

A Teacher's Autoethnography of Grit and Student Success in a High School Physics Classroom

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At a Glance:

- ◆ 15 Years of Teaching Experience in the Public School System (High School)
- ◆ PhD Student (Yr. 2)
- ◆ MEd Educational Leadership & Administration (StFX, 2017)
- ◆ MEd Curriculum & Instruction (StFX, 2014)
- ◆ BEd in Secondary Science Education (StFX, 2009)
- ◆ BSc in Physics & Mathematics (Dalhousie, 2007)

Backgrounder:

In identifying my positionality, I am a second-generation Vietnamese-Canadian teacher. Growing up, life was not easy. After the Fall of Saigon in 1975, both of my parents immigrated to Canada. Life was not easy for my parents. They did not like accepting handouts and wanted to work hard and earn their way through society. My parents taught me the value of determination and hard work. While the term grit was not part of my vocabulary, it was something that I recognized to be a significant factor in my life.

Throughout my life, I lived within an intersectionality between both my Vietnamese and Canadian cultures. A misunderstood sense of race and classism also impacted how I interpreted the world. While I initially viewed grit to be a deterministic attribute that individuals can cultivate so that they can succeed, this study examined my autoethnographic epiphanies that occurred within my classroom setting, indicating other factors are also relevant in examining grit.

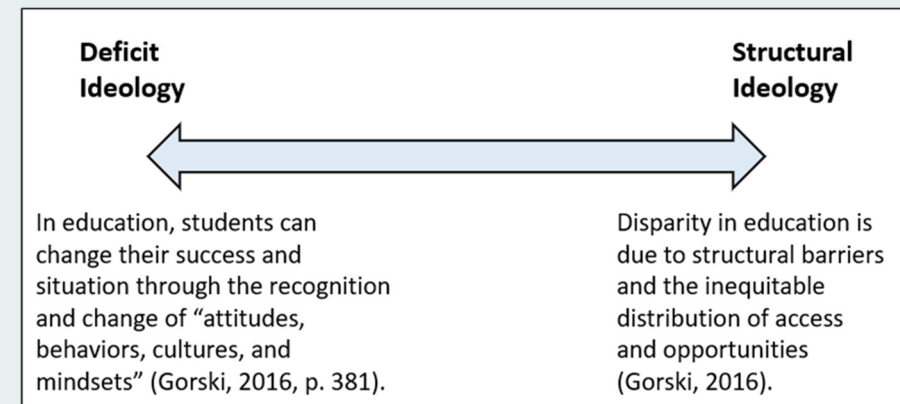
Since conducting this research, I am now extending this work through my pending dissertation (expected finish date of 2028).

What is Success?

There are different factors, situations and contexts that lead to the success of students. Success is defined as the fulfillment of personal achievements and goals (e.g., achieving certain set assessment outcomes, reaching a certain grade, strengthening of certain academic skills or development of strategies to overcome defeat).

Brief Literature Review:

In a world of different educational ideologies, educators, policymakers and researchers exist in different ideological spectrums. At the one end is what students bring to schools. At the other, structural factors including, but not limited to, socioeconomic status, race, gender and culture.



Duckworth et al. (2007) proposed:

1. Higher levels of grit are required for higher levels of achievement.
2. Those with higher levels of grit have traits that resemble motivation, sustained effort, ferocious determination, resiliency, conscientiousness, self-control and a strong ability to persevere when challenges arise.

Grit can be measured using Grit-O 10-item survey (see Duckworth et al., 2007) or Grit-S 8-item survey (see Duckworth & Quinn, 2009). While Duckworth et al. and Duckworth and Quinn draws upon two domain-specific attributes (perseverance and interest scores), both attributes are combined to provide an overall value.

Possible Deficit Ideological Factors Impacting a Student's Grit:

- ◆ **Mindsets: Fixed versus Growth (see Dweck et al., 1995)**—An individual's own belief system has much to do with an individual's own achievement and growth.
- ◆ **Big Five Factors of Personality (see Caspi et al., 2005; Poropat, 2009):**
 - ⇒ Conscientiousness: Sustained attention and self-control;
 - ⇒ Openness, agreeableness, and extraversion: (Overlapping characteristics);
 - ⇒ Neuroticism: (Negative emotionality)
- ◆ **Motivation (see Ryan & Deci, 2000; Von Culin et al., 2014)**—Intrinsic (inherent satisfaction) versus Extrinsic (goal to satisfy and obtain some external outcome). Individuals who are extrinsically motivated are less gritty than their intrinsic peers (from these sources).



“Meritocracy is the belief that where individuals find themselves ending up in the world is a direct result of their effort or non-effort. It is the belief that no matter what position one finds themselves in society, they could, through their efforts, end up being Prime Minister”

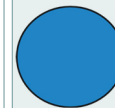
Possible Structural Ideological Factors Impacting a Student's Grit:

- ◆ **Meritocracy (see Apple, 2010; Cummins, 2021; Ladson-Billings, 2021)**—Critical educational researchers have shown us that meritocracy is a myth.
- ◆ **Deficit versus Structural (see Gorski, 2016; McIntosh, 2005)**—In a world of inequity and problems deeply rooted due to unequal power structures, equal opportunity simply does not exist.
 - ⇒ Racism and discrimination;
 - ⇒ Societal structures, values and norms;
 - ⇒ Dominant versus non-dominant cultures;
 - ⇒ Social environment and attitudes from others;
 - ⇒ Poverty, family income and family structures.

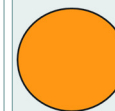
Brief Detail of the Autoethnographic Methodology:

- ◆ **“Autoethnography is a research method that uses personal experience (‘auto’) to describe and interpret (‘graphy’) cultural texts, experiences, and practices (‘ethno’)” (Adams et al., 2017, p. 1)**
- ◆ Autoethnographers engage in rigorous self-reflection (reflexivity).
- ◆ Ethnography aims to describe the cultural practices happening within an insider culture so that it becomes familiar to the cultural outsiders (Adams & Ellis, 2012).
- ◆ There are many definitions for the term culture. For this thesis, the term culture was derived from **Hamilton et al. (2008)**. A culture is a “shared pattern of thoughts, symbols, and actions typical of a particular group” (p. 22). In an educational context, these researchers describe culture as the interpretation of language, actions and/or interactions.
- ◆ Autoethnographers attempt to “critique, make contributions to, and/or extend existing

Data Collection:



Caleb (Student #1): Caleb was a very behaviorally challenging student. He came from a poor, single-family household. He initially started class with what appeared to be very few traits related to grit. However, ended up very successful towards the end.



Adhira (Student #2): Adhira was a first-generation Indian-Canadian student. She initially started with what appeared to be traits that resembled high degrees of grit. These traits continued throughout her time in Grade 11 and 12. But, her grit changed due to a serious issue that occurred with her family.



Violet (Student #3): Violet initially started my classes with what appeared to be very few traits related to grit, but slowly became grittier due to small achievable steps in success. Over time, she continued to excel, acted independently and had the self-motivation and self-determination to succeed.

Research Findings: Deficit



- ◆ **Grit is far more complex than a simple survey suggests.** My students' grit changed, not only due to addressing deficit traits but also acknowledging and navigating structural barriers
- ◆ **The literature review showed that conscientiousness is closely associated to grit more than the other Big Five factors.** My research show that other Big Five factors (extroversion, agreeableness, openness and neuroticism) also had significant impacts.
- ◆ **Neuroticism appeared to be a significant factor.** How students responded to being anxious, vulnerable to stress, frustration and their lack of confidence impacted their grit.
- ◆ **Extrinsic and intrinsic motivators also had significant roles to play.** While the literature review showed gritty individuals having more intrinsic traits, without extrinsic motivators, certain students may not have the necessary foundation to enhance their grit.

Research Findings: Structural



- ◆ **Grit and student success had much to do with which social class they belonged to,** as it impacted their sense of belonging or, impacted their personal priorities (supporting the household versus doing well in school).
- ◆ **Economic disparity and family structures appeared to have important ramifications to a students' grit.**
- ◆ **Cultural straddling**—A student's ability to adapt between different social structures (cultural straddlers) are also relevant factors.
- ◆ **While these factors are not an exhaustive list of structural issues that impact students,** it does highlight the need to be cognizant of structural factors and inequities that have impacts related to grit and student success.

Major Implications:

- ◆ **Based on my research, I caution utilizing grit as a long-term predictor of achievement.** The stories involving Caleb, Adhira and Violet seem to support this.
- ◆ **In support of the literature,** some students can be gritty at one domain but, may not be gritty in another.
- ◆ **The mindset, personality and motivation of individual students** appear to be significant in a student's grit.
- ◆ **Structural factors such as income, family structures, family dynamics, social class and the ability to make meaningful connections with students, peers and staff** also appear to be significant attributes to consider when examining a student's grit.

Recommendations:

- ➔ **Grit, systemic and structural factors:** Grit should not be abandoned. However, students grappling with different life circumstances will require a teacher's awareness and consideration of systemic and structural barriers.
- ➔ **Nurturing, timely and supportive relationships:** Education systems need to address student engagement by providing teachers with the necessary supports to maintain nurturing, timely and supportive mentor-mentee relationships within their classrooms.
- ➔ **Consideration of African Canadian and Indigenous Students:** The acknowledgment of African Canadian and Indigenous students is needed. To enhance grit and student success, the understanding of racial and cultural identities, intergenerational trauma, prejudice and discrimination are needed.

Further Details:

Copy of Thesis and Citation List: Can be found by [clicking here](#).

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