It can be concluded that some adolescents aged 15-18 years in Surabaya have good self-regulation, in a study explained that good self-regulation is like teenagers are able to regulate their own achievements and actions. Define targets for them, evaluate their success when achieving those targets and reward themselves for achieving those goals (Deursen et al. 2015).

The highest percentage result in *smartphone* addiction obtained from the average respondent's answer to the self-regulation indicator was that 53.9% of adolescents did not experience addiction, because as many as 53.9% of adolescents had good self-regulation. Teenagers who have good self-regulation can control their smartphone usage. The lowest percentage result in smartphone addiction of 5.3% experienced *smartphone* addiction.

This is in line with previous research states that adolescents who have good self-regulation can achieve the expected goals, in achieving a goal that is expected one needs to know good physical, cognitive, social abilities, emotional control (Azizah and Muslikah 2021).

A person's success in doing something depends largely on one's self-regulation (Sugiarta Purba and Eko Yulianto 2019). Teenagers who use *smartphones* with high intensity also have high self-regulation as well. Self-regulation skills have proven to be a bulwark for teenagers in the face of the rapid flow of digitalization in this modern era (Azizah and Muslikah 2021).

Smartphone addiction is based on self-efficacy in some teenagers aged 15-18 years in Surabaya

The measurement of efication denvy in adolescents in the city of Surabaya in this study adapts to previous research, there are two factors how to measure self-efficacy, namely "effort & resistance" "skills & confidence" that responden can master the situation and get positive results with 7 question items calculated on a likert scale which brarti point 1 is completely wrong, point 2 is false, point 3 is correct, and point 4 is completely correct (Deursen et al. 2015).

It can be concluded from all respondents' answers that the efficacy of adolescents in Surabaya has a good level of effort and resistance as well as good skills and trust. The highest percentage result in *smartphone* addiction obtained from the average respondent's answer on the self-efficacy indicator was that 55.3% of adolescents did not experience addiction, because as many as 55.3% of adolescents had good self-efficacy. Teenagers who have good self-efficacy can use *smartphones* according to their needs. The lowest percentage result in smartphone addiction of 5.1% experienced *smartphone* addiction.

This is in line with previous research that explained that adolescents have good self-confidence in being able to use new information technology according to their needs. Self-efficacy describes the beliefs of individuals in their capacity to exercise control over challenging demands and over their own functions. Belief in self-efficacy also affects cognition, affect, and behavior and can also help deal with stressful circumstances (Firdaus and Dewi 2021).

Conclusion

The use of *smartphones* in some teenagers aged 15-18 years in Surabaya. In get results. That in a day they use a smartphone 5-6 hours and 10-20 minutes they check the *smartphone*. Self-regulation in adolescents aged 15-18 years in the city of Surabaya as a whole is good, with the ability of adolescents to concentrate for a long time if needed, can refocus on the topics discussed before, can calm down so that they can continue their next activities, can control feelings, and can continue to focus on the goals to be achieved. The highest percentage result in *smartphone* addiction obtained from the average respondent's answer to the self-regulation indicator was that 53.9% of adolescents did not experience addiction, because as many as 53.9% of adolescents had good self-regulation.

Self-efficacy in adolescents aged 15-18 years in the city of Surabaya as a whole adolescents have good self-efficacy, that adolescents have good effort and resistance, as well as good skills and trust. The highest percentage result in *smartphone* addiction obtained from the average respondent's answer on the self-efficacy indicator was that 55.3% of adolescents did not experience addiction, because as many as 55.3% of adolescents had good self-efficacy.

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