

# Implementation of Group Counseling Self-Management Techniques to Reduce Student Gadget Addiction

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## Abstract

Gadget addiction as a behavior of attachment or dependence on smartphones may become a social problem such as withdrawal, and difficulties in performing daily activities or as a disorder of impulse control against oneself. The purpose of this study was to determine the effectiveness of self-management technique group counseling to reduce students' gadget addiction. The type of research used is an experiment using the one group pretest posttest design model. Subject determination by purposive sampling. The subjects of this study were students of class VIII-C at Muhammadiyah 2 Kalasan Middle School, namely 5 students. Data collected in quantitative form (numbers) were then analyzed statistically using the t-test. The research findings obtained facts about the coefficient t-count = 6.946 then compared with t-table at a significance level of 5% for  $dk = n-1 = 5-1 = 4$  is 2.131. This shows that t count is greater than t table, namely  $6.946 > 2.131$ . The conclusion of the results of this study is that self-management technique group counseling services is effective for reducing gadget addiction for class VIII-C students of Muhammadiyah 2 Kalasan Middle School.

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## 1. Introduction

One example of information technology is a smartphone or gadget which is a mobile phone that has high capabilities and functions and can access all applications like a laptop computer and has advanced features such as the internet, e-books, electronic mail and so on. Indonesia is a country with a high category of smartphone users, TNS Infratest Germany data notes that 3.9% use tablets and 43.3% of Indonesia's population use smartphones (Huda, 2020). Ministry of Communication and Informatics in 2015 mobile phone users in Indonesia around 270 million gadgets are used by the Indonesian population which has exceeded Indonesia's population of only around 250 million people (Mawitjere et al, 2017). It is predicted that there will be 65.2 million users in 2016, then it is estimated that there will be 74.9 million users in 2017 until gadget users in Indonesia reach 92 million people in 2019 (Pandey et al, 2019). According to the results of an interview with the guidance and counseling teacher at Muhammadiyah 2 Kalasan Middle School, at Muhammadiyah 2 Kalasan Middle School there are still students who are addicted to gadgets. This is indicated by the fact that since online school, students often play gadgets with the intensity of using them more for playing games and social media than for studying. When hanging out with friends, students tend to use their own gadgets to play games or social media.

However, excessive and continuous use of smartphones or gadgets can have negative impacts, one of which can change children's behavior to become individualism and anti-social. In fact, gadget addiction has many dangerous impacts on students. Psychologically, excessive gadgets have a major impact on mental health (Annisa et al., 2024; Muduli, 2014). Some mental health disorders experienced by students from gadget addiction are anxiety, insomnia, depression, and social phobia (Kumar & Kumari, 2024). In addition, there are also many cases of suicide due to gadget addiction (Jose, 2023). Students who are addicted to gadgets also have problems in terms of tolerance, withdrawal, and conflict (Jameel et al., 2019). Cognitively, it is also very dangerous, namely the continuous use of gadgets can reduce cognitive function in students (Liza et al., 2023). Gadget addiction also decreases student achievement and has a negative effect on physical and psychological health (Fadli et al., 2021; Mabaroh & Sugianti, 2023). Physically and psychologically, gadget addiction

can cause depression, anxiety, stress, and sleep disorders (Surat et al., 2021). Children with severe gadget addiction are at risk of experiencing sleep disorders 12 times more than children who do not experience sleep disorders (Niro et al., 2020). Gadget addiction can also cause emotional instability, social isolation, and decreased academic achievement in students (Jannah et al., 2023). If gadget addiction has occurred, the long-term impact can result in physical or mental fatigue, headaches, aggressive behavior, and other destructive behaviors (Kryuchkova & Ignatova, 2023). More completely, from gadget addiction, students can experience headaches, back pain, visual impairment, neck pain, obesity, impaired cognitive development, sleep disorders, loneliness, irritability, and stress (Vuriyanti et al., 2024).

Gadget addiction is influenced by various factors. The habit of using gadgets continues to develop into gadget addiction, which is a factor of lifestyle change, where the development of the era requires students to actively use gadgets (Muduli, 2014). This lifestyle change is not supported by ideal parental supervision (Razak et al., 2021). In addition to parenting patterns, gadget addiction can also be caused by neuroscience development factors, gadget technology designs that trigger dependence, and the influence of the surrounding environment (Adriani et al., 2024). Various factors that influence gadget addiction in general can be identified due to internal, external, situational, social, and demographic factors (Haruna et al., 2023). This internal factor is closely related to the difficulty of controlling oneself when using gadgets and anxiety when not using gadgets (Fatimah, 2023).

One of the factors that influences gadget addiction is the difficulty of controlling the desire to use gadgets, so that the use of gadgets becomes a desire rather than a need, which means it triggers addiction. The appropriate treatment for dealing with gadget addiction is the cognitive behavioral approach (Fatimah, 2023). One of the techniques in cognitive behavior that can be applied is self-management. Initially, self-management was known as a technique in the behavioral approach. However, because the application of self-management techniques involves the mind, it is then also known in the cognitive behavioral approach. Behavioral counseling is behavior completely determined by rules, controllable and predictable (Farozin & Kartika, 2004). Behavior counseling focuses on human behavior, emphasizing that human behavior can be determined by rules and can be determined by will.

Self-management can be applied in group counseling. Self-management in group counseling can have a good effect in shaping or developing adolescent behavior (Rahmuyalni et al., 2020; Novita & Neviyarni, 2021; Jeeti & Suwarjo, 2022; Anggraini & Daulay, 2023; Damayanti & Istati, 2024). Several studies have been conducted regarding the efficacy of self-management techniques. Self-management in group counseling can increase moral intelligence (Barida & Prasetiawan, 2018; Barida et al., 2019). Research also conducted by Astiti, Jacob and Umari (2019) states that group counseling with self-management techniques is effective in reducing gadget addiction in adolescents. Group counseling is often carried out by guidance and counseling teachers in schools. Group counseling is a service that involves a number of participants in a group, with the counselor as a leader in group activities. Group counseling can also be interpreted as a group activity where the counselor directs discussions and provides information so that group members become more social or to help group members or participants in groups to achieve common goals (Wibowo, 2005). Self-management group counseling techniques aim to change the counselee's behavior, so that in the era of globalization in this era technology is developing rapidly so that information technology also helps humans in storing, changing, creating, communicating or disseminating information.

At Muhammadiyah 2 Kalasan Middle School, guidance and counseling teachers rarely use group counseling with self-management techniques because until now guidance and counseling teachers have only done classical counseling. This research is important in the implementation of counseling services, by implementing very practical self-management techniques so that guidance and counseling teachers can help students overcome gadget addiction at school. Guidance and Counseling teachers can apply three stages of self-management, namely self-monitoring, is the process of the client observing and recording something about themselves and their interactions with the environmental situation, stimulus control, is the arrangement or planning of previously determined environmental conditions that make certain behaviors happen or be carried out. Stimulus control emphasizes the rearrangement or modification of the environment as a special signal or cause of a certain response, and self-reward, is used to strengthen or to increase the expected response.

(Nursalim in Barida & Prasetiawan, 2018). Students can overcome gadget addiction after trying the techniques together with guidance and counseling teachers in the counseling setting, then can independently apply self-management techniques in their daily lives.

## 2. Method

### 2.1. Participants

The population in this study were students of class VIII of Muhammadiyah 2 Kalasan Middle School and the number of samples was five people in class VIII C using a purposive sampling technique. The criteria determined were students who were addicted to gadgets. In accordance with the provisions of group counseling, the number of students selected for this group counseling is five from 103 students who have the highest gadget addiction score on the gadget addiction scale, namely those who experience among others: (a) feeling busy or engrossed in smartphones, (b) feeling the need to use smartphones by increasing the amount of time to achieve satisfaction, (c) being unable to control or control themselves to reduce smartphone use, (d) feeling anxious, gloomy, depressed, or angry when trying to reduce or stop smartphone use, (e) playing with smartphones longer than planned, (f) using smartphones as a way out of problems.

### 2.2. Research Design and Procedures

This research was conducted because to reduce gadget addiction among students, it was necessary to do a trial through group counseling with self-management techniques. This study used a quantitative approach with a pre-experimental research design with one group pretest posttest. Initially, the researcher distributed the gadget addiction scale and then conducted group counseling using self-management techniques. After several group counseling sessions, the researcher then distributed the gadget addiction scale to see the development or decrease in the level of students' gadget addiction.

### 2.3. Instruments

The data collection technique used by researchers is a non-test technique with a gadget addiction scale research instrument. The data collection tools used include the Gadget Addiction Scale, and are also supported by recordings, and diary sheets. The compilation of the gadget addiction scale grid is based on aspects of gadget addiction according to Wijinarko (2016), namely: (1) Disrupted activities, (2) Dependence, (3) Feeling anxious and lost, (4) Choosing to interact with gadgets, (5) Inability to control oneself. Based on the validity test, from 30 items tested using the product moment correlation formula, 23 valid items were obtained (if  $r$  count  $>$   $r$  table then the scale items are declared valid). The gadget addiction scale instrument grid can be described in Table 1. Meanwhile, the results of the instrument reliability are stated as reliable, because Cronbach's Alpha value  $>$  0.6 (Table 2).

**Table 1. Gadget Addiction Scale Instrument Grid**

| Variable         | Indicator                | Sub-Indicator                                                       | Favorable                                                             | Unfavorable                                                               |
|------------------|--------------------------|---------------------------------------------------------------------|-----------------------------------------------------------------------|---------------------------------------------------------------------------|
| Gadget Addiction | Disturbed Activity       | a. Playing with cellphones in the middle of the night               | a. I play with my cellphone every day and manage it well              | a. I lose track of time when playing gadgets, so my sleep time is reduced |
|                  |                          | b. Forgetting the time so that sleep is reduced                     | b. I really control my gadget playing time so that I get enough sleep | b. I spend time playing gadgets                                           |
|                  |                          | c. Choosing to spend time with gadgets rather than doing activities |                                                                       |                                                                           |
|                  | Dependence               | a. The desire to play gadgets before doing activities               | a. I make my bed first before starting my activities                  | a. I check my gadgets first before starting activities                    |
|                  |                          | b. The desire to play gadgets before going to bed                   | b. I pray first before going to bed                                   | b. I spend my free time playing gadgets                                   |
|                  |                          | c. Spending free time playing gadgets                               |                                                                       |                                                                           |
|                  | Feeling Anxious and Lost | a. Anxious when running out of battery                              | a. I put down and charge my gadget when my gadget battery runs out    | a. I am anxious when my gadget battery runs out                           |
|                  |                          | b. Anxious when there is no signal                                  |                                                                       | b. I am anxious when my cellphone has no signal                           |
|                  |                          |                                                                     |                                                                       |                                                                           |
|                  |                          |                                                                     |                                                                       |                                                                           |
|                  |                          |                                                                     |                                                                       |                                                                           |
|                  |                          |                                                                     |                                                                       |                                                                           |

|                                    |                                                                                                                                                                |                                                                                                                                                                              |                                                                                                 |
|------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|
|                                    | c. Anxious when running out of quota<br>d. Anxious when not holding gadgets                                                                                    | b. I put down my gadget when there is no signal<br>c. I put down my gadget when my internet quota runs out<br>d. I get used to staying calm when not holding a gadget        | c. I am anxious when my internet quota runs out<br>d. I am anxious when I don't have my gadgets |
| Choosing to interact using gadgets | a. Avoiding direct interaction<br>b. Lack of socializing with others                                                                                           | a. I am more comfortable interacting directly than through a gadget<br>b. I use gadgets well for socializing purposes                                                        | a. I become antisocial because I prioritize playing gadgets                                     |
| Inability to control oneself       | a. Using gadgets that result in loss of control<br>b. Using gadgets that result in being less sensitive to the environment<br>c. Using gadgets in the bathroom | a. I can control and manage my time when playing gadgets<br>b. I put down my gadget when someone else talks to me<br>c. I put down my gadget when I am going to the bathroom | a. I am less sensitive to the environment because I am too focused on playing gadgets           |
| Total Item                         |                                                                                                                                                                | 13                                                                                                                                                                           | 10                                                                                              |

**Table 2. Reliability Test Results**

| Reliability Statistics |            |
|------------------------|------------|
| Cronbach's Alpha       | N of Items |
| .757                   | 23         |

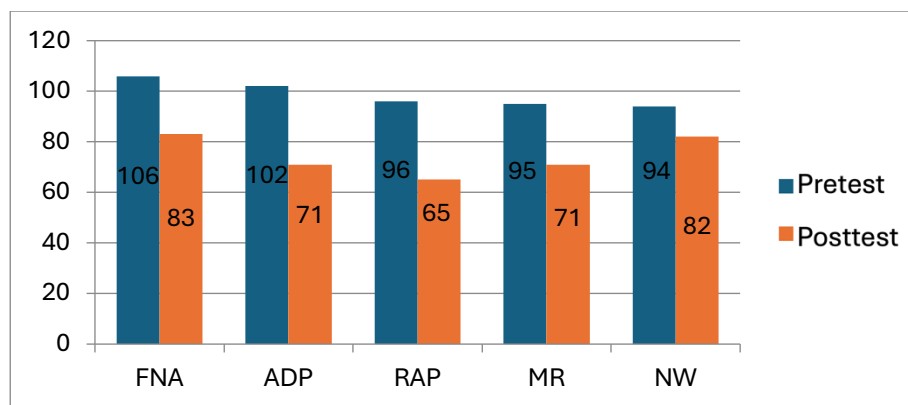
### 3. Results and Discussion

To better understand the severity of gadget addiction, students' scores were categorized into three levels: low, medium, and high, as outlined in Table 3. Based on these classifications, the students with the initials ADP, FNA, MR, RAP, and NW were identified as subjects with a high level of gadget addiction. Their addiction was characterized by excessive gadget use, difficulty in self-regulation, anxiety when separated from gadgets, and reliance on gadgets as a coping mechanism. Understanding these categories is crucial in determining appropriate interventions and counseling strategies to help students manage and reduce their addiction.

**Table 3. Categories of Gadget Addiction**

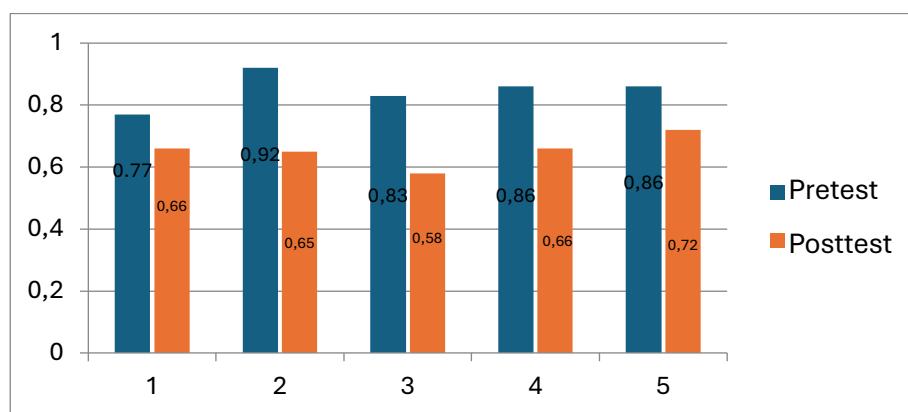
| Interval  | Category |
|-----------|----------|
| 23-53.7   | Low      |
| 53.7-84.3 | Medium   |
| 84.3-115  | High     |

The characteristics of student gadget addiction are that they are engrossed in their own gadgets, really need gadgets, are less able to control themselves such as playing gadgets that don't know the time, feel anxious and anxious when gadgets are far from students and use gadgets as a way out of problems. As a result of excessive gadget addiction, it can cause students to fail or be less than optimal in carrying out their assignments, both schoolwork due to being distracted by the activity of playing gadgets owned by students so that students forget and delay doing assignments. With self-management technique in group counseling services so that there is a decrease in student gadget addiction from being in the high category, down to being in the low category. Before treatment, the average score of students' gadget addiction was 98.6 whereas after being given treatment the average score of gadget addiction was 74.4. Then through the count of the pretest and posttest that the counselee had carried out there was a decrease with an average score of 24.2. The results of this study also explain that the greatest decrease in gadget addiction, namely ADP and RAP subjects, received a score of 31 and the lowest decrease in gadget addiction, namely the NW subject, obtained a score of 12. Figure 1 present the decrease in gadget addiction for class VIII-C students at Muhammadiyah 2 Kalasan Middle School.



**Figure 1. Changes in Student Gadget Addiction Scores Through Self-Management Technique Group Counseling**

Based on the results of research conducted by researchers on aspects of gadget addiction in class VIII-C students of Muhammadiyah 2 Kalasan Middle School, namely: (1) impaired activity with a pretest score of 0.77 and a posttest of 0.66, (2) dependence with a pretest score of 0.92 and a posttest of 0.65, (3) feeling anxious and losing with a pretest score of 0.83 and a posttest of 0.58, (4) choosing to interact using gadgets with a pretest score of 0.86 and a posttest of 0.66 and (5) the inability to control oneself with a pretest score of 0.86 and a posttest of 0.72 from these results the aspect that experienced the highest reduction in gadget addiction was: (1) dependence, (2) feeling anxious and lost, and (3) inability to control oneself. For this reason, students who have high gadget addiction behavior can be reduced using self-management technique group counseling services. The results of the analysis of the movement of the pretest and posttest scores of gadget addiction can be explained in Figure 2.



**Figure 2. Aspects of Gadget Addiction**

The self-management technique group counseling service was carried out for 6 meetings. The first meeting of the researchers started by getting to know the students further as a start in building good interpersonal relationships by introducing themselves, showing a positive attitude, creating a sense of counselee's confidence. In addition, the researcher explained that he would research gadget addiction and here the researcher gave a brief explanation about gadget addiction. After that, the researcher asked the students what behaviors they usually do that made students addicted to gadgets. At the self-monitoring stage, RAP, NW, MR, ADP and FNA explained that daily habits do lead to the characteristics of gadget addiction. Students feel that they cannot be far from their gadgets because they have been used to it for a long time. RAP often opens TikTok, Instagram does not know the time and takes several hours, ADP and MR also often open TikTok so that school assignments are not prioritized. NW also often spends all day playing gadgets by listening to music all day while FNA often spends time playing gadgets by opening TikTok and games.

After that, the researcher asked the students when there was a problem like that, what could be done to reduce gadget addiction. In the stimulus control stage, FNA explained what could be done to try to reduce the excessive use of gadgets by uninstalling applications that are addictive to gadgets.

RAP explained that to overcome this, RAP would better manage time as best as possible by channeling its talent to play ball. NW and MR explained that prioritizing productive activities to avoid excessive use of gadgets could be done by channeling talents by cooking, while ADP explained that what could be done was trying to reduce the excessive use of gadgets by socializing more directly with friends instead of playing gadgets. After that, the reward or prize that will be given to myself when I can reduce gadget addiction is "if I am able to reduce excessive gadget use behavior, then I will not be addicted anymore and I am able to manage myself from various activities that are more useful and I am able to be responsible for my duty and myself". Students praise him that he managed to reduce gadget addiction with his own efforts. RAP by going for a bike ride, NW by buying the food you like, FNA, ADP and MR by going for a walk around Jogja. At the first meeting the researcher gave the task to the students to write diaries of gadget addiction for 2 days which would be discussed at the next meeting.

In the second meeting, discussing cases of gadget addiction in MR, at the self-monitoring stage the behavior that is usually done so that MR is addicted to gadgets is scrolling on TikTok, Instagram all day without knowing the time, besides that MR eats while playing gadgets, such as watching YouTube and charging gadgets while scroll TikTok. Furthermore, at the stimulus control stage the researcher asked students when there were problems experienced by MR about what could be done to reduce gadget addiction, students gave opinions about solutions for MR. RAP provides a solution that MR tries to reduce the excessive use of gadgets by diverting other activities for example socializing with friends directly or if you like cooking develop a hobby of cooking. NW provides a solution to try to reduce the excessive use of gadgets by diverting other activities, for example, it is better to socialize with friends in person rather than playing gadgets. FNA provides a solution to try to reduce the excessive use of gadgets by diverting other activities such as socializing with friends. ADP provides a solution, namely by managing time as well as possible so when charging gadgets and eating, it is better to put the gadget first.

After listening to the solutions from friends, MR plans to do the best time management behavior when charging gadgets and eating, it's better to put the gadgets first and try to reduce the excessive use of gadgets by diverting other activities, namely by socializing with friends directly. After that the reward or prize that will be given to MR when he can reduce gadget addiction is "if I am able to reduce excessive gadget use behavior then I will not be addicted anymore and I am able to manage myself from various activities that are more useful and I am able to be responsible for my duty and myself". MR praised himself that he managed to reduce gadget addiction with his own efforts. MR will buy food that MR likes.

In the third meeting discussed cases of gadget addiction in RAP, at the self-monitoring stage the behavior that was usually done so that RAP was addicted to gadgets was scrolling through TikTok and Instagram all day long, always chatting on WhatsApp without knowing the time and looking at WhatsApp a little, playing games all day and when you wake up sleeping doesn't wash your face right away but it's cool to see the gadget first. Furthermore, at the stimulus control stage the researcher asked students when there were problems experienced by RAP about what could be done to reduce gadget addiction, students gave opinions about solutions for RAP. NW provides a solution that tries to reduce the use of gadgets by uninstalling applications that are addictive to gadgets. FNA provides a solution, namely by diverting other activities that are more productive, namely by helping parents. MR provides a solution to try to reduce the use of gadgets by giving RAP gadgets to parents only so they don't play gadgets excessively. ADP provides a solution to try to reduce the use of gadgets, namely when going to sleep the gadget is placed far from the bed so that when you wake up you don't immediately see the gadget. After listening to the solutions from friends, RAP plans to prioritize productive activities to avoid excessive use of gadgets, namely by helping parents in the fields instead of playing gadgets, developing talents by playing soccer and trying to reduce gadget use by putting gadgets away from the bed. After that, the reward or prize that will be given to RAP when they can reduce gadget addiction is "if I am able to reduce excessive gadget use behavior, then I will not be addicted anymore and I am able to manage myself from various activities that are more useful and I am able to be responsible for my duty and myself". RAP praised himself that he managed to reduce gadget addiction with his own efforts. RAP will feed the fish in the pond because it makes RAP feel happy.

The fourth meeting discussed cases of gadget addiction in the subject of FNA, during the self-monitoring stage the usual behavior that made FNA addicted to gadgets was scrolling Instagram all day long, and playing games without knowing the time. Furthermore, at the stimulus control stage the researcher asked students when there were problems experienced by FNA about what could be done to reduce gadget addiction, students gave opinions about solutions for FNA. NW, MR and ADP provide solutions that try to reduce gadget usage by uninstalling applications. RAP provides a solution, namely prioritizing productive activities to avoid excessive use of gadgets with activities to help parents. After listening to the solutions from friends, FNA plans to prioritize productive activities to avoid excessive use of gadgets by helping parents in the fields instead of playing gadgets. After that, the reward that will be given to FNA when she can reduce gadget addiction is "if I am able to reduce excessive gadget use behavior, then I will not be addicted anymore and I am able to manage myself from various activities that are more useful and I am able to be responsible for my duty and myself". FNA praised himself that he managed to reduce gadget addiction with his own efforts. FNA is going for a walk.

In the fifth meeting discussed cases of gadget addiction in NW subjects, at the self-monitoring stage the behavior that was usually done so that NW was addicted to gadgets was scrolling TikTok before going to bed and when opening TikTok saw K-pop music which made NW feel that K-pop music was very suitable for hallucinations before going to bed, and playing gadgets before going to bed and listening to music on YouTube. Furthermore, at the stimulus control stage the researcher asked students when there were problems experienced by NW about what could be done to reduce gadget addiction, students gave opinions about solutions for NW. ADP provides a solution that before going to bed you have to pray first, don't play gadgets. MR provides a solution, namely trying to reduce the use of gadgets by placing the gadget before going to bed far from the bed. RAP provides a solution that to reduce the use of gadgets it is better to listen to the radio than using gadgets. FNA provides a solution to try to reduce the use of gadgets by placing gadgets away from bed when going to sleep. After listening to solutions from friends, NW plans to try to reduce the use of gadgets by placing gadgets away from bed when going to sleep and committing to yourself that gadgets are kept by themselves so that before going to bed you don't play scrolling TikTok gadgets. After that, the reward that will be given to FNA when she can reduce gadget addiction is "if I am able to reduce excessive gadget use behavior, then I will not be addicted anymore and I am able to manage myself from various activities that are more useful and I am able to be responsible for my duty and myself". NW praised himself that he managed to reduce gadget addiction with his own efforts. NW will buy the food they like.

In the sixth meeting discussed cases of gadget addiction in the subject of ADP, at the self-monitoring stage the behavior that is usually done so that ADP is addicted to gadgets is lying in the room while playing gadgets which causes ADP to be lazy to leave the house and socialize, scroll TikTok all day, eat while looking at gadgets namely by watching YouTube. Furthermore, at the stimulus control stage the researcher asked students when there were problems experienced by ADP about what could be done to reduce gadget addiction, students gave opinions about solutions for ADP. FNA provides a solution that with the best time management behavior while eating, it is better to focus on eating and putting gadgets away and to try to reduce excessive use of gadgets, namely applications that are addictive to gadgets, to uninstall them. RAP provides a solution, namely to try to reduce the excessive use of gadgets, namely by socializing in the surrounding environment. MR provides a solution that to reduce the excessive use of gadgets, it is better to put gadgets when eating and instead of lying down playing gadgets, it is better to socialize with friends or siblings. NW provides a solution that does the best time management behavior when eating gadgets is placed. After listening to the solutions from ADP friends, they plan to do the best time management when eating gadgets and try to reduce the excessive use of gadgets by socializing in the surrounding environment.

After that, the reward that will be given to ADP when they can reduce gadget addiction is "if I am able to reduce excessive gadget use behavior, then I will not be addicted anymore and I am able to manage myself from various activities that are more useful and I am able to be responsible for my duty and myself". ADP praised himself that he managed to reduce gadget addiction with his own efforts. ADP is going for a walk. Based on six group counseling meetings using self-management techniques, it can be concluded that students have a commitment to reducing gadget addiction and are better able to control gadget use.

After implementing self-management technique group counseling services, there was a test of the effectiveness of group counseling with self-management techniques obtained by comparing the results of the pretest and posttest of gadget addiction. The results of the posttest showed that there was a decrease in scores from a high pretest to a decrease in the posttest. This shows that after students are given group counseling services with self-management techniques to reduce excessive gadget addiction, students experience a decrease. In addition, a hypothesis test was carried out using the t-test and the value of  $t_{count} = 6,946$  was then compared to  $t_{table} 5\% = 2,131$  with the condition that  $t_{count}$  was greater than  $t_{table}$  ( $6,946 \geq 2,131$ ), so it could be said that  $H_0$  was rejected, and  $H_a$  was accepted. Research conducted by Kurniati (2019) states that self-management technique group counseling is effective in reducing excessive smartphone use in class VIII students at State Middle School 4 Bandar Lampung. This is evident from the results of the pretest and posttest that have been carried out, then the value of  $t_{count} = 16,195$  is then compared with  $t_{table} 0.05 = 2,306$  with the provision that  $t_{count}$  is greater than  $t_{table}$  ( $16,195 \geq 2,306$ ), then it can be said that  $H_0$  is rejected and  $H_a$  can be accepted because there is differences after being given group counseling with self-management techniques.

This is evidenced by a significance value ( $0.018$ )  $< \alpha 0.05$ , which means  $H_a$  is accepted and  $H_0$  is rejected. So it shows that there are significant differences in self-management techniques to reduce students' gadget addiction behavior. Research conducted by Widyastusi and Muyana (2019) states that by comparing pretest and posttest scores, supported by the results of analysis tests at a significance level  $< 0.05$ , it can be concluded that group counseling with self-management techniques is effective in reducing gadget addiction in adolescents. Meanwhile, Alwiet al. (2019) also states that self-management techniques can reduce gadget addiction in social networking among students at Makassar National High School as evidenced by the results of the pretest and posttest that have been carried out. It can be said that  $H_0$  is rejected and  $H_a$  is acceptable, so that in this case self-management is effective in reducing gadget addiction. This finding adds to the strengthening that group counseling with self-management techniques is one of the practical services applied to help overcome student problems. Research conducted by Zuliyana (2017) proved the effect of group counseling on self-management techniques to reduce gadget addiction. This study applies the type of experimental research, but there are differences in the type of research. If this research applies the type of true experimental research, while the researcher uses the type of pre-experimental research. Research conducted by Ramdoni et al. (2020) states that group counseling services using self-management techniques are effective in reducing gadget addiction in Yasna Karangrayung Grobogan Middle School students. If this research applies the type of action research, while researchers use pre-experimental.

In terms of the number of group members, the proportion of 5 students in this group counseling is very efficient for implementing self-management technique group counseling (Corey, 2016). In addition, easy-to-implement procedures that are directed at reducing gadget addiction that focus on each meeting also on one aspect in the working stage add to the effectiveness of this technique. Active participation from students to want to change gadget addiction behavior is also high (Mancillas, 2006). Guidance and counseling teachers also play a very important role in group counseling activities which are significant models for group members (Musika & Bukaliya, 2015). All of this also influences the success of self-management technique group counseling.

#### 4. Conclusion

After completing the research by collecting, analyzing, and interpreting data, it can be seen that providing services using self-management techniques can reduce students' gadget addiction. So it can be concluded that group counseling services with self-management techniques are effective in reducing student gadget addiction. Self-management techniques can be used as a reference for guidance and counseling teachers to provide group counseling services. In this study, the changes that occurred at the pretest and posttest with a high decrease were in the aspects of dependence, feeling anxious and lost, and inability to control oneself. Students can change their gadget addiction by opening up their relationships with others, especially face-to-face. The limitation of this study is that this study was not conducted routinely in a fixed period of time because of the limited hours of guidance and counseling at school. For this reason, further researchers can carry out group counseling treatment with self-management techniques on a scheduled basis. In addition, further researchers can also add multicultural content values to strengthen the values of cultural character

in today's modernity so that even though they are sophisticated in utilizing technological science, they do not lose their identity as an Indonesian nation

### Author Contributions

Muya Barida: Conceptualization, Funding Acquisition, Writing, Reviewing & Editing. Aprilia Puspita Sari: Data Curation, Project Administration, Investigation.

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