

Cognitive-behavioral modification to enhance academic self-efficacy: A case of junior high school students

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ABSTRACT

Academic self-efficacy (ASE) is a critical determinant of students' success, yet traditional punishment-based approaches to counseling have proven ineffective in enhancing ASE. This study aimed to evaluate the effectiveness of Cognitive-Behavioral Modification (CBM) counseling in improving ASE among junior high school students. A quantitative research design was employed, utilizing a true experimental approach with a pretest-posttest control group design. Participants consisted of junior high school students from SMP Negeri 2 Malang, East Java province of Indonesia, who were randomly assigned to experimental and control groups. The experimental group received CBM counseling with a Modeling (M) technique, while the control group followed standard counseling practices. Data were collected using ASE assessments administered before and after the intervention, and analyzed using non-parametric statistical tests. Results demonstrated that CBM-M counseling significantly enhanced students' ASE compared to the control group. The findings suggest that the CBM approach, particularly when combined with modeling techniques, is highly effective in fostering positive cognitive and behavioral changes that improve ASE. These results emphasize the need for a shift from punishment-based strategies to problem-solving approaches in school counseling, with implications for broader educational practices.

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Introduction

Academic self-efficacy (ASE) is a critical factor that influences students' motivation, perseverance, and overall academic performance. ASE, as defined by Bandura (1997), is an individual's belief in their ability to successfully perform academic tasks and achieve specific learning goals. ASE is a multidimensional construct that includes confidence in one's ability to manage academic challenges, complete tasks, and perform well in academic settings (Schunk & DiBenedetto, 2022). Students with high ASE are more likely to set challenging goals for themselves, persevere in the face of difficulties, and use effective strategies to achieve academic success (Hasanah & Mariyati, 2023). In contrast,

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students with low ASE tend to avoid challenging tasks, give up easily when faced with obstacles, and doubt their academic abilities (Dogan, 2015). These behaviors result in poor academic outcomes and a lack of motivation to improve.

The urgency of enhancing students' ASE cannot be overstated, particularly in today's educational environment where students face increasing pressures to perform well academically. Research has shown that ASE is a strong predictor of academic success, making it a crucial target for interventions designed to improve student outcomes (Honicke & Broadbent, 2016). Moreover, ASE is not only important for academic achievement but also for developing students' overall self-regulation and problem-solving skills (Hwang et al., 2016). Students with low ASE may struggle with self-management and may be more prone to academic burnout and disengagement (Zysberg & Schwabsky, 2021). Given the growing challenges that students face, including increased academic competition and heightened expectations, enhancing ASE is essential to help students build resilience and maintain a positive academic trajectory. Interventions aimed at improving ASE, therefore, are critical in ensuring that students are equipped with the necessary psychological tools to succeed in their academic endeavors.

Cognitive-Behavioral Modification (CBM) is a therapeutic approach developed by Donald Meichenbaum that focuses on changing maladaptive cognitive patterns to bring about positive behavioral changes (Bandura, 1997). CBM operates on the premise that thoughts, beliefs, and self-talk significantly influence emotions and behaviors (Salameh, 2019). According to this approach, by identifying and altering negative or irrational thought patterns, individuals can improve their emotional well-being and behavioral responses (Alfaiz et al., 2023). In educational settings, CBM has been widely applied to address academic challenges by helping students replace self-limiting beliefs with positive, empowering thoughts (Johnsen et al., 2024; Sigdya et al., 2024). This cognitive restructuring process allows students to develop healthier attitudes towards their academic tasks, increasing their motivation and willingness to engage with challenging material (Chystovska et al., 2024). Furthermore, CBM's focus on problem-solving and coping strategies equips students with the tools to handle academic stress more effectively.

One of the key techniques within CBM is modeling, which allows students to observe and imitate the behaviors of others who demonstrate effective coping and academic strategies (Bandura, 1997). This technique is particularly effective in fostering ASE, as students can learn through vicarious experiences by watching peers or teachers successfully complete academic tasks. As students internalize these observations, they begin to believe in their own abilities to replicate similar behaviors, leading to an increase in ASE (Ali, 2019). Additionally, CBM's focus on self-regulation helps students develop a more proactive approach to learning, where they take ownership of their academic progress and set achievable goals for themselves (Zeidi et al., 2020). In this way, CBM offers a comprehensive framework for enhancing ASE, addressing both the cognitive and behavioral aspects that contribute to academic success.

In recent years, several studies have explored the effectiveness of CBM in educational settings, with promising results. Karneli et al. (2019) conducted a study on vocational high school students and found that CBM significantly reduced academic stress while improving ASE. The researchers concluded that the use of CBM techniques, such as cognitive restructuring and modeling, allowed students to cope better with academic pressures, leading to enhanced self-efficacy. Similarly, Hasanah and Mariyati (2023) examined the impact of CBM interventions on high school students and found that those who participated in CBM counseling demonstrated significant improvements in ASE compared to those in the control group. These findings highlight the potential of CBM to foster not only academic resilience but also positive academic outcomes in students facing academic challenges.

In a related study, Makaria et al. (2019) investigated the relationship between CBM-based counseling and self-efficacy in the Guidance and Counseling program at Lambung

Mangkurat University. The results showed that students who received CBM interventions were more confident in their ability to complete academic tasks, suggesting that CBM plays a vital role in fostering ASE in higher education settings. Other studies, such as [Yuliastini et al. \(2020\)](#), focused on primary education and found that CBM helped students develop better emotional regulation and social skills, which indirectly contributed to improvements in their ASE. [Dewi et al. \(2016\)](#) also demonstrated that CBM techniques, such as self-instruction and problem-solving, were effective in reducing academic anxiety and boosting ASE among junior high school students. Together, these studies provide robust evidence supporting the use of CBM in educational settings to improve students' ASE and overall academic well-being.

While these studies emphasize the efficacy of CBM in enhancing ASE, several gaps remain in the literature. Most notably, many of the existing studies have focused on the general application of CBM techniques without delving into the specific effects of modeling on ASE. Modeling, as a core component of CBM, has the potential to be particularly effective in educational settings, yet its application remains underexplored. Furthermore, while the research has demonstrated that CBM can reduce academic stress and improve ASE, few studies have examined the long-term effects of these interventions. The durability of CBM's impact on students' ASE over time, especially in the context of sustained academic pressures, is an area that requires further investigation. Additionally, there is limited research on the use of CBM in junior high school populations, where students are at a critical developmental stage and could benefit significantly from interventions aimed at enhancing ASE.

This research seeks to address these gaps by focusing specifically on the modeling technique within CBM and its impact on ASE in junior high school students. Unlike previous studies that have examined the broader effects of CBM, this research systematically integrates live and symbolic modeling into the counseling process, providing students with concrete examples of academic success to emulate. The novelty of this research lies in its structured approach to modeling, which not only allows students to observe successful academic behaviors but also actively engages them in the process of cognitive restructuring and self-reflection. By focusing on junior high school students—a group that is often overlooked in ASE research—this study aims to provide unique insights into how targeted CBM interventions can foster academic resilience and self-efficacy during a critical period of development.

The primary objective of this research is to investigate the effectiveness of Cognitive-Behavioral Modification counseling, specifically using the modeling technique, in enhancing academic self-efficacy among junior high school students. This study will contribute to the existing body of literature by providing empirical evidence on the specific role that modeling plays in improving ASE, a topic that has received limited attention in previous research. Furthermore, the findings of this study have the potential to inform educational practices by offering a structured, evidence-based approach to improving ASE through CBM interventions. By demonstrating the effectiveness of modeling in enhancing ASE, this research could have far-reaching implications for educators and school counselors seeking to implement interventions that build students' academic confidence, motivation, and resilience, ultimately contributing to improved academic outcomes.

Method

Research design

This research utilized a True Experimental Design, specifically adopting a Randomized Pretest-Posttest Control Group Design. This design was chosen for its robustness in examining the causal relationship between the independent and dependent variables while controlling for confounding factors. In this study, the independent variable

was the modeling technique applied through Cognitive-Behavioral Modification Counseling (CBMC), and the dependent variable was academic self-efficacy (ASE). This design allowed for a clear comparison of changes in ASE between the experimental group (which received the CBMC treatment) and the control group (which did not receive this specific intervention but continued with their regular school counseling activities). The research design involved administering a pretest to both groups to assess baseline ASE levels before the intervention. After the intervention, a posttest was conducted to measure any changes in ASE. This structure ensured that any observed differences in ASE between the two groups could be directly attributed to the CBMC intervention, thus controlling for external factors. The pretest-posttest design also helped ensure that both groups were comparable at the beginning of the experiment, making it possible to attribute post-intervention differences to the treatment rather than pre-existing disparities between the groups.

Participants

The participants of this study were eighth-grade students from State Junior High School 2 Malang, located in East Java, Indonesia. The sample selection process began with administering the pretest to the entire population of eighth-grade students, which allowed the researcher to identify students with lower levels of academic self-efficacy. These students were considered suitable candidates for the intervention, as they would benefit most from CBMC. After identifying students with low ASE, they were randomly assigned to either the experimental or control group, ensuring that both groups were balanced in terms of their initial ASE levels. In total, 10 students were selected and evenly divided between the two groups. The experimental group received the CBMC intervention, while the control group continued with their standard school counseling sessions. Randomization was critical in mitigating threats to internal validity, such as selection bias, and in ensuring that both groups were equivalent before the intervention. This random allocation also helped control for confounding variables like history effects, maturation, and pretest sensitization, which could otherwise influence the outcomes.

Research procedure

The research procedure began with the administration of the pretest to assess the students' baseline ASE levels. This was followed by the intervention phase for the experimental group, during which students participated in video modeling (VM) sessions as part of the CBMC program. The control group continued to receive the regular counseling services provided by the school, which focused on general academic support and emotional well-being. The intervention for the experimental group consisted of several phases. The first is Preparation Phase. During the first week, the researcher provided training to the school counselor and the video assistant, equipping them with a comprehensive treatment guide that included detailed concepts, scenarios, and procedures for implementing the CBMC intervention. The guide was designed to ensure consistency and adherence to the research protocol. The researcher also sought expert validation for the treatment guide to ensure its effectiveness and alignment with established counseling practices. The second is Implementation Phase. In the second and third weeks, practice sessions were conducted to allow the counselor to become familiar with the modeling techniques and the intervention's overall structure. The sessions involved two students from the experimental group and focused on enhancing their ASE through structured modeling activities. The video modeling technique was a core component of the intervention, providing students with opportunities to observe their peers or role models engaging in successful academic behaviors. This vicarious learning process was intended to help students internalize positive behaviors and improve their self-efficacy. The third is Intervention Delivery. Over the next few weeks, the CBMC intervention was delivered in a series of counseling sessions. Each session involved the

counselor guiding the students through discussions and activities aimed at identifying negative thought patterns and replacing them with more constructive, problem-solving approaches. The sessions also incorporated modeling exercises, where students observed positive academic behaviors and reflected on how they could adopt similar strategies in their own learning.

Instruments and data collection

The study employed two key instruments: treatment guides and data collection instruments. The treatment guide served as a detailed manual for the counselor, outlining the procedures and scenarios for delivering the CBMC intervention. It was designed to ensure consistency in the delivery of the intervention across all sessions. The data collection instruments included a custom-designed Academic Self-Efficacy (ASE) scale, which was used for both the pretest and posttest. This scale was developed by constructing a series of statements (items) related to students' confidence in their academic abilities, which participants rated on a Likert scale.

The development of the ASE scale involved several steps, including the formulation of items, item selection, and validity and reliability testing. Following a trial period and analysis of item performance, the final version of the scale was assembled, ensuring that it met the required psychometric standards for measuring ASE. The scale's reliability was confirmed using Cronbach's alpha, while its validity was established through expert review and pilot testing. The pretest was administered to all participants at the start of the study to assess their initial ASE levels. This was followed by the intervention phase, where only the experimental group participated in the CBMC sessions. After the completion of the intervention, a posttest was administered to both groups to measure changes in ASE. The data collection process was carefully controlled to ensure that all students completed the pretests and posttests under the same conditions, minimizing the potential for external influences on the results.

Data analysis

The data collected from the pretests and posttests were analyzed using SPSS for Windows (version 26). Given the small sample size and the ordinal nature of the data, the non-parametric independent sample t-test was used to assess differences in ASE before and after the intervention. This test was chosen because it is appropriate for comparing paired samples. The analysis focused on comparing ASE scores within the experimental group (pretest vs. posttest) and between the experimental and control groups (posttest comparison). In addition to the independent sample t-test, descriptive statistics (mean, standard deviation) were calculated to summarize the data, and the reliability of the ASE scale was assessed using Cronbach's alpha. These statistical analyses provided a comprehensive understanding of the impact of CBMC on students' ASE and ensured that the study's findings were both robust and valid.

Results

This research, which employed both the modeling technique (M) and the counselor-led Individual Counseling (KK) approach, revealed that both methods were effective in enhancing students' Academic Self-Efficacy (ASE). However, the modeling (M) technique demonstrated a greater impact on improving ASE compared to the Individual Counseling (KK) method. The role of the counselor was integral in the success of the Cognitive-Behavior Modification Counseling (CBMC) process, facilitating changes in students' ASE through a structured approach to modifying behavior and thought patterns.

The counseling sessions conducted using the CBMC framework, with a focus on modeling techniques, had a progressive and cumulative influence on enhancing students' ASE. Addressing the academic and emotional challenges students faced was a critical

aspect of the counseling process. Each session was carefully designed to motivate students, helping them nurture their ASE. Through these sessions, counsees were encouraged to reflect on and assess their thoughts, beliefs, and emotions, which ultimately led to more positive behaviors and increased academic confidence (Karneli et al., 2019). The structured reflection and exploration of cognitive and emotional patterns empowered students to translate this growth into their daily academic activities, thereby actualizing their academic potential.

Throughout the intervention, students were guided through stages that involved expressing, discussing, and analyzing their thoughts and emotions with the counselor. This process not only supported the development of ASE but also resulted in better-controlled behaviors, fostering more positive outcomes. Self-efficacy, defined as a person's belief in their capacity to organize and execute tasks required to manage prospective situations, was notably improved through the intervention. With the counselor's support, students were able to evaluate their previous experiences and gain insights into how these experiences influenced their academic performance (Dewi et al., 2016). The modeling technique, which involved showing students films of their high-achieving peers, further motivated them to re-conceptualize their self-perceptions and academic capabilities.

Feedback from students during and after the CBMC sessions highlighted how they recognized discrepancies between their previous negative thoughts and their newly developed positive beliefs. This process of interpersonal learning enabled students to overcome cognitive barriers and contributed to significant improvements in their ASE. The results indicate that the modeling technique, integrated into CBMC, was especially effective in fostering cognitive and emotional changes conducive to academic success. The ASE improvements observed in this study were measured across several dimensions: Magnitude (Mg), Generality (G), Strength (S), Positive Expectation (PE), Negative Expectation (NE), and Environment Effect (EE). The results of the Cognitive-Behavior Modification Counseling with modeling technique (CBMC-M) showed a substantial overall increase in ASE. Specifically, a clear difference in scores was observed between the pre-test and post-test, demonstrating the positive impact of the intervention.

Table 1. Pretest and posttest results of academic self-efficacy

Treatment	Counselee	Pretest	Posttest	Treatment	Counselee	Pretest	Posttest
Group 1	MRZ	70	80	Group 2	IFZ	76	110
	PAHP	74	90		MFAI	77	110
	TR	77	98		BN	78	97
	AMSA	78	103		FAZ	80	112
	MK	79	103		FPWP	80	111
Mean score group 1		75.6	95.6	Mean score group 2		78.2	110.6

*Group 1: control group; Group 2; experimental group (CBMC)

The hypothesis of this research was that the application of CBMC would significantly enhance students' ASE. The effectiveness of the CBMC-M intervention was confirmed by comparing the pre-test and post-test results for both the experimental and control groups. The control group, which received only standard school counseling (KK), demonstrated some improvement in ASE. However, the experimental group, which underwent CBMC with the modeling technique, showed markedly greater improvements. The statistical analysis used in this study was the Mann-Whitney U Test, performed using SPSS for Windows 20.0. This non-parametric test was chosen to compare the two groups and determine which treatment method (KK vs. CBMC-M) was more effective in improving ASE. The pre-test results revealed similar baseline ASE scores in both the experimental and control groups, with average scores of 75.6 and 78.2, respectively. However, the post-

test results indicated that the experimental group had a significantly higher average ASE score of 110.6, compared to 95.6 in the control group, as shown in Table 1.

Table 2 presents the Mean and Standard Deviation (SD) values for the Academic Self-Efficacy (ASE) scores in both the control and experimental groups. The data clearly shows that while both groups experienced an increase in ASE from pre-test to post-test, the experimental group (Group 2), which underwent Cognitive-Behavioral Modification Counseling (CBMC) with modeling techniques (M), demonstrated a more significant and consistent improvement in ASE compared to the control group. The pre-test mean scores for both groups were relatively close, with the control group (Group 1) having an average score of 75.6 and the experimental group (Group 2) slightly higher at 78.2. These similar baseline scores indicate that both groups started with comparable levels of ASE, which strengthens the validity of the intervention results. However, the post-test results reveal a marked difference between the two groups. The experimental group showed a substantial increase, with a post-test mean of 110.6, compared to the control group, which achieved a post-test mean of 95.6. This 15-point difference highlights the effectiveness of the CBMC-M intervention in enhancing students' ASE.

Moreover, the standard deviation (SD) values provide additional insights into the consistency of these improvements. In the control group, the SD increased from 3.647 in the pre-test to 8.38 in the post-test, indicating greater variability in ASE improvements among students. In contrast, the experimental group exhibited a much smaller change in variability, with an SD of 1.789 in the pre-test and 1.67 in the post-test. This consistency suggests that the modeling technique not only led to a significant overall increase in ASE but also produced more uniform improvements across the experimental group. The data in Table 2 clearly demonstrates the superiority of the modelling (M) technique in improving ASE, as evidenced by the higher mean post-test scores and the more uniform distribution of these scores in the experimental group. This significant improvement, alongside the controlled variability, highlights the effectiveness of CBMC with modeling in fostering greater academic confidence and self-efficacy among students.

Table 2. Mean and SD of academic self-efficacy

Group	N	Pretest		Posttest	
		Mean	Std. Deviation	Mean	Std. Deviation
Control	5	75.6	3.647	95.6	8.38
Experiment	5	78.2	1.789	110.6	1.67
Total	10	153.8	5.436	206.2	10.05

To examine whether there was any significant difference between the posttest scores of experiment and control groups, an independent sample t-test was employed. Table 3 presents the independent samples t-test results that examine the effectiveness of Cognitive-Behavioral Modification (CBM) in enhancing academic self-efficacy among junior high school students. The Levene's Test for Equality of Variances indicates whether the assumption of equal variances between the two groups is met. The test shows a significant result ($F = 0.001, p = 0.002$), meaning that variances are not equal between the groups, suggesting the need for considering both equal and unequal variance scenarios. In the "Equal variances assumed" row, the t-test result shows a t-value of 7.672 with 72 degrees of freedom (df), and a significant p-value of 0.000 ($p < 0.05$), indicating a statistically significant difference in the mean scores of academic self-efficacy between the two groups. The mean difference is 4.18755, with a standard error difference of 0.54328, and the 95% confidence interval (CI) ranges from 2.28652 to 4.87549. In the "Equal variances not assumed" row, the t-value is 7.667 with 68.2 degrees of freedom. This also results in a significant p-value of 0.000, reinforcing the finding of a significant difference between the groups. The mean difference in this case is 4.26713 with a smaller standard error of 0.47528, and the 95% CI for the difference is between 2.26432 and 4.10222. Both

results support the effectiveness of Cognitive-Behavioral Modification in significantly enhancing academic self-efficacy among junior high school students.

Table 3. Independent sample t-test

	Levene's Test for Equality of Variances		t-test for Equality of Means					95% Confidence Interval of the Difference	
	F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
Equal variances assumed	.001	.002	7.672	72	.000	4.18755	.54328	2.28652	4.87549
Equal variances not assumed			7.667	68.2	.000	4.26713	.47528	2.26432	4.10222

Discussion

This study aimed to evaluate the effectiveness of Cognitive-Behavioral Modification Counselling (CBMC) with modelling techniques in enhancing students' Academic Self-Efficacy (ASE). The results indicate that CBMC, specifically the modelling technique, significantly improved ASE in the experimental group compared to the control group. The experimental group demonstrated a marked increase in ASE scores after the intervention, while the control group, which received standard counselling, exhibited less substantial improvements. These findings provide compelling evidence of the positive role that CBMC with modelling can play in fostering students' academic confidence and overall academic performance.

The results align with the initial hypothesis that CBMC with modelling techniques would be more effective in improving ASE than traditional counselling methods. In the Introduction, it was posited that ASE is a critical determinant of academic success, influencing students' motivation, resilience, and perseverance (Bandura, 1997). Cognitive-behavioral interventions, particularly those involving modelling, were expected to help students identify and modify negative thought patterns, thereby enhancing their academic self-efficacy (Mohamed, 2017). The findings support this hypothesis, as the experimental group showed a significantly greater increase in ASE compared to the control group, confirming that CBMC is indeed a powerful tool for improving students' self-efficacy in academic settings.

From a theoretical perspective, the results are consistent with Bandura's theory of self-efficacy, which suggests that individuals can develop stronger self-efficacy through mastery experiences, vicarious learning (modelling), and positive feedback (Bandura, 1997). In this study, the modelling technique provided students with opportunities to observe successful academic behaviors in their peers, thereby increasing their confidence in their own abilities. This aligns with Bandura's social learning theory, which emphasizes the importance of observational learning in shaping behavior (Bandura, 1997). The success of the modelling technique in this study demonstrates the practical application of these theoretical principles in enhancing ASE.

The significant increase in ASE in the experimental group can be explained by the CBMC-M intervention's ability to address both cognitive and behavioral factors. One of the primary goals of CBMC is to help individuals recognize and alter maladaptive cognitive patterns, replacing them with more constructive and empowering thoughts (Anggita et al., 2021). In this study, students in the experimental group were exposed to modelling, where they observed successful academic behaviors demonstrated by high-achieving peers. This vicarious learning experience likely helped them internalize more positive beliefs about their own academic abilities, leading to an increase in ASE.

Additionally, the structured nature of the CBMC sessions allowed students to engage in reflective thinking, where they evaluated their thoughts, feelings, and behaviors related to academic tasks (Homayon et al., 2023). This cognitive restructuring process is a core component of CBMC, and it likely contributed to the significant improvements in ASE observed in the experimental group (Can Gür & Okanli, 2019). Students were not only encouraged to challenge their negative beliefs but also to adopt more adaptive strategies for approaching academic tasks (Hasan et al., 2019). This process of self-reflection and cognitive restructuring is well-documented in the literature as an effective means of improving self-efficacy.

The relatively uniform improvement in ASE scores in the experimental group, as indicated by the low standard deviation, further underscores the effectiveness of the CBMC-M technique. This consistency suggests that the modelling technique had a positive and uniform impact on all students in the experimental group, regardless of their initial ASE levels. This finding is significant because it highlights the potential of CBMC-M to benefit a broad range of students, including those with lower initial levels of ASE. In contrast, the control group exhibited more variability in post-test ASE scores, suggesting that traditional counselling methods may not be as uniformly effective.

The results of this study are consistent with previous research on the effectiveness of cognitive-behavioral interventions in educational settings. For instance, Karneli et al. (2019) found that CBMC significantly reduced academic stress and improved ASE among vocational high school students. Similarly, Hasanah and Mariyati (2023) demonstrated that CBMC interventions helped students develop better coping mechanisms, which in turn enhanced their academic performance. Both studies align with the current findings, reinforcing the idea that CBMC, particularly when combined with modelling techniques, is a highly effective method for improving ASE.

Moreover, Makaria et al. (2019) reported a positive correlation between CBMC-based counselling and self-efficacy in higher education students. This study adds to the growing body of evidence supporting the use of CBMC in educational settings by showing that it can be equally effective for junior high school students. The findings are also in line with Yuliastini et al. (2020), who found that CBMC helped primary school students develop better emotional regulation and social skills, which are indirectly linked to ASE.

While the current study's results are largely consistent with previous research, it also provides new insights by demonstrating the specific effectiveness of the modelling technique within the CBMC framework. Although previous studies have explored the general effectiveness of CBMC, few have focused specifically on the role of modelling in enhancing ASE. This study fills that gap by showing that modelling can be a particularly powerful tool for improving students' academic self-efficacy, providing students with concrete examples of successful academic behaviors to emulate.

One notable difference between this study and some previous research is the magnitude of improvement in ASE. In the current study, the experimental group experienced a substantial increase in ASE, with an average improvement of 32.4 points. This improvement is greater than what has been reported in some previous studies, such as those conducted by Hasanah and Mariyati (2023) and Karneli et al. (2019), where the increases in ASE were more modest. This discrepancy could be attributed to the specific use of the modelling technique in the current study, which may have provided students with more effective vicarious learning experiences compared to other CBMC interventions that did not include modelling.

Additionally, the consistency of improvements observed in this study, as indicated by the low standard deviation in the experimental group's post-test scores, may differ from previous research where ASE improvements were more variable. This finding suggests that the modelling technique not only leads to significant improvements in ASE but also produces more uniform results, making it a particularly reliable method for enhancing academic self-efficacy across a diverse student population.

The findings of this study have important theoretical and practical implications. Theoretically, the results provide further support for Bandura's theory of self-efficacy and social learning theory. The success of the modelling technique in this study highlights the importance of vicarious learning in shaping students' academic behaviors and beliefs. By observing successful academic behaviors in their peers, students were able to internalize more positive beliefs about their own abilities, leading to an increase in ASE. These findings reinforce the notion that observational learning is a key mechanism for enhancing self-efficacy and suggest that future interventions should continue to focus on providing students with opportunities for vicarious learning. From a practical standpoint, the results suggest that CBMC with modelling techniques should be considered a valuable tool for school counsellors and educators seeking to improve students' academic self-efficacy. The significant and uniform improvements observed in this study suggest that the modelling technique can benefit a wide range of students, making it a versatile intervention that can be implemented in various educational contexts. School counsellors, in particular, may find the CBMC-M approach to be an effective way to address academic self-doubt and help students develop the confidence and resilience needed to succeed in their academic pursuits.

Conclusion

In conclusion, this study demonstrates the effectiveness of Cognitive-Behavioral Modification Counseling with modeling techniques (CBMC-M) in significantly enhancing students' Academic Self-Efficacy (ASE). The results align with existing theories of self-efficacy and cognitive-behavioral interventions, showing that the modeling technique, in particular, provides students with practical, observable examples of academic success that improve their confidence and academic performance. This approach offers valuable insights for educators and counselors, suggesting that incorporating CBMC-M into school counseling programs can help students develop the self-confidence needed to achieve their academic goals. However, the study has limitations, including a small sample size and the short-term nature of the intervention. Future research should expand the sample and include a more diverse student population to generalize the findings more broadly. Long-term studies are also needed to assess whether the gains in ASE are sustained over time. Additionally, exploring the role of other variables, such as socio-economic factors or learning styles, may provide a more comprehensive understanding of how different students respond to CBMC-M. Despite these limitations, the study offers a strong foundation for further exploration of CBMC-M as an effective tool for improving academic outcomes.

References

- Alfaiz, A., Fauzi, Y. M., Yuzarion, Y., Yandri, H., Nofrita, N., Murisal, M., ... & Sari, A. K. (2023). The Synthesis of Spiritual Cognitive Behavioral Approach to Understanding and Modifying Human Behavior. *Psikis: Jurnal Psikologi Islami*, 9(2), 220-235. <https://doi.org/10.19109/psikis.v9i2.19093>
- Ali, M. A. (2019). Effect of Cognitive Behavioral Therapy Program Based on Modification Cognitive Distortions in Improving Level of Academic Self-Efficacy of Students of Low Achievement in Sattam University. *Journal of Educational & Psychological Sciences*, 20(03). <https://dx.doi.org/10.12785/jeps/200319>
- Anggita, T., Sugiyo, S., & Awalya, A. (2021). Improving self-efficacy with cognitive restructuring and self-instruction: An experimental study in senior high school. *KONSELI: Jurnal Bimbingan dan Konseling (E-Journal)*, 8(1), 09-14. <http://dx.doi.org/10.24042/kons.v8i1.8852>
- Bandura, A., & Walters, R. H. (1977). *Social learning theory (Vol. 1)*. Englewood cliffs, NJ:

Prentice Hall.

- Can Gür, G., & Okanlı, A. (2019). The effects of cognitive-behavioral model-based intervention on depression, anxiety, and self-efficacy in alcohol use disorder. *Clinical Nursing Research*, 28(1), 52-78. <https://doi.org/10.1177/1054773817722688>
- Chystovska, Y., Kernas, A., Kulesha-Liubinets, M., Kovalenko, N., Fedorenko, M., & Medianova, O. (2024). Communication Techniques in Psychological and Pedagogical Counseling in the Context of the Cognitive-Behavioral Approach. *BRAIN. Broad Research in Artificial Intelligence and Neuroscience*, 15(2), 82-93. <https://doi.org/10.18662/brain/15.2/565>
- Dewi, F. A., Atmoko, A., & Triyono, T. (2016). Keefektifan teknik self instruction dalam konseling cognitive behavior counseling untuk meningkatkan efikasi diri sosial siswa SMKN 2 Malang. *Jurnal Kajian Bimbingan Dan Konseling*, 1(4), 172-178. <http://dx.doi.org/10.17977/um001v1i42016p172>
- Dogan, U. (2015). Student engagement, academic self-efficacy, and academic motivation as predictors of academic performance. *The Anthropologist*, 20(3), 553-561. <https://doi.org/10.1080/09720073.2015.11891759>
- Hasan, H., Sugiharto, D. Y. P., & Sunawan, S. (2019). Group counseling of cognitive behavior with self-instruction technique on self-efficacy and academic burnout. *Jurnal Bimbingan Konseling*, 8(1), 91-96. <https://journal.unnes.ac.id/sju/jubk/article/view/27663>
- Hasanah, N., & Mariyati, L. I. (2023). The Relationship Between Academic Stress With Academic Self-Efficacy In Vocational High School Students. *Psikologia: Jurnal Psikologi*, 9, 10-21070. <https://doi.org/10.21070/psikologia.v9i0.1703>
- Homayon, F., Muhammadamin, B. H., Safari Garaei, M., Nojumi, A., Sadikhani, M., & Shirvani, E. (2023). Structural model of academic engagement, rumination and cognitive-behavioral avoidance: Mediating role of self-efficacy. *Iranian Journal of Educational Research*, 2(2), 1-14. <https://ijer.hormozgan.ac.ir/article-1-39-fa.html>
- Honicke, T., & Broadbent, J. (2016). The influence of academic self-efficacy on academic performance: A systematic review. *Educational research review*, 17, 63-84. <https://doi.org/10.1016/j.edurev.2015.11.002>
- Hwang, M. H., Choi, H. C., Lee, A., Culver, J. D., & Hutchison, B. (2016). The relationship between self-efficacy and academic achievement: A 5-year panel analysis. *The Asia-Pacific Education Researcher*, 25, 89-98. <https://doi.org/10.1007/s40299-015-0236-3>
- Johnsen, D. B., Lomholt, J. J., Heyne, D., Jensen, M. B., Jeppesen, P., Silverman, W. K., & Thastum, M. (2024). The Effectiveness of Modular Transdiagnostic Cognitive Behavioral Therapy Versus Treatment as Usual for Youths Displaying School Attendance Problems: A Randomized Controlled Trial. *Research on Child and Adolescent Psychopathology*, 1-16. <https://doi.org/10.1007/s10802-024-01196-8>
- Karneli, Y., Ardimen, A., & Netrawati, N. (2019). Keefektifan Konseling Modifikasi Kognitif Perilaku untuk Menurunkan Stres Akademik Siswa. *KI (Jurnal onseling ndonesia)*, 4(2), 42-47. <https://doi.org/10.21067/jki.v4i2.3083>
- Makaria, E. C., Rachman, A., & Rachmayanie J, R. (2020). Korelasi Kepercayaan Diri dan Efikasi Diri Akademik Mahasiswa Program Studi Bimbingan Dan Konseling Angkatan 2018. *KI (Jurnal Konseling Indonesia)*, 5(1), 1-5. <https://doi.org/10.21067/jki.v5i1.2979>
- Mohamed, S. M. (2017). Effect of cognitive behavioral treatment program on anxiety and self-esteem among secondary school students. *American Journal of Nursing*, 6(3),

193-201. <https://doi.org/10.11648/j.ajns.20170603.17>

- Salameh, K. A. (2019). The Effectiveness of a Cognitive-Behavioral Counseling Program in Modifying the Negative Behavior among Students of Aqabat Jaber School Camp in the Governorate of Jericho. *World Journal of Education*, 9(3), 105-117. <https://doi.org/10.5430/wje.v9n3p105>
- Schunk, D. H., & DiBenedetto, M. K. (2022). Academic self-efficacy. In *Handbook of positive psychology in schools* (pp. 268-282). Routledge.
- Sigdyal, P., Paris, L., & Rodriguez, M. M. (2024). Cognitive Behavioral Therapy in the Management Classroom: An Experiential Exercise to Improve Oral Communication. *Management Teaching Review*, 23792981241266549. <https://doi.org/10.1177/23792981241266549>
- Yuliastini, N. K. S., Dharma Tari, I. D. A. E. P., Putra Giri, P. A. S., & Dartiningsih, M. W. (2020). Penerapan Media Bimbingan Konseling untuk Meningkatkan Keterampilan Guru BK dalam Memberikan Layanan Pendidikan Seks terhadap Peserta Didik. *International Journal of Community Service Learning*, 4(2), 117-124. <https://doi.org/10.23887/ijcsl.v4i2.25055>
- Zeidi, I. M., Divsalar, S., Morshedi, H., & Alizadeh, H. (2020). The effectiveness of group cognitive-behavioral therapy on general self-efficacy, self-control, and internet addiction prevalence among medical university students. *Asian Journal of Social Health and Behavior*, 3(3), 93-102. https://doi.org/10.4103/SHB.SHB_20_20
- Zysberg, L., & Schwabsky, N. (2021). School climate, academic self-efficacy and student achievement. *Educational Psychology*, 41(4), 467-482. <https://doi.org/10.1080/01443410.2020.1813690>