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The Effectiveness of Behavioral Contract-Based Group Counselling in Reducing Students' Academic Procrastination

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ABSTRACT

This study aimed to examine the effectiveness of behavior contract-based group counselling in reducing students' academic procrastination. A quantitative approach was applied using a true experimental design (pretest-posttest control group design). The sample consisted of 16 students from the Faculty of Teacher Training and Education (FKIP) at Widya Mandala Catholic University Surabaya (Madiun City Campus), selected through purposive sampling and divided into an experimental group and a control group, with 8 participants each. Data were collected using an academic procrastination scale with a Cronbach's Alpha reliability of 0.892. Data analysis involved descriptive statistics and an independent-samples t-test. The results showed that the mean academic procrastination score in the experimental group decreased from 86.75 (high category) to 74 (moderate category), while the control group score decreased from 81.88 to 78. However, the independent samples t-test yielded a t-value of -0.790 with a Sig. (2-tailed) value of 0.442 (>0.05), indicating no significant difference between the two groups. Behavior contract-based group counselling was not proven statistically effective in reducing students' academic procrastination, despite showing positive changes in descriptive terms. Potential reasons for the intervention's suboptimal effectiveness include the service's short duration, insufficient self-reinforcement, and limited environmental control.

Informasi Artikel

Kata Kunci:
Kontrak Perilaku; Konseling Kelompok; Prokrastinasi Akademik.

ABSTRAK

Penelitian ini bertujuan menguji efektivitas konseling kelompok berbasis kontrak perilaku dalam menurunkan prokrastinasi akademik mahasiswa**.** Peneliti menerapkan pendekatan kuantitatif dengan desain *true experimental* tipe *pretest-posttest control group design*. Sampel penelitian terdiri atas 16 mahasiswa FKIP Universitas Katolik Widya Mandala Surabaya Kampus Kota Madiun, ditentukan menggunakan purposive sampling dan dibagi ke dalam kelompok eksperimen dan kelompok kontrol masing-masing delapan orang. Pengumpulan data menggunakan skala prokrastinasi akademik dengan reliabilitas *alpha Cronbach* 0,892. Teknik analisis data menggunakan statistik deskriptif dan uji *independent samples t-test*. Hasil penelitian menunjukkan bahwa skor rata-rata prokrastinasi akademik pada kelompok eksperimen menurun dari 86,75 (kategori tinggi) menjadi 74 (kategori sedang), sedangkan kelompok kontrol menurun dari 81,88 menjadi 78. Namun, uji *independent samples t-test* menghasilkan nilai t sebesar $-0{,}790$ dengan nilai Sig. (2-tailed) sebesar $0{,}442 > 0{,}05$, sehingga tidak terdapat perbedaan yang signifikan antara kedua kelompok. Konseling kelompok berbasis kontrak perilaku belum terbukti efektif secara statistik untuk menurunkan prokrastinasi akademik mahasiswa, meski menunjukkan perubahan positif secara deskriptif. Kemungkinan penyebab belum optimalnya efektivitas intervensi antara lain durasi layanan yang singkat, penguatan mandiri yang belum optimal, serta kontrol lingkungan yang terbatas

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1. Introduction

A student's success in completing academic tasks is determined not only by intellectual aptitude but also by the ability to manage their learning behavior independently. One common obstacle is academic procrastination—the tendency to intentionally delay completing tasks despite being aware of the resulting negative consequences.

Students are expected to maximize their academic potential through both intellectual competence and self-regulated learning skills. Effective self-regulation enables students to meet various academic demands successfully, whereas poor self-regulation can lead to academic issues, including academic procrastination (Zimmerman, 2008; Lubis, 2018). Students who fail to self-regulate—specifically in setting goals, monitoring progress, and evaluating learning outcomes—tend to exhibit higher levels of academic procrastination (Lubis, 2018).

Academic procrastination is the behavior of delaying the completion of academic tasks intentionally, even though the individual is aware of the negative consequences. Steel (2007) defines procrastination as the voluntary postponement of planned activities, despite the individual's awareness that this behavior will worsen the situation. In the context of higher education, academic procrastination encompasses delaying coursework assignments, studying for exams, completing laboratory reports, and working on an undergraduate thesis (Ferrari et al., 1995).

The prevalence of procrastination is notably high—both globally and nationally—ranging from 10–70% (Abbasi & Alghamdi, 2015) to over 50–80% in certain studies conducted in Indonesia (Saman, 2017). Delaying tasks diminishes the quality of learning outcomes because students lose the opportunity to delve into the material and review their work (Jatikusumo, 2018), and it also contributes to increased stress and a decline in psychological well-being (Sirois, 2023). The digital environment exacerbates this tendency; high levels of media and technology usage are positively correlated with task-delaying behavior (Turel & Dokumacı, 2022).

This high prevalence is also observed across various higher education institutions in Indonesia, including the Faculty of Teacher Training and Education at Widya Mandala Catholic University Surabaya (Madiun City Campus).

Academic procrastination has been identified at the Faculty of Teacher Training and Education (FKIP) of Widya Mandala Catholic University Surabaya (UKWMS) Madiun City Campus. Preliminary interviews with heads of study programs on December 4, 2025, indicated that the behavior of delaying assignments persists with varying intensity across various study programs. A preliminary study utilizing an academic procrastination scale administered to 49 students corroborated these findings: 71.43% of students fell into the moderate procrastination category, 12.24% into the high category, and only 16.33% into the low category; consequently, 83.67% of students tended to delay assignments at moderate to high levels.

Group counselling is considered a service with the potential to address these issues. It enables students to gain social support and feedback, as well as learning opportunities through the experiences of other group members, thereby enhancing motivation and commitment to behavioral change (Corey, 2016). Furthermore, group dynamics offer members the chance to support one another and foster a shared sense of responsibility regarding behavioral change (Saputri & Ayriza, 2021). Group counselling was selected as the intervention method since it provides peer social support, which has been shown to boost participants' motivation and self-awareness to change (Saputri & Ayriza, 2021). In this study, group counselling is combined with the behavior contract technique. The behavior contract is a technique within the behavioral approach that involves a written agreement outlining the behavior to be modified, the target to be achieved, the implementation duration, and the consequences or reinforcements to be applied upon achieving the target (Erford, 2016). Clearly defined behavioral targets and a written commitment are expected to improve student discipline in completing academic tasks within the designated timeframes.

Damayanti and Sutarto (2020) confirmed that behaviorally oriented group counselling is effective in reducing student procrastination, while Krismi et al. (2021) emphasized that group dynamics strengthen members' commitment to change. Behavioral contracting techniques are incorporated into this service because they involve a written agreement regarding goals, duration, and consequences, thereby reinforcing an individual's commitment to altering their habits (Erford, 2016). Krismi et al. (2021) found that behavioral contracting within group counselling significantly reduces procrastination by providing goal clarity and continuous reinforcement.

Most research on procrastination interventions still focuses on secondary school students who are subject to strict external supervision by teachers and parents. University students possess greater learning autonomy; consequently, the success of behavioral interventions depends not only on external control or reinforcement but also on self-regulation skills in maintaining planned behaviors (Zimmerman, 2000; Steel, 2007). In the context of higher education, behavioral change tends to be more effective when students can independently set goals, monitor progress, and evaluate their own behavior (Elizondo et al., 2024). The effectiveness of behavioral interventions is influenced by the presence of clear structure, ongoing feedback, and accountability mechanisms that help individuals sustain behavioral changes. When such support diminishes, behavioral changes tend to be more difficult to maintain (Turner & Hodis, 2023; Suárez-Perdomo & Ruiz-Alfonso, 2024).

Meanwhile, Abdi Zarrin et al. (2020) found that student procrastination is driven more by internal motivation than by adherence to formal contracts. These differing characteristics suggest that the effectiveness of behavioral contract techniques among university students requires further empirical validation, thereby presenting a significant research gap to be explored.

Addressing this research gap, this study examines the effectiveness of behavioral contract-based group counselling among university students—a population characterized by independent learning and a high degree of autonomy. This study aims to provide empirical evidence regarding the continued relevance of applying behavioral contract techniques to university students and to serve as a foundation for developing guidance and counselling services in higher education to address academic procrastination.

Based on the foregoing, this study aims to determine the level of academic procrastination among students before and after participating in behavior contract-based group counselling, and to examine the effectiveness of this service in reducing academic procrastination among students at the FKIP UKWMS Madiun City Campus.

2. Research Method

This study employs a quantitative approach using an experimental method grounded in the positivist paradigm, which views research phenomena as measurable objectively through numerical data (Sugiyono, 2019). The research employs a true experimental design, specifically a pretest-posttest control group design. This design enables the researcher to compare changes in academic procrastination levels—before and after the intervention—within the experimental group and to compare these results with a control group that did not receive the intervention (Sugiyono, 2019). The research design is presented in Table 1.

The study population consisted of all 72 active students from the Faculty of Teacher Training and Education (FKIP) at UKWMS, Madiun City Campus, during the 2025/2026 academic year. The research sample was selected using a purposive sampling technique, specifically targeting students who exhibited moderate to high levels of academic procrastination based on initial measurements. The sample comprised 16 students divided into two groups: eight in the experimental group and eight in the control group. The determination of group size was based on the ideal range for group counselling—four to eight members—to ensure optimal group dynamics (Rasimin & Hamdi, 2019).

Tabel 1 Research Design

Group	*Pretest* (O_1)	Treatment	*Posttest* (O_2)
Experimental	O_1	X	O_2
Control	O_1	-	O_2

Note: X = Behavior-based group counseling

The independent variable in this study is behavioral contract-based group counselling, while the dependent variable is academic procrastination. The research instrument is a Likert-scale academic procrastination measure with four response options (Strongly Agree, Agree, Disagree, Strongly Disagree), comprising 36 items that represent four indicators of academic procrastination: perceived time, emotional distress, intent-action gap, and perceived ability (Surijah & Sia, 2007). A validity test using Pearson product-moment correlation with 49 students resulted in 30 valid items and 6 discarded items (r-table = 0.281 at a 5% significance level), while a reliability test using the Cronbach's Alpha coefficient yielded a value of 0.892, indicating that the instrument is reliable.

The research procedure consisted of three stages: pretest, intervention, and posttest. In the initial stage, both groups took a pretest to assess their levels of academic procrastination before the intervention. Subsequently, the experimental group received behavioral contract-based group counselling services over two sessions within seven days, whereas the control group received no intervention and simply continued with their usual academic activities. The group counselling sessions followed the four stages outlined by Corey (2016): the initial stage, transition stage, working stage, and termination stage. During the first session of the working stage, each member drafted a written behavioral contract specifying the target behavior, success indicators, forms of reinforcement (rewards), consequences for failing to meet the target, and the implementation timeframe. The contract was signed to signify a commitment to behavioral change. The second session involved evaluating the contract's implementation, identifying obstacles faced by participants, and providing reinforcement for the behavioral changes achieved. Upon completion of the entire intervention, both groups took a posttest using the same instrument to measure changes in their levels of academic procrastination.

Data analysis was conducted using descriptive and inferential statistics with the aid of IBM SPSS Statistics version 22. Descriptive statistics were used to describe the mean, median, mode, and standard deviation, as well as to categorize levels of academic procrastination into low, medium, and high categories based on Azwar's (2016) categorization norms. Before hypothesis testing, prerequisite tests were performed, including a normality test using the Kolmogorov–Smirnov test and a homogeneity test using Levene's Test. Hypothesis testing was conducted using an independent samples t-test at a 5% significance level ($\alpha = 0.05$) to determine whether there was a difference in post-test scores between the experimental and control groups. Behavior contract-based group counselling is considered effective if a significant difference exists between the two groups following the intervention (Sugiyono, 2019).

This study was conducted in adherence to research ethics principles, including respect for participant autonomy, data confidentiality, and voluntary participation. Before the study, all prospective participants were informed of the research objectives, procedures, benefits, and potential risks, as well as their right to decline participation or withdraw from the study at any time without academic repercussions. Before data collection began, students willing to participate were asked to provide their agreement as a form of informed consent.

Participant identities are not included in the research instruments or reports to ensure confidentiality. All data are analyzed and presented in aggregate form, making individual identification impossible. Research data are used solely for academic purposes and are not disclosed to third parties outside the scope of the research. The entire research process is conducted voluntarily, free from coercion, pressure, or any treatment that could harm the participants. In adherence to the principle of justice, the control group is also allowed to receive the same counselling materials or services upon completion of the study.

3. Results and Discussion

This section presents the results of the analysis regarding students' levels of academic procrastination before and after the provision of behavioral contract-based group counselling services. The analysis encompasses descriptive statistics, the distribution of academic procrastination categories, prerequisite analysis tests, and hypothesis testing.

Based on Table 2, the experimental group experienced a mean score decrease of 12.75 points, whereas the control group experienced a decrease of only 3.88 points. Descriptively, these results indicate that students receiving behavior contract-based

Table 2 Comparison of Mean Academic Procrastination Scores

Group	*Pretest*	Category	*Posttest*	Category	Decline
Experimen	86,75	High	74	Medium	- 12,75
Control	81,875	Medium	78	Medium	-3,875

Table 3 Frequency Distribution of Academic Procrastination Categories

Group	Low (%)	Medium (%)	High (%)	Fase
Experimental	0	50	50	*Pre-test*
Experimental	25	62,5	12,5	*Post-test*
Control	0	75	25	*Pre-test*
Control	12,5	75	12,5	*Post-test*

group counselling services experienced a greater reduction in academic procrastination levels compared to students in the control group.

The frequency distribution of academic procrastination categories also revealed changes within the experimental group. Before the intervention, 50% of the students fell into the high category, a figure that dropped to 12.5% following the intervention. Additionally, the low category—previously unrepresented—rose to 25%. In contrast, the control group showed relatively minor changes, with the majority of respondents remaining in the moderate category.

Before hypothesis testing, the data were assessed to ensure they met the assumptions for parametric statistics. The Kolmogorov–Smirnov test yielded a significance value of 0.200 ($p > 0.05$), indicating a normal distribution. Subsequently, the homogeneity test using Levene's Test produced a significance value of 0.331 ($p > 0.05$), demonstrating that the variances of both groups were homogeneous. Thus, the data satisfied the assumptions required for analysis using the Independent Samples t-test (Field, 2018). The Independent Samples t-test results yielded a t-value of -0.790, df = 14, and Sig. (2-tailed) = 0.442. Since the significance value exceeded the 5% error threshold ($p > 0.05$), the null hypothesis (H_0) was accepted, and the alternative hypothesis (H_1) was rejected. Consequently, there was no statistically significant difference in academic procrastination levels between the experimental and control groups following the treatment.

Nevertheless, descriptive statistical results indicate that the experimental group experienced a greater score reduction compared to the control group. These findings suggest a trend toward positive change, yet the magnitude of this change was insufficient to yield a statistically significant difference.

The results of this study indicate that the provision of behavior contract-based group counselling did not produce a significant difference in the reduction of students' academic procrastination compared to the control group. However, descriptive analysis reveals a trend of greater score reduction in the experimental group than in the control group. These findings suggest that the behavior contract technique has the potential to bring about behavioral change, although the effect was not substantial enough to achieve statistical significance.

These results align with behavior modification theory, which posits that behavior contracts function through the use of reinforcement and mutually agreed-upon consequences to increase the likelihood of the desired behavior occurring (Cooper et al., 2020). In this study, some students exhibited reduced levels of procrastination following the intervention, suggesting that reinforcement mechanisms likely operated at the individual level, even if results were inconsistent at the group level.

The lack of statistical significance in the findings may be attributed to several methodological factors. First, the seven-day intervention period was likely insufficient to establish new study habits. Research by Lally et al. (2010) indicates that the formation of automatic behavior takes an average of approximately 66 days, although this duration varies widely depending on the complexity of the behavior being established. Consequently, the changes observed during the study are more likely to reflect temporary compliance rather than internalized behavioral change.

Beyond duration, the characteristics of academic procrastination among university students are more complex than those observed in school-aged students. Procrastination is influenced not only by a lack of behavioral control but also by self-regulation, motivation, self-efficacy, time management, and the ability to manage distractions (Steel, 2007; Klassen et al., 2008). Consequently, relying solely on behavioral contracts as an intervention technique may be insufficient to address the various psychological factors underlying procrastination.

Other factors that may have influenced the study results include uncontrolled extraneous variables, such as organizational commitments, work activities, living conditions, and academic pressure experienced during the study. These variables could potentially affect students' ability to maintain their commitment to the behavioral targets agreed upon during counselling. As these variables were not directly measured in this study, their impact remains uncertain and warrants further investigation in future research.

On the other hand, the relatively small sample size ($n = 16$) may also reduce statistical power, thereby lowering the likelihood of detecting a significant difference, even if a descriptive trend toward change is observed (Cohen, 1988). This situation creates the possibility of a Type II error—specifically, the failure to detect an effect that actually exists.

Overall, the study results indicate that behavior contract-based group counselling did not yield a significant reduction in students' academic procrastination under the conditions of this study. Nevertheless, the greater score reduction observed in the experimental group suggests that this technique holds potential for further development through longer intervention durations, larger sample sizes, and integration with strategies to enhance self-regulation and intrinsic motivation.

4. Conclusion

This study indicates that, before the intervention, students' academic procrastination fell within the moderate-to-high range in both groups, with the experimental group exhibiting a larger proportion of students in the high-level category. Following seven days of behavioral contract-based group counselling, the experimental group showed a greater descriptive reduction in procrastination compared to the control group; however, the independent samples t-test yielded a significance value of 0.442 (greater than 0.05), resulting in the rejection of the research hypothesis. These findings suggest that the application of behavioral contracts within the study's brief intervention period was insufficient to produce a statistically significant reduction in academic procrastination.

The changes observed during the intervention reflect momentary compliance rather than the internalization of truly enduring new behaviors. Based on these findings, it is recommended that counselors or academic advisors consider behavioral contracts as an intervention strategy to reduce academic procrastination; however, implementation should span a longer duration and include periodic monitoring and evaluation of progress toward behavioral targets. Students are encouraged to enhance their self-regulation and time-management skills while minimizing distractions during study sessions to ensure that the behavioral changes achieved during counselling are sustained. Future researchers are advised to employ larger sample sizes and longer intervention periods, incorporate follow-up measurements, and utilize ANCOVA or Mixed ANOVA analyses to allow for a more accurate estimation of the treatment's effects.

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