

Ava Rossi

Prof. Arianna Corradi

ENGL 1106

Content:

Project 1 (Proposal) .....	2 - 5
Project 2 (Annotated Bibliography) .....	6 - 11
Project 3 (Sustained Research Project) .....	12 - 22
Project 4 (Reflective Essay) .....	23 - 26

Ava Rossi

Prof. Arianna Corradi

ENGL 1106

## **Project 1: Proposal/Inquiry Memo**

### **Working Title**

Exercise to Achievement

### **Introduction**

College is a time where students often fall out of routine and struggle to create productivity. Kids that were once structured student athletes or simply built exercising into their daily high school schedule may have lost sight of this habit when transitioning to college. The lack of parental control and newfound freedom that college life provides makes it very easy to fall off track and lose the time to incorporate movement into everyday life. Students go to class and come right back to their bed and either go back to sleep, eat, scroll on social media, or maybe attempt their homework if they feel up for it. Often students find they “don’t have the time” to add exercise into their day that is already packed with classes and relaxing. This lack of exercising can begin to bleed into other aspects of life. Feeling tired and lazy causes students to fall into procrastination and feeling extremely unmotivated to get their work done. However, some students who incorporate exercise or more movement into their daily routine feel a sense of productivity that translates over into their schoolwork. I want to focus on the correlation between exercising and academic productivity, specifically how exercising can have an effect on how much a student achieves, academic wise, during the day. I am interested in the mind/body

connection between feeling good and how that transfers over to being productive for school. If a student is having a good day because exercising helps release endorphins and lower stress levels, do they now feel that they are in a good headspace that allows them to really focus and complete their work? Answering these questions can help my readers better understand themselves and how to approach their own college lifestyle. If students begin to notice that being a little more active may lead them to be more motivated to get their work done, then maybe they will implement changes into their daily lives. Finding motivation is a struggle for the majority of college students. They might not know what the reason is for why they feel very little motivation for their schoolwork, and exercising can help boost their energy levels. Taking care of one's body directly means to take care of the mind.

### **Tentative Research Question**

In order to help students boost their academic productivity, my research questions are the following: What is the impact exercising has on students' academic productivity? Is there evidence of a positive correlation, or do most students feel it is another life stressor to fulfill? I know a lot of peers that feel like on days that they don't exercise that now their whole mood is thrown off and they feel even worse because they feel like they were "supposed to" or "have to". Does this mean that it is not even the actual exercising that is beneficial, but the idea that they are doing something healthy? I think this could potentially be something to explore within my paper if there is enough research on it.

## Research Methods: Secondary Sources

For my secondary sources, I want to find research that shows the correlation between exercising and academic performance; essentially the “feel good, do good phenomenon”. I want to find research that dives into the science and psychology behind exercising and how it affects the brain, and then how that can help create healthy study habits.

- Ball, James W., et al. “Exploring the Relationship between College Students’ Barriers to Exercise and Motivation.” *American Journal of Health Studies*, vol. 33, no. 2, Apr. 2018, pp. 61–69. EBSCOhost, [search.ebscohost.com/login.aspx?direct=true&db=awh&AN=132016891&scope=site](https://search.ebscohost.com/login.aspx?direct=true&db=awh&AN=132016891&scope=site).
- Cai, Sean. "Physical Exercise and Mental Health: A Content Integrated Approach in Coping with College Students' Anxiety and Depression." *Physical Educator*, vol. 57, no. 2, 2000, pp. 69. ProQuest, <http://login.ezproxy.lib.vt.edu/login?url=https://www.proquest.com/scholarly-journals/physical-exercise-mental-health-content/docview/1437939043/se-2>.
- Drummond, Danielle Marie. “Contributory, Not Competing: A Test of the Effects of Facilitative Framing of Exercise and Academic Goals among Busy College Students.” *Dissertation Abstracts International: Section B: The Sciences and Engineering*, vol. 84, no. 6–B, ProQuest Information & Learning, 2023. EBSCOhost, [search.ebscohost.com/login.aspx?direct=true&db=psyh&AN=2023-38658-278&scope=site](https://search.ebscohost.com/login.aspx?direct=true&db=psyh&AN=2023-38658-278&scope=site).
- Ermis, Egemen. “Analysis of Academic Self-Efficacy Levels of University Students Doing Sport Regularly and Those Not Doing Sport Regularly.” *Asian Journal of Education and Training*, vol. 5, no. 2, Jan. 2019, pp. 324–28. EBSCOhost, [search.ebscohost.com/login.aspx?direct=true&db=eric&AN=EJ1217560&scope=site](https://search.ebscohost.com/login.aspx?direct=true&db=eric&AN=EJ1217560&scope=site).
- Exford, T. J. “Mindfulness, Exercise and Stress Reduction: The Effects of a University Physical Education Mindfulness-Based Exercise Course in Increasing Physical Activity.” *Dissertation Abstracts International Section A: Humanities and Social Sciences*, vol. 84, no. 8–A, ProQuest Information & Learning, 2023. EBSCOhost, [search.ebscohost.com/login.aspx?direct=true&db=psyh&AN=2023-55662-023&scope=site](https://search.ebscohost.com/login.aspx?direct=true&db=psyh&AN=2023-55662-023&scope=site).
- Jackson, Ben, and James A. Dimmock. “When Working Hard and Working out Go Hand in Hand: Generality between Undergraduates’ Academic- and Exercise-Related Self-Regulatory Efficacy Beliefs.” *Psychology of Sport and Exercise*, vol. 13, no. 4, July 2012, pp. 418–26. EBSCOhost, <https://doi-org.ezproxy.lib.vt.edu/10.1016/j.psychsport.2012.01.004>.
- Liu, Wenxi. “Effects of Virtual Reality Exercise on Promoting Physical Activity and Health among College Students: A 4-Week Randomized Controlled Trial.” *Dissertation Abstracts International: Section B: The Sciences and Engineering*, vol. 83, no. 3–B, ProQuest Information & Learning, 2022. EBSCOhost, [search.ebscohost.com/login.aspx?direct=true&db=psyh&AN=2021-94598-279&scope=site](https://search.ebscohost.com/login.aspx?direct=true&db=psyh&AN=2021-94598-279&scope=site).

- Palermo, Madeline. "Investigating Risk Factors of the Development of Compulsive Exercise and Eating Disorder Symptoms in College Students." Dissertation Abstracts International: Section B: The Sciences and Engineering, vol. 84, no. 12-B, ProQuest Information & Learning, 2023. EBSCOhost, [search.ebscohost.com/login.aspx?direct=true&db=psyh&AN=2023-93854-044&scope=s](https://search.ebscohost.com/login.aspx?direct=true&db=psyh&AN=2023-93854-044&scope=s)  
[e](https://search.ebscohost.com/login.aspx?direct=true&db=psyh&AN=2023-93854-044&scope=s).
- Stork, Matthew J., et al. "Using Self-Reported and Objective Measures of Self-Control to Predict Exercise and Academic Behaviors among First-Year University Students." Journal of Health Psychology, vol. 22, no. 8, July 2017, pp. 1056–66. EBSCOhost, <https://doi-org.ezproxy.lib.vt.edu/10.1177/1359105315623627>.
- Young-Jones, Adena, et al. "Let's Take a Break: The Impact of Physical Activity on Academic Motivation." International Journal of Teaching and Learning in Higher Education, vol. 33, no. 2, Jan. 2022, pp. 110–18. EBSCOhost, [search.ebscohost.com/login.aspx?direct=true&db=eric&AN=EJ1345538&scope=site](https://search.ebscohost.com/login.aspx?direct=true&db=eric&AN=EJ1345538&scope=site).

### **Research Method: Primary Sources**

For my primary research I will survey Virginia Tech students of various ages. I will have to word the questions so the answers are not too subjective from person to person and difficult to interpret a consensus or common trend of data. I will ask them what kind of physical activity they partake in, and if they can tell if it has any impact on how much work they can get done in a day compared to days when they don't have much movement. I want to survey people that engage in different kinds of exercises whether it be walking, running, weight lifting, etc.. This can also possibly lead me into a subtopic of if a certain kind of physical activity produces greater academic productivity.

### **Conclusion**

College students often have trouble balancing their social and academic life with exercising. This likely leads to stress and low energy, which in turn takes a toll on their academic performance. I want to show the correlation between an increase in physical activity and academic productivity to encourage students to look inwards on their habits and adjust for improvement.

Ava Rossi

Prof. Arianna Corradi

ENGL 1106

## **Project 2: Annotated Bibliography**

### **Research Question & Research Significance:**

What is the impact exercising has on students' academic productivity? Is there evidence of a positive correlation, or do most students feel it is another life stressor to fulfill? The significance of my research question is to directly help students look at their habits and learn about how they can improve themselves.

### **Source 1**

Ball, James W., et al. "Exploring the Relationship between College Students' Barriers to Exercise and Motivation." *American Journal of Health Studies*, vol. 33, no. 2, Apr. 2018. EBSCOhost, [search.ebscohost.com/login.aspxdirect=true&db=awh&AN=132016891&scope=site](https://search.ebscohost.com/login.aspxdirect=true&db=awh&AN=132016891&scope=site).

**Summary:** The purpose of this study is to determine barriers to motivation and exercise between traditional and nontraditional students as well as males and females. Nontraditional students are defined as "those who are 23 years of age or older, and commute to and from campus while holding a job and/or managing a family" (Ball et al.), and traditional students would be considered anyone else who does not fall under that category. This study was conducted under the premise that motivation will likely occur when the basic psychological needs are met, which are the following: autonomy, relatedness, and competence. The barriers to exercise that were studied included time, energy, willpower, resources, risk of injury, skill, and social influence. The results of this study concluded that there was no difference for either barriers to exercise or motivation between traditional and nontraditional students, but there were differences among male and females.

James Ball et al. emphasize that the results of this study were predictable in the sense that the more rigorously a person works out, the less likely they are to have barriers because they have already implemented a routine that works to limit them. This is the practice of setting good habits and behaviors, which means that, "future research should consider looking at academic success or success in other areas of health to see if college students have similar barriers and use similar strategies to be successful in these areas as well" (Ball et al.). This suggestion would allow for further research that builds upon original study. The experiment also produced results that showed conflict between the barriers to exercise and motivation.

The source claims that "females had confidence in their ability to exercise and meet their desired health goals, but also recorded numerous barriers that prevented them from participating in PA

[physical activity] as compared to males” (Ball et al.). This means that if the variables are not complementary, then females might not achieve their desired results. This is a common dilemma for female college students, as they struggle to not experience all of the barriers.

**Evaluation:** This source is readable and provides a clear study along with understanding results. However, it is not very valuable to my research topic as it does not discuss academic success in relation to exercising. The source directly states, “this study did not look at academic success or success in other areas of health, but it would be interesting to see if these participants use similar strategies to be successful in these areas as well” (Ball et al.). This study would be great to do with academic productivity because it would tie in nicely with the effects of the barriers and the fulfillment of basic psychological needs. I could use this research to support that many students lack the motivation to exercise and provide the reasons that were explained in this study, but I would have to use other sources to correlate it to academic success.

**Questions:** How was no difference discovered between traditional and nontraditional students? - It seems like such different lifestyles that there had to have been some difference in barriers and motivation. How did socially desired responses impact the legitimacy of this study?

**5 keywords:** Physical Activity, Health, Traditional, Barriers, Motivation

**2 citations:**

Deci, Edward L., and Richard M. Ryan. “The ‘what’ and ‘why’ of goal pursuits: Human needs and the self-determination of behavior.” *Psychological Inquiry*, vol. 11, no. 4, Oct. 2000, pp. 227–268, [https://doi.org/10.1207/s15327965pli1104\\_01](https://doi.org/10.1207/s15327965pli1104_01).

Doerksen, Shawna E., et al. “Social cognitive determinants of moderate and vigorous physical activity in college freshmen.” *Journal of Applied Social Psychology*, vol. 39, no. 5, 27 Apr. 2009, pp. 1201–1213, <https://doi.org/10.1111/j.1559-1816.2009.00478.x>.

## Source 2

Young-Jones, Adena, et al. “Let’s Take a Break: The Impact of Physical Activity on Academic Motivation.” *International Journal of Teaching and Learning in Higher Education*, vol. 33, no. 2, Jan. 2022, pp. 110–18. EBSCOhost, [search.ebscohost.com/login.aspx?direct=true&db=eric&AN=EJ1345538&scope=site](https://search.ebscohost.com/login.aspx?direct=true&db=eric&AN=EJ1345538&scope=site).

**Summary:** The purpose of this study is to test if partaking in a lecture break that involved physical activity would increase the student’s motivation, attention, energy, and memory of the content. Research has been conducted to prove the benefits of physical activity, like recess, in elementary students, and Adena Young-Jones et al. wanted to switch the focus to college students. The 209 participants in the study consisted of a control group with no exercise, a mild exercise group, a yoga group, and a moderate exercise group. Each group listened to a thirty minute lecture, took an eleven minute break and exercised, or not, and then took a quiz regarding the lecture.

The results of this study mostly supported the hypothesis, concluding that “participating in moderate exercise or yoga would result in increases in self-reported motivation levels but did not support our hypothesis that participants of mild exercise would also reap these benefits” (Young-Jones et al. 113). The increase in self-reported motivation, as well as an increase in self-reported energy levels, shows that academic performance is impacted by exercise. Across the board, mild exercise did not have an impact on anything, which was likely due to the fact that it was too close to the control group and was not considered enough exercise. A surprising finding for the study was that “contrary to our hypothesis, quiz score is unaffected by the type of physical activity undertaken” (Young-Jones et al.). This finding is important because it pertains to academic success, as the quiz score is ultimately what determines the grade in the course. However, it is important to note that overall, the quiz scores were very low because of the lack of interest and knowledge in the subject being tested.

**Evaluation:** This source is mostly easy to understand, except for some of the results. The results explanation is clear, but it is not well explained what the numbers represent when the data is shown numerically. This information is still valuable to my research because it correlates exercise with academic success. It shows that even a small amount of exercise can increase energy levels and motivation. What is important is that there was high self-reporting of motivation and energy levels, which supports the idea that exercise increases intrinsic motivation, which is crucial to academic success. However, self-reporting is biased as everyone self-reports differently, and there were only 209 students participating in the study, compared to studies with thousands of participants.

**Questions:** What additional studies can be formed to test the impact of a longer physical activity? How would this be effective if it was tested on a real lecture/subject?

**5 keywords:** Physical Activity, Motivation, Energy Level, Yoga, Self- Reported

**2 citations:**

Bopp, Christopher M., et al. “Physical activity counseling in college students.” *Medicine & Science in Sports & Exercise*, vol. 49, no. 5S, May 2017, p. 12, <https://doi.org/10.1249/01.mss.0000516840.45654.61>.

Doerksen, Shawna E., et al. “Social cognitive determinants of moderate and vigorous physical activity in college freshmen.” *Journal of Applied Social Psychology*, vol. 39, no. 5, 27 Apr. 2009, pp. 1201–1213, <https://doi.org/10.1111/j.1559-1816.2009.00478.x>.

### Source 3

Stork, Matthew J., et al. “Using Self-Reported and Objective Measures of Self-Control to Predict Exercise and Academic Behaviors among First-Year University Students.” *Journal of*



**Summary:** The purpose of this study is to see how self-control measures impacted academic and exercise behaviors concurrently. When students engage in self-control while exercising, they may be depleting the same energy that studying demands for self-control (Stork et al.). For this study, handgrip squeezing performance and a Likert scale, a scale that ranges from options as not at all likely to highly likely, was used to reflect self-control strength.

Most of the results of this study supported the hypothesis, while some did not, that the higher reporting of self-control on the scale would correlate with more exercise and academic performance. As the authors state, “students with higher SCS scores reported more minutes of exercise” and “as anticipated, students with higher SCS scores spent more time studying and completing school work each week” (Stork et al.). These results make sense because those who report having higher levels of self-control would be able to be more productive. An important note of the study is that participants adhered better to their academic plans than their exercise plans. This is likely because as the authors suggest “academic performance and success may ultimately take priority over exercise in a university setting” (Stork et al.). Therefore, students may be able to exert self-control very well, but simply do not have the time to fulfill it and must prioritize their academics first.

**Evaluation:** This source overall was easy to understand, especially the procedure and the purpose of the experiment, but I struggled with understanding the data when it was in numerical data and tables. When the results were summarized and the conclusions were drawn, I was then able to understand. These findings are valuable to me because they show that as self-control affects exercise behavior positively, it has the same effect on academic behavior. While this study did not really focus on drawing conclusions and correlations between exercise and academic performance, I think it can be concluded that exerting self-control for one positively benefits the other. This is important for my research because I want to connect the two fields and show that they go hand in hand, and this study focuses on them concurrently instead of isolating them.

**Questions:** What conclusions can be drawn from the correlation between high levels of self-control for exercise, and how that can directly affect academic performance?

**5 Keywords:** Self-control, academic behavior, exercise behavior, exercise psychology

**2 Citations:**

Penedo, Frank J, and Jason R Dahn. “Exercise and well-being: A review of mental and physical health benefits associated with physical activity.” *Current Opinion in Psychiatry*, vol. 18, no. 2, Mar. 2005, pp. 189–193, <https://doi.org/10.1097/00001504-200503000-00013>.

Robotham, David, and Claire Julian. "Stress and the higher education student: A critical review of the literature." *Journal of Further and Higher Education*, vol. 30, no. 2, May 2006, pp. 107–117, <https://doi.org/10.1080/03098770600617513>.

#### Source 4

Ermis, Egemen. "Analysis of Academic Self-Efficacy Levels of University Students Doing Sport Regularly and Those Not Doing Sport Regularly." *Asian Journal of Education and Training*, vol. 5, no. 2, Jan. 2019, pp. 324–28. EBSCOhost, [search.ebscohost.com/login.aspx?direct=true&db=eric&AN=EJ1217560&scope=site](https://search.ebscohost.com/login.aspx?direct=true&db=eric&AN=EJ1217560&scope=site).

**Summary:** This source aims to study the correlation between academic self-efficacy levels of college students that participate in sports regularly compared to those who do not. Self-efficacy is defined as "an individual's being aware of his/her own capacity" (Ermis). The participants filled out an "Academic Self-Advocacy Scale" which included three categories: technical skills, social status, and cognitive practices.

The results of this study determine that "no significance was found between the participants' academic self-efficacy in terms of their state of doing sport regularly" (Ermis). The study offers very minimal analysis, as the main thing they were studying had no correlation. The experimental group of this study was chosen across all departments of the university, which explains why there was no influence found of sports on academic self-efficacy levels. There were too many confounding variables to focus solely on the effects of sports to self-efficacy levels.

**Evaluation:** This source was quite short and seemed a little repetitive. It did not have much content other than the study, and the results were not as they predicted. However, disproving their hypothesis is still valuable research. Although the study concluded that there was no influence from doing sports regularly on academic self-efficacy levels, this source can still be useful to my research. Firstly, self-efficacy does not directly determine academic success/performance, which is more of my area of focus. Also, this study could be used to argue that sports may be too much pressure and too rigorous a form of exercise to have a positive effect on academic performance, and that there may be a "sweet spot" in a more moderate approach to exercise.

**Questions:** How does gender affects the self-efficacy scale results?

**5 Keywords:** Academic self-efficacy, Sport, University students, Gender

**2 citations:**

Akbay, Sinem Evin, and Ayca Delibalta. "Academic risk taking behavior in university students: Academic procrastination, academic locus of control, and academic perfectionism." *Eurasian Journal of Educational Research*, vol. 20, 26 Oct. 2020, pp. 1–20, <https://doi.org/10.14689/ejer.2020.89.8>.

Arıkan, Gökhan. "Analysis of secondary school students' attitudes and self-efficacy perceptions towards physical education and the sports course." *World Journal of Education*, vol. 10, no. 6, 12 Dec. 2020, p. 14, <https://doi.org/10.5430/wje.v10n6p14>.

## Source 5

Cai, Sean. "Physical Exercise and Mental Health: A Content Integrated Approach in Coping with College Students' Anxiety and Depression." *Physical Educator*, vol. 57, no. 2, 2000, pp. 69. ProQuest, <http://login.ezproxy.lib.vt.edu/loginurl=https://www.proquest.com/scholarlyjournals/physical-exercise-mental-health-content/docview/1437939043/se-2>.

**Summary:** This study involves seventy one college students divided into three groups, which were the following: “G1, guided imagery integration with self-defense; G2, tai chi chuan integration with self-defense; G3, self-defense only” (Cai). These groups were observed by measuring their pre and post class anxiety from the first week, and then at the eighth week. The data was collected with the Profile Mood of States, also known as the PMOS.

The results of the study revealed that the exercises did have an impact on stress levels; “Tukey test indicated that both G1 and G2 also had significantly lower depression scores than that of the control group (G3,  $p < .05$ ) after eight weeks of the guided imagery and tai chi chuan integration” (Cai). It likely took eight weeks for results to occur because the first few weeks the participants had to spend more time learning the techniques. Once it becomes easier and more natural to perform, the effects of the exercise can set in.

**Evaluation:** This source was clear to follow and was pretty concise. It provided useful information to my research because exercising that reduces stress can be correlated with better academic performance. These conclusions can be drawn, especially with additional research. However, the exercises that were focused on in this study were much more moderate than what I planned to focus on.

**Questions:** How can this research be connected to academic success? What are the effects of more rigorous exercise?

**5 Key Words:** Anxiety, depression, tai chuan, yoga, mental health

### 2 Citations:

Rink, Judith. *Teaching Physical Education for Learning*. McGraw-Hill Education, 2020.

Netz, Yael, and Ronnie Lidor. “Mood alterations in mindful versus aerobic exercise modes.” *The Journal of Psychology*, vol. 137, no. 5, Sept. 2003, pp. 405–419, <https://doi.org/10.1080/00223980309600624>.

### **Project 3: Sustained Research Project**

Ava Rossi

English 1106

April 9 2024

From Working Out to Working Hard: The Impact of Physical Activity on Academic Performance

Keywords: Academic productivity, physical activity, stress, college students, endorphins

College students are often under immense pressure to meet standards set by their courses, themselves, and even parents. This pressure has the ability to determine their whole mood, usually for the worst. The solution to a poor mood is a simple one, but may go unnoticed or be overlooked because exercising is such a regular, common activity. Luckily enough, there is no question that exercising is a natural mood enhancer. Extensive research has proven that the release of endorphins has an immediate effect on the brain. Moreover, physical activity reduces stress levels and helps create a productive mindset that helps achieve academic success. Exercising stretches across all domains of life; it enhances sleep, eliminates brain fog, and boosts morale. While physical activity can sometimes become all consuming, this paper argues that as long as it is kept in moderation there are no drawbacks to incorporating it into a college student's daily routine, only benefits; a stable routine of physical activity, which can range from walking to weightlifting, creates an increased mood which in turn causes an increase in academic performance, because lower stress levels improves productivity and exercise promotes motivation.

In the United States, many college students tend to lose focus on their physical health, whether it be due to a rigorous course load, demanding extra curriculars, or an increase in partying. This lack of physical activity bleeds into other aspects of life that are crucial to maintaining a productive academic lifestyle. A clearer mind, lowered stress levels, and less fatigue are all vital to succeed academically and can all be achieved through physical activity. Although it is a concern that college students may overexert themselves for an ideal body image or value exercising over academics, I argue that a balance of regular physical activity, such as

running, weight-lifting, or fast walking causes an increase in well being which in turn causes an increase in academic success, because lower stress levels improves productivity and exercise boosts motivation.

In the United States, sports are heavily implemented into our culture and education. From the start of elementary school, young kids are already placed in after-school activities and as they age, their level of participation in sports typically increases; they are involved with teams both through the school and outside programs, like club or travel teams. But this consistent form of exercise comes to an abrupt stop when adolescents reach college and no longer participate in sports that, unknowingly to them, can help regulate stress levels and assist in academic performance.

As they enter college, adolescents need to find a new way to incorporate physical activity to moderate stress levels. Exercising, whether it be a run, hike, or a game of pickleball, releases endorphins. Endorphins are known as the brain's "feel-good neurotransmitters" ("Exercise and stress"). When endorphins are released, a sense of relief and well-being washes over the body, since endorphins work like a natural pain reliever for the body. Therefore, the release of endorphins contributes to the lowered levels of stress that is correlated with exercising. Moreover, endorphins also signal other hormones to act. They send signals to the adrenal medulla and the pancreas, which are involved in the body's peripheral nervous system and lead to an additional decrease in stress, as evidenced as early as 1980 by an article titled "The role of endorphins in stress" (Amir et al.).

Endorphins are critical to maintaining the body's stress levels and overall well-being, and one of the simplest ways to get a rush of them is through physical activity. However, as adolescents transition into a new lifestyle of independence, their stress levels increase

considerably alongside it. Many students find they do not have the time to incorporate physical activity into their busy schedule, which is reflected in the estimate that 56.1% of college students do not meet the requirement for the health guidelines of physical activity set in place by the American College Health Association, which amounts to two and a half hours of moderate intensity or one hour of vigorous intensity per week (Kroencke et al.). With more than half of college students across America failing to meet the requirements set by the American College Health Association, it is no surprise that stress dominates the lives of college students.

Physical activity, however, does more than simply lower stress levels. By decreasing stress levels, physical activity also decreases the risk of mental-health problems that are on the rise with college students. Several studies have shown a positive correlation between physical activity and happiness. In the 2019 study conducted by Lara Kroencke and her colleagues mentioned above, they followed college students across the semester as they exercised. When students were found to have higher levels of exercise, they were also found to have higher levels of conscientiousness, lower levels of neuroticism, less anxiety, and higher levels of happiness. High levels of conscientiousness is expressed through characteristics like dutifulness, a strive for achievement, and self-discipline. Conscientiousness is also shown to improve other disciplinary behaviors such as eating healthy, which plays its own role in lowering stress levels. Lower levels of neuroticism is apparent in students with lowered anxiety, irritability, and self doubt (Kroencke et al.). Conscientiousness and neuroticism are constantly fluctuating, and heavily impact one's overall well-being, and the mental well-being of the participants was at its highest when there was frequent exercise.

As conscientiousness rises and neuroticism falls with exercise, there is a similar trend with academic performance. Students high in conscientiousness and low in neuroticism are often

more achievement driven, less anxious, and therefore likely to be more productive. This trend is reflected in the positive correlation between conscientiousness and GPA scores. Nikolas Apostolov and Madelyn Geldenhuys, researchers at the Australian College of Applied Psychology, studied the results of a questionnaire that measured how conscientious and neurotic college students were, according to their level of agreement to questions and traits, and compared it to the questionnaire that measured their academic motivation. The results of students with these characteristics reflected that they set strong academic goals, had high levels of intrinsic motivation, self-efficacy, and self-regulation (Apostolov and Geldenhuys). Possessing these qualities set the students up for academic success.

If physical activity greatly contributes to increasing conscientiousness and lowering neuroticism, creating a habit of physical activity means that the mind will adapt these traits and better regulate stress levels, as well as increase mood and motivation. Therefore, physical activity has a direct effect on improving academic performance through its ability to alter one's well being and mindset for the better.

To better understand the impact of regular physical activity on college students, I turned to my peers and surveyed them directly. The results show a direct correlation between exercising and an improvement in mental health and academic performance. 80% of the 40 students who regularly participate in physical activity self-reported that exercising improves their brain fog, leaving them with a clearer mind, and propels their motivation (Rossi). The cause of this may be what I described above as being a release of endorphins, which lowers and clears the stress that is clouding the brain and shadowing the ability to succeed academically. A cleared mind opens up room to direct quality focus to academics and boosts productivity. Similarly, their newfound motivation may be explained by the sense of routine and productivity that exercising provides.

Accomplishing something that the student knows is beneficial to their body, like exercising, helps push them into the mindset that they can now be productive elsewhere, like schoolwork. If one area of life is thriving, there is a drive to replicate it across domains with the confidence that it can happen.

While it can be argued that exercising may burn students out and leave them too tired to focus on their academics, in most cases this is a misconception. In actuality, exercising has the power to wake students up after a long day of classes. Roughly 40% of students I surveyed claim that physical activity makes them less fatigued, as opposed to more fatigued, while 80% report that they are in a better mood while completing school work after exercising. Students often find themselves stuck on autopilot; there is a never ending cycle of class, homework, class, more homework, studying, exams, etc.. This routine can be mentally taxing and draining, so sprinkling in physical activity works like a quick reset. It clears the brain momentarily, and saves the student from breaking down from overwork and exhaustion. Exercising lets students leave the monotonous routine and essentially wakes them back up and recenters their focus.

With less fatigue comes an improvement in sleep. Constant high levels of stress not only wear the mind down, but keep students up at night and hinder their ability to get a good rest and recharge. Over half of the students I surveyed reported an improvement in their sleep when they exercised regularly. As evidenced by the *New York Times* article “Rest Better With Light Exercise,” physical activity has the power to enhance sleep by reducing the time it takes to fall asleep and increasing sleep time and quality (Dinardo). This is vital to everyone, but especially so to college students, as they are less likely to get enough sleep. When it pertains to academics, sleep quality is crucial to maintaining focus and sharpening cognition. Moreover, better sleep



contributes to overall better mental health, and physical activity is an easy and effective method for improving sleep.

My survey also reveals what is the most common time for students to partake in their physical activity. 82% of students answered that they work in between the time that their classes end but prior to beginning their homework. Recent studies have shown that this is actually an effective method to increase motivation and attention. In an article by Adena Young-Jones and colleagues titled “Let’s Take a Break: The Impact of Physical Activity on Academic Motivation,” they discovered that interrupting a lecture with just an eleven minute exercise break resulted in higher quiz scores compared with those who did not participate in the exercise break. The students also reported higher levels of motivation and energy levels through self-reported scores (Young-Jones et al.). Therefore, based on this evidence, taking a break to exercise and then returning to work may be an efficient way to incorporate physical activity into one’s routine because it has proven benefits on academic performance.

There are instances, however, in which exercising can become more than just a brief relief from academics, as evidenced by the prevalence of body dissatisfaction among college students, specifically females. Klara Edlund, a clinical psychologist, alongside her colleagues recently found that many students compulsively exercise as a result of an obsession over their body appearance or weight. Such compulsive exercise can also lead to depression, as the adolescent hyper fixates on the number appearing on the scale or how they look in the mirror next to thousands of other students (Edlund et al., “Body image and compulsive exercise”). As I have suggested in this paper, exercising is a healthy way to regulate emotions and stress, but exercising obsessively is not a healthy form of emotion regulation, because the adolescent begins to believe they are only worth the amount that they exercise. But compulsive exercising does not

mean that exercising is no longer a beneficial activity to relieve stress; the occurrences of compulsive exercising do not outweigh the fact that, as proven by extensive research, there is a strong correlation between lowered stress levels and physical activity. Exercising is the same as every other phenomenon; it is best in moderation.

The definition of moderation is a gray area in terms of physical activity levels for athletes. Athletes have to put a lot more time and effort into their exercise than other college students and they often have to endure much more intense exercises and training than those who work out independently. Their sport also comes with the added mental strain of having to meet expectations and perform to the best of their ability at all times, usually with many people watching. Egemen Ermis's article "Analysis of Academic Self-Efficacy Levels" published in the *Asian Journal of Education and Training* studies the correlation between academic self-efficacy levels of college students that participate in sports regularly compared to those who do not. Ermis defines self-efficacy as "an individual's being aware of his/her own capacity" (Ermis). The result of this study showed no statistical significance between those who participated in a sport regularly and their level of academic self-efficacy (Ermis 325). What this means is that participation in sports may not contribute to better academic performance, because it is possibly too much pressure and too rigorous of exercise. Similar to compulsive exercising, sports may be all-consuming and leave no room to improve other aspects of the student's life. These results suggest that there is a sweet spot when it comes to physical activity and that it looks different for everyone.

Some sports do however suggest a highly beneficial way to exercise, and that is in a group setting. Exercising does not have to be a solitary activity. While for some people the alone time that comes with exercise is what they crave and produces the best workout, group exercise

has proven to be just as effective for others. My survey revealed that about 75% of the students that exercise regularly participate in both group or individual workouts, depending on the day (Rossi).

As exercising releases endorphins already, exercising with a friend creates a social bond that is based on a healthy activity. This way of socializing may be an important factor, since many college students find themselves socializing over partying and possibly seeing their friends intoxicated more often than they do sober, or bonding with friends while working on their academics in a stressful environment. Ryan Lawson, an exercise specialist, writes that physical activity with a friend has a positive effect on more than just physical health; exercising alongside a partner increases motivation and accountability (Lawson, “Walking and Talking”). As I see it happen around me everyday, students may feel an additional reason to work hard because their friend is doing it too. There is now an additional layer to the friendship because exercising can reveal vulnerability through the struggle, and sometimes it requires building trust if the exercise is new to one of the partners. Working out in a group also encourages further socialization. Students may find themselves falling into the routine of working out with a friend and then doing their homework together after. This social stimulation continues to motivate students as they are already in an improved mood after working out, and now it carries over as they watch their friends be productive academically and take inspiration.

Academic productivity is craved by every college student. Many struggle greatly to find the motivation and drive to complete pressing assignments and study for approaching exams. This looming feeling of a workload piling up but no desire to tackle it results in a high stress environment that can be calmed by incorporating physical activity into one’s daily routine. Exercising has been proven to reduce stress, encourage motivation, and relieve brain fog. The

overall increase in mood that physical activity rewards college students with directly translates to an improvement in academic performance. Although there is plenty of evidence supporting physical activity for college students, further experiments should be conducted with more universities so college students can directly see for themselves the positive effects of exercise.

## Works Cited

- Amir, Shimon, et al. "The role of endorphins in stress: Evidence and speculations." *Neuroscience & Biobehavioral Reviews*, vol. 4, no. 1, Mar. 1980, pp. 77–86,  
[https://doi.org/10.1016/0149-7634\(80\)90027-5](https://doi.org/10.1016/0149-7634(80)90027-5).
- Apostolov, Nikolas, and Madelyn Geldenhuys. "The role of neuroticism and conscientious facets in academic motivation." *Brain and Behavior*, vol. 12, no. 8, 14 July 2022,  
<https://doi.org/10.1002/brb3.2673>.
- Dinardo, Kelly. "Rest Better with Light Exercises." *The New York Times*, The New York Times, 11 Oct. 2020, [www.nytimes.com/2020/10/10/at-home/exercises-for-better-sleep.html](http://www.nytimes.com/2020/10/10/at-home/exercises-for-better-sleep.html).  
Accessed 12 Apr, 2024.
- Edlund, Klara, et al. "Body image and compulsive exercise: Are there associations with depression among university students?" *Eating and Weight Disorders - Studies on Anorexia, Bulimia and Obesity*, vol. 27, no. 7, 18 Feb. 2022, pp. 2397–2405,  
<https://doi.org/10.1007/s40519-022-01374-x>.
- Ermis, Egemen. "Analysis of Academic Self-Efficacy Levels of University Students Doing Sport Regularly and Those Not Doing Sport Regularly." *Asian Journal of Education and Training*, vol. 5, no. 2, Jan. 2019, pp. 324–28. EBSCOhost,  
[search.ebscohost.com/login.aspx?direct=true&db=eric&AN=EJ1217560&scope=site](http://search.ebscohost.com/login.aspx?direct=true&db=eric&AN=EJ1217560&scope=site).
- "Exercise and Stress: Get Moving to Manage Stress." *Mayo Clinic*, Mayo Foundation for Medical Education and Research, 3 Aug. 2022,  
[www.mayoclinic.org/healthy-lifestyle/stress-management/in-depth/exercise-and-stress/a](http://www.mayoclinic.org/healthy-lifestyle/stress-management/in-depth/exercise-and-stress/a)

[rt-20044469#:~:text=Exercise%20in%20almost%20any%20form,distract%20you%20from%20daily%20worries.](#)

Lawson, Ryan. “Walking and Talking: How Socializing during Exercise Affects Your Health.”

*Healthlines*, Riverview Health, 28 Mar. 2017.

[riverview.org/blog/wellness-2/the-benefits-of-being-social-while-also-being-physically-active/](#). Accessed 11 Apr. 2024.

Kroencke, Lara, et al. “Personality trait predictors and mental well-being correlates of exercise

frequency across the academic semester.” *Social Science & Medicine*, vol. 236, Sept.

2019, p. 112400, <https://doi.org/10.1016/j.socscimed.2019.112400>.

Rossi, Ava. “Physical Activity & Academic Success.” 3 Apr. 2024.

Young-Jones, Adena, et al. “Let’s Take a Break: The Impact of Physical Activity on Academic

Motivation.” *International Journal of Teaching and Learning in Higher Education*, vol.

33, no. 2, Jan. 2022, pp. 110–18. EBSCOhost,

[search.ebscohost.com/login.aspx?direct=true&db=eric&AN=EJ1345538&scope=site](#).

## **Project 4: Reflective Essay**

Ava Rossi

English 1106

Growing As More Than Just a Writer: My Self-Reflection Narrative Thanks to English 1106

Growing up I never really minded writing, but I didn't particularly enjoy it or choose to do it in my free time. I felt that I was always decent at it; it flowed relatively easy for me. With that being said, I feel as though my writing had plateaued when I reached high school. I had been told I had a unique writing style growing up, and that it was an interesting read. However, I felt that by the time I reached high school I was still writing very similarly to how I had been for years; there was little improvement in my vocabulary and sophistication. This lack of change in my writing made me even less inclined to write. I wrote to complete the assignments in my classes and of course put my best effort into them, but I was never necessarily excited to complete them. English 1106 was my last required English course in my academic career. It was a strange thought to come to: after I completed this semester-long course, I was finished with English classes and could direct my full attention to studying Psychology.

As I began this course, I reflected on the last English class I took before English 1106, which was AP Literature my senior year of high school. This class primarily focused on evaluating literature and analyzing other work as opposed to improving my own writing and mastering skills. I was not a very big fan of this course. I enjoyed learning about literature, but I did not like the extensive essays answering prompts that seemed quite meaningless and were only assigned so there was something to grade. I would have much rather preferred taking notes

on the literature and having discussions on the pieces of work. Prior to AP Literature, I took AP English Language and Composition, which had a curriculum more focused on how to be a better writer and correctly use ethos, pathos, and logos. Since this class was taken about two years ago, I felt like coming into college I had lost some of the skills or had become a little rusty. This made me a little nervous for English 1106, since it had been some time since I practiced writing skills. I was excited to see how my writing would sound, what I could take away from this class, and, if I am being completely honest, I was excited to complete all of my English credit requirements!

As for the assignments this semester, the discussion board posts were helpful for my writing skills. I learned from the Craft of Research text that we used to complete most of them and found it very useful; it was an easy read and had a lot of tips. I especially found learning about the different kinds of claims valuable when writing the research paper. I knew not all claims were written the same, but it was more of a subconscious thought, not an intentional understanding of the different kinds of claims and the purpose they serve in writing. The claim that I used in my research paper was a claim of cause and consequence; there is a positive effect of physical activity on academic performance and productivity. This claim was the correct choice for my research and set up my paper very nicely.

Surprisingly, the next discussion board post that stuck with me the most was the one regarding MLA formatting. I felt like I had mastered MLA since I use it for most of my writing and it has been implemented since I was young. I found myself knowing most of the lesson when we went over it in class, however there were a few formatting issues that I ran into, for example I did not know how precise MLA was with commas. I also found it useful when we compared MLA to APA, because as I am studying Psychology, most of the research I come across is in APA format. I can now easily identify when a research piece is going to be more science based



based on the type of format it is written in. Relearning proper MLA formatting was very useful, especially when my roommate was writing a paper for her class at the same time and asked me to read it over. Her citations were very incorrect, but fortunately I was able to guide her in the right direction.

The assignment that I liked the least, but in hindsight was probably the most beneficial was the annotated bibliography. It was a pain to complete and I dreaded doing it, but it forced me to be able to break down a source and really dissect what about it was good for my research and what I could take away from it. This assignment also allowed for really good practice of incorporating MLA formatting and citations. I was able to practice proper citations and also continue to differentiate APA from MLA, as most of the research I was looking at was in APA. The annotated bibliography was useful to me during the process of writing my research paper because even if I did not use all of the ten sources that I annotated, it gave me a good guideline of what I was looking for in my research. I was able to refer back to my evaluations of my sources, which told me what about the research was valuable to my topic or not. This helped me determine what else I should research and the kind of information I needed to gather to support my claim.

After the discussion board posts came the research paper. Again, being completely honest, I was not looking forward to this assignment. I was afraid of having to fulfill ten pages of writing surrounding one topic. To be able to write enough quality writing, I chose my topic based on something that I felt like I could relate to and wanted to see if there was actual data behind it. Doing research on the impact of physical activity on academic success made me more mindful of my stress levels and to know when to take a break, which I really appreciated after completing my paper. Essentially the assignment did more for me than just writing practice. I wrote a

majority of my paper on the Torgersen bridge. I had been here multiple times before; I regularly do my homework in the library because I prefer the environment, but really focusing in on my paper in a place of complete silence for a few hours helped me realize that I am able still to sit down and work hard, because I felt like I lost a little bit of my attention span coming into this semester. Completing this paper showed me I was able to write almost ten pages of quality, meaningful writing, something that seemed so daunting and out of reach at the beginning of the semester.

As this is the last assignment of my writing career, it is strange to be almost done. There has always been an English course in my schedule for as long as I was a student; it was the norm and also a requirement. Thank you for giving me more than just another course, but an opportunity to grow in other aspects of my life!