

Reducing Junior High School Students' Off-Task Behavior through Self-Monitoring and Reinforcement: A Single Subject Design Study

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ABSTRACT

This study examined changes in off-task behavior among junior high school students through self-monitoring combined with reinforcement. Using a quantitative single-subject design with a multiple baseline across participants model, three students who frequently displayed off-task behavior during learning activities were selected through initial observation and teacher recommendation. The intervention involved identifying target behavior, recording focused and unfocused behavior, and providing verbal praise, positive feedback, and simple rewards when students reduced off-task behavior. Data were collected using an observation sheet and students' self-monitoring sheets, then analyzed descriptively and visually across baseline, intervention, and follow-up phases. The results showed decreased off-task behavior across all subjects: Subject 1 from 9 to 3, Subject 2 from 10 to 4, and Subject 3 from 11 to 4. These findings indicate that self-monitoring with reinforcement can support the reduction of off-task behavior and increase students' behavioral engagement during classroom learning.

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Introduction

Classroom learning activities require students not only to be physically present but also to demonstrate behavioral involvement, attention, and the ability to maintain focus on the task being completed. Beserra et al. (2019) explained that on-task behavior occurs when students focus their attention on learning activities, whereas off-task behavior occurs when students' attention shifts to other activities that are unrelated to the learning task. In classroom contexts, off-task behavior may

appear in the form of talking off-topic, daydreaming, playing with objects, not paying attention to instructions, disturbing classmates, or not immediately completing tasks. Maulana (2019) also stated that off-task behavior may take verbal forms, such as talking outside the subject matter, and nonverbal forms, such as daydreaming, playing, sleeping, and engaging in other activities that do not support learning.

Off-task behavior is important to examine because it can hinder the learning process, both for students who display it and for classmates who are also distracted. Jamet et al. (2020) found that off-task multitasking behavior, both media-based and nonmedia-based such as chatting with classmates, can negatively affect students' memory of learning materials. These findings show that lack of focus in class is not merely a matter of discipline, but is also related to the cognitive processes required to understand and remember information. Therefore, off-task behavior needs to be viewed as a learning behavior that can be observed, measured, and modified through appropriate interventions.

In the context of Indonesian schools, off-task behavior is also found in various forms. Eliza and Neviyarni (2020) described student off-task behavior as walking around the classroom, talking with friends, playing with stationery, not paying attention to the teacher's explanation, making noise, joking, drawing things unrelated to the task, and opening other textbooks. Esanti et al. (2020) found that off-task behavior is influenced by school factors, teachers' classroom management, residential environment, and students' internal factors. Setiyowati et al. (2019) also emphasized that off-task behavior needs to be addressed through an understanding of behavior change principles so that teachers and counselors can respond more appropriately to student behavior.

For junior high school students, off-task behavior is a relevant issue because students are in early adolescence, a developmental period characterized by increasing social needs, the desire to interact with peers, and challenges in controlling attention. When learning activities take place, some students are not always able to maintain attention on tasks for a sufficient length of time. Beserra et al. (2019) stated that attention to learning tasks is an important part of classroom learning. Maulana (2019) added that off-task behavior often emerges when learning is perceived as less interesting, monotonous, or not aligned with students' interests. Therefore, off-task behavior should be handled through strategies that do not merely reprimand students, but also help students become aware of and manage their own behavior.

One technique that can be used to reduce off-task behavior is self-monitoring. Sulu et al. (2023) explained that self-monitoring is part of a self-management strategy that involves students in observing, recording, and evaluating their own behavior. Through this technique, students are not merely objects of teacher or counselor observation, but are actively involved in the behavior change process. When students record when they are focused and when they are unfocused, they have the opportunity to

recognize their own behavior patterns. Thus, self-monitoring can increase students' awareness of off-task behavior and encourage the emergence of on-task behavior during learning activities.

Self-monitoring techniques become stronger when combined with reinforcement. Whitney and Ackerman (2020) explained that positive and constructive feedback is a form of positive reinforcement that is important in teaching and classroom behavior management. Fefer et al. (2020) also showed that reinforcement based on positive communication can increase students' on-task behavior in challenging classroom routines. In this article, reinforcement was provided in the form of praise, positive feedback, or simple reinforcement when students were able to reduce off-task behavior or maintain focused behavior. In this way, students were not only asked to reduce undesirable behavior, but also received positive consequences when showing more adaptive learning behavior.

This study used a Single Subject Design because the focus of the study was directed at changes in each subject's behavior individually over time. Ledford and Zimmerman (2023) explained that single subject designs allow researchers to observe behavioral changes through repeated measurement, graphs, and visual analysis. The model used in this study was multiple baseline across participants, which is a design that provides intervention gradually to several subjects with different baseline lengths. Lanovaz and Turgeon (2020) explained that multiple baseline designs require several tiers or subjects so that behavioral changes can be replicated at different intervention times. Slocum et al. (2022) also emphasized that multiple baseline designs can help researchers assess whether behavioral changes occur after the intervention is given, rather than merely because of time or natural changes.

Although previous studies have discussed off-task behavior and the use of behavior modification strategies in classroom settings, several gaps remain. First, many studies have examined off-task behavior in general classroom management contexts, but fewer have focused on students' active involvement in monitoring their own behavior. Second, previous interventions often emphasized teacher-directed strategies, whereas self-monitoring encourages students to recognize, record, and evaluate their own focused and unfocused behaviors. Third, studies using a single subject design with multiple baseline across participants in the context of junior high school students' off-task behavior are still limited. Therefore, this study offers a focused contribution by examining changes in off-task behavior through self-monitoring combined with reinforcement using repeated individual measurements across baseline, intervention, and follow-up phases.

Based on these studies, off-task behavior is worthy of research attention because this behavior is concrete, appears in learning activities, and can be measured through frequency of occurrence. The selection of self-monitoring techniques combined with reinforcement is also relevant because this technique helps students recognize their own behavior while receiving reinforcement when they display expected behavior. Sulu et al. (2023) stated that self-monitoring interventions generally have positive effects on on-task behavior, although maintenance and generalization still need further study.

Thus, this study is important to provide an overview of how junior high school students' off-task behavior changes after receiving self-monitoring techniques combined with reinforcement through a multiple baseline across participants design.

This study aimed to determine changes in the frequency of off-task behavior among three junior high school students after receiving self-monitoring techniques combined with reinforcement. Specifically, this study described off-task behavior during the baseline phase, behavioral changes during the intervention phase, and behavioral tendencies during the follow-up phase. The results are expected to contribute to school counselors and educators in selecting behavior modification strategies that are simple, measurable, and applicable in school contexts. In addition, this study is expected to enrich guidance and counseling research on the use of single subject designs to address learning behaviors that hinder student engagement in class.

Method

This study used a quantitative approach with a Single Subject Design method using a multiple baseline across participants model. This design was selected because the study aimed to examine changes in off-task behavior in three subjects repeatedly across baseline, intervention, and follow-up phases. In single subject designs, behavioral change is observed through individual data patterns over time, not through comparisons between large groups (Manolov & Onghena, 2022). The multiple baseline across participants model was used because the intervention was given gradually to three subjects with different baseline lengths, so behavioral changes could be observed after each subject received the intervention (Lanovaz & Turgeon, 2020; Slocum et al., 2022).

The research subjects consisted of three junior high school students who displayed off-task behavior during learning activities. The subjects were selected purposively through three steps. First, the school counselor and homeroom teacher were asked to identify students who frequently showed off-task behavior in class. Second, initial observations were conducted to confirm the frequency and forms of off-task behavior, such as talking off-topic, daydreaming, playing with objects, disturbing classmates, not paying attention to instructions, and not immediately completing tasks. Third, three students who consistently showed the target behavior and were willing to participate in the intervention were selected as subjects. The subjects were coded as Subject 1, Subject 2, and Subject 3 to protect their identity and maintain consistency in reporting.

The inclusion criteria were students who were enrolled in junior high school, demonstrated repeated off-task behavior during learning activities, obtained recommendations from the school counselor or homeroom teacher, and agreed to participate in the study with permission from the school and parents or guardians. Off-task behavior was understood as behavior that was not aligned with the demands of learning activities, whereas on-task behavior indicated students' involvement in ongoing learning activities (Beserra et al., 2019).

The intervention used was the self-monitoring technique combined with reinforcement. Through self-monitoring, students were trained to recognize and record focused and unfocused behaviors during learning activities. This technique was selected because self-monitoring can help students increase awareness of their own behavior and support the improvement of on-task behavior (Sulu et al., 2023). In this study, reinforcement was provided in the form of verbal praise, brief positive feedback, and achievement marks on the self-monitoring sheet when students showed a decrease in off-task behavior or maintained focused behavior during learning activities. The reinforcement was given immediately after the target behavior appeared so that students could connect focused behavior with positive consequences. Positive reinforcement can help strengthen students' adaptive behavior in learning contexts (Whitney & Ackerman, 2020).

Data were collected through an off-task behavior frequency observation sheet and students' self-monitoring sheets. The data collection guideline was developed based on the operational definition of off-task behavior. The observation sheet contained several observable indicators, including talking off-topic, daydreaming, playing with objects, disturbing classmates, not paying attention to instructions, and not immediately working on assigned tasks. Each clearly observed occurrence of off-task behavior during the learning session was recorded as one frequency count. The student self-monitoring sheet was used to help students identify whether they were focused or unfocused during learning activities and to write brief reflections on their behavior after each session.

The study was conducted over two weeks in three phases, namely baseline, intervention, and follow-up. In the baseline phase, students' off-task behavior was observed during classroom learning without providing self-monitoring activities or reinforcement. This phase was intended to obtain the initial pattern and frequency of off-task behavior before the intervention was given. In the intervention phase, students were introduced to the target behavior, namely reducing off-task behavior and maintaining focused behavior during learning. Students were then trained to complete the self-monitoring sheet by identifying whether they were focused or unfocused during the learning session. After completing the self-monitoring sheet, students received verbal praise, brief positive feedback, and achievement marks when they showed a decrease in off-task behavior or maintained focused behavior. In the follow-up phase, observations were conducted again after the intervention ended without providing additional reinforcement. This phase was used to examine whether the decrease in off-task behavior tended to be maintained after the intervention was stopped.

Subject 1 received two baseline sessions, three intervention sessions, and one follow-up session. Subject 2 received three baseline sessions, three intervention sessions, and one follow-up session. Subject 3 received four baseline sessions, three intervention sessions, and one follow-up session. To ensure the reliability of the observational data, inter-observer agreement (IOA) was calculated in selected observation sessions. A second observer independently recorded the frequency of off-task behavior using the same observation sheet. The IOA was calculated by dividing the number of

agreements by the total number of agreements and disagreements, then multiplying by 100%. The IOA score obtained was 90%, indicating an acceptable level of consistency between observers in recording students' off-task behavior.

Data were analyzed using descriptive analysis and visual analysis by considering condition length, trend direction, level changes, and patterns of behavioral change across phases. Visual analysis was used because in single subject designs, graphs and data patterns are the main basis for examining behavioral changes after the intervention is given (Ledford & Zimmerman, 2023; Manolov & Onghena, 2022).

Results

This study aimed to describe changes in the frequency of off-task behavior among three junior high school students after receiving an intervention in the form of self-monitoring techniques combined with reinforcement. Off-task behavior in this study was understood as student behavior that does not align with the demands of learning activities, such as talking off-topic, daydreaming, playing with objects, not paying attention to instructions, disturbing classmates, and not immediately working on tasks. Off-task behavior was selected because it can be directly observed and distinguished from on-task behavior, which is the condition in which students focus their attention on the learning task being completed (Beserra et al., 2019).

Measurements were conducted in three phases, namely baseline, intervention, and follow-up. The baseline phase was used to obtain an initial picture of behavior before treatment was given, the intervention phase was used to apply self-monitoring techniques combined with reinforcement, while the follow-up phase was used to observe the tendency of behavioral maintenance after the intervention was stopped. Repeated measurement in a single subject design is important because behavioral change is viewed from data patterns over time, not only from comparisons of scores before and after intervention (Manolov & Onghena, 2022).

The study was conducted over two weeks with three phases, namely baseline, intervention, and follow-up. Subject 1 received two baseline sessions, three intervention sessions, and one follow-up; Subject 2 received three baseline sessions, three intervention sessions, and one follow-up; whereas Subject 3 received four baseline sessions, three intervention sessions, and one follow-up. Data were collected through an off-task behavior frequency observation sheet and students' self-monitoring sheets. The data collection guideline was developed based on the operational definition of off-task behavior. The observation sheet contained several observable indicators, including talking off-topic, daydreaming, playing with objects, disturbing classmates, not paying attention to instructions, and not immediately working on assigned tasks. Each clearly observed occurrence of off-task behavior during the learning session was recorded as one frequency count. The student self-monitoring sheet was used to help students identify whether they were focused or unfocused during learning activities and to write

brief reflections on their behavior after each session. To ensure the reliability of the observational data, inter-observer agreement (IOA) was calculated in selected observation sessions.

A second observer independently recorded the frequency of off-task behavior using the same observation sheet. The IOA was calculated by dividing the number of agreements by the total number of agreements and disagreements, then multiplying by 100%. The IOA score obtained was 90%, indicating an acceptable level of consistency between observers in recording students' off-task behavior. Data were analyzed using descriptive analysis and visual analysis by considering condition length, trend direction, level changes, and patterns of behavioral change across phases. Visual analysis was used because in single subject designs, graphs and data patterns are the main basis for examining behavioral changes after the intervention is given (Ledford & Zimmerman, 2023; Manolov & Onghena, 2022).

The description in each table was determined based on the direction of behavioral change across sessions. High frequency indicated that off-task behavior remained frequent during baseline. Started to decrease indicated the first reduction after intervention was introduced. Decreased further indicated a continued reduction in the following intervention session, while began to stabilize or maintained indicated that the frequency did not increase again in the last intervention or follow-up session.

Table 1

Frequency of Subject 1 Off-Task Behavior

Meeting	Phase	Frequency of Off-Task Behavior	Description
1	Baseline	9	The frequency of off-task behavior was still high
2	Baseline	8	The frequency of off-task behavior was still high
3	Intervention	6	Started to decrease after the intervention was given
4	Intervention	4	Off-task behavior decreased further
5	Intervention	3	Off-task behavior decreased and began to stabilize
6	Follow-up	3	Behavioral change was maintained

Based on Table 1, the frequency of Subject 1 off-task behavior during the baseline phase was 9 and 8. These data indicate that before the intervention was given, Subject 1 still frequently showed unfocused behavior during learning activities. This condition is consistent with the view that off-task behavior is a form of students' attention shifting away from learning activities that should be performed (Beserra et al., 2019).

After the intervention was given, the frequency of Subject 1 off-task behavior decreased to 6 at the third meeting, 4 at the fourth meeting, and 3 at the fifth meeting. During the follow-up phase, the frequency remained at 3. This decrease indicates a tendency for behavioral change after Subject 1 was involved in recording and evaluating his or her own behavior through self-monitoring. Self-monitoring interventions are known to help students increase awareness of on-task and off-task behavior during the learning process (Otero & Haut, 2016).

Table 2

Frequency of Subject 2 Off-Task Behavior

Meeting	Phase	Frequency of Off-Task Behavior	Description
1	Baseline	10	The frequency of off-task behavior was high
2	Baseline	9	The frequency of off-task behavior was still high
3	Baseline	9	Baseline data tended to be stable
4	Intervention	7	Started to decrease after the intervention was given
5	Intervention	5	The decrease in behavior became more visible
6	Intervention	4	Off-task behavior decreased and began to stabilize
7	Follow-up	4	Behavioral change was maintained

Based on Table 2, Subject 2 showed a high frequency of off-task behavior during the baseline phase, namely 10, 9, and 9. The relatively close baseline data indicate that Subject 2 off-task behavior tended to persist before the intervention was given. In single subject research, a relatively consistent baseline condition is important because it becomes the primary comparison for observing changes after the intervention is given (Ledford & Zimmerman, 2023).

After entering the intervention phase, the frequency of Subject 2 off-task behavior decreased to 7, 5, and 4. During the follow-up phase, the frequency remained at 4. This change indicates that self-monitoring techniques combined with reinforcement helped Subject 2 reduce unfocused behavior during learning activities. Otero and Haut (2016) explained that self-monitoring combined with reinforcement can have different effects on improving on-task behavior, especially when students receive feedback or positive consequences for expected behavior.

Tabel 3

Frequency of Subject 3 Off-Task Behavior

Meeting	Phase	Frequency of Off-Task Behavior	Description
1	Baseline	11	The frequency of off-task behavior was very high
2	Baseline	10	The frequency of off-task behavior was still high
3	Baseline	10	Baseline data tended to be stable
4	Baseline	9	Slightly decreased, but still high
5	Intervention	7	Started to decrease after the intervention was given
6	Intervention	5	The decrease in behavior became more visible
7	Intervention	4	Off-task behavior decreased and began to stabilize
8	Follow-up	4	Behavioral change was maintained

Based on Table 3, Subject 3 had the highest frequency of off-task behavior compared with the other two subjects during the baseline phase, namely 11, 10, 10, and 9. Although there was a slight decrease at the end of the baseline, the frequency of off-task behavior remained high. Such data indicate that the target behavior still required intervention because it had not shown a strong decrease before treatment was given. In multiple baseline designs, a longer

baseline for one subject can help demonstrate that behavioral change does not occur merely because time passes, but appears after the intervention is provided (Slocum et al., 2022).

After the intervention was given, the frequency of Subject 3 off-task behavior decreased to 7, 5, and 4. During the follow-up phase, the frequency remained at 4. This decrease indicates that Subject 3 began to reduce unfocused behavior after using the self-monitoring sheet and receiving reinforcement when learning behavior became more appropriate. A systematic review by Sulu et al. (2023) showed that self-monitoring interventions generally have positive effects on on-task behavior, although maintenance and generalization of change still need attention.

Level change was used to observe the difference between the first and last data points in a phase. In single subject research, level change helps researchers identify whether the target behavior moves in the expected direction after the intervention is given. This article used level change, trend direction, and data stability to explain behavioral change in each measurement phase.

Table 4
Level Change in the Baseline Phase

Subject	First Data	Last Data	Level Change	Direction of Change
Subject 1	9	8	1	Slight decrease
Subject 2	10	9	1	Slight decrease
Subject 3	11	9	2	Slight decrease

During the baseline phase, all three subjects showed small level changes. Subject 1 changed from 9 to 8, Subject 2 from 10 to 9, and Subject 3 from 11 to 9. The decrease during the baseline phase did not indicate a large change because the frequency of off-task behavior remained high. In visual analysis, the baseline phase serves as a comparison basis for determining whether changes in the next phase become clearer after the intervention is given (Manolov & Onghena, 2022).

Table 5
Level Change in the Intervention Phase

Subject	First Data	Last Data	Level Change	Direction of Change
Subject 1	6	3	3	Decreased
Subject 2	7	4	3	Decreased
Subject 3	7	4	3	Decreased

During the intervention phase, all three subjects showed decreased frequencies of off-task behavior. Subject 1 decreased from 6 to 3, Subject 2 from 7 to 4, and Subject 3 from 7 to 4. The level change for all three subjects was the same, namely 3 points. This change shows that the intervention phase produced a clearer decreasing pattern compared with the baseline phase. The decrease that

emerged after students began monitoring their own behavior is consistent with findings that self-monitoring can help students regulate learning behavior through self-observation and behavior recording (Sulu et al., 2023).

Table 6

Level Change in the Follow-Up Phase

Subject	First Data	Last Data	Level Change	Direction of Change
Subject 1	3	3	0	Stable
Subject 2	4	4	0	Stable
Subject 3	4	4	0	Stable

During the follow-up phase, none of the three subjects showed an increase in off-task behavior. Subject 1 remained at a frequency of 3, whereas Subjects 2 and 3 remained at a frequency of 4. A level change of 0 indicates that behavioral change tended to stabilize after the intervention was stopped. However, because follow-up was conducted only once, this result is more appropriately interpreted as an initial indication of behavioral stability rather than evidence of long-term maintenance. Sulu et al. (2023) also emphasized that maintenance and generalization of behavior in self-monitoring interventions need to be designed and evaluated more strongly.

Table 7

Overall Level Change from Baseline to Follow-Up

Subject	Initial Baseline Data	Final Follow-Up Data	Level Change	Direction of Change
Subject 1	9	3	6	Decreased
Subject 2	10	4	6	Decreased
Subject 3	11	4	7	Decreased

Based on Table 7, all three subjects showed an overall decrease in the frequency of off-task behavior. Subject 1 decreased from 9 to 3, Subject 2 from 10 to 4, and Subject 3 from 11 to 4. The largest level change was observed in Subject 3, namely 7 points. Subjects 1 and 2 each showed a level change of 6 points. This level change indicates that all subjects moved in the expected direction, namely a decrease in the frequency of off-task behavior. In single subject designs, such patterns must be interpreted together with graphs, trends, and replication across subjects to strengthen interpretation (Ledford & Zimmerman, 2023).

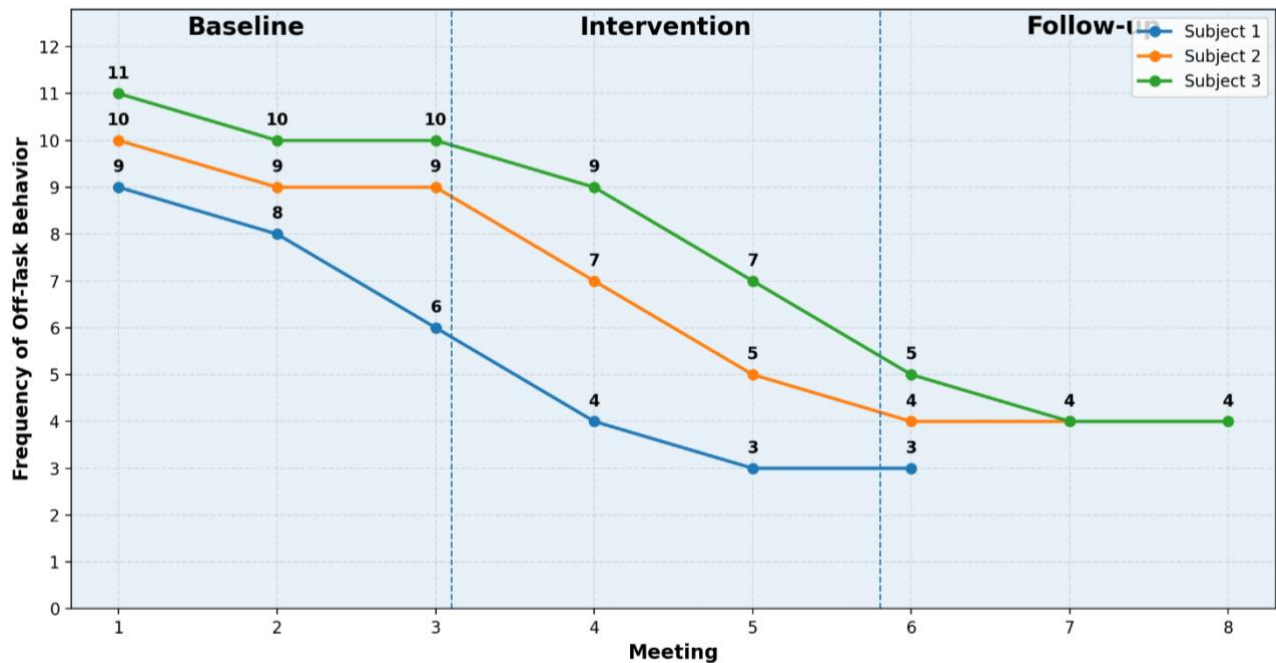


Figure 1

Changes in Off-Task Behavior Frequency Across Baseline, Intervention, and Follow-Up Phases

Figure 1 shows changes in the frequency of off-task behavior among the three subjects across the baseline, intervention, and follow-up phases. The graph indicates that all subjects showed a downward trend after the intervention was introduced. Subject 1 showed a decrease after two baseline sessions, Subject 2 after three baseline sessions, and Subject 3 after four baseline sessions. This gradual decrease supports the logic of the multiple baseline across participants design, in which behavioral change is expected to occur after the intervention is introduced to each subject, rather than simultaneously before the intervention (Slocum et al., 2022).

During the baseline phase, the frequency of off-task behavior in all three subjects was still high. Subject 1 was at 9 and 8, Subject 2 was at 10, 9, and 9, while Subject 3 was at 11, 10, 10, and 9. This pattern shows that before the intervention was given, all three subjects still frequently displayed unfocused behavior during learning activities. Such unfocused behavior can interfere with learning engagement because students divert attention from the task being completed to other activities irrelevant to learning (Beserra et al., 2019).

After entering the intervention phase, all three subjects showed decreases in off-task behavior. Subject 1 decreased from 6 to 3, Subject 2 decreased from 7 to 4, and Subject 3 decreased from 7 to 4. This change indicates that self-monitoring techniques combined with reinforcement were associated with a decrease in off-task behavior. The use of self-monitoring with reinforcement is also supported by Otero and Haut (2016), who showed that reinforcement can influence the success of self-monitoring in increasing on-task behavior.

During the follow-up phase, the frequency of off-task behavior in Subject 1 remained at 3, Subject 2 remained at 4, and Subject 3 remained at 4. These data indicate that the behavior did not increase again after the intervention was stopped. However, because follow-up was conducted only once, the interpretation of the results needs to be made cautiously. In self-monitoring intervention studies, behavioral maintenance requires more adequate follow-up measurement to determine whether the change truly persists over a longer period (Sulu et al., 2023).

The pattern of change across subjects shows that decreases in behavior emerged after each subject received the intervention. Subject 1 began to decrease after two baselines, Subject 2 after three baselines, and Subject 3 after four baselines. Such a gradual pattern is consistent with the logic of multiple baseline designs, in which behavioral changes are expected to appear after the intervention is given to each subject, not simultaneously before intervention (Slocum et al., 2022).

Discussion

The results showed that the three subjects had high frequencies of off-task behavior during the baseline phase. Subject 1 showed frequencies of 9 and 8, Subject 2 showed 10, 9, and 9, while Subject 3 showed 11, 10, 10, and 9. These data indicate that off-task behavior was a behavioral pattern that appeared quite frequently before intervention was given. Off-task behavior in learning can be understood as a condition in which students' attention is not directed toward the learning task, whereas on-task behavior indicates student involvement in ongoing learning activities (Beserra et al., 2019).

The baseline conditions for the three subjects also showed that off-task behavior did not appear only occasionally, but repeatedly across several observations. In single subject designs, repeated baseline measurements are needed so that researchers can identify the initial behavioral pattern before treatment is given. The baseline serves as an initial condition to examine behavioral stability before intervention, and then to compare it with the condition after intervention.

The decrease that occurred during the baseline phase was still relatively small. Subject 1 decreased by only 1 point, Subject 2 decreased by 1 point, and Subject 3 decreased by 2 points. This small change was not sufficient to indicate strong behavioral change because all subjects still had high frequencies of off-task behavior. In SSD visual analysis, small changes during baseline need to be distinguished from changes that occur after intervention so that researchers do not prematurely conclude that behavior has changed before treatment is given (Manolov & Onghena, 2022).

After the intervention was given, all three subjects showed clearer decreases in off-task behavior. Subject 1 decreased from 6 to 3, Subject 2 from 7 to 4, and Subject 3 from 7 to 4. This decrease indicates that self-monitoring techniques combined with reinforcement can help students reduce unfocused behavior during learning activities. This finding is consistent with Otero and Haut (2016), who showed that self-monitoring with reinforcement can support increases in students' on-task behavior.

The self-mentoring technique works by actively involving students in recognizing and recording their own behavior. When students are asked to record whether they are focused or unfocused, they

become more aware of the behavior they are performing. This awareness is important because behavior change does not rely only on control from teachers or counselors, but also on students' ability to observe and evaluate themselves. A systematic review by Sulu et al. (2023) showed that self-monitoring interventions have positive impacts on on-task behavior, especially because students are involved in the behavioral monitoring process.

Based on implementation notes during the intervention, the students showed a generally positive response to the self-monitoring sheet. At the beginning of the intervention, some students still needed guidance to distinguish between focused and unfocused behavior. However, after several sessions, they were able to complete the sheet more independently and became more aware of their learning behavior. The self-monitoring sheet appeared to be practical because it was simple, brief, and directly related to classroom activities. The classroom teacher also considered the technique helpful because it encouraged students to participate in managing their own behavior without relying only on teacher reminders. This response strengthens the practical implication that self-monitoring can be applied as a simple behavior modification strategy in school settings.

Reinforcement in this study served to strengthen expected behavior, namely focused or on-task behavior. Reinforcement was given when students were able to reduce off-task behavior or maintain appropriate learning behavior. With reinforcement, students received positive consequences for expected behavior, thereby increasing the likelihood that the behavior would appear in subsequent meetings. In Otero and Haut's (2016) study, reinforcement was an important component because it could influence the results of self-monitoring interventions on on-task behavior.

The follow-up results showed that off-task behavior did not increase again after the intervention was stopped. Subject 1 remained at 3, while Subjects 2 and 3 remained at 4. These data indicate that behavioral change tended to persist after the intervention ended. However, follow-up in this study was conducted only once, so conclusions regarding behavioral maintenance still need to be limited. Sulu et al. (2023) stated that maintenance and generalization of behavior after self-monitoring interventions remain aspects that need to be strengthened in future research.

Comparisons across subjects showed that all subjects experienced decreases, but the magnitude of the decrease was not the same. Subject 1 showed an overall decrease from 9 to 3, Subject 2 from 10 to 4, and Subject 3 from 11 to 4. The greatest level change was seen in Subject 3, namely 7 points. Differences in patterns of change are common in single subject research because the main focus of SSD is to examine behavioral change in each individual in depth, not to calculate group averages (Ledford & Zimmerman, 2023).

The pattern of change in all three subjects also supports the use of the multiple baseline across participants design. The intervention was given after different baseline lengths, and behavioral decreases appeared after each subject entered the intervention phase. This logic is consistent with

multiple baseline designs that use several baseline-treatment comparisons to strengthen the interpretation that behavioral change is related to the intervention provided (Slocum et al., 2022).

Although the results showed decreases in off-task behavior, interpretation still needs to be made cautiously. First, the number of subjects was only three students, so the findings are not intended to be generalized broadly. Second, the study was conducted over a short period, so long-term change cannot yet be confirmed. Third, follow-up was conducted only once, so behavioral maintenance cannot be strongly concluded. Ledford and Zimmerman (2023) also emphasized the importance of clearly reporting designs, graphs, and procedures so that readers can evaluate the strength of evidence in multiple baseline designs.

In general, the results show that self-monitoring techniques combined with reinforcement were associated with decreased frequencies of off-task behavior among three junior high school students. Behavioral decrease was observed from baseline to intervention and remained stable during the follow-up phase. Thus, this technique can be an alternative behavior modification strategy in guidance and counseling services to help students increase learning engagement and reduce unfocused behavior in class. This finding is consistent with the principle that good behavioral interventions should be directed toward target behaviors that are specific, observable, and repeatedly measurable (Manolov & Onghena, 2022; Slocum et al., 2022).

Conclusion

Based on the research findings, the implementation of self-monitoring techniques combined with reinforcement showed a tendency to reduce the frequency of off-task behavior among three junior high school students. During the baseline phase, the three subjects still showed high-frequency off-task behavior, such as talking off-topic, daydreaming, playing with objects, not paying attention to instructions, disturbing classmates, and not immediately completing tasks. After the intervention was given, the frequency of off-task behavior in all three subjects decreased. Subject 1 decreased from 9 to 3, Subject 2 decreased from 10 to 4, and Subject 3 decreased from 11 to 4. During the follow-up phase, off-task behavior did not increase again, indicating that behavioral change tended to be maintained after the intervention was stopped.

These findings show that self-monitoring techniques combined with reinforcement can be a relevant behavior modification strategy to help students reduce unfocused behavior during learning activities. Through self-monitoring, students are trained to recognize, record, and evaluate their own behavior, while reinforcement helps strengthen expected focused or on-task behavior. Nevertheless, the results of this study need to be interpreted carefully because the number of subjects was limited and follow-up was conducted only once. Therefore, future research is recommended to increase the number of follow-up sessions, expand the number of subjects, and apply the intervention in more diverse learning contexts so that behavioral change can be observed more strongly and sustainably.

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Author Contribution Statement

Anisa Safitri contributed to the conceptualization, research design, data collection, intervention implementation, data analysis, interpretation of findings, and manuscript drafting. Henny Indreswari and Khairul Bariyyah contributed to the supervision, conceptual refinement, methodological review, and manuscript revision. Noradilah Md Nordin contributed to the review of the manuscript, academic input, and final manuscript refinement. All authors reviewed and approved the final version of the manuscript.

Data Availability Statement

The data supporting the findings of this study are available from the corresponding author upon reasonable request. Due to ethical considerations and the confidentiality of student participants, the data are not publicly available.

Conflict of Interest Statement

The authors declare that there are no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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