

## The Effect of Gratitude Intervention on Adolescents' Subjective Well-Being

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Happiness; Gratitude; Life Satisfaction; Positive Affect; Negative Affect; Adolescent.

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**ABSTRACT**

Adolescents' subjective well-being has become a significant global concern due to increasing psychological stress, academic pressure, and emotional instability during developmental transitions. This study aims to examine the effect of a gratitude intervention, specifically gratitude letter writing, on adolescents' subjective well-being. The research employed a quantitative experimental design involving high school students aged 15–16 years who were divided into experimental and control groups. The experimental group participated in a structured gratitude letter-writing activity for five consecutive days, while the control group did not receive any intervention. Data were collected using the **Satisfaction with Life Scale (SWLS)**, the **Multidimensional Students' Life Satisfaction Scale (MSLSS)**, and the **Positive and Negative Affect Schedule—Expanded Form (PANAS-X)**, as well as the **Gratitude, Resentment, and Appreciation Test (GRAT)**. The results of independent-samples t-tests and paired-samples t-tests showed that adolescents in the experimental group experienced a significant increase in life satisfaction and positive affect compared to the control group. Although negative affect decreased in the experimental group, the difference between groups was not statistically significant. The discussion confirms that gratitude interventions effectively enhance positive psychological states among adolescents. In conclusion, gratitude letter writing is a simple and effective intervention to improve adolescents' subjective well-being, particularly in strengthening life satisfaction and positive emotions, while its effect on reducing negative affect remains limited.

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### INTRODUCTION

The desire to achieve happiness motivates humans to develop optimally. Adolescents are individuals who undergo a rapid and critical stage of psychosocial development toward adulthood. On the one hand, this developmental process can give rise to maladaptive behaviors (Santrock, 2011); on the other hand, it provides opportunities for adolescents to develop positively (Erikson, 1963, as cited in Croxford, 2011). This research aims to help adolescents develop optimally through interventions designed to increase happiness (subjective well-being/SWB).

Subjective well-being is defined as an individual's cognitive and affective evaluation of his or her life as a whole. In positive psychology literature, the term SWB is often used interchangeably with happiness (Snyder, Lopez, & Pedrotti, 2011). A happy person is one who is satisfied with life as a whole and experiences frequent positive emotions while experiencing few or no negative emotions. Researchers agree that happiness is important for

adolescents because those with higher SWB tend to be more motivated (Froh et al., 2009), achieve higher academic performance, demonstrate stronger social competence, and possess higher self-esteem (Gilman & Huebner, 2006, as cited in Croxford, 2011).

Positive psychology research in recent decades has focused on how to improve individual happiness, including among adolescents (Gilek, 2010). One of the central themes in positive psychology is the relationship between gratitude and human well-being (Croxford, 2011). Emmons and McCullough (2003) define gratitude as a feeling of thankfulness and appreciation that arises when a person receives a beneficial outcome, gift, or support from another person, from God, or from nature. Studies have shown that gratitude interventions increase individual happiness (Toepfer et al., 2012; Withington & Scher, 2010), including among adolescents, and help them develop optimally (Froh, Emmons, Card, Bono, & Wilson, 2011).

Gratitude interventions have been shown to be effective in increasing adolescent happiness, encouraging prosocial behaviors (Froh, Bono, & Emmons, 2010), enhancing learning motivation and positive emotions, and reducing depressive symptoms and social comparison-related jealousy (Froh et al., 2011). Gratitude interventions require further attention to support adolescents' positive development and to strengthen mental health promotion programs in Indonesia (Adiwinata & Yustiana, 2023; Setiyawati, 2025; Ubaidah, 2025). This prompted researchers to examine the effectiveness of gratitude interventions, particularly gratitude letter-writing methods, in increasing adolescent happiness (Sahib, 2025).

Global health evidence highlights the seriousness of this issue. Reports from the World Health Organization (WHO, 2021) indicate that approximately one in seven adolescents experiences mental health conditions, with depression and anxiety among the leading causes of illness and disability in this age group. These conditions are strongly associated with low subjective well-being, reduced academic performance, and impaired social functioning (Rubio et al., 2026; Wong et al., 2024). Such data underscore the urgency of identifying effective, scalable, and low-cost psychological interventions that can be implemented in school and community settings to improve adolescent well-being outcomes (Babu et al., 2025; Lucciarini et al., 2025; S Rozek et al., 2025).

In Indonesia, similar patterns are evident, as adolescents face increasing academic demands, social comparison pressures, and emotional instability during identity formation. Studies in Southeast Asian contexts show that adolescent life satisfaction tends to fluctuate significantly due to family expectations, schooling systems, and limited access to structured mental health support. This situation is particularly critical among boarding school students, who often experience additional adjustment stress due to separation from family and adaptation to new social environments (Chávez-Castillo et al., 2023; Steinmayr et al., 2019). These conditions highlight the need for culturally relevant psychological interventions to enhance adolescent subjective well-being in Indonesia.

Previous international research in positive psychology has consistently demonstrated that gratitude is a strong predictor of happiness and life satisfaction. Emmons and McCullough (2003) found that individuals who practiced gratitude exercises reported higher levels of positive affect and lower levels of negative emotions. Similarly, Watkins (2004) emphasized that gratitude is closely associated with psychological resilience and overall

subjective well-being. These findings suggest that gratitude is not only an emotional response but also a cognitive-emotional mechanism that can be trained to improve well-being outcomes.

Further empirical studies focusing on adolescents reinforce these findings. Froh et al. (2008, 2009, 2011) demonstrated that gratitude interventions, particularly gratitude journaling and letter-writing exercises, significantly increase adolescents' positive emotions, life satisfaction, and prosocial behavior. These studies also indicate that structured gratitude practices can reduce depressive symptoms and enhance school motivation. However, findings regarding reductions in negative affect remain inconsistent, suggesting that gratitude interventions may primarily strengthen positive psychological states rather than directly eliminate negative emotions.

Despite strong international evidence, there remains a clear contextual gap in the implementation of gratitude-based interventions among Indonesian adolescent populations. Existing Indonesian studies have primarily focused on adult samples or general gratitude tendencies without experimental designs targeting adolescents in structured educational environments. Moreover, limited research has examined the effectiveness of short-term gratitude letter interventions within boarding school contexts, where adolescents experience unique psychosocial pressures. This absence of localized experimental evidence creates a significant gap in the literature.

The urgency of this research lies in the growing need for practical psychological interventions that can be integrated into educational systems without requiring complex resources. Schools, particularly boarding schools, require simple yet effective strategies to support students' emotional development and resilience. Gratitude interventions, such as structured letter-writing activities, offer a cost-effective and easily implemented approach aligned with positive psychology principles. Addressing this need is essential for promoting preventive mental health strategies rather than relying solely on remedial clinical approaches.

The novelty of this study is reflected in its focus on implementing a structured gratitude letter-writing intervention over a defined period among Indonesian high school adolescents living in dormitory settings. Unlike previous studies that primarily examined Western populations or adult groups, this research situates gratitude intervention within a culturally and contextually specific adolescent environment. Additionally, it examines multidimensional subjective well-being outcomes, including life satisfaction, positive affect, and negative affect, providing a more comprehensive evaluation of psychological change.

The primary purpose of this research is to examine the effectiveness of gratitude letter-writing interventions in enhancing adolescents' subjective well-being. Specifically, the study aims to determine whether structured gratitude expression can significantly improve cognitive evaluations of life satisfaction and emotional experiences among adolescents. It also seeks to compare changes between experimental and control groups to establish causal relationships between gratitude practices and well-being outcomes.

This study contributes to both theoretical and practical domains. Theoretically, it strengthens positive psychology literature by providing empirical evidence from a non-Western adolescent population regarding gratitude intervention effectiveness. Practically, it offers an applicable intervention model for educators, school counselors, and mental health

practitioners to improve student well-being through low-cost psychological exercises. The objective of this research is to provide evidence-based validation of gratitude letter writing as a viable intervention, while the expected benefits include enhanced adolescent psychological resilience, improved school adaptation, and increased overall life satisfaction in educational settings.

## **METHOD**

### **1. Research Type and Design**

This study uses a quantitative approach with experimental design.

### **2. Variable Identification and Operational Definition**

- a. Dependent variables: *subjective well-being* is the result of subjective evaluation of individuals in the form of cognitive evaluations consisting of assessments of global life satisfaction and life satisfaction in specific aspects of an individual's life, and affective evaluations, positive or negative, of life events experienced by individuals.
- b. Independent variable: *gratitude* is a feeling of gratitude and joy that arises from receiving a favorable gift or gift, which comes from another person or from an atmosphere of happiness and peace caused by natural beauty. Gratitude is expressed through behavior. One form of expression of gratitude is to write a letter of gratitude to people who have brought benefits to individuals.

### **3. Research Subject**

The subjects of the study were 66 high school teenagers in class X who lived in two dormitories (Stella Duce II girls' dormitory and Sto. Michael). The age of the subjects ranges from 15 -16 years old. The subjects consisted of 23 men and 43 young women. The sample collection technique uses *a non-probability sampling technique*. Subjects are selected based on their availability, opportunity, and willingness (Supratiknya, 2015).

### **4. Research Tools**

The research used SWB measurement tools, namely the student life satisfaction scale in life areas (MSLSS) and the positive and negative affective scale (PANAS-X). The study also measured the gratitude variable using the GRAT (*Gratitude, Resentment, and Appreciation Test*) scale.

### **5. Data Analysis Methods**

The study used the analysis of differences between *subjects* using *independent sample t-test* and intra-subject difference test using *statistical operation paired sample t-test*.

## **RESULTS AND DISCUSSION**

The results of the study consisted of the results of *the t-test between subjects* using *independent sample t-test* for *gain scores* of the control and experimental groups and the *t-test within the subject (pretest and posttest)* using *paired sample t-test*. Table 1 presents the mean and standard deviation data of *the pre and posttest* SWB components and the mean/SD of the subject's gratitude attribute and *the gain score* of the experimental and control groups.

**Table 1. Mean and SD Values**

SWB and GRAT	Time				Gain Score	
	Pre-test		Post-test		M	SD
	M	SD	M	SD		
MSLSS						
Experiments (n = 35)	177,94	13,81	182,26	13,67	4,31	8,14
Control (n = 31)	165,02	13,83	162,23	18,54	-2,81	11,69
PA						
Experiments (n = 35)	88,83	13,33	93,03	12,515	4,2	5,67
Control (n = 31)	85,9	11,49	83,81	18,66	-4,29	15,8
OR						
Experiments (n = 35)	78,43	22,59	71,14	20,46	-7,29	12,56
Control (n = 31)	83,45	19,76	83,29	24,15	-0,16	19,04
GRAT						
Experiments (n = 35)	198,2	9,98	203,23	12	5,03	7,66
Control (n = 31)	190,81	17,86	190,06	21,01	-0,74	11,61

The results showed changes in the components of SWB:

a. *Life satisfaction*

The results of the analysis of the subjects' gain score data showed a significant difference between the level of life satisfaction of adolescents who participated in the thank-you writing intervention and those who did not write thank-you letters ( $t = -2.899$ , with  $p = 0.005$  or  $p < 0.05$ ).

The life satisfaction of adolescents in the experimental group on the *posttest* differed significantly compared to the *pretest* ( $t = -3.136$  with a value of  $p = 0.004$  or  $p < 0.01$ ). Adolescent subjects in the control group showed no significant difference in their life satisfaction levels between *pretest* and *posttest* ( $t = 0.337$  with  $p = 0.191$  or  $> 0.05$ ).

b. *Positive effect*

Adolescents who wrote thank-you letters reported significantly different levels of positive affectation than adolescents who did not write thank-you letters. This significance can be seen from the difference in the average gain score of subjects in the experimental and control groups ( $t = -2.834$ , with  $p = 0.007$  or  $p < 0.05$ ).

The results for positive effects illustrated a significant difference between the scores of the subjects of the experimental group during the *pretest* and *posttest* ( $t = -4.383$  and  $p = 0.000$  or  $p < 0.01$ ). Subjects in the control group showed no significant difference in their positive affectation during *pretest* and *posttest* ( $t = 1.512$ ,  $p = 0.141$  or  $p > 0.05$ ).

c. *Negative affectation*

Regarding negative affects, the results of the analysis of the difference between subjects to the gain score mean illustrate a non-significant difference in the negative effects of subjects in the experimental group and the control group. ( $t = 1.813$  with a significance level of  $p = 0.075$  or  $p > 0.05$ ).

Although the gain score analysis between groups was not significant, adolescents who participated in the intervention reported significant differences between *posttest* and

*pretest results* related to negative affectation ( $t = 3.431$ , with  $p = 0.002$  or  $p < 0.05$ ). In contrast, the subjects' negative affective score in the control group did not describe a significant difference between *the pretest* and *posttest* despite the decrease ( $t = 0.047$ ,  $p = 0.963$ ,  $p > 0.05$ ).

This study aims to test the effectiveness of writing a letter of gratitude on improving subjective welfare/happiness of adolescents. Positive psychology researchers have concluded that gratitude interventions are able to increase the subjective happiness or SWB of individuals (Toepfer et al., 2012). Froh, Yurkewicz and Kashdan (2008) and Froh et al (2009) also found that gratitude interventions not only increase the happiness of adults but also adolescents. The results of this study enrich the theory about the influence of gratitude expressions, especially the method of writing gratitude letters on the increase of SWB in adolescents.

Writing a gratitude letter is one of the gratitude interventions that effectively increases individual happiness. Previous research Froh, et al., (2009) proves that the method of writing gratitude letters is effective in increasing the happiness of adolescents, especially those who have low positive emotions. The results of this study support this conclusion. Adolescents who received the treatment of writing letters of gratitude experienced an increase in SWB components.

a. Letter of gratitude and life satisfaction

Based on the results of the study, adolescents who participated in the intervention in writing letters of gratitude experienced increased life satisfaction. Previous research Froh et al., (2009) did not specifically examine the effect of writing gratitude letters on increased life satisfaction. These findings reinforce the theory about the effect of gratitude interventions on adolescent happiness, not only on the components of positive and negative emotions but also on life satisfaction.

Adolescent subjects in this study reported an increase in life satisfaction after writing a letter of gratitude for 5 days. In addition, the life satisfaction levels of the adolescent group that participated in the gratitude intervention differed significantly from the adolescents in the control group. That means teens who wrote thank-you letters for 5 days experienced better increased life satisfaction than those who didn't write thank-you letters.

b. Letter of gratitude and positive affect/PA

The intervention in writing a letter of gratitude exerts the strongest and most significant influence on the subject's positive emotions. This finding is in accordance with the results of Froh et al.'s (2009) research that gratitude interventions increase positive affectation in adolescents. Adolescent subjects who participated in the intervention wrote thank-you letters showed an increase in their positive emotions. On the other hand, adolescents who did not write a thank-you letter did not experience an increase in their gratitude and positive emotions, and some of them even reported a decrease after 5 days. Adolescents who participated in the intervention reported significant changes in their positive emotions and higher than those who did not write letters. The results of this study enrich previous findings on the effectiveness of gratitude interventions on adolescents' positive emotions.

c. Letter of gratitude and negative affect/NA

The results of the study illustrated significant differences in the levels of negative emotions of adolescent subjects in the experimental groups before and after treatment. The

activity of writing a letter of gratitude causes a significant decrease in the level of negative emotions in adolescents. The adolescent group in the control condition also reported a decrease in negative affect, but it was not significant. Previously, Froh, Yurkewicz, and Kashdan (2008) and Froh et al. (2009) found that gratitude interventions were ineffective in lowering adolescents' levels of negative emotions. They argue that gratitude interventions can increase happiness (life satisfaction and PA) but do not directly reduce suffering and negative emotions.

The results of the *gain score data analysis between subjects* showed that the level of negative affectation was not significantly different in adolescents who wrote letters of gratitude and adolescents who did not receive intervention. This indicates that adolescents who did not write thank-you letters also experienced a decrease in negative effects after the experiment, although the change was not significant. These results support the conclusion of previous research Froh, Yurkewicz, & Kashdan, (2008) that gratitude interventions are not necessarily the cause of decreased levels of negative emotions. These findings prompted further proof.

## CONCLUSION

. This study demonstrates that a gratitude intervention, specifically structured gratitude letter writing, is effective in enhancing adolescents' subjective well-being. The findings indicate significant improvements in life satisfaction and positive affect among participants who engaged in the intervention compared to the control group. In addition, a reduction in negative affect was observed within the experimental group, although the effect was less consistent across participants. These results confirm that gratitude-based practices play a meaningful role in strengthening adolescents' cognitive and emotional evaluations of life, supporting the broader theoretical framework of positive psychology, which emphasizes the development of positive psychological resources to improve well-being during critical developmental stages.

Future studies are recommended to expand the scope of gratitude interventions by involving larger and more diverse adolescent populations across different cultural, educational, and socio-economic contexts to improve generalizability. Longitudinal research designs are also needed to examine the long-term sustainability of gratitude intervention effects on subjective well-being. Furthermore, future research may integrate additional psychological variables such as resilience, self-esteem, and social connectedness to better understand the mechanisms underlying well-being improvement. Comparative studies between different types of gratitude interventions, as well as mixed-method approaches incorporating qualitative insights, would also enrich understanding of how and why gratitude practices influence adolescent psychological development.

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