

# Chapter 14

## Grit as a Predictor of Academic Success at Norwich University

**Kevin Fleming**

*Norwich University, USA*

### **ABSTRACT**

*The focus of the chapter is on grit as a predictor of academic success at Norwich University. Grit scores were obtained for 4,171 incoming freshmen between 2013 and 2019, and these scores were collected again in the sophomore and senior years for all students who persisted. Cumulative GPAs were also obtained along with demographic data for all participants. Grit was found to be a small to moderate predictor of cumulative GPA with  $r$  correlations of .110 in the freshman year, .247 in the sophomore year, and .213 in the senior year. In contrast, high school GPA was a strong predictor of cumulative GPA with correlations of .459 in the freshman year, .518 in the sophomore year, and .500 in the senior year. Although grit was not as strong as high school GPA as a predictor of academic success at Norwich University, it was a significant factor, and it became more predictive of cumulative GPA as more credits were earned.*

### **INTRODUCTION**

During operation Desert Storm, Major Rhonda Cornum served as a combat medic. When her team was sent to rescue a pilot behind the Iraqi lines, her helicopter was shot down. She survived the crash with multiple injuries and endured eight days of captivity before she was rescued (Cornum & Copeland, 1992). General Cornum's full story, however, is not only about those eight traumatic days during which her abilities to endure physical and mental anguish were tested. Her story is defined instead by her subsequent commitment to evaluating and building resilience in our armed forces through the *Comprehensive Soldier and Family Fitness* program that she launched for the United States Army (Cornum, Matthews, & Seligman, 2011). General Cornum was able to translate her own trauma into a program that would provide support and renewed hope in the lives of many combat veterans. This chapter begins with her story, and weaves the threads of several lines of research related to strength of character, resilience, and *grit* conducted across many institutions, including Norwich University, where we have sought to

DOI: 10.4018/978-1-7998-6636-7.ch014

understand how *grit* can predict academic success at the nation's oldest private military academy and the birthplace of the Reserve Officers Training Corps.

The context in which resilience, *grit*, and character developed within the psychological sciences is best captured by a shift from identifying etiological factors that predict negative outcomes such as psychopathology, including anxiety disorders, depression, and post-traumatic stress disorder (PTSD) toward identifying factors that predict positive outcomes, namely resistance to pathology, resilience, health, and success. Much of this research took place at the University of Pennsylvania under the direction of Martin Seligman. Seligman (1972) found that dogs exposed to uncontrollable shocks learned to become helpless, and that when the opportunity to avoid the shocks became available, the dogs did not escape. These harsh lessons led to the conceptualization of depression as a learned helplessness response to trauma and lack of control (Peterson, Maier, & Seligman, 1993). Aaron Beck and Edna Foa, colleagues of Seligman at the University of Pennsylvania, were instrumental in developing metrics for depression and PTSD, namely the Beck Depression Inventory (BDI) and the Post-traumatic Stress Scale (PSS) respectively. These scales along with measures of trauma, such as the Trauma History Questionnaire (THQ) and the Childhood Trauma Questionnaire (CTQ) launched the development of models for the etiology and maintenance of psychopathology (Beck, Ward, Mendelson, Mock, & Erbaugh, 1961; Beck & Bredemeier, 2016).

In our own laboratory at Norwich University, these scales were used along with measures of brain activity and eye-movements to predict PTSD, anxiety, and depression in military veterans. In collaboration with Matthew Kimble at Middlebury College, we found that PTSD, anxiety, and depression tended to be co-morbid in military veterans, along with hypervigilance (Kimble, Fleming, & Bennion, 2013). Negative expectancies and negative world views developed in both veterans and other trauma victims (Kimble, Batterink, Marks, Ross, & Fleming, 2012; Kimble, Sripad, Fowler, Sobolewski, & Fleming, 2018). Brain activity related to attention in the parietal lobe was also affected (Kimble, Fleming, Bandy, & Zambetti, 2010). Most importantly, eye-tracking studies revealed a *negativity bias* that was particularly evident in veterans having combat exposure and suffering from PTSD (Kimble, Fleming, Bandy, Kim, & Zambetti, 2010). Eye movements and pupil dilation responses were recorded while participants viewed two images on a split screen, one containing a neutral scene and the other containing a trauma-relevant scene. Pupil dilation along with longer and more frequent eye fixations on the trauma-relevant image relative to the neutral image provided an objective metric of the severity of PTSD, anxiety, and depression. Negativity bias increased systematically among civilians, cadets, veterans, and combat veterans, and it was particularly evident in those who suffered trauma or developed symptoms of PTSD. A constellation of factors including genetic predispositions, childhood trauma, military training, adult trauma, and combat exposure could lead to a downward spiral into depression, PTSD, and possibly suicide. Even as this pattern was becoming clear, there were many cases of healthy combat veterans who did not suffer any illness and who were capable of achieving a high level of academic and personal success. When General Cornum visited our lab in 2012, we started to consider factors that make healthy veterans more resilient, and ways to mitigate *negativity bias*. At this point, we started measuring *grit* for all of our incoming students as a predictor of academic success at Norwich.

At the University of Pennsylvania, a similar transition from negative approaches toward a more positive psychology had been taking place for two decades. Seligman (1991) found that learned helplessness could be reversed and that *learned optimism* was possible. In collaboration with Christopher Peterson, a new positive psychology emerged in which character strengths and virtues could be identified in much the same way that pathologies had been identified (Peterson & Seligman, 2004; Duckworth, Steen, &

17 more pages are available in the full version of this document, which may be purchased using the "Add to Cart" button on the publisher's webpage:

[www.igi-global.com/chapter/grit-as-a-predictor-of-academic-success-at-norwich-university/272930](http://www.igi-global.com/chapter/grit-as-a-predictor-of-academic-success-at-norwich-university/272930)

## Related Content

---

### Empowering Students, Fostering Innovation: The Innovation Center at Seneca Polytechnic

Esra Kilicarslan Topluand Can (John) Toplu (2024). *Empowering Students and Elevating Universities With Innovation Centers* (pp. 134-159).

[www.irma-international.org/chapter/empowering-students-fostering-innovation/344720](http://www.irma-international.org/chapter/empowering-students-fostering-innovation/344720)

### Teachers Working With Refugee Children and Families: Lessons Learned From the GÖÇ-MAT Project in Turkey

Martha Alexsaht-Snider, Elif Karsli-Calamakand Mana Ece Tuna (2023). *Research Anthology on Balancing Family-Teacher Partnerships for Student Success* (pp. 553-579).

[www.irma-international.org/chapter/teachers-working-with-refugee-children-and-families/315272](http://www.irma-international.org/chapter/teachers-working-with-refugee-children-and-families/315272)

### Developing Effective Teacher-Student Relationships in International Schools in China

Timothy D. Warren (2024). *Handbook of Research on Critical Issues and Global Trends in International Education* (pp. 238-259).

[www.irma-international.org/chapter/developing-effective-teacher-student-relationships-in-international-schools-in-china/334320](http://www.irma-international.org/chapter/developing-effective-teacher-student-relationships-in-international-schools-in-china/334320)

### Family-Teacher Partnerships to Support Culturally and Linguistically Marginalized Children's Successful Transition to School

Judy Paulick, Natalia Palaciosand Amanda Kibler (2023). *Research Anthology on Balancing Family-Teacher Partnerships for Student Success* (pp. 308-326).

[www.irma-international.org/chapter/family-teacher-partnerships-to-support-culturally-and-linguistically-marginalized-childrens-successful-transition-to-school/315259](http://www.irma-international.org/chapter/family-teacher-partnerships-to-support-culturally-and-linguistically-marginalized-childrens-successful-transition-to-school/315259)

### How Joliet Junior College Leaders Use Design-Thinking to Create and Implement Major Initiatives

Clyne G. H. Namuo, Yolanda Farmerand Kelly Rohder-Tonelli (2024). *Narratives and Strategies of Effective Leadership in Community Colleges* (pp. 91-109).

[www.irma-international.org/chapter/how-joliet-junior-college-leaders-use-design-thinking-to-create-and-implement-major-initiatives/345762](http://www.irma-international.org/chapter/how-joliet-junior-college-leaders-use-design-thinking-to-create-and-implement-major-initiatives/345762)