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The Effectiveness of Cognitive Restructuring Techniques in Reducing Academic Procrastination among Junior High School Students

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ABSTRACT

Background: Academic procrastination is a significant problem experienced by many junior high school students. This behavior often leads to decreased productivity in completing academic assignments and can negatively impact students' overall academic performance. **Objective:** The objective of this study is to examine the effectiveness of cognitive restructuring techniques in reducing academic procrastination among junior high school students by helping them replace negative thought patterns with more positive and productive ones. **Method:** This research employed a mixed-method approach using a Sequential Explanatory design, which integrates quantitative and qualitative methods. The study was conducted in 2023 at SMP Negeri 1 Kepung. Data were collected through a questionnaire, and the quantitative data were analyzed using the t-test to determine the significance of the intervention. **Result:** The results indicated that cognitive restructuring techniques delivered through group counseling were effective in reducing academic procrastination behavior in students. The intervention led to measurable improvements in students' ability to manage their academic tasks more responsibly. **Conclusion:** Cognitive restructuring is a beneficial technique for addressing academic procrastination. By modifying students' maladaptive thoughts, it contributes to improved learning behavior and increased academic engagement. **Contribution:** This study contributes to the field of guidance and counseling by providing empirical evidence on the effectiveness of cognitive restructuring techniques in a group counseling setting.

KEYWORDS

Cognitive Restructuring Techniques; Academic Procrastination; Student

1. INTRODUCTION

Senior high school is the final stage of the 12-year compulsory education proposed by the government. High school students, whose average age is 15-18 years old, are adolescents whose way of thinking is different from elementary school students. Piaget suggests a cognitive stage

experienced by adolescents, namely the formal operational stage, where adolescents can think abstractly and understand complex concepts (Marinda, 2020). Adolescents can understand and conclude various attitudes and actions that will become concepts and philosophies of life. Inappropriate understanding of concepts and philosophies often results in various personality and cognitive

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problems for these students. Habits that are too excessive have an unbalanced impact on other things. The habit of playing games, music, watching Television, or playing outside the home for too long creates a personality that is too lazy to learn (Pambudi & Novianti, 2019). Lazy learning habits lead to irrational thoughts so sometimes they ignore school assignments and some do it until the deadline for collection because they feel other things must be done first than school assignments.

Procrastination is a decision that is made when acting, a tendency that goes against the impulse and acts without careful consideration. Academic procrastination in high school students is the tendency or habit to procrastinate or postpone academic tasks that should be done by students (Triyono & Khairi, 2018). This phenomenon often occurs among students and has a significant negative impact on their learning achievement. Cognitive restructuring is a cognitive therapy technique that focuses on the principles of learning and mind change (Froján-Parga et al., 2018). Cognitive restructuring has a strategy of two principles, namely destructive thoughts that produce self-deception, and thoughts and self-statements can be based on changing ideas and cognitions or what is called the irrational principle (Prastio & Muhid, 2022).

The process of learning activities involving students as subjects in studying at school is inseparable from activities that require students to do school assignments (Nur & Madkur, 2014). The number of subjects in one school makes students receive a lot of school assignments given by the teachers every day. This results in students doing academic procrastination. Delaying a job and the level of difficulty in doing the tasks that have been given can be the cause of these individual problems so students are unable to complete tasks on time (Permana, 2019).

In addition, students deliberately avoid tasks because of feelings of displeasure with the tasks given by teachers at school and feelings of fear of failure in completing assignments, which also become one of the factors for the high level of academic procrastination carried out by students. Learners who have difficulty in doing something, according to a predetermined time limit, often experience delays, prepare something excessively, or fail to complete the task according to a predetermined time limit (Husain et al., 2023). It is said to be one of the inefficient behaviors in using time. The phenomenon of the habit of delaying work is known as procrastination.

Academic procrastination is a behavior by delays the completion of tasks and academic performance in general, which is carried out continuously, delays a few moments before the deadline to long and short-term delays to exceed the deadline and ends up disrupting other performance (Moonaghi & Beydokhti, 2017). Academic procrastination: a behavior that must be eliminated. Some of the impacts of academic procrastination are making students

less responsible for themselves and the tasks they have been given, unable to manage time, which if it continues, students will have a bad habit of delaying work or doing their work hastily when approaching the deadline (Asri et al., 2017).

Academic procrastination has been widely studied, particularly at the senior high school and university levels, where it is often linked to academic pressure and complex decision-making. However, limited research has specifically focused on junior high school students, a group equally vulnerable to procrastination due to developmental factors such as emotional instability, lack of self-regulation, and emerging academic demands. Moreover, although various counseling approaches have been applied to reduce procrastination, such as time management training and behavioral interventions, there is a noticeable lack of empirical studies examining the direct impact of cognitive restructuring techniques in group counseling for this age group.

The novelty of this research lies in its focus on applying cognitive restructuring techniques within group counseling settings to address academic procrastination among junior high school students. This population is often overlooked in existing literature. This study fills the empirical gap by targeting a younger student demographic and integrates a cognitive-behavioral approach in a school-based group intervention format. Using a mixed-method, sequential explanatory design further enhances the contribution by providing both quantitative evidence and qualitative insights into the technique's effectiveness, offering a more comprehensive understanding for counselors and educators in addressing early academic procrastination.

This study aims to determine the effect of cognitive restructuring techniques to reduce students' academic procrastination. The focus of the discussion examines the use of cognitive restructuring and its effect on students' academic procrastination.

2. METHOD

2.1 Research Design

The research method used in this research is Mix Method with a Sequential Explanatory design (Bowen et al., 2017). The explanatory sequential combination method is a research method that combines quantitative research and qualitative research in sequence (serial), where in the first stage quantitative research is carried out and the second stage is continued with qualitative research. Quantitative methods play a role in obtaining quantitative data which can be descriptive, comparative, and associative (Choy, 2014). Meanwhile, qualitative methods play a role in strengthening, expanding, deepening, and obtain-

ning new findings or can even overturn quantitative data that has been obtained first (Sovacool et al., 2018).

2.2 Research Object

This research was conducted in 2024, at SMP Negeri 1 Kepung, Kediri. The population in this study involved third-grade students with a total of 108 students and 7 students with high levels of procrastination were selected. The selection of these 7 students was based on a purposive sampling method because only these students met the criteria needed for research.

2.3 Data Collection

Data collection is a systematic standardized procedure or procedure in the process of collecting research information (data) (Utomo et al., 2024). The method used in the data collection process uses a questionnaire. The questionnaire was used twice, namely before (pretest) students were given the intervention and after (posttest) were given the intervention.

2.4 Data Analysis

Data analysis to determine whether there is an effect on students' academic procrastination level after being

Table 1. Comparison of Pre-test and Post-test results

Name	M/F	Pre Test Score	Percentage (%)	Category	Post Test Score	Percentage (%)	Category
ATZ	F	171	76%	High	112	50%	Low
AS	F	174	78%	High	110	49%	Low
HH	F	171	76%	High	108	48%	Low
DHS	M	180	80%	High	116	52%	Medium
IDJ	F	174	78%	High	109	49%	Low
ASF	F	172	77%	High	118	53%	Medium
CK	F	177	79%	High	111	50%	Low
Avarage		174	78%	Tinggi	High	50 %	Low

Based on the results of the pre-test and post-test there is a significant decrease in academic procrastination. When the pre-test was given to 7 third grade students, it was included in the high category, while after getting group counseling services with Cognitive Restructuring the level of academic procrastination of these students

Table 2. Normality Test Results

	Tests of Normality					
	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Pre Test	,231	7	,200*	,889	7	,268
Post Test	,214	7	,200*	,909	7	,390

*. This is a lower bound of the true significance.
a. Lilliefors Significance Correction

The results of the normality test obtained the pre-test and post-test significance values of the Academic Procrastination questionnaire of 0. 268 and 0.390. Where the

given cognitive restructuring is using statistical analysis, analysis using the t-test.

2.5 Research Procedure

This implementation procedure follows specific procedures for professional counselors to follow when using cognitive restructuring (1) collect background information. (2) assist the counselee in becoming aware of the thought process. (3) examine the counselee's rational thought process. (4) assist the counselee in evaluating the counselee's beliefs about logical thought patterns. (5) help the client learn to change his internal beliefs and assumptions. (6) repeat the rational thought process once again, helping the client form goals that the client will be able to achieve. (7) combine thought-stopping with homework.

3. RESULT AND DISCUSSION

3.1 Result

The description of data comparing pre-test and post-test results is presented below:

decreased. This, can be seen from the results of the post-test given to 7 third grade students included in the low category. The average score of the pre-test was 174 (78%) and the average score of the post-test was 112 (50%), which means there was a decrease in the average score by 62 (28%).

significance value is greater than 0.05, which means that the variable data is normally distributed.

Table 3. Test Results

Paired Samples Test										
			Paired Differences					t	df	Sig. (2-tailed)
			Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
						Lower	Upper			
Pair 1	Pre - Post Test		62,143	4,220	1,595	58,240	66,046	38,960	6	,000

From the results obtained through SPSS 25, it can be seen that the standard deviation = 4.220 then the t value = 38.960, and df = n-1 = 8 with a significant value of 0.000. Because the significance of 0.000 is smaller than 0.05, it can be concluded that the Ho hypothesis is rejected and Ha is accepted, which means that cognitive restructuring techniques through group counseling have an effect in reducing the academic procrastination of third-grade students of SMP Negeri 1 Kepung.

Based on the results of group counseling service activities through interviews and observations, the guidance process took place for 4 meetings in which there were 7 steps of applying cognitive restructuring techniques. During the guidance session, students listened and followed each session quite well and enthusiastically. There are several obstacles and obstacles when implementing group counseling services including obstacles faced by students when answering questions about the causes of these students' academic procrastination. Difficulty in expressing the problems that are being experienced because of embarrassment and fear. Feeling very difficult in doing additional assignments because they coincide with assignments from other subjects. The obstacles faced by school counselors are limited time in providing service material so the provision of material takes place very densely in limited time. Then the timing of service delivery is difficult to adjust because there is no time allocation for school counselor services in class.

3.2. Discussion

From the results of the pre-test and post-test, there is a significant decrease in academic procrastination. When the pre-test was given to 7 third-grade students, it was included in the high category, while after being given the action of Cognitive Restructuring techniques through group counseling the level of academic procrastination of these students decreased. This can be seen from the results of the post-test given to 7 third-grade students in the low category. The average score on the pre-test was 174 (78%) and the average score on the post-test was 112 (50%), which means that there was a decrease in the average score by 62 (28%). These results show that the post-test score is lower than the pre-test score. These results are also proven by the results of the paired T-test

test obtained through SPSS 25, it can be seen that the standard deviation = 4.220 then the t value = 38.960, and df = n-1 = 8 with a significant value of 0.000. Because the significance of 0.000 < 0.05, it can be concluded that the Ho hypothesis is rejected and Ha is accepted, which means that group counseling with cognitive restructuring has an effect in reducing the academic procrastination of third-grade students at SMP Negeri 1 Kepung.

Similar research was also conducted by previous researchers that the provision of group counseling was effective in reducing academic procrastination with the results of the average percentage before being given services, which was 80% while after being given services it was 57.70%. This means there is a decrease in the average result by 22.40%. It is also proven by the results of the paired t-test which shows that the sig value on the rcount (0.000) < 0.05 (Ffitriyah, 2022).

The effect of group counseling with cognitive restructuring reduces the academic procrastination of third-grade students at SMP Negeri 1 Kepung. The existence of this influence is obtained from the pre-test and post-test results, there is a significant decrease in academic procrastination. At the time of the pre-test, 7 third-grade students were included in the high category, while after being given the action of cognitive restructuring techniques through group counseling the level of academic procrastination of these students decreased.

The cognitive restructuring technique is a method in cognitive behavioral theory that focuses on efforts to change rational thoughts into rational thoughts (Fadhli & Situmorang, 2021). By applying the steps in using cognitive restructuring techniques, namely identifying thoughts and problems experienced by students, changing negative thoughts to positive ones by asking students to identify thoughts that arise whether rational or irrational, and applying positive reinforcement to students by repeating positive questions and to foster new hopes and beliefs through positive individual thinking in eliminating unnatural behavior such as academic procrastination (Traeger, 2020). Group counseling with cognitive restructuring techniques is carried out by showing the irrational beliefs that students have and then arguing that with this technique students will be more able to realize that the acade-

mic procrastination behavior that occurs to them occurs based on their irrational beliefs.

The cognitive restructuring technique applied through group counseling is one of the effective interventions for reducing academic procrastination in students (Saputra & Lidyawati, 2019). Cognitive restructuring is a part of cognitive therapy that focuses on identifying and changing negative, distorted, or irrational thought patterns that can inhibit productive behavior (Knapp & Beck, 2008). When applied in group counseling, this technique has several advantages as it involves supportive group dynamics, inter-individual interaction, and social learning.

The cognitive restructuring technique through group counseling is effective in reducing academic procrastination because it involves the process of changing negative thought patterns, building social support, and developing important self-management skills. With the help of counselors and peers, students can change the way they view academic tasks and develop more productive and structured habits. This approach helps students not only understand the causes of procrastination but also offers tangible strategies to overcome it.

4. IMPLICATIONS AND CONTRIBUTIONS

4.1 Research Implication

The results of this study offer significant implications for the field of guidance and counseling, particularly in the implementation of group counseling interventions aimed at addressing academic procrastination among junior high school students. The effectiveness of cognitive restructuring techniques in reducing procrastination behavior demonstrates their potential as a practical tool for school counselors in helping students manage unproductive thought patterns.

4.2 Research Contribution

Furthermore, this study contributes to the development of evidence-based practices in school counseling by providing empirical support for the use of cognitive-behavioral strategies in group settings. It is expected that the application of these techniques will not only reduce students' academic procrastination but also enhance their overall learning experience by improving focus, time management, and motivation.

5. LIMITATIONS AND FUTURE RESEARCH DIRECTIONS

5.1 Research Limitations

This study is limited in scope as it primarily focuses on examining the effects of cognitive restructuring techniques in reducing academic procrastination among junior high school students. It does not explore the underlying

factors contributing to procrastination behavior nor compare the effectiveness of alternative intervention strategies.

5.2 Recommendations for Future Research Directions

Future research is recommended to investigate the various psychological, environmental, and social factors that influence academic procrastination. Additionally, further studies could explore the comparative effectiveness of different counseling approaches, such as mindfulness-based interventions, time management training, or motivational interviewing, in addressing procrastination. Expanding the sample size and including diverse student populations from different educational levels and backgrounds would also enhance the generalizability of the findings.

6. CONCLUSION

Procrastination can occur in six academic areas, namely writing assignments, studying for exams, reading supporting books, administrative tasks supporting the learning process, attending meetings, and overall academic performance. Learners often procrastinate on tasks given by teachers, because learners often think that delaying tasks is normal. Such thinking is included in irrational thoughts. Irrational thoughts in the scope of counseling can be overcome by using cognitive restructuring techniques. The purpose of using cognitive restructuring techniques to reduce academic procrastination behavior is as follows: (a) helping students to change more positive habits by making them aware of their thoughts; (b) changing the mindset of students; (c) exploring ideas and changing ideas about self and the environment.

Academic procrastination behavior carried out by students is influenced by several factors - including aversion to tasks, fear of failure, mood, rebellion, time management problems, impulses from distractions, environmental factors, and enjoying work under pressure. The characteristics of students who do academic procrastination are delaying starting and completing tasks, delays in doing tasks, a time gap between plans and actual performance, and doing more enjoyable activities.

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CRedit Authorship Contribution Statement

All authors discussed the results and contributed to the final manuscript. Epin Candra Buana: Conceptualization, Writing - Original Draft and Methodology. Ebtaniz Zulwidyaningtyas: Writing - Review & Editing.

Declaration of GenAI in Scientific Writing

The authors declare that Generative Artificial Intelligence (GenAI) tools were used to refine the academic language and accuracy of the work, improving its academic tone and language accuracy, including grammatical structures, punctuation, and vocabulary. The work was then further modified to better reflect the authors' own tone and writing style. All instances of Generative AI usage in this article were conducted by the authors in accordance with the [IJCP Generative AI \(GenAI\) Policy](#), with the authors assuming full responsibility for the originality, accuracy, and integrity of the work."

Conflict of Interest Statement

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

Ethical Approval Statement

The author declares that this study was conducted in accordance with research ethics principles and has received ethical approval from the author's institution, including respect for participants' autonomy, confidentiality of data, and ensuring their safety and well-being, as outlined in the applicable research ethics guidelines.

REFERENCES

- Asri, D. N., Setyosari, P., Hitipeuw, I., & Chusniyah, T. (2017). The Academic Procrastination in Junior High School Students' Mathematics Learning: A Qualitative Study. *International Education Studies*, 10(9), 70-77. <https://doi.org/10.5539/ies.v10n9p70>
- Bowen, P. W., Rose, R., & Pilkington, A. (2017). Mixed methods-theory and practice. Sequential, explanatory approach. *International Journal of Quantitative and Qualitative Research Methods*, 5(2), 10. <https://www.semanticscholar.org/paper/10e65807e2592071f763918793efe667d6aaf38a>
- Choy, L. T. (2014). The strengths and weaknesses of research methodology: Comparison and complimentary between qualitative and quantitative approaches. *IOSR journal of humanities and social science*, 19(4), 99-104. <https://www.iosrjournals.org/iosr-jhss/papers/Vol19-issue4/Version-3/N0194399104.pdf>
- Fadhli, T., & Situmorang, D. D. B. (2021). Implementation of cognitive behavioral therapy with cognitive restructuring technique to reduce psychosocial anxiety in the COVID-19 outbreak. *Addictive Disorders & Their Treatment*, 20(4), 268-277. <https://psycnet.apa.org/doi/10.1097/ADT.0000000000000246>
- Fitriyah, A. N. (2022). *Keefektifan Teknik Cognitive Restructuring Dengan Bimbingan Kelompok Untuk Mereduksi Prokrastinasi Akademik Siswa MTs Hidayatul Islam Tanjungharjo* (Doctoral dissertation, Universitas Nahdlatul Ulama Sunan Giri). <https://repository.unugiri.ac.id:8443/id/eprint/1924/>
- Froján-Parga, M. X., Calero-Elvira, A., Pardo-Cebrián, R., & Núñez de Prado-Gordillo, M. (2018). Verbal change and cognitive change: conceptual and methodological analysis for the study of cognitive restructuring using the Socratic dialog. *International Journal of Cognitive Therapy*, 11, 200-221. <https://psycnet.apa.org/doi/10.1007/s41811-018-0019-8>
- Husain, A. R., Wantu, T., & Pautina, M. R. (2023). Perilaku prokrastinasi akademik dan faktor penyebabnya pada mahasiswa. *Student Journal of Guidance and Counseling*, 2(2), 145-157. <http://dx.doi.org/10.37411/sjgc.v2i2.1907>
- Knapp, P., & Beck, A. T. (2008). Cognitive therapy: foundations, conceptual models, applications and research. *Brazilian Journal of Psychiatry*, 30, s54-s64. <https://doi.org/10.1590/s1516-44462008000600002>
- Marinda, L. (2020). Teori perkembangan kognitif Jean Piaget dan problematikanya pada anak usia sekolah dasar. *An-Nisa Journal of Gender Studies*, 13(1), 116-152. <https://doi.org/10.35719/annisa.v13i1.26>
- Moonaghi, H. K., & Beydokhti, T. B. (2017). Academic procrastination and its characteristics: a narrative review. *Future of medical education journal*, 7(2). <https://doi.org/10.22038/fmej.2017.9049>
- Nur, M. R., & Madkur, A. (2014). Teachers' voices on the 2013 curriculum for English instructional activities. *IJEE (Indonesian Journal of English Education)*, 1(2), 119-134. <https://doi.org/10.15408/ijee.v1i2.1340>
- Pambudi, S. T., & Novianti, D. (2019). Model Literasi Media di Lingkungan Rumah Panti Asuhan. *Jurnal Ilmu Komunikasi*, 16(2), 187-196. <https://doi.org/10.31315/jik.v16i2.2694>
- Permana, B. (2019). Gambaran prokrastinasi akademik siswa SMA darul falah cililin. *Fokus (kajian bimbingan & konseling dalam pendidikan)*, 2(3), 87-94. <https://doi.org/10.22460/fokus.v2i3.4498>
- Prastiyo, A. D., & Muhid, A. (2022). Konseling Kelompok Dengan Teknik Cognitive Restructuring menurunkan Prokrastinasi Akademik: Literature Review. *JKP*

- (*Jurnal Konseling Pendidikan*), 6(1), 20-32.
<https://doi.org/10.29408/jkp.v6i1.4966>
- Saputra, R., & Lidyawati, Y. (2019). Self-instruction technique in group counseling to reduce students' academic procrastination behavior. *Islamic Guidance and Counseling Journal*, 2(2), 49-55.
<https://doi.org/10.25217/igcj.v2i2.420>
- Sovacool, B. K., Aksen, J., & Sorrell, S. (2018). Promoting novelty, rigor, and style in energy social science: Towards codes of practice for appropriate methods and research design. *Energy research & social science*, 45, 12-42.
<https://doi.org/10.1016/j.erss.2018.07.007>
- Traeger, L. (2020). Cognitive restructuring. In *Encyclopedia of Behavioral Medicine* (pp. 498-498). Cham: Springer International Publishing.
- Triyono, T., & Khairi, A. M. (2018). Prokrastinasi akademik siswa SMA (Dampak psikologis dan solusi pemecahannya dalam perspektif psikologi pendidikan islam). *Jurnal Al-Qalam: Jurnal Kependidikan*, 19(2), 57-74.
<https://ojs.unsiq.ac.id/index.php/al-qalam/article/view/517>
- Utomo, P., Asvio, N., & Prayogi, F. (2024). Metode Penelitian Tindakan Kelas (PTK): Panduan Praktis untuk Guru dan Mahasiswa di Institusi Pendidikan. *Pubmedia Jurnal Penelitian Tindakan Kelas Indonesia*, 1(4), 19.
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