### Art. # 1054, 10 pages, doi: 10.15700/saje.v35n3a1054

# A study of the transition pathways of school level scholarship recipients into work and tertiary education

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School-level educational interventions targeting learners from low socioeconomic backgrounds often have the long-term goal of enabling access to, and successful completion of tertiary studies. This study tracked the progress of alumni of an educational intervention two or three years post school, in order to investigate their pathways to their destinations of work and study. Forty percent of the alumni were successfully traced, and asked to fill in an online questionnaire. Of the 104 traced alumni, 80% reported good academic progress, despite false starts and changes in direction, which resulted in complex transitional pathways. The main factor disrupting a direct pathway through tertiary studies was a lack of finances. The alumni reported that many of the enabling factors for their tertiary success were legacy benefits of the school-level intervention. The benefits reported included a sound preparation for life and academic studies, and other benefits that the researchers categorised as developing resilience and grit.

Keywords: grit; resilience; secondary-tertiary interface; socioeconomic status (SES); transitional paths; university success

#### Introduction

Access to higher education is a social justice and economic issue discussed in the educational literature across the full spectrum of nations. The discussion arises mainly due to the acknowledgement of the problem of racial inequality in participation rates in post-secondary education (Gray, 2013). This problem arises due to many nations having structural factors that impact access to post-secondary education (Pazich & Teranishi, 2012), particularly for low SES groups, as studies have found that lower SES see decreased levels of probability for making successful transitions (Evans, 1999:11). According to Goldberger (2007:39) the "education pipeline is leaking, particularly for low-income and many other students". Referring to US students, he notes further a persistent gap of 30% between low-income students and high-income students in such critical measures as preparation, enrolment and persistence in post-secondary programmes.

From an economic point of view, more and more jobs require an education, making educational access and attainment for all essential to economic growth. At the same time, the benefits of tertiary education qualifications have major implications for social justice, as education is a powerful factor promoting equality and social mobility, while helping to close existing income gaps for future generations (Bailey & Dynarski, 2011). Consequently, a dual imperative exists to provide educational-interventions that increase higher education access and opportunity for low-SES groups.

South African education has recently seen a multitude of educational-intervention projects. Many of these projects, which focus on the last years of schooling, attempt to provide previously disadvantaged black learners with opportunities to attend historically well-resourced fee-paying schools. They aim to produce learners with good English and Mathematics National Senior Certificate (NSC) marks so that they can enter and successfully complete tertiary education studies. Given the high dropout rates and slow completion rates in general at university (Council on Higher Education (CHE), 2013), funders and service providers have recently shown more interest in knowing whether or not their interventions improved the learners' opportunities and success at university.

The research reported in this paper reflects the second phase of an evaluation of an intervention project (EI programme). Selected learners from disadvantaged economic and educational backgrounds were provided with scholarships to attend successful independent fee paying schools for the last three years of their schooling. Besides their normal schooling, they were further provided with extra support, such as out-of-school-time lessons and camps. In the first phase of the evaluation research, the change in academic achievement from entry to exit was monitored. After three years of EI support, the first cohort of scholarship learners completed Grade 12 in 2009, and the second in 2010. The learners were then tracked as they transitioned into higher education or into the world of work. The tracking data set obtained in 2012 thus reports their progress for three or two years respectively, after leaving school. The two key questions that framed the second phase of the study reported in this paper were: What paths have the EI programme alumni followed into tertiary education and world of work? What factors, both enabling and constraining, influenced their paths?

### Literature Review

## Transition from school to tertiary studies

Commentators, for example Bloch (2009), Fleisch (2008), and Spaull (2013), have reported South African basic education to be in crisis, due to the low achievement of learners, which ultimately results in a poor output at

Grade 12. The situation beyond Grade 12 cannot be said to be any better. Cloete and Butler-Adam (2012) report close to 45 percent of the cohort of 18 to 25-year-olds to be "Not in Education, Employment or Training" (NEET). Furthermore, those who do gain access to tertiary education often struggle to bridge the gap between school and tertiary study. Perold (2012) noted that despite the gains made since the 1994, democratic elections in increasing access to schooling, the 'pipeline feed' from schooling into post-school education and training, has presented significant challenges. Secondary-tertiary articulation gaps have become more pronounced, with the expansion of higher education and the move to provide greater access to those previously excluded. This is not unique to South Africa, as Shin and Harman (2009:1) contend that massification "has changed the whole higher education landscape, impacting on governance, finance, quality, curriculum, faculty, and student demographics". In South Africa, the CHE noted that, "the significance of this systemic fault has increased not only because of enrolment growth, but also because of a major increase in the diversity of the student body in terms of educational, social and linguistic background" (CHE, 2013:60).

# Impediments to success in tertiary studies

The CHE investigated the poor performance of students at universities and, although not discounting the effect of financial and affective factors on student learning, determined that "academic factors are at the heart of the systemic obstacles to student success. It is widely accepted that student under-preparedness is the dominant learning-related cause of the poor performance patterns in higher education" (CHE, 2013:16). There are, however, those who argue that academic factors are less important than might be expected in predicting student success at tertiary institutions. As far back as 1994, following a survey of undergraduates in the United States of America (US) both prior to enrolment as well as towards the end of their first year of study, Gerdes and Mallinckrodt (1994:286) wrote that "personal adjustment and integration into the social fabric of campus life play a role at least as important as academic factors in student retention." Further support for this view comes from Chemers, Hu and Garcia (2001:62), who highlighted the role of self-efficacy in student success, noting that "the psychological orientations that students bring to the transition to university life are critical to their success in the new setting. Confident and optimistic students view their worlds in ways that are more likely to result in successful adjustment".

Closer to home in South Africa, Bojuwoye (2002) surveyed students at five universities regarding those factors at university which caused them stress. Factors identified as causing the most stress were associated with financial difficulties, and the demands of university administration. The nature of university education programmes, which involve independent study, typically strict deadlines for submission of work, large impersonal lectures, and which demand fluency in reading and writing in the second language of many students, is a potential barrier to students' progress (Bojuwoye, 2002). Academic demand factors were not identified (on average) in this study as stress inducing. Adding further support to the idea that academic results were not the most significant factor in determining student success, Fraser and Killen (2005) report on an empirical investigation attempting to identify pre- and post-enrolment factors that lecturers and students perceived as having the most influence on the students' success at their university studies. Their study showed that the success factors identified by both students and lecturers "paint a picture of a self-motivated, hardworking student who can learn independently, prepare well for examinations and who has made a wise choice of study" (Fraser & Killen, 2005:33). More recently, Cross and Carpenter (2009:16) studying student experiences of university, indicate that to succeed, students need to achieve a successful affiliation, that is, to know how to "access the system of implicit values, the codes of behaviour and work which define the academic world". In a similar study of undergraduate university students, Cross, Shalem, Backhouse and Adam (2009:34) suggested that an important resource for student success is their "accumulated social and cultural capital, their ability to work independently and their individual autonomy". Unfortunately black students from rural and township schools do not always have these resources, nor the mastery of the English language, resulting in major obstacles in their academic trajectories (Petersen, Louw & Dumont, 2009).

# Enabling factors in adapting to tertiary studies: resilience and grit

Sinclair (2003:1226) provides a dictionary definition of a resilient person as one who is "able to recover easily and quickly from unpleasant or damaging events". In the educational context, resilience typically refers to a set of personal qualities or protective mechanisms that allow a young person to succeed academically despite adverse circumstances (Cefai, 2008). Alternatively, Truebridge and Benard (2013:66) regard resilience as a process of maintaining a "positive trajectory of success and health in the midst of adversity, trauma and everyday stress", and not as a trait. The adverse circumstances students face could include financial difficulties, struggles with both the academic work and administrative procedures of universities, and social problems, all of which are common in first

generation South African university students (Bojuwoye, 2002; Petersen et al., 2009). For example, in a study of disadvantaged black youth who achieved success at university, Dass-Brailsford (2005) found that all participants experienced, among others, financial stress as a hardship, but also that they were all goal-oriented and motivated, firmly believing that they would shape their own life paths. Dass-Brailsford (2005) suggested that geting into and staying at university under these circumstances was an indicator of resiliency.

Duckworth, Peterson, Matthews and Kelly (2007) introduced the construct of 'grit', which they defined as a form of trait-level perseverance and passion for long-term goals. This entails the capacity to sustain focused effort and interest in long-term projects. Grit was shown to "predict achievement in challenging domains over and beyond measures of talent" (Duckworth & Quinn, 2009:166). Grit comprises a suite of behaviours known individually to influence student success, but is thought to work synergistically to create a whole that is greater than the sum of the parts (Goodwin & Muller, 2013). These behaviours are: goal-directness, motivation, self-control and a positive mind-set. Considering current research, Goodwin and Muller (2013) suggest four ways in which schools can contribute to the development of grit: (a) start early in encouraging self-regulation in early childhood programmes; (b) teach learners how to achieve goals by identifying steps to achieving the goal and strategies to overcome obstacles that might occur; (c) explicitly teach growth mindsets; and (d) use out of school activities such as sport or drama that help learners to learn to persevere and succeed. The authors state that "grit can be developed through an emerging battery of evidence-based techniques which together give educators a powerful new set of tools to support student success" (Goodwin & Muller, 2013:75).

# Conceptual framework

In order to guide the data collection and the interpretation of the study data, an initial conceptual model was constructed, informed by the above literature and two related models. The first was the "Origins, Education, Destination" model (OED triangle), arising from research into the role of education on social mobility (Jackson, Luijkx, Pollak, Vallet & Van de Werfhorst, 2008:370). This model suggests that E (educational attainment) is strongly associated with O (social origin), and that D (social destination) is strongly associated with E. The role of individuals' educational attainment in determining their chances of social mobility has been the subject of extensive research. The model allows the researcher to question the relative impact of education in comparison to family background and other factors. However, according to Goldthorpe (2013:4), divergence exists in the empirical findings, where, the author has noted, "the situation is made more difficult by the fact that the development of relevant theory has not kept pace with that of research". In our study, we were interested in how moving to well-functioning independent schools may have improved the chances of attaining the desired destination of successful post-secondary education, and if multiple pathways are utilised (Centre for Studies in Multiple Pathways, Manukau Institute of Technology, 2011).

The second model, the Model of Academic Performance or MAP (Petersen et al., 2009), has as its focus those factors influencing success at university. Working with low SES students at University of Cape Town, the authors found ability to adjust to the demands of university study (e.g. sense of belonging, and adjusting to emotional demands) to be the most significant predictor of academic performance at the end of the first year of a student's degree. Sommer and Dumont (2011) replicated the study at University of Fort Hare and confirmed the findings about adjustment, but also found extrinsic motivation to be correlated with achievement in the first year. They surmised that this was because the majority of students in their study came from rural backgrounds, where economic success was more important to these poor communities. Petersen et al. (2009:113) also suggested that other factors not represented in their model may play a significant role in the academic success of disadvantaged students, namely the extent of their financial difficulties, differences in the quality of prior education, and study habits.

While OED addresses the bigger picture, and MAP focuses on university study, neither the origins or transition paths to destinations have been well-developed. In the first part of the evaluation, the focus was on the relationship between origins and NSC achievement. In this report, we are interested in the paths these alumni followed after school i.e. into university, or world of work, or neither (NEET); and leading on from that, what factors could be identified as influencing the destinations. It was our view that the study would contribute to a more detailed understanding of the model of the transitional study paths as illustrated in Figure 1.

# **Research Design and Methods**

The researchers were operating within a pragmatic research paradigm, with the main research question concerning the paths that EI scholarship students follow after completing their NSC. This led to a secondary question, regarding, on the one hand, impediments to these paths and, on the other hand, characteristics of the EI that were considered to be influential in helping students onto these successful paths. The analysis and interpretation of data was guided by the conceptual model illustrated in Figure 1, which places a focus on the transitional phase between education and destination. A descriptive case study design was used (Yin, 2003) to determine the transitional paths and EI factors that influenced these paths. A case study was used, as it enabled the real life experiences of these learners to be described, illustrating the transitional paths followed in this context of disadvantaged learners who received scholarships. The case study focused on a longitudinal setting, tracking the cohorts over the first few years, rather than comparing their experiences to those of other student groups. Both qualitative and quantitative data were collected, with a survey as the main data-collecting instrument.



Figure 1 Initial conceptual model for transition between school and tertiary education

# Data Collection

The tracking proved difficult and time-consuming using contact data provided by alumni in Grade 12, but eventually contact was made with 125 of the possible 238 EI programme beneficiaries. The data was collected by means of a questionnaire that was offered to the participants in three forms: a cell phone-accessible online questionnaire, an electronic copy that could be downloaded for completion offline, and an option to request a phone interview to fill in the questionnaire. The questionnaire included items asking whether students had been studying, working, or neither, since leaving school. If they had been studying, they were asked for the institution, course of study, source of funding and how successful they had been. If working, further details about the employer, job description and job satisfaction were requested. Finally, respondents were asked to comment on any interesting experiences or obstacles to their plans and, in particular, for any legacy-benefits of being part of the EI programme. Reminders were sent to alumni, who did not initially respond. Where anomalies and gaps were noted in the responses, the alumni were contacted by phone to check on the details. While this is self-reported data, no reason was found to doubt the authenticity and truth of the responses.

#### Description of the Sample

By the close of data collection, 79 valid online forms had been completed, 23 responses were emailed in, and two questionnaires were filled in over the phone, providing a total of 104 responses from the 125 contacted. In a similar tracking study conducted in the United Kingdom (Boaler, 2012), strong claims were made based on a return rate of 22% (n = 63), with Boaler claiming that "[d]espite the relatively low return, the sixty-three young adults who responded were an interesting and important group to consider" (2012:47). Consequently, it was felt that the return rate of 44% (n= 104) in this study provided sufficient confidence in the data to yield insight into the alumni cohorts and their transition pathways.

A further consideration was whether the sample formed by the respondents differed in important ways from the rest of the EI programme learners, the non-respondents (n = 134). Responses were obtained from 16 of the 18 host schools in the project, providing a fairly representative school origin sample. In addition, the NSC scores in the key academic focus subjects of the EI programme, namely English and Mathematics, were considered. The mean scores were statistically significantly higher for the respondent group, in each subject by about 8-10 percent. Given that the respondents appeared to be the higher achievers, the paths followed by the respondents are likely to provide an optimistic picture of the achievements of the entire cohort. The results ought to be interpreted with this in mind.

# Results

This section describes the destinations of alumni two to three years after school, the transitional paths they followed to their destination, and the reported influencing factors on those paths.

Destinations - Progress since leaving School

What progress in academic study or work have the EI programme alumni made in the two or three years since leaving school? Over eighty percent of the two cohorts of beneficiaries ended up studying at university in a wide range of disciplines. Although a majority of alumni stayed on their

*initial transitional path, about a quarter had changed paths.* 

Eighty-three out of the 104 (80%) were engaged in post-secondary study. Alumni were registered at 15 different universities with the most popular courses of study in the fields of Commerce and Accounting (n = 27), Science and Engineering (n = 20), Health Sciences (n = 6), and Law (n = 5). Of the other 21, ten had jobs, six were classified as NEET, and the destination of five remained unclear.

What paths do the alumni follow to reach their destinations? Cohort Two completed Grade 12 in 2010, and thus were two years out of school when surveyed. This cohort had nearly two thirds (36 of the 56) of tracked alumni staying on their original study path, and were already in their second year of study. A number of other paths were apparent. Seven alumni made a "late start" after a year at home, or working, typically trying to organise funding, after which they moved on to studying. Two were working while studying, and the remainder had been working, staying at home, or a mixture of both. For the 48 Cohort One alumni tracked, about one third were doing well in their third year of study, and were on track to complete their degrees in the prescribed time; about one third had had a slight setback, from which they had recovered and seemed to be progressing well in their second year of study; about one sixth were working and studying or beginning to study; and most of the remainder were working.



Figure 2 Graphic showing progress of Cohort One Alumni for three years

Cohort One alumni were three years out of school, such that the complexity of the paths was more evident, as represented in Figure 2. Four initial transition paths are identified, i.e. Work, Work/Study, University, and NEET; and these are also the final destinations after three years. Even in what appear to be direct paths (i.e. three years on the study path), some students are not in their third year of study due to change of institution, change of course, or having to repeat a year. Examination of Figure 2 shows that about 25% of the alumni changed path. Examples of changed paths included: alumni who worked for a year or two before moving onto the study path; alumni who had a start-stop trajectory, were excluded from institutions for financial reasons, and had a gap year while obtaining funds; alumni who had a delayed start, such as having a gap year and then moving onto a study track.

Two exemplary stories are presented here to illustrate the changing paths. The first path recounted is of a student who had a delayed start waiting for funding: Busi (pseudonyms are used) attended an independent school as a boarder, and obtained 61% for English and 52% for Maths in Grade 12. She worked as a receptionist in her first year out of school, explaining, "this is what I did while waiting to go back to study the following year". In her second year out of school, Busi obtained National Student Financial Aid Scheme (NSFAS) funding and started her degree in drama, which she continued the following year. She has been involved in several shows and theatre projects, and aspires towards a successful career in theatre or film.

The second path recounted is of a student who started studying, but was delayed, before changing universities: Anele transferred to a medium fee independent school in Grade 10. On leaving school, having received 60% for English and 74% for Mathematics, she enrolled for a degree in Computational and Applied Mathematics. She was unable to secure funding and was forced to abandon her studies at the end of first year without obtaining any of her examination results. The following year, she took up a learnership with a financial institution in the hope of eventually getting a bursary, but soon found that it was not a field she wanted to pursue. So after a month, she made late application to another university and began a general Bachelor of Science degree. She obtained a bursary and is now making good progress.

# Influencing Factors - What Factors influence their Paths?

In order to identify enabling and constraining factors to their progress respondents were asked to: "comment on any interesting experiences you have had, or obstacles to your plans you have encountered. Do you think that your experiences on

the EI scholarship programme have helped you more than other learners who never had your opportunities?" The self-report responses were systematically analysed using qualitative analysis software. This analysis revealed that the main enabling factors could be regarded as legacy benefits from the EI programme, while the main obstacles for non-direct paths into study were financial.

### Constraining factors

A dominant theme in the responses of the alumni related to 'obstacles to plans' was the ability to finance their studies. For example, 20 of those in their third year out of school indicated that they had experienced financial difficulties. Many comments were made, such as the following by Bongiwe, who wrote: "financing is a huge obstacle for most students. Could you please help me with my fees and books for the rest of the year, as I am about to complete my degree and I don't have any source of funding." A common consequence of financial constraints on the study path was a delay in starting to study, while either the young person or their family gathered together the requisite funds. Unfortunately, in some cases, the initial fees were raised, but the student was unable to pay the balance, which resulted in financial exclusion, and a break in the study path. This experience is exemplified in the comment by Gabi, who wrote: "after leaving school things got really hard for me, I struggled with getting money to further my studies so that I got kicked out of the institution I was in at that moment. So that resulted in me getting a job, fortunately I got the job I wanted to study for, but didn't earn enough to be able to pay for my fees so I left and worked fulltime." While other constraining factors were mentioned by a few of those who changed paths in Cohort One (see Table 1), a lack of finances was the dominant factor associated with interruptions to the aspirational paths of the alumni, which was assumed to be full-time study, in order to complete a qualification.

#### Enabling factors

In contrast to the impeding influences on study progress that led to non-direct paths, the three most frequent analysis codes associated with enabling factors were 'preparation for life' (33 instances), 'preparation for tertiary education' (33 instances) and 'resilience' (17 instances) and these are described below.

Firstly, it was clear that according to the alumni many life lessons had been learnt through the experience of being a beneficiary of the EI programme, and good attitudes fostered. These included appreciation of opportunity and the development of the confidence and self-esteem required to operate comfortably and make friends within a more privileged context. Examples given by alumni of this factor are: "I am grateful for the experience that the [EI] scholarship has given me, because it has taught me never to take things for granted, where you come from is not a restriction to where you are going"; and "the [EI] scholarship has indeed taught me to appreciate each and every opportunity that I get and to work hard [...] it taught me how to make friends with people that have the same goals as I do, and who are also hard working."

Secondly, the tracked alumni were very positive about the preparation they had received at school for post-secondary studies: "I've been very fortunate. Going to School X prepared me for university. If I had stayed at my previous school, I would not be here. I am very, very, very grateful". According to the alumni, the typical challenges faced by students from disadvantaged backgrounds entering tertiary institutions (Bojuwoye, 2002) had largely been overcome in their years at the independent schools. The specific aspects of preparation they noted were English language proficiency, academic skills, and the ability to cope with demanding work. The alumni felt that their experience at the independent schools had given them the edge over their peers, writing for example, "it [the EI] has made me familiar with most things that we do, like how to do research and presentations etc. It almost feels like I was a step ahead of the other learners because they had to start learning how to do such things from scratch. It definitely was a privilege and just gave me an edge."

Table 1	Constraining	factors interru	pting as	pirational	paths

	School to	School to	School to	University to	University to
	NEET	work	work/study	work/study	work
	<i>n</i> = 7	n = 6	n = 2	n = 2	n = 2
Personal circumstances	2				
Not accepted for study choice	2				
Lack of finances	3	5	2	1	2
Changed mind about course				1	
Work career path chosen		1			

Thirdly, a number of the comments were coded under the theme of resilience, related to success in adverse circumstances, and a determination to overcome obstacles (Dass-Brailsford, 2005). For example, one of the tracked alumni noted that "many other school leavers lack ambition, easily give up, and do not view tertiary education as something paramount [sic]." The strength to break away from the constraints of a disadvantaged background was also mentioned: "the values of hard work and determination have put me one step ahead from [sic] my peers. In my line of work I'm exposed to the negatives that a lack of education can bring upon an individual, and I've managed to escape that entrapment [sic], thanks to the scholarship".

# Discussion

Although many of the tracked alumni had slow starts to their studies, 80% were engaged in study across a wide range of courses, two or three years out of school. The high percentage of alumni, all from a low-SES origin, who were still in full time study is very encouraging in the South African context, where, in contrast, the national statistics for a three-year degree at contact universities show for example that only 41% of black students from the 2005 cohort had graduated after six years, and that as many as 59% had dropped out (Higher Education South Africa (HESA), 2014). It would appear that the majority of the EI students were able to adapt to the environment of the university more easily than were other students, particularly those from disadvantaged educational backgrounds. According to Cross and Carpenter (2009), this is understandable, as the learning environment in the privileged schools from which the EI students came is more aligned with the teaching and learning culture of a university. We can infer that they brought with them the resources, such as good English language skills, as well as feelings of selfworth and positive attitudes, allowing them to more easily 'affiliate with' academic life. In addition, it is worth noting that the NSFAS review (Department of Higher Education and Training, Republic of South Africa, 2010) found that 72% of the NSFAS students had not completed their studies, despite the financial support they received. It would appear that while finance guarantees acceptance onto a study path, there is growing evidence that other resources are required for staying on the path.

Two other aspects of the data from this case are of interest, namely career selection and complexity of pathways. Firstly, despite the intervention programme having a significant focus on mathematics and science, only a small proportion of the students chose to study in these disciplines. This can be explained, in part, by the fact that the cohorts achieved a wide range of Mathematics marks (ranging from 34% to 98%), where many did not qualify for study in Science faculties with high entrance requirements. However, given that only two alumni of Cohort One reported that they were not accepted for the course of study of their choice, it could be inferred that science careers are not high on low-SES student agendas, as they see more opportunities in other areas, especially the accounting and business fields. This appears to be an issue that needs further investigation. Teaching was not a popular career choice, with only a few students choosing to do a Bachelor of Education, two of whom did so in association with a learnership. Secondly, about a quarter of the students changed path, in some cases, with delays indicating that while the transition path from secondary to tertiary studies might look simple at the start, it becomes more complex as the years of study pass. Given the emphasis by alumni on financial factors as a reason for change, this presents an ongoing problem for the tertiary sector, and for those funding learners at school. It is obvious that to gain the most value from an investment in scholarships for low-SES students at the school level, these students need the same financial support at tertiary level.

The alumni identified those personal skills and characteristics that enabled them to negotiate a path to successful tertiary study. It is argued that many of these are legacy benefits of the EI, over and beyond the academic results obtained in the NSC examinations which gave them access to tertiary studies. The tracked alumni identified their English language proficiency and their academic skills and work ethic as giving them an academic edge over their peers. In terms of personal development, it is clear from their responses that they had developed confidence and self-esteem to cope in more privileged environments, deep gratitude for opportunities that come their way, and the resilience and grit to capitalise on these opportunities. Alumni reported that their schools had provided opportunities for participation in a variety of spheres, a nurturing environment and high standards (Zenex Foundation, 2013), these being the three major protective factors that Truebridge and Benard (2013) contend assist in mitigating adversity and nourishing personal strength, and hence enhancing resilience. Likewise, three of the ways identified by Goodwin and Muller (2013) in which schools can contribute to the development of grit were also identified by the alumni, that is the schools encouraged goal setting, growth mindsets, and provided opportunities for participation in sport, music and drama. This provides credibility to the suggestion that the host schools were instrumental in developing resilience and grit in the EI project beneficiaries. Their reports of perseverance and passion to achieve their long-term goal of a tertiary education exemplifies the resilience and grit that is found to predict success (Duckworth & Quinn, 2009).

Although based on a relatively small and selfselected sample of respondents, the findings from this case study provides support for the idea that exposing low SES students to effective schooling for even a few years, has merits beyond their improvement in academic achievement. They have built up their academic resources (Cross et al., 2009) and have better chances of affiliation to the academic world, and to staying on a study path, even if their academic results are average. As Spaull (2013:7) notes, "the value of passing the NSC exam lies in opening up the opportunity to acquire some form of tertiary education qualification". This opportunity is best translated into tertiary success by young adults, who have both financial resources and "affiliation resources" that is, a mix of good personal and academic skills, underpinned by resilience and grit.

### Conclusion

It is apparent that despite setbacks and false starts, most of the tracked alumni were heading for success in their tertiary studies, despite some complexity in their paths in most cases, as a result of financial difficulties. Their indirect paths were indeed slowing them down, but with time, they would reach their destination. According to the alumni, they had obtained the resources necessary for affiliation into university and the grit and resilience needed to persevere in the face of obstacles such as a lack of financial support. This result behooves scholarship donors to exercise patience, and not rush to judgement of intervention programmes because final Grade 12 examination results are not as high as they may have hoped. Some of the other benefits of an educational intervention may be as important as high marks, and may only be apparent years after the school level intervention ends.

### Acknowledgements

Permission to use the data generated by the 'EI evaluation' was generously granted by the Zenex Foundation, who funded the original evaluation.

# References

- Bailey MJ & Dynarski SM 2011. Inequality in postsecondary attainment. In GJ Duncan & RJ Murnane (eds). Whither opportunity: Rising inequality, schools, and children's life chances. New York: Russell Sage Foundation.
- Bloch G 2009. *The Toxic Mix: What's wrong with SA's schools and how to fix it.* Cape Town: Tafelberg.
- Boaler J 2012. From psychological imprisonment to intellectual freedom - the different roles that school mathematics can take in students' lives. Paper presented at the 12th International Congress on Mathematical Education, Seoul, Korea, 8-15 July. Available at http://www.youcubed.org/wpcontent/uploads/intellectualfreedom.pdf. Accessed 28 June 2015.
- Bojuwoye O 2002. Stressful experiences of first year students of selected universities in South Africa. *Counselling Psychology Quarterly*, 15(3):277-290. doi: 10.1080/09515070210143480
- Cefai C 2008. Promoting Resilience in the Classroom: A Guide to Developing Pupils' Emotional and Cognitive Skills. London: Jessica Kingsley Publishers.

- Centre for Studies in Multiple Pathways, Manukau Institute of Technology 2011. *Transitions from Secondary School into Postsecondary Education and Training: A Literature Review*. Available at https://www.tec.govt.nz/Documents/Reports%20an d%20other%20documents/post-secondaryeducation-literature-review.pdf. Accessed 20 July 2014.
- Chemers MM, Hu L & Garcia BF 2001. Academic selfefficacy and first -year college students performance and adjustment. *Journal of Educational Psychology*, 93(1):55-64.
- Cloete N & Butler-Adam J 2012. Introduction. In H Perold, N Cloete & J Papier (eds). *Shaping the Future of South Africa's Youth: Rethinking postschool education and skills training*. Somerset West: African Minds. Available at http://www.chet.org.za/books/shaping-futuresouth-africas-youth. Accessed 28 June 2015.
- Council on Higher Education (CHE) 2013. A proposal for undergraduate curriculum reform in South Africa: The case for a flexible curriculum structure. Pretoria: CHE. Available at http://www.che.ac.za/sites/default/files/publication s/Full\_Report.pdf. Accessed 28 June 2015.
- Cross M & Carpenter C 2009. "New students" in South African higher education: institutional culture, student performance and the challenge of democratization. *Perspectives in Education*, 27(1):6-18.
- Cross M, Shalem Y, Backhouse J & Adam F 2009. How undergraduate students 'negotiate' academic performance within a diverse university environment. *South African Journal of Higher Education*, 23(1):21–42.
- Dass-Brailsford P 2005. Exploring resiliency: Academic achievement among disadvantaged black youth in South Africa. South African Journal of Psychology, 35(3):574-591. doi: 10.1177/008124630503500311
- Department of Higher Education and Training, Republic of South Africa 2010. *Report of the Ministerial Committee on the Review of the National Student Financial Aid Scheme*. Pretoria & Cape Town: Department of Higher Education and Training, Republic of South Africa. Available at http://www.dhet.gov.za/Reports%20Doc%20Librar y/Report%20of%20the%20Ministerial%20Commit tee%20on%20the%20review%20of%20the%20Nat ional%20Student%20Financial%20Aid%20Schem e.pdf. Accessed 28 June 2015.
- Duckworth AL, Peterson C, Matthews MD & Kelly DR 2007. Grit: perseverance and passion for long-term goals. *Journal of Personality and Social Psychology*, 92(6):1087-1101. http://psycnet.apa.org/doi/10.1037/0022-3514.92.6.1087
- Duckworth AL & Quinn PD 2009. Development and Validation of the Short Grit Scale (Grit-S). *Journal* of Personality Assessment, 91(2):166-174. doi: 10.1080/00223890802634290
- Evans M 1999. School-leavers' transition to tertiary study: A literature review. Working Paper 3/99. Melbourne: Monash University. Available at http://www.buseco.monash.edu.au/ebs/pubs/wpape rs/1999/wp3-99.pdf. Accessed 28 June 2015.

- Fleisch B 2008. Primary Education in Crisis: Why South African schoolchildren underachieve in reading and mathematics. Cape Town: Juta & Co.
- Fraser W & Killen R 2005. The perceptions of students and lecturers of some factors influencing academic performance at two South African universities. *Perspectives in Education*, 23(1):25-40. Available at

http://repository.up.ac.za/bitstream/handle/2263/48 87/Fraser\_Perceptions%282005%29.pdf?sequence =1&isAllowed=y. Accessed 28 June 2015.

- Gerdes H & Mallinckrodt B 1994. Emotional, social, and academic adjustment of college students: A Longitudinal study of retention. *Journal of Counselling & Development*, 72(3):281-288. doi: 10.1002/j.1556-6676.1994.tb00935.x
- Goldberger S 2007. Doing the math: What it means to double the number of low-income college graduates. In N Hoffman, J Vargas, A Venezia & MS Miller (eds). *Minding the gap: Why integrating high school with college makes sense and how to do it.* Cambridge, MA: Harvard Education Press.
- Goldthorpe JH 2013. The role of education in intergenerational social mobility: Problems from empirical research in sociology and some theoretical pointers from economics. Working paper 13-02. Oxford, UK: Department of Social Policy and Intervention, University of Oxford. Available at

https://www.spi.ox.ac.uk/fileadmin/documents/PD F/Barnett\_Paper\_13-02.pdf. Accessed 29 June 2015.

- Goodwin B & Muller K 2013. Research says/Grit Plus Talent Equals Student Success. *Educational Leadership*, 71(1):74-76. Available at http://www.ascd.org/publications/educationalleadership/sept13/vol71/num01/Grit-Plus-Talent-Equals-Student-Success.aspx. Accessed 29 June 2015.
- Gray SS 2013. Framing "at risk" students: Struggles at the boundaries of access to higher education. *Children and Youth Services Review*, 35(8):1245– 1251. doi: 10.1016/j.childyouth.2013.04.011
- Higher Education South Africa (HESA) 2014. South African Higher Education in the 20th Year of Democracy: Context, Achievements and Key Challenges. HESA presentation to the Portfolio Committee on Higher Education and Training, Cape Town, 5 March. Available at http://pmgassets.s3-website-eu-west-1.amazonaws.com/140305hesa.pdf. Accessed 15

November 2014. Jackson M, Luijkx R, Pollak R, Vallet LA & Van de Werfhorst HG 2008. Educational fields of study and the intergenerational mobility process in comparative perspective. *International Journal of Comparative Sociology*, 49(4-5):369-388. doi:

10.1177/0020715208093082
Pazich LB & Teranishi RT 2012. Comparing access to Higher Education in Brazil and India using critical race theory. In WR Allen, RT Teranishi & M Bonous-Hammarth (eds). As the world turns: Implications of global shifts in higher education for theory, research and practice. Bingley, UK: Emerald Group Publishing Limited. Perold H 2012. Viewing post-school education from a youth perspective. *University World News*, 1 July. Available at http://www.universityworldnews.com/article.php?s tory=20120630085737398. Accessed 29 June 2015.

Petersen I, Louw J & Dumont K 2009. Adjustment to university and academic performance among disadvantaged students in South Africa. *Educational Psychology: An International Journal* of Experimental Educational Psychology, 29(1):99-115. doi: 10.1080/01443410802521066

Shin JC & Harman G 2009. New challenges for higher education: Global and Asia-Pacific perspectives. *Asia Pacific Education Review*, 10(1):1-13. doi: 10.1007/s12564-009-9011-6

Sinclair J (ed.) 2003. Advanced Learner's English Dictionary (4th ed). London: Harper Collins Publishers.

Sommer M & Dumont K 2011. Psychosocial factors predicting academic performance of students at a historically disadvantaged university. *South*  *African Journal of Psychology*, 41(3):386-395. doi: 10.1177/008124631104100312

Spaull N 2013. South Africa's Education Crisis: The quality of education in South Africa 1994-2011. Report commissioned by the Centre for Development & Enterprise (CDE). Johannesburg: CDE. Available at http://www.section27.org.za/wp-content/uploads/2013/10/Spaull-2013-CDE-report-South-Africas-Education-Crisis.pdf. Accessed 29 June 2015.
Truebridge S & Benard B 2013. Reflections on resilience. Educational Leadership, 71(1):66-67. Available at http://www.ascd.org/publications/educational-leadership/sept13/vol71/num01/Reflections-on-Resilience.aspx. Accessed 29 June 2015.

- Yin RK 2003. Case study research: Design and methods (3rd ed). London: Sage Publications, Inc.
- Zenex Foundation 2013. Summative Evaluation Report of the EI (pseudonym) programme. Unpublished evaluation report by Quality Projects in Education.