

# Does Working Out Make Your Grades Work Out?

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Choose **Ohio** First

## INTRODUCTION

The goal of this study is to see if there is a correlation between academic performance (measured in GPA) and the amount of time spent in the gym (hours per week and hours per day). Hopefully the results of this study will help to gain a grasp over the relevance and importance of an active lifestyle on other important aspects of life, in this case, grades. The other parts of this report will present methods and findings of our studies. To be clear, this is a literature study and we plan to do an extended study in the near future involving CSU students.

**-Null Hypothesis:** There is no correlation between working out and academic performance.

**-Our Hypothesis:** Working out helps to increase academic performance.

## OBJECTIVES

- Disprove the assumed null hypothesis.
- Find evidence for our proposed alternative hypothesis.
- Promote health, well-being, and fitness

## METHODS

- Assess scholarly articles to see what data exists for this study
- Draw conclusions based on other literature
- Assess flaws and possible key factors that affected the data

## CONCLUSIONS

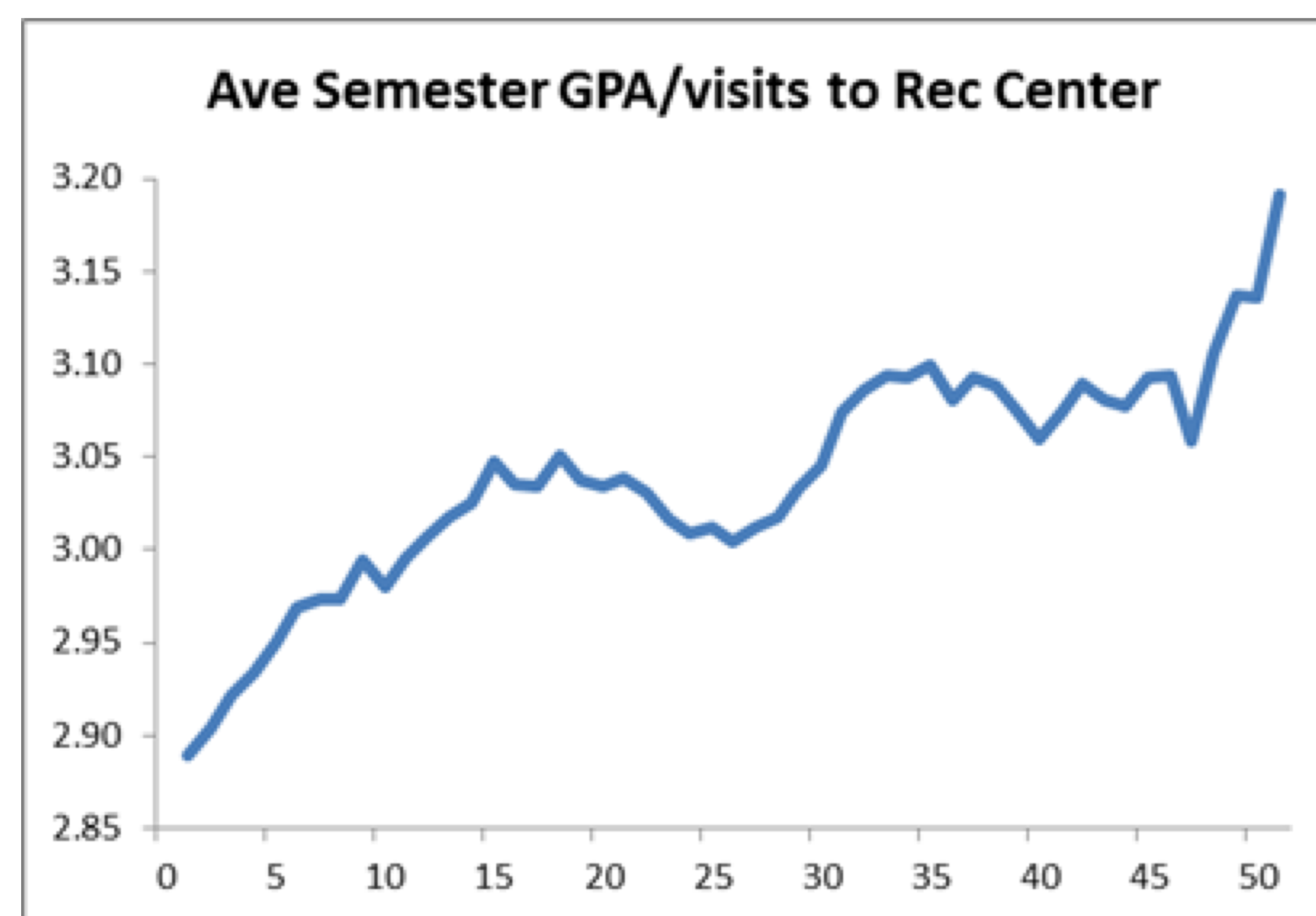
Based on the articles and data we have assessed, there is a correlation between fitness and GPA. Possible reasons for this include: working out serves as a stress reliever and it conditions the mind to be productive. We have yet to determine how significant it is, but we are looking into studies now to determine a quantitative value that can help to better grasp this concept.

## FUTURE WORK

For future work, we would like to actually conduct surveys for CSU students to help see the correlation between GPA and fitness.

We would also like to make a detailed study examining the various styles of training (weight training, cardiovascular, yoga, etc)

Title	Author/Year Published	Conclusions
<b>Motor Skills and Exercise Capacity Are Associated with Objective Measures of Cognitive Functions and Academic Performance in Preadolescent Children</b>	<b>Geertsen, S. S., Thomas, R., Larsen, M. N., Dahn, I. M., Andersen, J. N., Krause-Jensen, M., . . . Lundbye-Jensen, J. (2016).</b>	The study found that <b>exercise capacity was associated with academic performance</b> and performance in some cognitive domains
<b>Direct and indirect relationships of physical fitness, weight status, and learning duration to academic performance in Japanese schoolchildren</b>	<b>Ishihara, T., Morita, N., Nakajima, T., Okita, K., Yamatsu, K., &amp; Sagawa, M. (2017).</b>	A study on seventh-grade students found that certain <b>exercise habits</b> and maintaining a healthy weight status <b>may contribute to academic success.</b>
<b>Association of Weekly Strength Exercise Frequency and Academic Performance Among Students at a Large University in the United States</b>	<b>Keating, X. D., Castelli, D., &amp; Ayers, S. F. (2013).</b>	This study by The University of Texas at Austin on college students found that <b>regular engagement in strength exercise has physical health benefits and is also associated with academic achievement in high education.</b>
<b>Relationship between Grade Point Average and First-Year Student Engagement: An Exploratory Study</b>	<b>Mayers, Rebecca Fallon, et. al (2017).</b>	Results showed that campus recreation showed <b>increase in participation and showed increased engagement</b> to students who initially had lower GPA



Geertsen, S. S., Thomas, R., Larsen, M. N., Dahn, I. M., Andersen, J. N., Krause-Jensen, M., . . . Lundbye-Jensen, J. (2016). Motor Skills and Exercise Capacity Are Associated with Objective Measures of Cognitive Functions and Academic Performance in Preadolescent Children. *Plos One*, 11(8), 1-16. doi: 10.1371/journal.pone.0161960

Ishihara, T., Morita, N., Nakajima, T., Okita, K., Yamatsu, K., & Sagawa, M. (2017). Direct and indirect relationships of physical fitness, weight status, and learning duration to academic performance in Japanese schoolchildren. *European Journal of Sport Science*, 18(2), 286-294. doi:10.1080/17461391.2017.1409273

Keating, X. D., Castelli, D., & Ayers, S. F. (2013). Association of Weekly Strength Exercise Frequency and Academic Performance Among Students at a Large University in the United States. *Journal of Strength and Conditioning Research*, 27(7), 1988-1993. doi: 10.1519/jsc.0b013e318276bb4c

Mayers, Rebecca Fallon, et al. "Moderating Effects of Campus Recreation Participation in the Relationship between Grade Point Average and First-Year Student Engagement: An Exploratory Study." *Recreational Sports Journal*, vol. 41, no. 2, Oct. 2017, pp. 101-110. EBSCOhost, proxy.uilib.csuohio.edu:2050/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=s3h&AN=126381676&site=ehost-live.

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