

# We Don't Need No Education, We Don't Need No Self-Control:

## A Study of the Correlation Between Gender, Age, Self-Control, and Self-Esteem

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### Abstract

Self-control and self-esteem are integral for proper development. Past research indicates males have higher self-esteem while females have higher self-control, minor age differences affect neither of the two, and self-esteem positively correlates with self-control. The study was conducted to determine relationships between self-control, self-esteem, grade, and gender. Surveys were distributed in a large Catholic high school, asking gender, grade level and several questions to determine levels of self-control and self-esteem. Self-control was divided into subcategories: Bad Habits, Impulsiveness, and General Self Discipline, and self-esteem into subcategories: Positive Outlook, Difficulty Response, and Thought Concern. The data establishes that men have significantly higher self-esteem levels than women. Gender did not have a significant relationship with self-control. Bad habits were more prevalent in those in higher grades. Self-control was correlated with increased self-esteem levels.

Keywords: self-esteem, self-control, age, gender

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### Introduction

Self-control is a highly desired trait in the world, yet very few people actually have it. It can be postulated that the age group that lacks self-control the most is teenagers. Many teenagers today are constantly on their cell phones. Some cannot control the amount of time they use their phones; they have to be updated on the newest trends every five minutes. This lack of self-control may affect many aspects of their lives, and some groups of teenagers may exhibit more self-control than others. Therefore, one should ask the question: what is the correlation between gender, grade, self-control, and self-esteem?

Self-control is defined as the willpower to continue doing a task, even when it is challenging. Self-control is necessary in many situations. If

everyone were to do what he or she wanted, society would be chaotic. Self-control often develops when one is a young child. Teachers and parents have major roles in helping young children gain self-control. Both should be the epitome of self-control so that children will be encouraged to have it. Reward and punishment systems are also important for the formation of self-control. Encouraging young children to find a solution to their problems instead of giving them the solution and explanation may encourage children to trust in their own abilities, thus improving their self-control. Giving young children responsibilities and duties helps them develop self-control as well. Once self-control is instilled in children, it tends to stay with them for the rest of their lives (Aydin & Ziatdinov, 2016).

Cultures that emphasize self-control generally produce children that are more academically successful. However, these cultures also emphasize higher education. One study analyzed immigrants to America (Figlio, Giuliano, Özek, & Sapienza, 2017). The data showed that young children with self-control have better test scores and get into less disciplinary incidents over time when compared to students without self-control. They also take more advanced high school courses (Figlio, Giuliano, Özek, & Sapienza, 2017). Self-control has also benefitted those in higher levels of education because those courses require determination. According to a study by Honken, Ralston and Tratter (2016), graduate and engineering students with self-control scored 27-42% better than those who did not exhibit self-control. This finding was due to more rigorous classes demanding stricter deadlines and not allowing leisure time to interfere with those goals (Honken, Ralston, & Tretter, 2016).

#### *Gender, Aggression and Self-Control*

Gender has been associated with self-control (Orkibi, Hamama, Gavriel-Fried, & Ronen, 2018). In studying criminal activity discrepancies between males and females, Lagrange and Silverman (1999) discovered that men tend to commit more felonies than women. They also associated committing felonies with increased smoking and drinking, which can be correlated to a low self-control since it takes a large amount of willpower to choose not to participate in such activities. Therefore, the researchers stated that commission of felonies is correlated with a lack of self-control. Asserting that low self-control makes one more inclined to commit a felony, they stated that men generally had less self-control than women. In addition to that, they also claimed that men tend to act more on impulse than women. Since it takes self-control to prevent oneself from acting on impulse, it logically follows that women have more self-control than men, reaffirming their other findings. Though there were several other

variables in the experiment, the researchers claimed that gender had the biggest influence on self-control (Lagrange & Silverman, 1999).

The number of disciplinary incidents may also be related to self-control. Low self-control is associated with aggression (Morsunbul, 2015). For clarification, aggression is not the act of becoming angry, but rather acting upon those anger-fueled impulses (for example, screaming). People with high self-control are able to successfully channel their anger into something productive such as art or music, whereas those who have low self-control will easily become angry and demonstrate their anger because they do not have the restraint to calm themselves down. This clearly has a negative effect on behavior in school. According to one study, 6.4% of all students receive a suspension or expulsion, most frequently due to physical and verbal aggression and classroom disruptions (Burke & Nishioka, 2014). It is safe to say that self-control and disciplinary incidents are linked, but it should be experimentally tested. The experiment by Morsunbul demonstrated that there was no link between gender and levels of aggression (Morsunbul, 2015). Since aggression is negatively correlated with self-control, there is some evidence that there is no link between gender and self-control. Because the experiment aforementioned stated that women have more self-control than men, it is necessary to test the effect of gender on self-control to dissolve the discrepancy.

#### *Factors Affecting Self-Control*

Self-control can decrease in certain situations because of many factors such as the wait before gratification, the value of gratification, age, and the social behaviors the test subject was taught, including the behaviors others exhibit. Frustration and forgetting the future gratification often occur, especially in small children, thus leading to a lack of self-control.

### A. Gratification

When it comes to gratification, if an immediate or the delayed reward is shown, the test subject is more likely to take the immediate reward than if neither reward is shown. Self-control is greater when the test subject has distracting thoughts than when the test subject is focusing on the two rewards. An abstract representation increases self-control more than a realistic representation of a reward (Mischel, Shoda, & Rodriguez, 1989).

### B. Age

Generally, self-control increases with age. Children who were able to exhibit self-control were later able to express their ideas more fluently and had better logical reasoning skills. Some assert that though self-control may increase with age in long term strides such as from the age of 5 to 15, there are no significant differences in self-control between similarly aged groups. One of the most notable experiments conducted to prove this theory was done by Nikolopoulou and Gialamas (2017). In their experiment, they created three groups consisting of 7<sup>th</sup>, 8<sup>th</sup>, and 9<sup>th</sup> graders. The students were given surveys asking how long they used an electronic screen each day, and the team made inferences off of that and a few other questions.

The team asserted that there was no significant difference in self-control between the groups (Nikolopoulou & Gialama, 2017). If this is true for junior high students, one can hypothesize that it still holds true for high school students. However, there are a few limitations to this idea, because many personality traits are likely to change as teenagers grow nearer to adulthood since adolescence is such a tumultuous time (Chubb, Fertman, & Ross, 1997). Since teenagers undergo several changes during that period of their life, it is not completely accurate to assert that what holds true for younger students will necessarily hold true for students a few years

older, warranting the investigation into the correlation between grade level and self-control.

### *Factors Affecting Self-Esteem*

Self-esteem is probably the most erratic personality trait that a teenager has. One day, a person may be completely fine with whom he or she is, but suddenly that individual's entire life turns around and he or she wants to completely change.

#### A. Age

There are major differences in self-esteem levels of males and females during growing periods. One study compared males and females in 5<sup>th</sup>, 8<sup>th</sup>, and 12<sup>th</sup> grade and indicated that in 5<sup>th</sup> grade and 12<sup>th</sup> grade, boys and girls have similar self-esteem levels (Polce-Lynch, Myers, Kliever, & Kilmartin, 2001). Younger boys had higher self-esteem than older boys. This may be due to the fact that depression often increases as adolescents grow older. The opposite is true for girls: younger girls have lower self-esteem than older girls. This may be caused by girls being dissatisfied with their bodies before they mature. Often, same-sex schools have students who tend to have more self-esteem than those in co-ed schools, perhaps because one gender tends to objectify the other at that age (Polce-Lynch, Myers, Kliever, & Kilmartin, 2001).

#### B. Gender

However, there are some studies that assert the opposite. One study conducted in Taiwan used college students as test subjects. In the study, the researchers discovered that though males are more satisfied with their bodies than females, there were no differences between the self-esteem of males and females (Lin, H. & Lin, Y., 2018). Since this study was conducted on college students, there is an implication that though at younger ages there is a difference between the self-esteem levels of males and females, when those adolescents become older, the self-esteem levels of both males

and females increase to different extents to create a relatively equal self-esteem level between males and females. Though the two studies contradict on whether self-esteem is linked to gender, there is further evidence that self-esteem changes with age.

### *Self-Esteem and Self-Control*

Self-esteem can also be linked to self-control. Social media is becoming extremely popular, especially in teenagers. Studies have shown that social media disrupts one's attention span. It becomes so addictive that many are not able to stop using it, thus decreasing one's self-control. One can say that a lack of self-control increases social media use (Firat, 2017). High social media use is negatively correlated to self-esteem (Kircaburun, 2016). Therefore, one can logically conclude based on previous literature that a lack of self-control will damage one's self-esteem.

Depression, an expression of low self-esteem, is also believed to be correlated with self-control. Self-control has been shown to have some connection with cyber bullying. In the virtual world, people with low self-control tend to say mean words for they have the option of hiding behind a screen. For them, there are no apparent consequences. On the contrary, people with high self-control are able to restrain themselves from saying cruel things because they have the willpower to do what is right even when there are no consequences (Peker, 2017). Cyber bullying is closely linked to depression and anxiety. Cyber bullies, because of their hostility, often are rejected by their peers, making them feel sad and lonely (Çetin, Eroglu, Peker, Akbaba, & Pepsoy, 2012). One can make the assumption that depression and self-control are connected, but this must be tested.

### *Hypotheses*

Though there is much research on self-control, most of this research focuses primarily on very young children or college level students. Not much research focuses on high school students. High school is a major period of shaping and development, so one's self-control could be dependent on high school. Self-control and self-esteem are unstable at this time and teenagers are

very impressionable. If one were to emphasize self-control in the curriculum of high schools, our society could greatly develop, because people will have the confidence to take on the world, regardless of a few imperfections. Emphasizing self-control and self-esteem in groups that lack those essential qualities will prepare our society for a grand flourishing, and our world will reach new heights with potential unlike anything ever seen. The power that is in our grasp is beyond compare; all one needs to do is unlock it. The purpose of this study is to determine how gender, grade level, self-control, and self-esteem are correlated. The following hypotheses were tested: (1) males will have higher levels of self-esteem than females (2) females will have higher levels of self-control than males (3) 9th graders will have higher levels of self-control than 12<sup>th</sup> graders (4) 12th graders will have higher levels of self-esteem than 9<sup>th</sup> graders (5) there will be a positive correlation between self-control and self-esteem.

### **Method**

#### *Site and Sample*

In order to investigate the correlation between gender, grade, self-control, and self-esteem, 159 students were surveyed. Most of the population was upper-middle class. The study was conducted in a co-ed traditional 4-year Catholic high school in Long Island, which has a student population of approximately 2,400. Students mostly hail from eastern Long Island, but many also come from Brooklyn and Queens. There are also several international students.

Students are accepted into the school based on middle school grades and high scores on the Catholic High School Entrance Exam. In order to maximize the randomness of the populations, students in theology classes were used for the experiment because at the high school in which this experiment was conducted, every student is required to take a theology class, regardless of academic intelligence. Each class is divided by grade, with absolutely no overlap between grades,

so it was relatively easy to find a large group of 9<sup>th</sup> graders and a large group of 12<sup>th</sup> graders.

### *Instrument*

In order to test the hypotheses, the survey questioned the test subject on each aspect of the hypothesis. The same survey was given to each participant. The first part of the survey asked if the participant was male or female, and if they were in 9<sup>th</sup> or 12<sup>th</sup> grade. This grade gap is used to truly differentiate between grade levels because if all four grade levels were used, then the data would be too close to make a valid conclusion. Two grade levels that are far apart will better demonstrate the difference between the two in several aspects. The rest of the survey tested the self-control and self-esteem of the subjects.

To determine one's self-esteem, a scale similar to the Rosenberg Self-Esteem test was created. The point system ranges from one through four. The scale consists of Likert-type items with ranging from 1 to 4, with 1 being Strongly Agree and 4 being Strongly Disagree. Items 1, 3, 5, and 6 make up the subscale used to determine if the participant has a positive outlook on life. Items 2, 4, 7, and 8 make up the subscale determining how well the participant responds well to difficulty. The final part of the test, questions 9 through 20, determines if the test subject is overly concerned with other people's opinions of him or her. Each of the three major aspects of self-esteem was given a self-esteem subscore. The sigma function was then used to determine the participants' scores on each scale. The score values of the final part of the test were reversed when being incorporated into the total self-esteem score. If the total self-esteem score ranged from 20-50, the person had a high self-esteem. If a person's score was in the range of 51-80, the test subject had a very low self-esteem.

To determine the level of self-control of the participants, another Likert-type scale was used. This self-control test is similar to the public access version of the Tangney Self-Control Scale (2004).

Items 1-6, 16, and 19 determine the level of bad habits that a participant has. Items 7-15, 17, 18, and 20-23 measure how impulsive the test subject is. The last part, items 24 to 35, addresses the participant's general self-discipline. Again, each aspect of self-control received a self-control subscore. Similar to what was done in the self-esteem test, the sigma function was used to evaluate the scores of participants. The scores for general self-discipline were reversed when being incorporated into the total self-control score. If the total self-control score ranged from 35-95, the person had a low self-control. If a person's score was within the range of 96-140, the test subject had a very high self-control.

### *Data Collection*

Data were collected between March and October of 2018. In order to conduct the experiment, theology teachers distributed the survey to several classes through online means. The survey itself took 10-15 minutes to complete. Attached to the survey was the sample consent form, which was brought home for parents to sign since all the participants were minors. If a student brought in a survey without correctly filling out the consent form, their data was discarded. The surveys and consent forms were given to their respective teachers, who returned them to the researcher. In order to minimize the privacy risks, the tests were separated from the consent forms and were each stored in a secure location. This experiment held no risks to the participant, and the immeasurable benefit gained is a deeper understanding of the correlation between gender, age, self-control, and self-esteem.

### *Data Analysis*

Once this information was gathered and recorded into Microsoft Excel software, the means and variances were calculated. Gender and grade were each compared to self-control and self-esteem, and then self-esteem and self-control were compared. A t-test was conducted as well, which

determines if the data is due to chance. A level of significance of  $p < .05$  was chosen for all t-test comparisons. If the t-test generates a  $p$ -value lower than .05, one can claim that the data is significant because it rejects the null hypothesis which states that there is no significant difference between the two sample groups.

## Results

A reverse scoring method was used in this study. In all comparisons, a high score indicated an unfavorable response with respect to the measured variable. For example, a low mean self-esteem score represents a high level of self-esteem.

### Self-Esteem

In the "Total Self-esteem" test, the mean of the male group was 34.7. For the female group, the mean was 39.7. The male group had a variance of 61.8. Contrarily, the female group had a variance of 70.8. The  $p$ -value was  $< .001$ . Therefore, the assertion can be made that males have a significantly higher self-esteem than females. The means and variances of self-esteem are displayed in Table 1.

Table 1. A Comparison of the Total Self-esteem of Males and Females

	$\bar{x}$	$s^2$	$p$
Male	34.7	61.8	$< 0=.001$
Female	39.7	70.8	

### Positive Outlook

In the "Positive Outlook" test, the male group had a mean of 6.3, whereas the female group had a mean of 6.9. The variance in this test for the male group was 3.0, but it was 3.8 for the female group. The  $p$ -value was .048. For this reason, one can claim that men tend to have a more positive outlook on life than women. The means and variances of positive outlook are displayed in Table 2.

Table 2. A Comparison of the Levels of Positivity in the Outlooks of Males and Females

	$\bar{x}$	$s^2$	$p$
Male	6.3	3.0	.048
Female	6.9	3.8	

### Response to Difficulty

In the "Difficulty Response" test, the mean of the male group was 7.5. For the female group, the mean was 8.4. The male group had a variance of 4.1. Contrarily, the female group had a variance of 3.3. The  $p$ -value was .005. Hence, the claim can be made that males respond to difficulty in a much healthier manner than females, indicated by the male group's lower score. The means and variances of difficulty response are displayed in Table 3.

Table 3. A Comparison of the Response to Difficulty of Males and Females

	$\bar{x}$	$s^2$	$p$
Male	7.5	4.1	.005
Female	8.4	3.3	

### Concern about Other's Perceptions

In the "Thought Concern" test, the mean of the male group was 39.0. For the female group, the mean was 35.6. The male group had a variance of 30.0. Contrarily, the female group had a variance of 45.0. The  $p$ -value was .001. Therefore, the claim can be made that males are less concerned with others' opinions of themselves than females, designated by the higher score in the male group. The means and variances of thought concern are displayed in Table 4.

Table 4. A Comparison of the Concern of Others' Thoughts of Males and Females

	$\bar{x}$	$s^2$	$p$
Male	39.0	30.0	.001
Female	35.6	45.0	

### Bad Habits

In the “Bad Habits” test, the mean of the 9<sup>th</sup> grader group was 20.9. For the 12<sup>th</sup> grader group, the mean was 19.0. The 9<sup>th</sup> grader group had a variance of 20.5. Contrarily, the 12<sup>th</sup> grader group had a variance of 22.0. The  $p$ -value was .012. Hence, the claim can be made that 9<sup>th</sup> graders tend to have less bad habits than 12<sup>th</sup> grader, indicated by the higher score in the 9<sup>th</sup> grade group. The means and variances of bad habits are displayed in Table 5.

Table 5. A Comparison of the Bad Habits of 9<sup>th</sup> and 12<sup>th</sup> Graders

	$\bar{x}$	$s^2$	$p$
9 <sup>th</sup>	20.9	20.5	.012
12 <sup>th</sup>	19.0	22.0	

### Impulsiveness

Though the values generated with the data in the “Impulsiveness” test between 9<sup>th</sup> and 12<sup>th</sup> grade created a  $p$ -value above the 0.05 level, it is worth noting since the value is exceptionally high. For 9<sup>th</sup> grade, the mean was 40.2, and the 12<sup>th</sup> grade had a mean of 40.1. The variance for 9<sup>th</sup> grade was 44.4, and for 12<sup>th</sup> grade, it was 45.9. Due to the extremely close values of the data, the  $p$ -value for this set of data was .931, indicating that there is no significant difference in impulsiveness between grade levels. The means and variances of impulsiveness are displayed in Table 6.

Table 6. A Comparison of the Impulsiveness of 9<sup>th</sup> and 12<sup>th</sup> Graders

	$\bar{x}$	$s^2$	$p$
9 <sup>th</sup>	40.2	44.4	.931
12 <sup>th</sup>	40.1	45.9	

### The Relationship Between Self-Esteem and Self-Control

In the “Self-esteem and Self-control” test, the mean of the low self-control group was 41.6. For the high self-control group, the mean was 33.3. The low self-control group had a variance of 67.4. Contrarily, the high self-control group had a variance of 43.1. The  $p$ -value was  $< .001$ . Due to the low  $p$ -value, the claim can be made that those with high self-control tend to have significantly higher levels of self-esteem than those with low self-control. The means and variances of self-esteem scores for those with high and low self-control are shown in Table 7.

Table 7. A Comparison of the Total Self-Esteem of Those with Low and High Self-control

	$\bar{x}$	$s^2$	$p$
Low Self-control	41.6	67.4	$< .001$
High Self-control	33.3	43.1	

The other tests that were conducted yielded  $p$ -values higher than .05 and were not listed in this section. Results for all tests conducted and their respective  $p$ -values can be found in the Appendix.

### Discussion

The purpose of this study was to determine how self-control, self-esteem, gender, and grade level were correlated. Saida el Rafei (2008), a researcher at the University of Leicester, concludes that across grade levels, there are no significant differences in self-esteem or academic achievement, which is an expression of self-control. She also states that there is a significant difference between males and females in terms of self-esteem. Many other scientists and psychologists agree with her and assert that self-esteem and self-control are positively correlated, men have higher self-esteem, women have higher

self-control, and there are minimal differences in the traits amongst groups a few years apart. After having conducted this experiment, the findings of this study support the results of past scientists.

#### *The Association Between Gender and Self-Esteem*

Men in the total self-esteem test and each one of its subscores had better results than women. Men, according to the data, almost always have higher self-esteem levels than women. This may hold true because our society often puts very heavy social expectations on women, and not as many on men. Due to those high expectations, women may have a lower self-esteem because they are unable to meet every single one of those expectations. Men are given fewer social expectations, so their self-esteem is not heavily affected by those expectations. This is evident in the Thought Concern subscore in the self-esteem test, which is one of the larger parts of the Total Self-esteem test. The traits measured by the Positive Outlook and Difficulty Response subscores are closely related, so if one group tends to have a higher value in one of the two subscores, it is expected for that same group to have a higher value in the other subscore. This is the case for males, perhaps because societal expectations also affect one's outlook and response to trouble.

#### *The Association Between Gender and Self-Control*

There were no significant differences between males and females in terms of self-control. Though this was unexpected, it can be justified because self-control is heavily influenced by parenting (Gartner, Vetter, Schaferling, Reuner, & Silke, 2018), and most parents of current teenagers raise males and females in a very similar manner (Endendijk, Groeneveld, Bakermans-Kranenburg, & Mesman, 2016). However, the reason why there were no differences between the two genders may be that the sample sizes were very different. There were almost twice as many females as males in the study. An outlier in the male group would affect the data far more than an

outlier in the female group, so the relationship between gender and self-control may not have been properly measured due to a limited sample size.

#### *The Association Between Age and Self-Esteem and Self Control*

There were no noteworthy differences between 9<sup>th</sup> and 12<sup>th</sup> graders in either self-control or self-esteem levels. This may be the result of not allowing a large enough age gap between the test subjects. Granted, people do change a lot over the course of high school, but the changes are not large enough to create a major deviation between the two groups. Perhaps if the two groups had a larger age separation, this test could show some significant results, but according to the data and past research, there is no correlation between either self-esteem or self-control and small age differences.

However, one subscore gave significant results: bad habits. 9<sup>th</sup> graders tended to have less bad habits. This may be caused by what several students and teachers call "senioritis". When students first enter high school, they are often scared and work hard to avoid detentions and just survive. When "senioritis" starts to appear in 12<sup>th</sup> graders, the fear of detention and overall concern about doing good is often lost, making 12<sup>th</sup> graders less resistant to troublesome behaviors. The impulsiveness results are also notable since this variable yielded an extremely high *p*-value. This may be the result of the fact that several teenagers rarely think before acting, and this is often a trait that does not change much until much later in the future. Due to the significantly high *p*-value, the assertion that self-control does not change much throughout high school is heavily supported.

#### *Self-Esteem and Self-Control*

Just as most of the literature asserts, self-control is positively correlated with self-esteem. Logically, this makes sense. Self-control is necessary to do well in nearly every aspect of life,

whether it be school, work, relationships, etc. If one has a high level of self-control, he or she will likely flourish in several aspects of life. Because of that success, one may feel satisfied with oneself. That person will feel good enough and meet expectations, heavily increasing self-esteem levels. Conversely, when one does not have self-control, he or she may not perform well overall, decreasing levels of self-esteem. In general, this experiment agreed with past research, and therefore has a high chance of being reliable due to the conduction of similar experiments and similar results.

### *Conclusion*

However, there were a few conditions that may have affected the data. Data may have been skewed slightly because only data with consent forms were considered. The fact that some participants took the initiative to bring the survey home and remember to give it to their parents/guardians demonstrates that those participants demonstrate some degree of responsibility, whereas those who did not bring the consent forms demonstrate low responsibility. This difference in responsibility levels slightly decreases the randomness of the experiment, which may have caused the data to be partially skewed. Because of this, the self-control scores may have been affected since responsibility is an expression of self-control. Therefore, the results surrounding self-control are not as reliable as possible, but the self-esteem scores remain unaffected since responsibility does not necessarily influence the participant's self-esteem.

The site at which surveys were conducted may have also caused a minor bias since those at a private school generally come from upper middle class or higher. Because of this, those at a private high school may not deliver proper judgements for high schoolers in general. Data may also have been affected by the inconsistent weights of each subscore. For example, in the Total Self-control test, the Bad Habit subscore was determined by 8 questions, Impulsiveness 15, and General Self

Discipline 12. Because of this, some Total scores may be skewed because the test subject may have very few bad habits and high self-discipline, but those scores are outweighed by a high level of impulsiveness. This may have affected some data points, but overall the data was not largely impacted.

The research conducted is extremely beneficial to the scientific society. Depending on what future researchers produce, the ideal way of bringing up a child may be changed. For example, "spoiled" children need not have self-control because they get whatever they want immediately. If self-control does have effects on the aforementioned ideas, then catering to a child's every whim may actually hurt them more than one thinks. Finding to what extent self-control has an effect on self-esteem also may change the way our school system is arranged. In the future, our children will be educated in a way like no other after researching self-control to the extent it deserves. This research also encourages high school students to change their habits if they have no self-control so that they will become even more successful in the future.

Self-esteem is also in short supply in teenage populations. Research around self-esteem is integral due to the extremely high rates of suicide. By understanding how self-control affects self-esteem, one can essentially minimize suicide rates by promoting self-control from a young age since self-control positively correlates with self-esteem. Because of this research, it is known that females should have more self-esteem education and building than males and 12<sup>th</sup> graders slightly more self-control education than 9<sup>th</sup> graders, so one can allocate educational resources accordingly. By heavily promoting self-control and self-esteem in schools, our society will be able to achieve new heights. The advancements that the world will create will be unparalleled. A new technological era will arrive shortly, all because of heightened self-control and self-esteem levels.

Of course, more research is necessary on this topic. Perhaps the most obvious improvement to the study is adding more participants. To obtain more valid results, the sample size must be significantly larger, such as 1000 participants or more. Participants should also not come from only a private high school, but also public high schools in both rural and urban settings. This will improve the randomness of the data, which is necessary to make proper statistical analyses. The self-control aspect of the experiment can also be improved. There are a few differences between one's hypothetical self-control and one's actual self-control. One may claim that he or she will avoid a certain temptation, but when it actually happens, that person may lack the self-control needed to overcome that temptation. Due to limited resources, this study determined only participants' hypothetical self-control and was unable to properly evaluate the levels of self-control each student had. Though this will require years of study and a large amount of resources, if future researchers are able to experimentally determine the actual level of self-control, the data will be more reliable. The study concludes that men have more self-esteem than women, older adolescents tend to have more bad habits, and those with higher self-control levels have significantly higher self-esteem than those with low self-control. Therefore, self-control and education are integral aspects of life.

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