

Goal Setting and Mindfulness Influence Grit in College Students

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INTRODUCTION

Gritty individuals are dedicated to goals while simultaneously having direction towards those goals. Individuals who have set attainable and specific goals used to measure their performance and progress have been shown to perform better than those who did not set any goals at all.

Research on Grit Promotion has found success in teaching students about brain plasticity, effort and its importance in achievement, reflection on failures, and goal-setting practices (Alan, Boneva, & Ertac, 2019).

Dealing with failure and adversity with the belief that abilities are malleable and can be improved through effort leads to more success (Dweck 2006).

Promoting the practice of the growth mindset may strengthen grit because it can bolster perseverance towards goals.

The existing research focuses on measuring grit as it exists in the individual. This study aimed to discover methods to train grit in young adults and to explore whether grit can be improved through goal setting and mindfulness, regardless of athletic standing. The training provided in this study focused on habitual goal setting and promotion of the growth mindset.

There has also been a focus on grit levels in athletes and empirical research provides that athletes are higher in grit/ This study provides further inquiry into methods of improving grit in non athletes

MATERIALS AND METHODS

Participants

The study involved 120 male and female, athlete and non athlete college students, aged 18-21, currently enrolled in Montana State University. Two groups were comprised of 30 student-athletes each. The second two groups were characterized by 30 non-athlete students.

- Athlete Manipulated (AM)
- Athlete Controlled (AC)
- Non athlete Manipulated (NAM)
- Non athlete Controlled (NAC)

Participants were administered a 12-item questionnaire on Grit before and after the 60 day study.

Grit Training

Grit Training was administered remotely through a custom app. Participants in the manipulated groups were each given a login for the app. The app notified participants each morning to login. Upon login, there was a template in which participants were instructed to enter five long term goals. There was also a section where participants were asked to write down three short-term goals and three challenges, they wanted to face that day. The app also notified participants at the end of the day. At this time, there was a section designated for participants to write down their thoughts and feelings as a form of selfreflection. In this section, they were instructed to describe how well they thought they did on working towards their goals, and their experienced failure.

RESULTS

Grit Training and Grit Changes

60 days of grit training increased levels of grit regardless of athletic standing.

Athletes had the highest grit scores compared to non-athletes, regardless of whether they were trained in grit.

Training Group	Athletic Standing	Before	After	Change	
Manipulated	Athlete	4.55 (.211)	4.48 (.234)	.139(.143)	
Manipulated	Non-Athlete	3.38 (.512)	4.09 (.320)	.914 (.419)	
Control	Non-Athlete	3.15(.495)	2.71 (.438)	0.008 (.030)	
Control	Athlete	4.45 (.250	4.28 (.282)	.004(.004)	

Manipulated Controlled Non Athlete

From "Grit: The Power of Passion and Pe By Angela Duckworth	The Grit Scale				
Read more at: GetLighthouse.com/Blog	Not at all like me	Not much like me	Somewhat like me	Mostly like me	Very much like me
New ideas and projects sometimes distract me from previous ones.	5	4	3	2	1
Setbacks don't discourage me. I don't give up easily.	1	2	3	4	5
I often set a goal but later choose to pursue a different one.	5	4	3	2	1
l am a hard worker.	1	2	3	4	5
I have a difficulty maintaining my focus on projects that take more than a few months to complete.	5	4	3	2	1
l finish whatever l begin.	1	2	3	4	5
My interests change from year to year.	5	4	3	2	1
l am diligent. I never give up.	1	2	3	4	5
l have been obsessed with a certain idea or project for a short time but later lost interest.	5	4	3	2	1
I have overcome setbacks to conquer an important challenge.	1	2	3	4	5

Comparison of Changes in Grit

The Grit Scale (Duckworth et al., 2011)

Statistical Analysis

A two-way ANOVA was performed to analyze the effect of Athletic Standing and Training Condition on Grit. There was a statistically significant interaction between the effects of Athletic Standing and Training Condition, F(1,116)=96.269, p<.001. There was a main effect of athletic standing on a change in Grit, F(1,116)=88.002 p< .001. Analysis also showed a simple main effect of Athletic Standing on Training Condition, F(1,116) = 93.784, p<.001. The effect of training on grit was greater for non-athletes than for athletes.

DISCUSSION

Grit was improved in athletes and non athletes through goal setting and mindfulness practices. This training was most beneficial to non athletes and helped them achieve an athlete-level of grit. Consistent goal setting and mindfulness were useful tools in implementing grit-building techniques. Athletes had the highest grit scores compared to non-athletes, regardless of whether they were trained in grit. The controlled groups exhibited lower levels of grit as compared to the trained groups, and they did not improve in grit over the course of the 60-day study.



CONCLUSIONS

Goal setting has shown to be a key in finding success and progress towards long-term goal achievement. This area of study is important to non-athlete individuals in obtaining athlete-levels of grit which in turn could be beneficial to helping people achieve successes and overcome adversity in life.

REFERENCES

Duckworth, A., Matthews, M.D., Peterson, C., Kelly, D. (2007). Grit: Perseverance and Passion for Long-Term Goals. Journal of Personality and Social Psychology. doi:10.1037/0022-3514.92.6.1087 Dweck C. S. (2006). Mindset: The New Psychology of Success. doi: 10.1007/978-3-030-57389-8 5

Hwang, M., & Nam, J.K. (2021). Enhancing Grit: Possibility and Intervention Strategies. Multidisciplinary Perspectives on Grit. doi: 10.1007/978-3-030-57389-8 5

Lunenburg, F.C. (2011) Goal Setting Theory of Motivation. International Journal of Management Business, and Administration. Volume 15 Olesen, M. H., & Thomsen D.K. 2020. Elite athletes are higher on grit but lower on

conscientiousness than a comparison sample of non-athletes. Scandinavian Journal of Sport and Exercise Psychology. doi: 10.7146/sjsep.v2i0.115111.

This data was fabricated.