

“Delay Today, Doubt Tomorrow?” Investigating the Relationship between Procrastination and Self-Esteem in Adolescents

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Abstract

In this investigation, the researcher is aiming to study the correlation between procrastination and self-esteem among adolescents. A sample of twenty-four adolescents who currently study in international schools in Shanghai was obtained by employing an opportunity sampling technique based on the researcher's peer network. All participants had completed one procrastination inventory and one self-esteem questionnaire, both crafted to adapt adolescent populations, using an online survey platform. The results of both methods of self-report clearly demonstrate a statistically significant negative correlation between procrastination and self-esteem, though the strength is limited. These results verify the initial hypothesis, inspiring schools and educators to design psychological health programs that aim to improve adolescents' levels of self-esteem, therefore reducing adolescents' procrastination behaviors and starting a positive circulation of self-esteem reinforcement and school performance improvement.

Keywords

Procrastination; Self-esteem; Adolescents; Shanghai; Correlational Studies.

1. Introduction

Submitting homework just before the deadline, not opening revision materials until the day before the exam, never following the plan made for the day, being late for school, assembly, or even a date... All these behaviors indicate a well-known and common behavioral problem-procrastination. Procrastination, an issue that affects 20–25% of people in the general population (Ferrari, J.R. et al., 2007) [7], and more than 80% of secondary school students in China (Zhang, 2023) [19], is not just a one-time show of laziness, but a pattern that influences adolescents' school performance, life pressure, and even their physical and mental health (Wang & Lu, 2022) [18]. Adulthood procrastination is also often associated with a decrease in work satisfaction and income (Beutel, Klein et al., 2016) [2]. To examine this phenomenon more deeply, it is necessary to explore how researchers have defined and conceptualized procrastination.

Procrastination is generally defined as a behavior in which a person is aware that delaying tasks may lead to negative consequences, yet still chooses to postpone tasks that were originally planned (Zhang, 2023) [19]. It is often considered a result of self-regulation failure and disorganized behavior (Wang & Lu, 2022) [18]. Procrastination is closely related to a person's performance and overall well-being. For example, students who procrastinate tend to feel more anxiety and stress throughout the semester (Klingsieck, 2013) [10]. In education, one of the most common types is academic procrastination, which refers to students delaying their school tasks such as homework or preparing for exams. It is estimated that around 80% of college students experience academic procrastination (González-Brignardello, Paniagua et al., 2023) [8], a rate similar to that of secondary school students in China (Zhang, 2023) [19]. This shows that academic procrastination is a widespread issue among the student population. From a

lifespan perspective, procrastination tends to decrease with age, although this correlation is not strong (Klingsieck, 2013) [10]. Therefore, adolescents may be an ideal group to study procrastination, as many of them are clearly affected by it in both their academic and daily lives. There are many factors, both internal and external, that influence academic procrastination in adolescents. These factors can generally be divided into two categories: cognitive and emotional. For example, under the cognitive category, poor self-control can increase procrastination by lowering adolescents' expectations of success. This reduces their motivation to improve the current situation and eventually leads to procrastination behaviors (Wang & Lu, 2022) [18]. The ability to self-regulate is also considered an important predictor of procrastination (Vincent, Law et al., 2024) [17]. On the emotional side, negative emotions such as depression, anxiety, boredom, and guilt are often related to higher frequencies of procrastination. Fear of failure and fear of criticism are also common emotional factors. In such cases, adolescents may avoid completing tasks as a way to protect their self-worth, since delaying the task allows them to blame possible failure on a lack of effort instead of a lack of ability (Wang & Lu, 2022) [18].

Self-esteem has been considered an important topic in social psychology for decades (Rosenberg, Schooler et al., 1995) [15]. However, there is still no single unified theory of self-esteem (Cast & Burke, 2002) [1]. One common definition describes self-esteem as the overall evaluation of an individual's worth, which can be either positive or negative (Minev, Petrova et al., 2018) [12]. Self-esteem develops throughout a person's life and can be influenced by personal experiences. It plays a particularly important role during adolescence, as it is closely related to both academic performance and mental health in this period (Minev, Petrova et al., 2018) [12]. In addition to general self-esteem, researchers have also identified specific types such as academic self-esteem. Academic self-esteem refers to how individuals view their own abilities in academic settings and is considered a better predictor of academic performance than general self-esteem (Rosenberg, Schooler et al., 1995) [15].

Many studies support the importance of self-esteem. According to Erikson's theory of identity, adolescence is a stage where individuals face the key task of forming their identity (Ragelienė & Grønhøj, 2020) [13]. Researchers have found that identity confirmation is often linked to more positive psychological adjustment (Chen, 2019) [4]. For example, doing well in school tasks helps adolescents develop a sense of confidence, which in turn raises their level of self-esteem (Hao, 2022) [9]. On the other hand, failure to form a stable identity can lead to role confusion (Ragelienė & Grønhøj, 2020) [13]. Identity theory also provides a framework for understanding different dimensions of self-esteem, especially in terms of worth-based and efficiency-based self-evaluation (Cast & Burke, 2002) [1]. This raises an important question: how exactly does self-esteem influence adolescents?

Adolescence is usually defined as the period of life between childhood and adulthood. People aged 10 to 24 are considered adolescents based on their developmental stage and level of social understanding (Sawyer, Susan M. et al., 2018) [16]. The differences between adolescents and adults can be observed across many areas of development. These differences make adolescence a particularly important stage for studying behaviors such as procrastination and self-evaluation. For example, adolescents tend to have significantly weaker risk perception compared to adults, which puts them at a higher risk of engaging in health-damaging behaviors (Cohn, L.D. et al., 1995) [5]. Adolescence is also viewed as a socially constructed stage of life (Brizio, Gabbatore et al., 2015) [3]. Secondary school students, typically between the ages of twelve and eighteen, are not only experiencing rapid physical and psychological changes, but are also facing increasingly complex academic challenges as they move up in grade levels. Therefore, based on prior research, studying procrastination during adolescence is especially meaningful due to the unique developmental features of this stage and the growing educational needs of adolescents worldwide.

This study aims to explore the relationship between adolescents' procrastination and their levels of self-esteem. Based on findings from previous research, it is hypothesized that there is a negative correlation between these two variables, although the exact strength of this correlation remains uncertain.

2. Methods

2.1. Participants and Procedures

In this research, a total of twenty-four secondary school students were recruited through opportunity sampling, drawn from the researcher's peer network. Each participant was currently enrolled in either an international curriculum program or a local-international integrated middle school program. All participants attended international schools located in Shanghai, China. The participants ranged in age from 13 to 17 years, with an average age of 15.6 and a mode of 16 years (see Table 1). They were enrolled in Grades 8 to 11, with the most common grade being Grade 10.

Data was collected through self-report, using two well-designed questionnaires that measured participants' levels of procrastination and self-esteem. The questionnaires were accessed via an online survey platform. Participation was voluntary, and informed consent was obtained from all participants. All responses were collected anonymously and kept confidential. The quantitative data was analyzed to explore the potential correlation between adolescents' procrastination and self-esteem.

2.2. Measures

2.2.1. Procrastination

In this research, participants' levels of procrastination were evaluated using the Aitken Procrastination Inventory, originally designed for undergraduates and adapted by Liu and Lu in 2021 [11] for secondary school students. This scale consists of 13 carefully designed items that measure procrastination behaviors both positively and negatively. Items 1, 2, 4, 6, 7, 8, and 10 correspond to procrastination behaviors, while items 3, 5, 9, 11, 12, and 13 correspond to successful time-management behaviors. It is noteworthy that although most items focus on academic procrastination, some also measure procrastination in social interactions among adolescents.

This inventory uses a 5-point Likert scale, where 1 represents "strongly disagree" and 5 represents "strongly agree." Scores for the successful time-management items are reverse-coded to prevent confusion between behaviors that support or oppose procrastination. Therefore, a higher total score on this inventory indicates a higher level of procrastination.

2.2.2. Self-Esteem

The Rosenberg Self-Esteem Scale (Rosenberg, 1979) [14], a widely used scale with 10 items, was employed to measure participants' self-esteem. Items 1, 3, 4, 7, and 10 reflect positive self-evaluation, while items 2, 5, 6, 8, and 9 reflect negative self-evaluation. This scale uses a 4-point scoring system, where 1 represents "strongly disagree" and 4 represents "strongly agree." Scores for the negatively worded items are reverse-coded. A higher total score indicates a higher level of self-esteem. This scale has been previously demonstrated to be highly valid and reliable, making it likely to accurately reflect participants' levels of self-esteem.

3. Results

Table 1 presents an overview of the scores collected from both the procrastination inventory and the self-esteem scale, including detailed statistics. The original data show that procrastination scores ranged from 29 to 54, while self-esteem scores ranged from 16 to 40.

Graph 1 visualizes these data in a scatter plot, where each point represents one participant's scores. The analysis revealed a Pearson's r of -0.39 between procrastination and self-esteem scores, indicating a statistically significant weak negative correlation (Evans, J.D., 1996) [6]. This means that participants with higher levels of procrastination tend to have lower levels of self-esteem, although the relationship is relatively weak. Additionally, Figure 1 illustrates this correlation clearly with a downward sloping trend line, showing a moderate tendency for self-esteem to decrease as procrastination increases, despite the limited strength of this correlation.

Table 1. Participants' Procrastination and Self-esteem score.

Participants	Procrastination score	Self-esteem score	Age
1	35	28	16
2	36	39	17
3	52	21	14
4	35	21	16
5	41	25	17
6	39	38	17
7	29	36	14
8	45	25	13
9	53	25	13
10	30	40	17
11	54	34	15
12	32	37	16
13	40	26	15
14	38	38	15
15	29	27	16
16	44	27	16
17	48	16	16
18	35	30	16
19	37	32	16
20	34	26	16
21	43	36	16
22	41	34	16
23	34	25	16
24	34	38	16

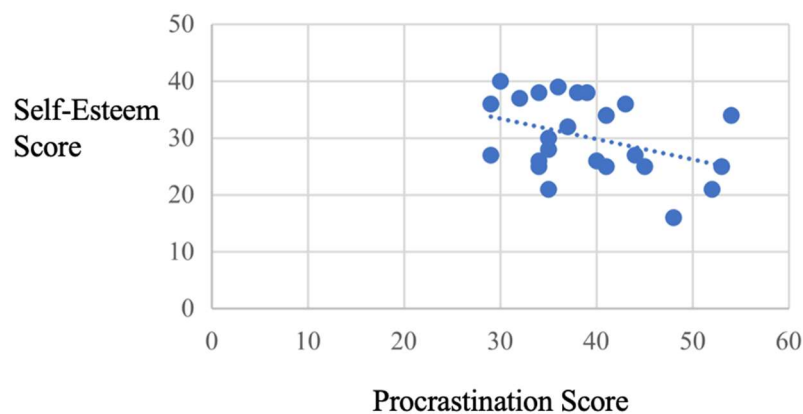


Figure 1. Scatter plots of procrastination and self-esteem

4. Conclusion

This study investigated the correlation between procrastination and self-esteem among a sample of twenty-four adolescent participants through quantitative data analysis. Although the small sample size limits the generalizability of the findings, the results provide valuable insights and support the initial hypothesis by demonstrating a statistically significant negative correlation between procrastination and self-esteem. Consistent with the scatter plot visualization, it is evident that higher levels of procrastination tend to be associated with lower self-esteem, although the strength of this correlation is modest. Despite the moderate correlation, this study has practical relevance for adolescent education. Mental health programs designed to enhance adolescents' self-esteem may help reduce academic procrastination. While the effect size may be limited, educators can reasonably expect that even modest improvements in adolescents' time management skills could lead to better academic performance. This improvement, in turn, may further boost self-esteem, creating a positive cycle of enhanced self-worth and academic success.

Several methodological considerations should be noted. The small and relatively homogeneous sample may limit the representativeness of the findings for the broader adolescent population. Additionally, the use of self-report measures may introduce response bias. Nevertheless, controlling for age and curriculum type helps strengthen the internal validity of the study.

Overall, this research reveals a statistically significant, modest negative correlation between adolescents' procrastination and self-esteem, encouraging schools and educators to focus not only on developing academic skills but also on fostering positive self-attitudes and a sense of self-worth in students. Future studies could explore the impact of self-esteem improvement programs on adolescents' procrastination levels and academic performance.

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