

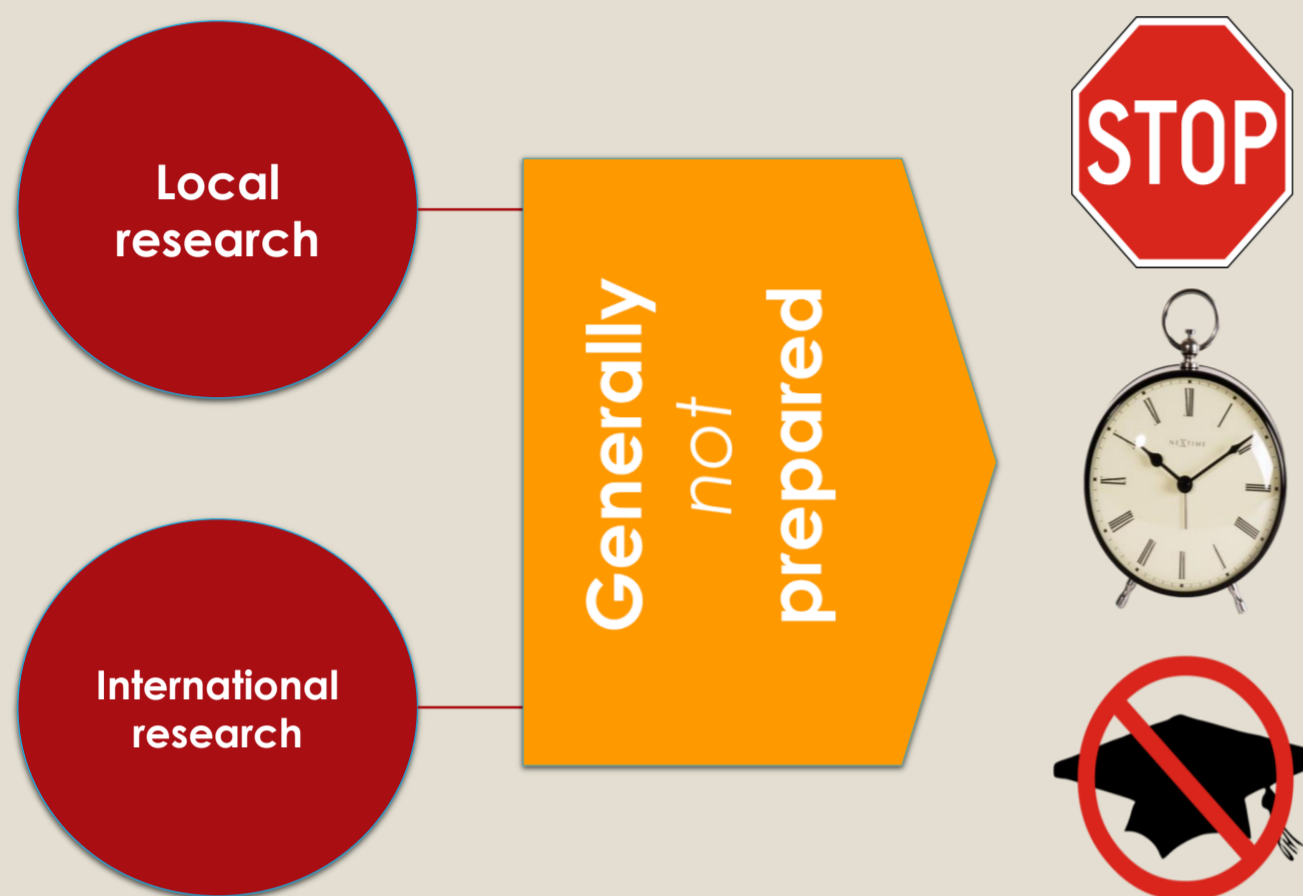
# Psychological Grit

## Does it hold promise for South African ODL institutions?

Kelly Anne Young  
University of South Africa, Pretoria  
Poster presentation at the 24<sup>th</sup> SAAIR Conference, Namibia

### What is the problem?

Students are entering Higher Education (HE) at Open, Distance Learning (ODL) institutions but are **not persisting through to completion** (Barnes & Van Zyl, 2012, 2014; CHE, 2015; Directorate for Institutional Research, 2015; Scott, Yeld, & Hendry, 2007; Simpson, 2013; Swanapoel et al., 2011; Visser & Van Zyl, 2013)



The University of South Africa (Unisa) is no exception...with over one-third of students enrolled in public HE institutions (HEIs) in South Africa (Department of Higher Education and Training, 2017), Unisa is particularly susceptible to lower retention rates and the negative implications associated with such (CHE, 2010, 2015; Scott et al., 2007; Subotzky, 2011; Swanapoel et al., 2011)

These include (amongst others):

- The loss of prestige, revenue and government subsidy;
- Personal damage inflicted on the student; and
- The lack of skills / knowledge / credentials to enter workforce (Archer, Chetty, & Prinsloo, 2014; Van Zyl, 2010)

### What are the factors associated with retention and success in HE?

Academic / cognitive factors are the focal point of departure...

Both anecdotal and empirical research evidence have suggested a positive relationship between academic performance and student retention (Ashby, 2004; Bean, 1985; Cabrera & Hengstler, 1990; Cabrera, Nora, & Castaneda, 1993; Dupin-Bryant, 2004; Tinto, 1975)

Again, the University of South Africa (Unisa) is no exception...

- Van Schoor (2010) revealed that the scores derived from the **Academic Literacies Test (ALT) in the SATAP and the Grade 12 results** could significantly predict academic performance among Unisa students;  $\beta$  (ALT) = 0.264;  $\beta$  (Grade 12) = 0.178. The two measures explained 14.7% of the variance in academic performance ( $r^2 = 0.147$ )
- Similar results have been reported by Visser and Van Zyl (2013). A **Pearson's correlation between the mean scores in Grade 12 and performance** at Unisa was significant and positive;  $r = 0.517$ ;  $r^2 = 0.267$ . National Senior Certificate (NSC) Grade 12 marks explained 26.7% of the variance in academic performance at Unisa
- Barnes and Van Zyl (2014) also revealed that **increases in undergraduate (UG) workload correlated with increases in student retention and success**. Therein suggesting that increased workloads are associated with: increased degree credit success rates (DCSR); increased normal examination pass rates (NPR); and increased retention rates into the second year of study
- Regression models for the **UG student workload were able to account for between 54-67% of the variance** in the success and retention rates (Barnes & Van Zyl, 2014)

### What about non-cognitive factors?

The pressures of combining part-time study with the ongoing demands of work and domestic responsibilities create additional barriers and stress for students in the ODL context (Swanapoel et al., 2011)

For this reason, Prinsloo (2009) and Swanapoel et al. (2011) state that **non-cognitive factors impact strongly on student success and retention at Unisa;**

- self-discipline
- motivation
- confidence
- positive attitude
- self-efficacy
- style of attribution
- locus of control

It's all in the **Attitude**

Notwithstanding the significance of these cognitive and non-cognitive attributes, proportions of variance ( $r^2$ ) in student success and retention at Unisa remain **(un)explained...**

### So, what are we missing?

# GRIT.

Defined as **perseverance** and **passion** for long-term goals, psychological grit entails working strenuously toward challenges while maintaining effort and interest over years **despite failure, adversity, or plateaus in progress** (Duckworth et al., 2007)

*The gritty individual approaches achievement as a marathon; his or her advantage is stamina. Whereas disappointment or boredom signals to others that it is time to change trajectory and cut losses, the gritty individual stays the course (ibid, p. 1088)*

### What does the research tell us?

Grit has shown to predict success and retention across numerous educational contexts;

- One of the seminal studies by Duckworth et al. (2007) discovered that psychological grit significantly predicted retention among West Point cadets in the United States Military Academy, **surpassing self-control and all other academic / cognitive predictors** (SAT scores and HSGPA)
- Another seminal study revealed that grit **significantly predicted a student's Grade Point Average (GPA)** in subsequent years of study, beyond that of intelligence (i.e., SAT score) among Undergraduate psychology students at the University of Pennsylvania (Duckworth et al., 2007)
- A couple of years later, Duckworth and Quinn (2009) confirmed seminal findings and revealed that grittier **individuals attained higher levels of education** when compared to less gritty individuals of the same age ( $OR = 1.23$ )

### Grit's paucity in ODL environments

*To date...*

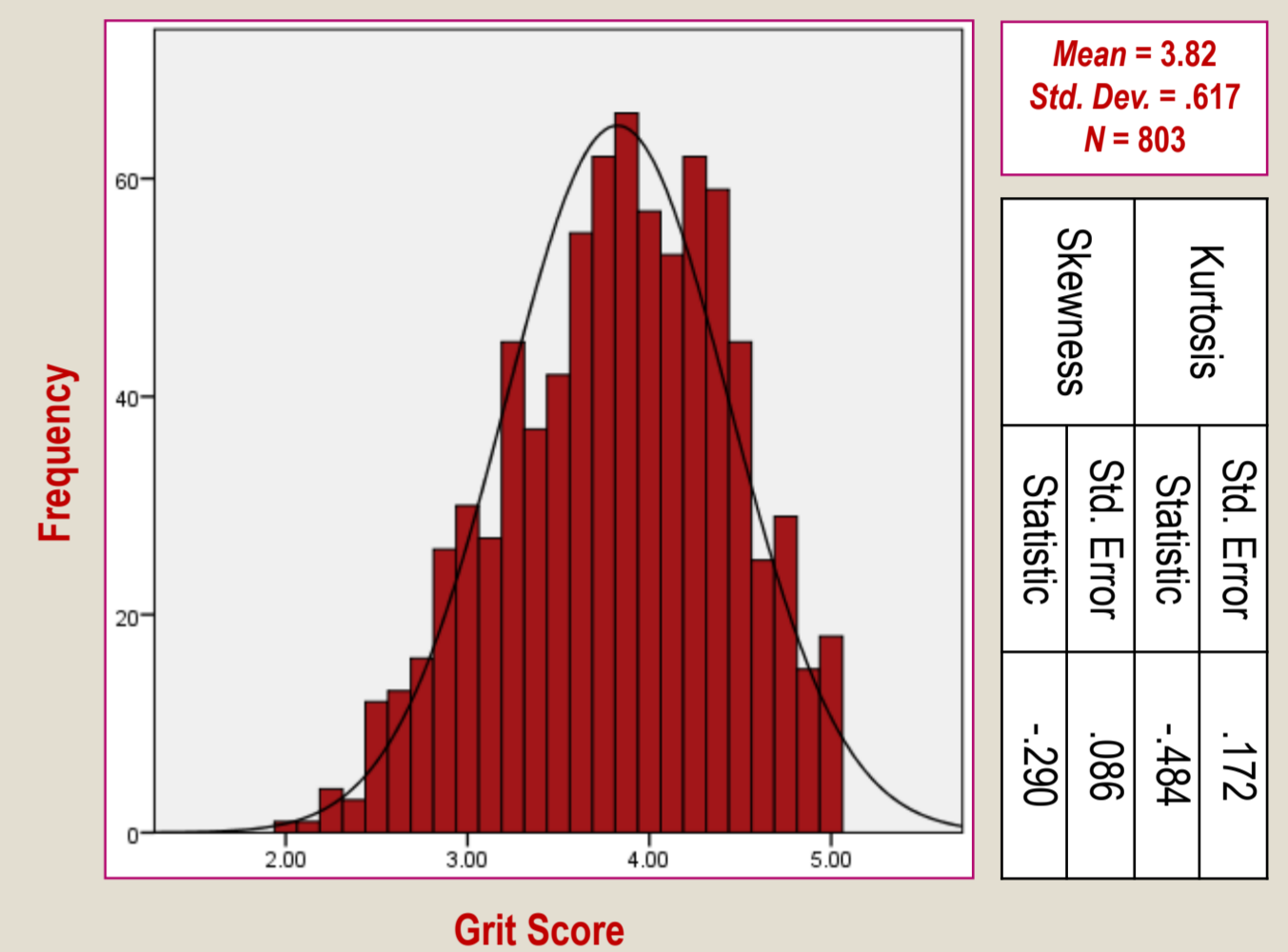
There is **limited published research** available on psychological grit and the value it may add to understanding and predicting retention **among ODL students**. With ODL environments being particularly prone to lower student retention, a closer look into this probable predictor is justified

### Grit among students @ Unisa

The majority of Unisa students appear to have grit!

The majority of the sample appear to exhibit moderate to strong levels of grit, with minimal students clustered at the extremes. No participants in the current sample were classified as 'Not at all gritty' (i.e., having a grit score of 1.00)

Perspicuous in these results is the 'somewhat' normal distribution of grit scores among the current Unisa sample; see the graph below



### Sample

n = 803 Honours students

UNISA university of south africa



70% of the sample are female; 30% are male



Majority of the participants are **African** (58.7%) followed by **White** participants (27.5%)

	Age categories		
	Frequency	Percent	Cumulative Percent
18-24 years	136	16.9	16.9
25-34 years	344	42.8	59.8
35-44 years	234	29.1	88.9
45-54 years	72	9.0	97.9
55-64 years	13	1.6	99.5
65+ years	4	0.5	100.0
Total	803	100.0	

English 28.6% Afrikaans 14.8% IsiZulu 14.4%

... the three most prominent home languages

Majority of the participants (76.2%) are **employed**; 7.8% are **full-time students**; 11.6% are **unemployed**



### Some basic statistics ...

Age and grit are positively but weakly correlated ( $r = .12$ ;  $p < .01$ )

Grit is **not** associated with gender

Grit is weakly associated with ethnicity  $\chi^2 (120, N = 803) = 150.32$ ;  $p < .05$

Grit is weakly associated with home language  $\chi^2 (360, N = 803) = 434.01$ ;  $p < .05$

Grit is **not** associated with employment status

Grit is weakly associated with disability  $\chi^2 (24, N = 803) = 52.47$ ;  $p < .01$

### So, does grit hold promise for ODL?

*Only time will tell...*

When the participants re-register (or don't) in the next academic year (2018) for their respective Honours degree, the researcher will be able to ascertain the significance and the predictive value of grit (or the lack thereof) in describing student retention among those studying at a distance. *Until then...*

### Contact Information

For more information, contact Ms. Kelly Anne Young at [youngka@unisa.ac.za](mailto:youngka@unisa.ac.za)