Implementation of Information Services Through Self Control Strategies in Overcoming Smartphone Addiction in Students

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A R T I C L E I N F O	**A B S T R A K**

Penggunaan smartphone dapat menimbulkan perilaku smartphone addiction. Smartphone addiction dapat terjadi jika seseorang secara terus-menerus dan berlebihan dalam menggunakannya yang akan berdampak negatif bagi dirinya. Oleh karena itu, penelitian ini memiliki tujuan untuk menganalisis apakah penerapan layanan informasi melalui strategi self control dapat mengatasi kecanduan smartphone pada siswa. Metode kuantitatif dan pendekatan eksperimen yang dikenal dengan eksperimen semu (Quasy Experiments) digunakan dalam jenis penelitian ini. Rancangan yang digunakan adalah pretest-posttest control group design, pada rancangan ini kelompok eksperimen mendapat perlakuan, sedangkan kelompok kontrol tidak mendapat perlakuan. Sampel yang diambil sebanyak 34 siswa yang dibagi dua kelompok. kelompok eksperimen berjumlah 17 siswa dan kelompok kontrol 15 siswa. Pengumpulan data diambil melalui kuesioner terstruktur yang diberikan kepada siswa untuk mengukur tingkat kecanduan smartphone. Data dianalisis menggunakan statistic inferensial. Dari hasil yang diperoleh ditemukan perbedaan antara kedua kelompok. Terjadi penurunan smartphone addiction pada kelompok eksperimen sedangkan kelompok kontrol mengalami peningkatan smartphone addiction Artinya penerapan layanan informasi melalui strategi pengendalian diri ini memiliki pengaruh terhadap kecanduan smartphone pada siswa.

A B S T R A C T

Smartphone use can lead to smartphone addiction behavior. Smartphone addiction can occur if a person continuously and excessively uses it, which will harm him. Therefore, this study aims to analyze whether applying information services through self-control strategies can overcome smartphone addiction in students. Quantitative methods and experimental approaches, known as quasi-experiments, are used in this type of research. The design used was the pretest-posttest control group design; in this design, the experimental group received treatment, while the control group received no treatment. The samples taken were 34 students who were divided into two groups. The experimental group consisted of 17 students, and the control group consisted of 15 students. Data was collected through a structured questionnaire given to students to measure smartphone addiction. Data were analyzed using inferential statistics. The results obtained found differences between the two groups. There was a decrease in smartphone addiction in the experimental group, while the control group experienced an increase in smartphone addiction. This means that applying information services through this self-control strategy influences smartphone addiction in students.

1. INTRODUCTION

Smartphones are currently the most widely used type of information technology development. Many benefits and conveniences generated by this technological advancement. Smartphones can also provide information needed by users by utilizing the internet (Anshari et al., 2017; Mulyana & Afriani, 2017). Smartphones allow users to always communicate with other people without any time limit, can be used anytime and anywhere (Alfawareh & Jusoh, 2014; Cohn, 2016; Ghofur, 2022). One of the features of this smartphone is its ability to facilitate online activities such as chatting, browsing, playing games, and accessing various social media platforms such as Telegram, Instagram, Facebook, and WhatsApp. Smartphones have more advanced features compared to ordinary cell phones. Smartphones have been

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integrated into the daily life of a large number of people, who use them for online communication, study, entertainment and other activities, considering them as an indispensable necessity (Ding et al., 2022; Khairudin et al., 2019; Synnott, 2018). Smartphones in education are used as learning facilities that can easily access the internet from various places, times and conditions (Faridah & Oknalia, 2020; Sukmana & Suartama, 2019). Parents believe that the use of smartphones has a good impact on children (Palar et al., 2018).

The population of people in Indonesia who access the internet only through smartphones, mostly come from the young age group. The age range for this group is 15-17 years only, with 80% accessingthe internet is only via a smartphone, the rest is via a desktop or a combination of the two. While 75% aged 18-24 years and 79% aged 25-34 also have a habit ofthe same (Sukotjo, 2014). Where, teenagers are the type of person who is easily influenced by the surrounding environment, especially peers. Although most people use smartphones for communication, work or business matters, looking for information, or just looking for entertainment (Chusna, 2017). In addition to the many conveniences that are obtained, the use of smartphones also has several problems and disadvantages including, excessive use of smartphones can lead to smartphone addiction (Ithnain et al., 2018; Kibona & Mgaya, 2015). The excessive use of smartphones among teenagers presents a risky feature for the teenagers themselves, one of which wants to live instantly. This is because adolescents are in an unstable condition, more emotional and have urges to do something that is considered fun (Cocorad et al., 2018; Sun et al., 2019). Positive interactions with peers, the social environment, and active learning are especially important for early childhood and youth. Therefore, during childhood and adolescence, parents and educators play a role in the development and maintenance of children's behavior (Mayora, 2020).

Smartphone addiction is considered a form of technology addiction (Lin et al., 2014). Smartphone addiction is a behavior that is categorized as dangerous, because you can experience a loss of self-control due to excessive use of a smartphone (Bukhori et al., 2019; Cha & Seo, 2018). If smartphone use is used excessively, it can make a person depressed, anxious, and interfere with sleep quality. In addition, it can interfere with psychological, physical pain, especially in the hands and neck. Smartphone addiction is a significant public health problem with a significant impact on the mental status and behavior of its users. Physically, excessive smartphone use is associated with a higher risk of muscle aches, joint pain, headaches, blurred vision and hearing loss (Cocorad et al., 2018; Soni et al., 2017). Smartphone addictionis a maladaptive pattern or behavior (not according to environmental demands) that arises due to excessive smartphone use (Mau & Gabriela, 2021; Mulyati & Frieda, 2019). Generally, adolescents have a higher risk of smartphone addiction compared to adults, as they are more susceptible to accept new technologies than older generation groups (Kwon et al., 2013). This of course can affect the social skills of adolescents.

Generally, teenagers use social media to communicate with other people through their smartphones. rather than interacting in the real world (Ding et al., 2022; Ithnain et al., 2018). They find it difficult to interact face to face because when through social media, they have the ability to express themselves, they are worried about facing the question of whether other people can accept them or not. This can affect the restoration of social order in adolescents. The term, smartphone addiction can be considered as an addiction from technology that affects the daily life of its users. Senior high school students consist of students who experience changes from childhood to adulthood or the adolescent phase, marked by biological changes, thoughts and feelings. While the physical consequences of the overuse of smartphones can be easily diagnosed and managed, mental health issues are statistically significant concerns with smartphones overuse. Withdrawal, preoccupation, tolerance, lack of control, mood modification, conflict, lies, excessive use and loss of interest are reported among students with smartphone addiction. Depression and low self-esteem can be devastating complications of smartphone addiction, especially among youth groups (Mohamed & Mostafa, 2020).

The psychological change of adolescents is a period where they have negative attitudes, namely emotional tension from the impact of smartphone use which can be seen from student behavior. Apart from all that, gadgets also have positive and negative impacts for anyone who wears them. Even more so for children who have started using gadgets in every activity (Gabriela, 2021). However, currently, less than 30% of adolescents have <6 hours/night of sleep. Lack of sleep will result in poor sleep quality. Sleep quality indicates an individual's ability to sleep and get the amount of rest according to their needs. Physiological impacts that arise as a result of poor sleep quality include decreased daily activities, fatigue, poor neuromuscular conditions, slower healing processes, decreased immune system, and unstable vital signs. Disturbances experienced due to poor sleep quality can affect daily activities (Rupi, 2019). With the help of BK teachers, the use of smartphones in schools must be minimized. BK teachers carry out several tasks, one of which is to provide optimal service for staff and students at school (Utaminingsih & Maharani, 2017). The importance of counseling teachers has been tested by various studies, especially in

dealing with the problem of smartphone addiction, such as counseling teachers being able to increase motivation to learn through group guidance. This service can be used to look for negative impacts that already exist and provide efforts as a way to minimize smartphone addiction.

Smartphone addiction also makes it difficult for individuals to control time when they use it excessively, resulting in social disruption and withdrawal from the surrounding environment (Putri, 2019). The higher the amount of time spent on the internet, the lower the level of self-control. Social media is one of the most widely used internet access by teenagers (Pramana, 2018). Many deviations occur due to lack of self-control such as crime and delinquency (Al-Huda et al., 2022; Boman et al., 2019). High self-control is needed to ensure that diversity in individual behavior does not occur that they will be directed and disciplined (Adlya et al., 2020). One of the most effective approaches used by BK teachers to address student problems is the self-control approach. Self control is the belief that someone can exert effort and use effective means to achieve a goal, and avoid unwanted goals or results. In addition, self-control can be understood as an effective method of obtaining the desired result. Self control is also considered as an action that is effectively used in order to achieve a desired goal.Self-control can be used as a process of achieving personal autonomy (Isnaini & Taufik, 2016; Permana, 2021).Therefore, the urgency of this research is that information services through this self-control strategy are very much needed, especially for students who we all know that in this day and age many are addicted to smartphones. And it is hoped that through this service it will be an effort to prevent smartphone addiction for students.

From the existence of information services in guidance and counseling it is useful to provide various information and explanations to clients about a matter. Information services exist to meet the need for information needed by individuals who need information (Fitriani & Azhar, 2019; R. A. Putri et al., 2021). Information obtained from these services is used as a guide to improve activities, learning abilities, and shape the character of everyday life, including social behavior. Material that can be raised from information services is about self-development, teaching and learning process/curriculum, education, family life, social society, culture and environment (Mukhlishah, 2012; Tanjung et al., 2018). Information services also play an important role in equipping students with various things that are useful for planning, knowing themselves and developing patterns of life as students, family members, and society (Putri et al., 2021; Tanjung et al., 2018).

Indeed, research on smartphone addiction in students has become an important concern for researchers, especially previous researchers who discussed the effectiveness of information services in overcoming smartphone addiction in students (Putra & Daulay, 2022). The sound of incoming messages or just being around smartphones can interfere with students' ability to stay focused on lectures or homework assignments, smartphones also not only have an impact on students but also on College students (O'Donnell & Epstein, 2019). Therefore, we need an effective way to overcome this. Here the researcher tries to implement a self-control strategy through information services as an alternative in overcoming smartphone addiction. It is hoped that this strategy will be able to reduce the level of smartphone addiction among students. This is the novelty of this research.The method aspect is seen from the determination of the population and sample and the strategy, namely in the form of self control as the ability to organize, guide, organize and direct forms of behavior that can lead to in a positive direction. Based on the description of the problem and the literature review above, adolescents are proven to be very vulnerable to the negative effects of smartphone use. Here the researcher aims to find out the efforts to prevent smartphone addiction in students and whether there is a significant influence from the application of this information service through self-control strategies in an effective effort to overcome smartphone addiction in students and how important this information service is used both in this study and in future research.

2. METHOD

The method in this study uses a quantitative approach with an experimental design. This type of research is quasi-experimental research (Quasy Experiment). This type of quasi-experimental research design consists of several designs, one of which is pre-test post-test with Non-Equivalent Control Group Design (Creswell & Creswell, 2017). This type of design requires two sample groups, namely the experimental group which is given treatment and the control group which is not given treatment. According to this design, the influence of an action on the dependent variable was tested by comparing the condition of the dependent variable in the experimental class after treatment with the control class without treatment (Sugiyono, 2017).

The participants in this study were class XII students of SMK Negeri 1 Percut Sei Tuan. The respondents of this study were students who had a tendency towards smartphone addiction and low self-

control. This condition is known from the results of a research survey of students using the smartphone addiction scale. So the researchers chose a purposive sampling technique as a measuring tool for sampling. The purposive sampling technique is a sampling technique by considering certain things (Sugiyono, 2015). There are reasons why purposive sampling is appropriate for use in quantitative research that does not generalize (Sugiyono, 2016). Respondents were taken from students who experienced high smartphone addiction tendencies. The sample was selected by purposive sampling technique as many as 34 students. There are two groups in this research sample: the experimental group and the control group. In the experimental group, there were 17 students, while in the control group, there were 15 students. Although the experimental group underwent treatment, the control group did not.

To facilitate data collection or ensure that the work produced is more thorough, thorough and systematic, researchers use a Likert scale. The scale is expected to save time in collecting the required data in a relatively short time. Each respondent was asked the same questions, which made managing and analyzing survey data easier for the researcher. The instrument used in collecting data in this study was to test the level of smartphone addiction and self-control in smartphone use. To find out the level of smartphone addiction, a smartphone addiction measurement tool was used in the form of a structured questionnaire. The Likert scale which is based on positive statements (favourable) and negative statements (unfavourable) serves as a measuring tool. The number of statements in the questionnaire is 20 items. (SSS) Very suitable, (SS) Very suitable, (S) suitable, (TS) not suitable, (STS) very inappropriate, and (STSS) very inappropriate are the answer choices given for each statement. From 1 to 6, a score is assigned to each statement. This is what made me choose to use this 6-point scale, because the more scales given, the higher the validity and reliability. The test instrument that contains questions must be answered correctly by students with the smartphone addiction instrument grid in Table 1.

Table 1. Smartphone use Grid

Indicator	Sub Indicators	Items
Feeling dependent on something so that you forget the main tasks and obligations	1. Checking Smartphones all the time	14, 11, 12
	2. Ignoring main work as a student	1
	3. Doing activities while using	2, 3, 15, 16
	4. Comfortable using a smartphone	4, 6, 7, 8, 9, 17
Smartphone usage frequency	5. Time to use a smartphone	8, 20
	6. Activities using a smartphone	19
Take advantage of smartphone functions	7. Smartphones on student learning processes	10, 13

The data that has been collected is analyzed using statistical technology. Data analysis was performed witha computer program. Tests are carried out by Normality Test, Homogeneity, Paired Sample t Test, Independent t Test, and Group Statistics. In this case the data processing techniques using Microsoft MS software. Excel and SPSS version 23.

3. RESULT AND DISCUSSION

Result

Researchers looked at the smartphone addiction score after the pre-test and post-test. Table 1. displays the results of the analysis performed with the normality test by Shapiro Wilk. Normality Test Results showed in Table 2. The basis for decision making states that data can be considered normal if it has a significance value of >0.05. The homogeneity test results are presented in the Table 3. The table shows that the significance value (sig) is based on an average value of 0.357>0.05, which indicates that the variance of the post-test data from the experimental group and the control group results are the same or homogeneous. As a result, the minimum requirements for an independent sample t test have been met.If p>0.05, the research conclusion is considered significant. The table of differences in test scores are presented in the Table 4.

Table 2. Normality Test Results

		Tests of Normality					
	Kelas	**Kolmogorov-Smirnov**			**Shapiro-Wilk**		
		Statistic	Df	Sig.	Statistic	df	Sig.
Hasil	PreEkS	0.174	17	0.180	0.916	17	0.124
	PostEKS	0.141	17	0.200	0.941	17	0.331

PreKNTRL	0.170	15	0.200	0.913	15	0.149
PostKNTRL	0.158	15	0.200	0.919	15	0.188

Table 3. Homogeneity Test Results

		Levene Statistic	df1	df2	Sig.
Hasil	Based on Mean	0.876	1	30	0.357
	Based on Median	0.341	1	30	0.563
	Based on Median and with adjusted df	0.341	1	26.850	0.564
	Based on trimmed mean	0.882	1	30	0.355

Tabel 4. Results of Paired Sample Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	PreEKS	65.88	17	8.565	2.077
	PostEKS	77.53	17	8.973	2.176
Pair 2	PreKNTRL	65.20	15	12.019	3.103
	PostKNTRL	67.33	15	10.479	2.706

Based on the average value of the results of the study, there was an increase of 11.65 with a total of N 17 in the pre-test experimental group (65.88) and post-test (77.53). Based on the comparison of the results of the pre- and post-tests of the experimental group receiving smartphone addiction treatment through information services and self-control strategies, that the self-control of the experimental group students experienced changes after receiving treatment in the form of services. The output data provides evidence of information, namely from the results of the output group statistics, it can be seen that the mean value of the post-test in the experimental group is 77.53, while in the control group it is 67.33 which is lower than the rmean value of the experimental group, which is given a treatment in the form of information services through strategy. self-control. Meanwhile, an increase of 2.13 with the number of N 15 was seen in the control pre-test (65.20) and post-test (67.33). Hypothesis test data results (t test) showed in Table 5.

Tabel 5. Hypothesis Test Data Results (t test)

		Paired Differences							
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference		t	df	Sig. (2-tailed)
					Lower	Upper			
Pair 1	PreEKS – PostEKS	-11.647	2.499	0.606	-12.932	-10.362	-19.220	16	0.000
Pair 2	PreKNTRL - PostKNTRL	-2.133	3.314	0.856	-3.968	-.298	-2.493	14	0.026

Based on Table 5, if the sig (2-tailed) value is 0.000<0.05. Because the t-test value P<0.05 is (0000<0.05), the findings show that the use of information services through self-control strategies in overcoming student smartphone addiction has a significant effect, so that Ho is rejected, while Ha is accepted. The following table displays the results of the independent sample t test. the results of the independent sample t test showed in Table 6.

The sig (2-tailed) value of 0.006<0.05 is obtained from the results of the Table 6. This indicates that there are differences in the experimental group and the control group with the application of information services through self-control strategies to overcome smartphone addiction. These results show that the mean value in the post-test of the experimental group was 77.53, while the mean value in the post-test of the control group was 67.33, which means it is lower than the mean value of the experimental post-test that received information services through strategies self-control.

Tabel 6. Independent Sample t Test Results

	F	Sig.	t	Df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference

									Lower	Upper
Hasil	Equal variances assumed	0.876	0.357	2.966	30	0.006	10.196	3.438	3.175	17.217
	Equal variances not assumed			2.936	27.795	0.007	10.196	3.472	3.081	17.311

Discussion

In this day and age, technological progress is happening very fast. One example is the use of a smartphone is unavoidable in its use in everyday life, especially in adolescents (Cha & Seo, 2018; Gufran & Mataya, 2020; Sari et al., 2020). Therefore, to achieve self-maturity, adolescents must have the ability to self-control their behavior so that it is in accordance with established standards. When using a smartphone, many students have low self-control, do not have the initiative to access information in using a smartphone so that it affects their decision making in using a smartphone which of course will have an impact on excessive behavior in using a smartphone or known as smartphone addiction. The role of self-control in anticipating smartphone addiction among individuals is important (Finne et al., 2019; Mulyati & Frieda, 2019). In general, self-control can help individuals to avoid distractions, or to focus on long-term goals (Finne et al., 2019). The majority of adolescents can learn to control their behavior and avoid deviant behavior. Self-control is defined as the ability to manage one's behavior in a way that is in accordance with predetermined values and norms (Andriani et al., 2019; Mustikarini & Puspasari, 2021). High self-control has been shown to be an indispensable protective factor against smartphone addiction in adolescents. However, in the face of stimulation and temptation from cyberspace, teenagers who have low self-control are very vulnerable to internet addiction (Umri et al., 2020; Yang et al., 2019). From the application of information services to students, it indirectly becomes an alternative problem solving to find out how students control themselves in using smartphones.Therefore this study aims to apply the services of counseling guidance, namely useful information services to help people who need to find out where the problem is and why the problem exists.

Information service is a counseling service that helps provide knowledge to individuals who are interested in various topics aimed at providing the desired understanding and goals (Amelia et al., 2017; Molly et al., 2017; Wardani & Trisnani, 2019). Information services are efforts to equip students with knowledge and understanding of students about their living environment and about the process of adolescent development. Information services aim to enable individuals or students to know and master information which is then used for their daily needs and for their own development (Aristiani, 2016; Ashari et al., 2021). These materials will then be used to support the implementation of other guidance and counseling functions. This information service activity is carried out by guidance and counseling teachers, all providing information related to information that raises enthusiasm or announces something to improve the quality and skills of students at school (Karwono et al., 2019; Wardani & Trisnani, 2019).Therefore, it is time for counseling teachers to utilize information services to educate students' personalities, especially steps to prevent smartphone addiction (Karwono et al., 2019; Sanjaya, 2017). Information services have a direction and purpose, namely to master understanding by students (clients) for further use as daily necessities in the framework of effective life and development. If someone has a problem, understanding the information can help them solve it, prevent problems from occurring, and develop and maintain their potential.Furthermore, it can be concluded that information services are an activity or effort to equip students with various kinds of knowledge so that they are able to make the right decisions in their lives (Almadani, 2023). It is hoped that the participants will benefit from this service by learning about the importance of appropriate decision-making techniques and skills (Almadani, 2023; Fitriani & Azhar, 2019).

The implication of this research is that this information service is really needed because it really helps counseling teachers through self-control strategies to overcome smartphone addiction in students. The role of self-control is very important to overcome smartphone addiction, especially in today's youth so that they don't use smartphones too much so that it has a negative impact on them. This research can be used as reference material, especially for counseling teachers in schools to overcome smartphone addiction in students. The limitation of this research is that currently it is only being conducted on a few students at SMK Negeri 1 Percut Sei Tuan, so a larger sample is needed to be able to compare the results of implementing information services through self-control strategies for smartphone addiction. As for suggestions for further research, it is expected to conduct research on adolescents with a wider age range in order to be able to determine the level of self-control ability at all adolescent ages and it is still very

necessary to develop information services through this self-control through a larger population and sample so that students very helpful, including guidance counselors who are able to minimize smartphone addiction in students at school and can be used in a wider environment.

4. CONCLUSION

Based on the results of the research that has been done, it can be concluded that there is a significant influence from the application of information services through self-control strategies with smartphone addiction in students. The higher the individual's self-control, the lower the individual's smartphone addiction, and vice versa, the lower the individual's self-control, the higher the individual's smartphone addiction. Judging from these results there is a difference between the control group and the experimental group which were not given treatment in the form of information services about self-control strategies, so it can be seen that information services about self-control strategies are important for overcoming smartphone addiction in students, providing influence and increasing students' self-control abilities. of smartphone addiction.

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