Art. # 1367, 11 pages, doi: 10.15700/saje.v37n2a1367

Repeated retention or dropout? Disputing Hobson's choice in South African township schools

Silke Grossen
School Psychology and Development in Context, Faculty of Psychology and Educational Sciences, KU Leuven, Leuven, Belgium; Unit for Professional Training and Service in the Behavioural Sciences, University of the Free State, Bloemfontein, South Africa
silke.grossen@kuleuven.be

Adelene A. Grobler
Unit for Professional Training and Service in the Behavioural Sciences, University of the Free State, Bloemfontein, South Africa

Marlies Lacante
School Psychology and Development in Context, Faculty of Psychology and Educational Sciences, KU Leuven, Leuven, Belgium; Unit for Professional Training and Service in the Behavioural Sciences, University of the Free State, Bloemfontein, South Africa

South Africa, like many developing countries, is heavily burdened by high dropout and unemployment rates and an undersupply of skilled workers. Grade retention is a common practice when learners do not meet the specific requirements – especially in countries with limited socio-economic resources. In South Africa, 52% of the learners are retained at least once before they reach Grade 10. However, the results of this study clearly suggest that the policy of repeated scholastic retention does not contribute positively to the academic achievement or to career maturity of Grade 11 and Grade 12 learners in township schools in South Africa. This study emphasises the importance of improving learner performance, starting in the Foundation Phase (Grade 0/R to Grade Three) and the need for accessible career guidance and counselling for all learners. By guiding these at-risk learners into vocation-oriented or technically oriented directions before the career maturity and academic achievement decline emerges, a decrease in dropout and an increase in the outflow of skilled people in the short term and unemployment in the long term may be addressed. The latter can be regarded as the cornerstone of socio-economic development and enhanced social capital in all developing countries.

Keywords: academic achievement; career maturity; drop-out; grade retention; township schools; unemployment

Introduction

Unemployment

Like many emerging economies, South African society has high unemployment, poverty, a large informal sector, an undersupply of skilled people (vocational workers, technical workers and educated people), an oversupply of unskilled work-seekers, and numerous state institutions without the capacity to deliver adequate services (Flederman, 2009; Yu, 2013). Although there is a profound need for skilled vocational workers such as plumbers and welders, these jobs are currently particularly undervalued in South Africa, as is broadly the case in other parts of the world. A successful society requires both professionally and vocationally trained people. Contributing to the persistence of the unemployment problems, from childhood onwards, occupational aspirations and expectations and trends within the world of work are poorly matched, especially among disadvantaged learners (Metz, Fouad & Ihle-Helledly, 2009; Stead & Watson, 1998; Watson, McMahon, Foxcroft & Els, 2010).

Schooling

Since the end of apartheid in 1994, the school system has been desegregated. Black learners were the most neglected under the apartheid government, but have started to attend former Whites-only schools, resulting in (sub)urban mixed-ethnicity schools. However, most Black learners still attend township and rural schools. The quality of education remains poor in these deprived socio-economic contexts (Maree, 2012). These schools typically consist of large class groups (50 or more learners in one class), are poorly resourced (Magopeni & Tshiwula, 2010), have poor facilities (Kriek & Grayson, 2009), and have little access to services such as career counselling and remedial education (Ndimande, 2012). These learners account for 80% of the total South African enrolment in elementary and secondary education and are thus pivotal to national educational progress (Grobler, Lacante & Lens, 2014). Compulsory schooling in South Africa ends in Grade Nine. South Africa is suffering from high dropout rates, especially at secondary and tertiary educational levels (Grobler, Knight, Lens & Lacante, 2014). In 2011, only 44% of the black learners between the ages of 23 and 24 had completed secondary school in South Africa (Taylor, Van der Berg, Reddy & Janse van Rensburg, 2015). Approximately 60% of the learners that enter the schooling system complete Grade 12, and 40% of the learners drop out of the system after repeated failure (Department of Basic Education, Republic of South Africa, 2017a). Dropping out of school does not offer any advantages, and most adolescents find themselves idle once they have dropped out of school (Branson, Hofmeyr & Lam, 2014). A study by Van der Berg (2015) showed that prospects are bleak

for learners who are no longer on track by Grade Four. Van der Berg (2015) therefore emphasises the importance of improving learner performance in the Foundation Phase. As learners advance to higher grades, dropout rates increase and promotion rates decrease. Compared to lower grades, both dropout and repetition rates are much higher in Grade 10, Grade 11 and Grade 12. Although the proportion of learners entering the last year of upper secondary schooling is similar to the trend found in comparable middle-income countries, the proportion of learners successfully completing secondary schooling in South Africa is below average compared to other middle-income countries (Gustafsson, 2012). Gustafsson (2012) argues that it appears as if insufficient readiness amongst pre-Grade 12 learners for the National Senior Certificate Examination, brought substantial grade repetition and dropout in these grades, but hardly any changes in the number of learners attaining their National Senior Certificate. The retention level of 9% in South Africa is high; it is above the average level for both developing (5%) and developed (1%) countries (Department of Basic Education, Republic of South Africa, 2011). By the time learners are in Grade 10, 52% of them have been retained at least once (Department of Basic Education, Republic of South Africa, 2011). In general, when compared to female learners, male learners reflect a higher retention rate (Department of Basic Education, Republic of South Africa, 2011). The Department of Basic Education's Annual Report (2016) indicates that of the Grade 12 learners who did not drop out of school prematurely and took the National Senior Certificate Examination in 2014, only 75% actually matriculated successfully, leaving another 25% unsuccessful Grade 12 learners – again at risk of dropping out before attaining the National Senior Certificate. In 2014, only 18% of the learners passed Grade 12 with university entrance (Department of Basic Education, Republic of South Africa, 2016). Attempts by the South African government to keep unsuccessful learners at school by implementing a system of "progression", where learners who do not meet the promotion criteria for their current grades can still be advanced to the next grade, led to a sharp decline in the matriculation rates in 2015. Only 70% matriculated in 2015, with matriculation rates in rural provinces reflecting only 56–65% (Quintal, 2016). The poorer performance by these progressed learners was believed to account for the decrease in matriculation rates; excluding these progressed learners, 74% of the learners would have matriculated in 2015, which is still less than in 2014. In the beginning of 2016, this resulted in national newspapers headlining with "Education system is sick" and "Pass rate disappoints" and the admonition to stop deliberating over issues, but to provide solutions that deal with the root of the problem and that lead to a sustainable education system (Malingo, 2016; Tau, 2016). In 2016, a total of 674,652 learners registered for the 2016 National Senior Certificate Examination (Department of Basic Education, Republic of South Africa, 2017a). In the 2016 cohort, 108,742 learners were progressed to Grade 12 (Department of Basic Education, Republic of South Africa, 2017a). From these progressed learners, 62.1% (67,510) wrote the National Senior Certificate Examination and 42.1% (28,384) of these learners passed the examination (Department of Basic Education, Republic of South Africa, 2017a). This means that from the total of learners that were progressed to Grade 12, 26.1% (28,384) achieved their National Senior Certificate in 2016. *News24Wire* (South Africa's alarming university drop out rate, 2015) argues that only the top 18% of the country's 18 to 24-year-olds attend university. Of those 18% of students, 50-60% drop out during their first year of study. These high university dropout rates suggest that there is a profound need for learners and students to learn how to make good decisions about present education and vocation and future careers. Many of the students enter into higher education unprepared for, and ignorant of the necessary university entrance requirements and associated academic demands. Fraser and Killen (2003) have found that many failing first-year students attribute their academic failure to unrealistic career choices. Despite an evident lack of career services at schools in emerging economies such as South Africa to help learners decide what they want to study (Puukka, Dubarle, McKiernan, Reddy & Wade, 2012), the importance of these services is undisputable, since (1) career development has been found to increase the likelihood of entering tertiary education and graduating from it (Maxwell & Rubin, 2001), and (2) career development supports entry into the labour market, as it was found that higher career maturity levels at high school were significantly correlated with a more successful transition into the labour market and the adult working role (Lapan, Aoyagi & Kayson, 2007). In other words, there is a pronounced need for career counselling before these students enter into higher education or the labour market. By doing so, one can reasonably expect that dropout rates at the end of secondary education and during higher education to decrease, and successful entry into higher education and graduation from higher education to increase. This will be beneficial to the students, their parents, their families, the higher education institution and the government, and may possibly result in substantial financial savings that can be invested elsewhere.

Career Development

Career maturity is a characteristic of the lifelong career development process and was originally defined by Super as the "individual's readiness to cope with the developmental tasks for that stage of development" (1990:213). In other words, an individual has to learn to cope with and master age-appropriate career development tasks. Super (1990) identified five vocational development tasks and five life stages. The first vocational developmental task he referred to as *crystallisation*, which is the cognitive process in which an individual sets a vocational goal and becomes aware of personal interests and values and starts developing a career plan. Young adolescents (14–18 years) face this task and strive to master it. The second vocational development task is referred to as *specification*, where young adults (18–21 years) face the task to specify vocational interests and to move towards a specific vocational preference. *Implementation* is the third vocational development task that 21 to 24-year-old adults face and master. Implementation occurs after the completion of education and the transition into the labour market. The fourth vocational development task, *stabilisation*, is faced by 24 to 35-year-old adults and is the period when work experience is built into the chosen career path. The last vocational development task is *consolidation*. Adults from the age of 35 onwards face this task of establishing the chosen career path by building further experience and growing and gaining more responsibility and status in the job. Although career development is considered a lifelong process, increasing attention is being paid to the role of career development during adolescence (Creed, Prideaux & Patton, 2005). Also, previous research conducted by Grobler, Lacante, et al. (2014) shows students from previously disadvantaged Black schools (township schools) in South Africa to have lower career maturity levels compared to advantaged and transition schools, where career maturity levels decrease from Grade 11 to Grade 12 at these previously disadvantaged schools. This indicates that these learners are particularly at risk for developing low levels of career maturity, with all its personal and societal short and long-term consequences. It is crucial to develop career maturity in order to make mature decisions in the present and the future regarding educational and vocational careers and helping to curb poverty and unemployment in South Africa. Aspects considered to be pivotal to the adolescent's ability to make a mature career decision pertain to: (1) gathering information about the self, e.g. life roles, interests, work values, aptitudes, etc.; (2) gathering information about the environment e.g. knowledge about the world of work and tertiary institutions; (3) integrating self-information and career information; (4) acquiring competent decision-making skills; and (5) learning to convert that decision into a concrete career plan (Langley, Du Toit & Herbst, 1992). The results of Grobler, Lacante, et al. (2014) were not congruent with the developmental assumptions of career maturity, that assume career maturity to improve with age (Kornspan & Etzel, 2001) or school grade (Patton & Lokan, 2001). Furthermore, limited access to relevant career information and information related to the world of work is one of the major reasons that has been attributed to poor career development, especially within disadvantaged groups (Jensen, 2010; Loyalka, Liu, Song, Yi, Huang, Wei, Zhang, Shi, Chu & Rozelle, 2012; Nguyen, 2008; Watson, Stead & De Jager, 1995). In line with this is the fact that career counselling in South Africa historically focused only on the White elite population (Watts, 2009). In previously oppressed communities in South Africa, career development services were characterised by under-resourcing, marginalisation and underdevelopment (Pieterse, 2005). Learners in under-resourced environments generally obtain career information from observing people in their environment (Jensen, 2010). Career information might then only exist of perceived, subjectively interpreted, information from observing people in their environment, rather than from objective information.

Career Maturity, Age, Academic Achievement and Retention

In general, positive correlations between the first three variables are assumed and reported (e.g. Bedard & Dhuey, 2006; Yon, Joeng & Goh, 2012). Previous research reported a positive correlation between career maturity and academic motivation (Otte & Sharpe, 1979) and academic achievement (Yon et al., 2012). Regarding age and academic achievement, research suggests that the youngest learners attain lower marks in Grade Four and Grade Eight when compared to their older counterparts in the same grades (Bedard & Dhuey, 2006). This study also indicated that the younger learners within each of these grades were less likely to attend university. In a four-year longitudinal study, Lamote, Pinxten, Van den Noortgate and Van Damme (2014) researched the effect of grade retention on academic achievement. Learners with the same academic achievement levels at the end of Grade Eight were divided into four groups. The first group pertained to learners who were promoted to Grade Nine in the same study track. The second group was the group of learners who were promoted to Grade Nine, but in a different study track. The third group pertained to learners who were allowed to enter Grade Nine in a different study track, but who chose to repeat Grade Eight in the same study track. The fourth and final group were learners who had no choice but to repeat Grade Eight in the same or a different study

track. Strong negative effects of grade retention were reported; academic achievement of both groups of retained learners showed a deep decline at the end of Grade 12, while the results of the promoted students, independent of whether or not they changed study track, showed a relatively stable trajectory. The researchers suggest that to prevent a later drop in academic achievement, learners will benefit more from being promoted to the next grade in a different track than being retained. Furthermore, a case study in Ghana indicated that technical vocational education and training in emerging countries, such as Ghana and South Africa, could be used for national human resource development (Alagaraja & Arthur-Mensah, 2013). These findings are pertinent to the current investigation.

Current Research

In summary, there is a dire need for research related to career development in general and career maturity, specifically among adolescents from deprived socio-economic environments such as the township schools in South Africa that face the developmental tasks of crystallisation and specification, e.g. making informed and realistic career decisions. Retention is common practice for learners who do not achieve adequately academically. The main objectives of this practice are assumed to improve academic results and enhanced preparedness for the world of work. The focus of this study was specifically on these retained learners in this deprived environment, namely those most at risk. Contrary to the assumption underlying the practice of retention, we postulated that the poorer the academic results and career maturity were, the more often the learners were retained. Age, number of years delayed, academic achievement and career maturity were therefore investigated for learners "on track" ($\leq$ 18 years in Grade 11 and $\leq$ 19 years in Grade 12) and those "not on track" (> 18 years in Grade 11 and > 19 years in Grade 12) in Grades 11 and 12 in deprived socio-economic educational settings.

Three research questions regarding this investigation were explored. The *first* research question explored the relationship between age and academic achievement. In line with Lamote et al.'s (2014) longitudinal study (referred to above) we expected that "on-track" learners' academic achievement would be higher than the "not-on-track" learners' achievement (Hypothesis 1) – despite the latter group being retained to allow for future improved academic results. In line with Bedard and Dhuey's (2006) findings, we expected that a positive correlation between age and academic achievement would be found in the "on-track" group (Hypothesis 2). However, it was expected that within the group of "not-on-track" learners, academic achievement would drop with the amount of time learners were delayed (Hypothesis 3).

Our *second* research question pertained to the relation between career maturity and academic achievement. In line with Yon et al.'s (2012) research, it was expected that higher career maturity levels would be associated with higher academic achievement for both the "on-track" and the "not-on-track" groups independently (Hypothesis 4).

The *third* research question pertained to the interplay between career maturity, age and the number of years retained, expecting (Hypothesis 5) levels of career maturity to be higher in the "on-track" group compared to the "not-on-track" group; (Hypothesis 6) career maturity to increase with age for the "on-track" group; but (Hypothesis 7) expecting career maturity to decrease with number of years of delay in the group of "not-on-track" learners.

Method

Participants

Originally, data were gathered from 215 Grade 11 (105 male and 110 female) and 112 Grade 12 (69 male and 43 female) learners. In Grade 11, two learners (one male and one female) were excluded from further analyses due to incomplete career development questionnaires (i.e. respectively 18 and 20 missing values). In Grade 12, two male learners were excluded from further analyses for the same reason (i.e. 73 missing values and 56 missing values respectively in the career development questionnaire). No learners were excluded based on age or academic achievement. Data analyses were therefore conducted on 323 learners; 213 Grade 11 learners (104 male and 109 female) and 110 Grade 12 learners (67 male and 43 female). These data were gathered at a public township school in the Mangaung Metropolitan Municipality in South Africa. In 2016 in the Mangaung district, 34.3% of the individuals aged 25 and younger had not completed upper secondary schooling while the educational attainment of individuals aged between 25 and 64 in this district reflected the following: 4.7% had no schooling, 14% indicated primary schooling, 66.1% secondary schooling and 15.1% post-secondary schooling. Only 32.8% of the 15 to 34 year olds in this district were attending an educational institution (Statistics South Africa, 2017). The school where the research took place is a no-fee Quintile 3 public school. A recent longitudinal study by Van Broekhuizen, Van der Berg and Hofmeyr (2016) has indicated that the percentage of learners passing matric increases as the quintile increases e.g. the National Senior Certificate passing rate for the 2008 cohort was 45.8% for Quintile 1 schools, 51.0% for Quintile 2 schools, 57.3% for Quintile 3 schools, 72.6% for Quintile 4 schools and 93% for Quintile 5 schools. Only 12.1% of the learners in Quintile 3 schools

achieved good enough matriculation results to enter university (Van Broekhuizen et al., 2016). Only 45% of learners from Quintile 1–3 schools who had enrolled in any form of undergraduate studies had completed those undergraduate qualifications by the end of 2014, and only 24% of learners from Quintile 1–3 schools who entered university completed their undergraduate university degrees by the end of 2014 (Van Broekhuizen et al., 2016). Since 2014, the National Senior Certificate achievement rate in the school where the data were gathered has decreased from 82.0% to 65.9% in 2015 to 58.9% in 2016 (Department of Basic Education, Republic of South Africa, 2017b).

Although the language of instruction at the school is English, most of the learners' and educators' home language is Sesotho.

Two groups were constructed on grounds of learners' retention statuses – those "on track" (according to legal age norms) and those "not on track" (older than the expected norm). The age distribution of these learners is reflected in Table 1, distribution according to years of delay are presented in Table 2.

Table 1 Age descriptors for the total sample (N = 323)

	N (%)	Minimum age	Maximum age	Mean age	*SD*
On track	84 (26%)			17.59 years	.65
Male	30 (9%)	16.50 years	18.58 years	17.61 years	.54
Female	54 (17%)	16.25 years	18.83 years	17.57 years	.70
Not on track	239 (74%)			20.00 years	1.32
Male	139 (43%)	18.17 years	24.00 years	20.30 years	1.37
Female	100 (31%)	18.08 years	22.67 years	19.57 years	1.10

Table 2 Delay descriptors

Number of years delayed	Number of learners	Males	Females	%
0 (On track group)	84	30	54	26.0
1 (Not on track group)	96	46	50	29.7
2 (Not on track group)	68	36	32	21.1
3 (Not on track group)	37	26	11	11.5
4 (Not on track group)	34	27	7	10.5
≥ 5 (Not on track group)	4	4	0	1.2

Measurements

Due to the absence of data pertaining to detailed scholastic history, age was chosen to operationalise retention. This would imply that repeating a grade, delayed entrance and potential drop-out and re-entering the scholastic system were all included in our operationalisation of scholastic retention. Compulsory schooling (Grade 1) in South Africa commences in the year that the learner turns seven years of age. According to this criterion, the expected "on-track" age for a Grade 11 learner would therefore be 17 years of age and 18 years of age for Grade 12.

Starting in Grade 10, South African learners choose seven compulsory subjects (i.e. two official South African languages, Mathematics or Mathematical literacy, Life Orientation and three elective subjects). Matriculation results are based on these seven subjects and determine options for bursaries, university entrance, career choices and labour market prospects (Van der Berg & Shepherd, 2015). Regarding the measure of academic achievement, the learners' average percentage of these seven subjects served to operationalise academic achievement.

Career maturity levels were measured by means of the Career Development Questionnaire (CDQ, Langley et al., 1992). The CDQ is a 100-item scale involving five subscales referring to career maturity; each subscale consists of 20 items. These fives subscale are: (1) self-information (e.g. "I know my strengths and weaknesses"); (2) decision making (e.g. "I am an effective decision-maker"); (3) career information (e.g. "I made a special effort to obtain more information on the careers I am interested in"); (4) integration of self-information and career information (e.g. "I have the personal qualities for the career I am considering"); and (5) career planning (e.g. "I have already made plans to reach my career goals"). Career maturity, measured by the 100 items from the CDQ, presented a good to almost excellent reliability coefficient in our study (α = .88).

Data Analyses

Data were analysed and reported separately for the "on-track" and "not-on-track" groups. Levene's Test for equality of variances shows that equal variances of the CDQ and academic achievement can be assumed; the Shapiro-Wilk Test of normality indicates that a normal distribution for the CDQ in the group of "not-on-track" learners (W (235) = .979, $p < .01$) and academic achievement in both groups (Won track (82) = .905, $p < .01$; Wnot on track (235) = .983, $p < .001$) cannot be assumed. Therefore, correlations are reported using a non-parametric test (Spearman's rho) and means are compared using the Mann-Whitney's Non-Parametric Test.

Results

No significant gender differences within the groups of "on-track" and "not-on-track" learners on career maturity and academic achievement were found. However, in the "not-on-track" group male learners were significantly older than their female counterparts (U = 4 750.00; z = 4.174; p < .001; see Table 1). This result is in line with the earlier reported finding that male learners reflect a higher retention rate in South Africa compared to female learners (Department of Basic Education, Republic of South Africa, 2011). In the group of "on-track" learners, no age difference between male and female learners was found.

In this study, three research questions were examined. These research questions with their related hypothesis are described and will be discussed in this section.

The first research question was "*Does academic achievement differ for learners 'on track' and those 'not on track' and how are age and academic achievement correlated within the groups of 'on-track' and 'not-on-track' learners from deprived socio-economic contexts?*" Three hypotheses were derived from this first research question: (1) Hypothesis 1 proposed that *academic achievement in the "on-track" group will be higher than the academic achievement in the "not-on-track" group*; (2) Hypothesis 2 proposed that *age will be correlated positively with academic achievement in the "on-track" group*; and (3) Hypothesis 3 proposed that *number of years of delay will be negatively correlated with academic achievement in the "not on track" group*.

Our first hypothesis was confirmed. The academic achievement of "on-track" learners (M = 44.04%, SDM = 8.50; Mdn = 41.57) proved to be significantly higher than that of "not-on-track" learners (M = 40.32%, SDM = 7.57; Mdn = 39.29; U = 12 299.50; z = 3.26; p < .01). This indicates that learners who have been retained during their school career attain lower academic achievement compared to learners who have not been retained. Although we are aware that "not-on-track" learners were retained in the first instance because of poor academic achievement; the discrepancy remains significant, despite an opportunity to repeat the learning material and the policy intention to improve academic results.

A positive correlation between age and academic achievement was reported for learners "on track" (r_s = .330; p < .01). This confirmed our second hypothesis, and indicates that within the group of "on-track-learners", school marks increase with age.

In the "not on track" group, academic achievement and number of years of delay are negatively correlated (r_s -.151; p < .05), indicating that the more often learners were delayed, the worse they performed academically. This confirmed our third hypothesis.

The second research question explored was "*how are career maturity and academic achievement correlated within the groups of 'on-track' and 'not-on-track' learners from deprived socio-economic contexts?*" One hypothesis was derived from this research question: Hypothesis 4 proposed that *higher career maturity levels will correlate with higher academic achievement in both the 'on-track' group and the 'not-on-track' group*.

This hypothesis was confirmed as a significant positive correlation between career maturity and academic achievement was found in the "on-track" group (r_s = .246; p = < .05) and the "not-on-track" (r_s = .131; p = < .05) group, indicating that learners with higher academic achievement were also more career mature, irrespective of being retained or not.

The third and final research question that was explored in this study was the following: "*does career maturity differ for the 'on-track' and 'not-on-track' learners and how are career maturity and age correlated within the groups of 'on-track' and 'not-on-track' learners from deprived socio-economic contexts?*" Another 3 hypotheses are related to this research question as follows: (1) Hypothesis 5 proposed that *career maturity in the 'on-track' group will be higher than that in the 'not-on-track' group*; (2) Hypothesis 6 proposed that *career maturity will increase with age for the "on-track" learners*; and (3) Hypothesis 7 proposed that *career maturity will decrease with age and number of years of delay in the group of "not-on-track" learners*.

Although career maturity levels were slightly higher in the "on-track" group compared to the "not-on-track" group, this difference was not significant. This indicates that no difference in career maturity between learners "on track" and "not-on-track" was found. Hypothesis 5 was therefore not confirmed. Future research will need to be conducted in order to investigate this unpredicted finding further.

No significant correlation between career maturity and age was found in the group of "on-track" learners, indicating that career maturity does not increase or decrease with age for this group. Hypothesis 6 was therefore also not confirmed and future research will be needed to explore possible reasons for this finding. However, Grobler, Lacante, et al. (2014) similarly found a decrease in career maturity when learners from disadvantaged school transitioned from Grade 11 to Grade 12.

A negative correlation between career maturity and age (r_s = -.229; p < .001) and career maturity and number of years' delay (r_s = -.207; p < .01) was found in the "not-on-track" group. This

indicates that within the group of learners who were retained during their school career, career maturity decreased as the time delay in school career increased. This confirmed our seventh and final hypothesis.

Discussion

According to Lamote et al.'s (2014) research, it would be expected that: (1) retained learners would achieve academically lower compared to learners who have never been retained; and (2) that retained learners would show a significant drop in academic achievement after being retained. Our findings supported this research, showing that: (1) "on-track" learners attained higher academic achievement compared to retained learners (Hypothesis 1); and (2) retained learners' academic achievement decreased with the number of times they had been retained (Hypothesis 3). In line with Bedard and Dhuey's (2006) findings, Hypothesis 2 was confirmed by the finding of a positive correlation between age and academic achievement in the "on-track" group. In line with Yon et al.'s (2012) results, learners with higher career maturity levels also attained higher school marks in both the "on track" and the "not-on-track" groups (Hypothesis 4).

Our results suggest that although career maturity levels between retained and "on-track" learners did not differ significantly (Hypothesis 5), being retained multiple times did relate to lower career maturity levels (Hypothesis 7). More research is needed to investigate why, against expectations, no significant difference in career maturity levels between the "on track" group and the "not-on-track" group was found. Further research might investigate whether this finding is applicable for schools in deprived socio-economic contexts in general or only in this specific school.

The notion that career maturity increases with age is widely accepted and reported (e.g. Kornspan & Etzel, 2001). Yet, our research indicated that the career maturity of learners both in the "on track" and the "not-on-track" groups from a deprived socio-economic environment did not increase with age towards the end of these learners' scholastic careers – a pivotal period when career decisions have to be made. For learners in the "on-track group", career maturity levels did not increase with age (Hypothesis 6). Moreover, in the "not-on-track" group, career maturity decreased with the number of years the learners had been delayed (Hypothesis 7). The finding that career maturity did not increase with age for learners from a deprived socio-economic context, were in the same direction as those reported by Grobler, Lacante, et al.'s (2014) study that described a significant drop in career maturity in learners from deprived socio-economic contexts when transitioning from Grade 11 to Grade 12. Interestingly, Grobler, Lacante, et al. (2014) only found this result for learners in schools in deprived socio-economic environments; the opposite result, i.e. an increase in career maturity when transitioning from Grade 11 to Grade 12, was reported for learners from advantaged and transition schools. Further research is called for to explore why, contrary to what is generally described, a negative relation between career maturity and age in this group of learners from deprived socio-economic contexts is found.

The finding that in the group of retained learners, career maturity decreased the older they became and the longer they stayed in the schooling system after the expected graduation age, is problematic for the individual, and for the country at large, as career maturity is important to make well-informed, mature, well thought-through decisions. Also, research showed that higher career maturity at high school increases the likelihood of entering tertiary education and graduating from it (Maxwell & Rubin, 2001), and that a higher level of career maturity supports a successful entry into the labour market (Lapan et al., 2007).

The conclusion may therefore be drawn that the risk of not obtaining the National Senior Certificate – accompanied by lowered levels of career maturity as they get older – is the greatest for learners from deprived socio-economic contexts who, moreover, have been retained repeatedly. The system of "progression" was intended to provide a solution for learners to stay in the scholastic system and graduate from it successfully. However, despite these progressed learners reaching Grade 12, they appeared to experience great difficulty in attaining their National Senior Certificate, as was witnessed by the drop in matriculation rates in 2015, which was mainly attributed to the inclusion of these progressed learners (Quintal, 2016).

Van der Berg (2015) reported academic and labour market prospects to be bleak for learners who are no longer on track by Grade Four. Spaull and Kotze (2015) argue that the uneven functioning of the South African schooling system further widens learning gaps. Profound improvements in learner performance are required in the Foundation Phase, before learner deficits have become too high and have fallen too far behind (Van der Berg, 2015). Furthermore, a larger focus ought to be on ensuring that a larger proportion of the learners who reach Grade 12, pass their National Senior Certificate Examinations (Gustafsson, 2012). We argue that – in addition to the first step of improving learner performance - the practice of retention on the one hand, and progression on the other hand, does not serve its intended goal of improved academic achievement and more time to prepare for the world of work, and might create more concerns in the long run. Repeatedly retained learners are severely at risk of dropping out of school, as approximately 60% of the learners that

enter the schooling system complete Grade 12; while 40% of the learners drop out of the system after repeated failure (Department of Basic Education, Republic of South Africa, 2017a). In the group of learners that partook in this research, the chances of being retained during their school career are higher than the chances of never being retained (e.g. 24% in the "on-track group" and 76% in the "not-on-track group"). Even in the event of these learners completing their schooling, their lower levels of career maturity remain problematic, since this maturity is required to ensure that mature and realistic career decisions regarding their futures are made. It is crucial to develop career maturity (e.g. gathering and integrating information about the self and the environment, and acquiring decision-making and career planning skills) in order to make mature decisions in the present and the future regarding educational and vocational careers and helping to curb poverty and unemployment in South Africa. According to Gustafsson (2012), access to subjects with a relatively strong vocational focus and promotion of scare skills, is low overall and especially so in schools from impoverished socio-economic contexts. Improving this access through relevant facilities and teacher training, could be beneficial for learners' post-school opportunities.

Furthermore, South Africa is burdened by an undersupply of skilled people (vocational workers, technical workers and educated people) and an oversupply of unskilled work-seekers (Flederman, 2009). Many jobs are available in the vocational sector, and special attention needs to be paid to this sector to make people aware of the importance of these jobs and the associated future prospects. Addressing the inadequate levels of learners' career maturity and providing an enhanced focus on alternative educational opportunities, especially for learners most at risk, is necessary to ensure that all learners are afforded a fair and equal opportunity to progress educationally and contribute economically to a global society.

Future Directions

More research is called for to investigate and understand the complex processes of academic achievement and career maturity, especially within the group of deprived socio-economic learners and particularly within the group of learners who have been retained repeatedly as this group shows even more unfavourable developments compared to the "on track" learners from the same socio-economic deprived groups. Furthermore, future research is needed to explore and identify variables that moderate and/or mediate the relationships between career maturity, age and academic achievement. Variables such as hopelessness, lack of optimism, resilience and low future orientation might be able to explain why no difference in career maturity between the "on track" group and the "not-on-track" group, was found (Hypothesis 5) and why no relation between age and career maturity was found in the "on track" group (Hypothesis 6). Moreover, it is possible that advantaged learners and learners from deprived socio-economic contexts differ on these variables. Additionally, longitudinal studies are needed to investigate the (possible) causal relationship between early learning failing in the Foundation Phase and further prospects in primary school (retention, etc.), secondary school (retention, dropout, career maturity, etc.) and potentially in tertiary education (e.g. completing undergraduate studies or not, time to finish undergraduate degree, postgraduate degree, etc.). This research was conducted in one school in a socio-economically deprived context; future research should ideally include a representative sample of schools.

Conclusion

To conclude, it has become clear that in order to increase learners' prospects towards their futures, improving learner performance (e.g. Gustafsson, 2012; Van der Berg, 2015) is necessary. Improved learner performance in primary school will reduce retention, progression and dropout later on. In addition, to ensure that all learners are afforded a fair and equal opportunity to progress educationally and contribute economically to a global society, more resources and evidence-based interventions are called for in general, and in deprived socio-economic communities specifically. Appropriate career development interventions that encourage career skills from a young age and which ultimately lead to mature career decisions, are much needed. Career guidance and counselling will help learners make well-informed, well thought-through decisions based on what fits best with them, considering their interests, strengths, academic performance, etc. This will, in turn, lead to better learner performance. The much needed professional career guidance and counselling will contribute to improving learning outcomes, by guiding learners in academic, technical and vocational schooling. This in turn, may reduce dropout figures in school and contribute positively to unemployment and the oversupply of unskilled work-seekers in the labour market, especially in developing economies like South Africa.

Note

i. Published under a Creative Commons Attribution Licence.

References

Alagaraja M & Arthur-Mensah N 2013. Exploring technical vocational education and training systems in emerging markets: A case study on Ghana. *European Journal of Training and Development*, 37(9):835–850. doi: 10.1108/EJTD-04-2013-0037

Bedard K & Dhuey E 2006. The persistence of early childhood maturity: International evidence of long-run age effects. *The Quarterly Journal of Economics*, 121(4):1437–1472. doi: 10.1093/qje/121.4.1437

Branson N, Hofmeyr C & Lam D 2014. Progress through school and the determinants of school dropout in South Africa. *Development Southern Africa*, 31(1):106–126. doi: 10.1080/0376835X.2013.853610

Creed P, Prideaux LA & Patton W 2005. Antecedents and consequences of career decisional states in adolescence. *Journal of Vocational Behavior*, 67(3):397–412. doi: 10.1016/j.jvb.2004.08.008

Department of Basic Education, Republic of South Africa 2011. *Report on dropout and learner retention strategy to Portfolio Committee on Education*. Pretoria: Department of Basic Education, Republic of South Africa. Available at http://www.education.gov.za/Portals/0/Documents/Reports/REPORT%20ON%20DROPOUT%20AND%20ETENTION%20TO%20PORTFOLIO%20COMMITTEE%20JUNE%202011.pdf?ver=2015-03-20-120521-617. Accessed 22 April 2016.

Department of Basic Education, Republic of South Africa 2016. *Annual report 2014/15*. Pretoria: Department of Basic Education, Republic of South Africa. Available at http://www.education.gov.za/Portals/0/Documents/Reports/DBE%20Annual%20Report%20201415.PDF?ver=2015-10-07-093856-740. Accessed 22 April 2016.

Department of Basic Education, Republic of South Africa 2017a. *National Senior Certificate Examination Report 2016*. Pretoria: Department of Basic Education, Republic of South Africa. Available at http://www.education.gov.za/Portals/0/Documents/Reports/NSC%20EXAMINATION%20REPORT%202016.pdf?ver=2017-01-05-110635-443. Accessed 11 February 2017.

Department of Basic Education, Republic of South Africa 2017b. *National Senior Certificate School Performance Report 2016*. Pretoria: Department of Basic Education, Republic of South Africa. Available at http://www.education.gov.za/Portals/0/Documents/Reports/NSC%20SCHOOL%20PERFORMANCE%20REPORT%202016.pdf?ver=2017-01-05-110731-030. Accessed 11 February 2017.

Flederman P 2009. Navigational tools for learners, really? What is available, what are the challenges and what should be done? An environmental scan of the careers guidance field in South Africa. In South African Qualifications Authority (SAQA). *Career guidance challenges and opportunities*. Waterkloof, South Africa: SAQA. Available at http://www.saqa.org.za/docs/genpubs/2009/career_guidance.pdf. Accessed 17 May 2017.

Fraser WJ & Killen R 2003. Factors influencing academic success or failure of first-year and senior university students: do education students and lecturers perceive things differently? *South African Journal of Education*, 23(4):254–260. Available at https://www.ajol.info/index.php/saje/article/view/24943/20629. Accessed 13 May 2017.

Grobler AA, Knight MR, Lens W & Lacante M 2014. Motivational predictors of successful transition from grade 11 to 12 in South Africa. *European Journal of Psychology of Education*, 29(4):693–709. doi: 10.1007/s10212-014-0223-8

Grobler A, Lacante M & Lens W 2014. *Transition from secondary education to higher education: A three-year longitudinal cognitive-motivational analysis*. Bloemfontein, South Africa: SUN MeDIA.

Gustafsson M 2012. *The when and how of leaving school: The policy implications of new evidence on secondary schooling in South Africa*. Stellenbosch Economic Working Papers: 09/11. Stellenbosch: Department of Economics and the Bureau for Economic Research, Stellenbosch University. Available at https://ideas.repec.org/p/sza/wpaper/wpapers137.html. Accessed 17 May 2017.

Jensen R 2010. The (perceived) returns to education and the demand for schooling. *The Quarterly Journal of Economics*, 125(2):515–548. doi: 10.1162/qjec.2010.125.2.515

Kornspan AS & Etzel EF 2001. The relationship of demographic and psychological variables to career maturity of junior college student-athletes. *Journal of College Student Development*, 42(2):122–132.

Kriek J & Grayson D 2009. A holistic development model for South African physical science teachers. *South African Journal of Education*, 29(2):185–203. Available at http://www.sajournalofeducation.co.za/index.php/saje/article/view/123/149. Accessed 13 May 2017.

Lamote C, Pinxten M, Van den Noortgate W & Van Damme J 2014. Is the cure worse than the disease? A longitudinal study on the effect of grade retention in secondary education on achievement and academic self-concept. *Educational Studies*, 40(5):496–514. doi: 10.1080/03055698.2014.936828

Langley R, Du Toit R & Herbst DL 1992. *Manual for the career development questionnaire*. Pretoria, South Africa: Human Sciences Research Council.

Lapan R, Aoyagi M & Kayson M 2007. Helping rural adolescents make successful postsecondary transitions: A longitudinal study. *Professional School Counseling*, 10(3):266–272. doi: 10.5330/prsc.10.3.u6j3j64h48p27w25

Loyalka P, Liu C, Song Y, Yi H, Huang X, Wei J, Zhang L, Shi Y, Chu J & Rozelle S 2012. *Can information and counseling help students from poor rural areas go to high school? Evidence from China*. Available at https://cepa.stanford.edu/sites/default/files/Information%20and%20Counseling%20--%20Students%20From%20Poor%20Rural%20Areas%20China.pdf. Accessed 7 April 2016.

Magopeni N & Tshiwula L 2010. *The realities of dealing with South Africa's past: A diversity in higher education*. Paper presented at the Tenth International Conference on Diversity in Organizations, Communities & Nations, Northern Ireland, 19–21 July.

Malingo B 2016. Pass rate disappoints. *The New Age*, 6 January. Available at https://www.pressreader.com/south-africa/the-new-age-gauteng/20160106/282660391403271.

Accessed 18 May 2017.
Maree JG 2012. Career adapt-abilities scale—South African form: Psychometric properties and construct validity. *Journal of Vocational Behavior*, 80(3):730–733. doi: 10.1016/j.jvb.2012.01.005
Maxwell NL & Rubin V 2001. *Career academy programs in California: Outcomes and implementation.* CPRC Report. Berkeley, CA: California Policy Research Center. Available at http://files.eric.ed.gov/fulltext/ED467000.pdf. Accessed 17 February 2016.
Metz AJ, Fouad N & Ihle-Helledy K 2009. Career aspirations and expectations of college students: Demographic and labor market comparisons. *Journal of Career Assessment*, 17(2):155–171. doi: 10.1177/1069072708328862
Ndimande BS 2012. Race and resources: black parent's perspectives on post-apartheid South African schools. *Race, Ethnicity and Education*, 15(4):525–544. doi: 10.1080/13613324.2011.618832
News24Wire 2015. South Africa's alarming university drop out rate, 19 May. Available at https://businesstech.co.za/news/general/87770/south-africas-alarming-university-drop-out-rate/. Accessed 18 March 2016.
Nguyen T 2008. *Information, role models and perceived returns to education: Experimental evidence from Madagascar*. Available at https://www.povertyactionlab.org/sites/default/files/documents/Nguyen%202008.pdf. Accessed 17 February 2016.
Otte FL & Sharpe DL 1979. The effects of career exploration on self-esteem, achievement motivation, and occupational knowledge. *The Career Development Quarterly*, 28(1):63–70. doi: 10.1002/j.2164-585X.1979.tb00085.x
Patton W & Lokan J 2001. Perspectives on Donald Super's construct of career maturity. International *Journal for Educational and Vocational Guidance*, 1:31. doi: 10.1023/A:1016964629452
Pieterse AM 2005. The relationship between time perspective and career maturity for Grade 11 and 12 learners. M.Soc.Sc dissertation. Bloemfontein, South Africa: University of the Free State.
Puukka J, Dubarle P, McKiernan H, Reddy J & Wade P 2012. *Higher education in regional and city development: The Free State, South Africa, 2012*. Paris, France: Organization for Economic Cooperation and Development (OECD). Available at https://www.oecd.org/edu/imhe/50008631.pdf. Accessed 17 February 2016.
Quintal G 2016. Matric results 2015: Pass rate drops to 70.7%. *Mail & Guardian*, 5 January. Available at https://mg.co.za/article/2016-01-05-matric-pass-rate-drops-to-707. Accessed 5 January 2016.
Spaull N & Kotze J 2015. Starting behind and staying behind in South Africa: The case of insurmountable learning deficits in mathematics. *International Journal of Educational Development*, 41:13–24. doi: 10.1016/j.ijedudev.2015.01.002
Statistics South Africa 2017. *Education Series Volume III: Educational enrolment and achievement, 2016*. Report 92-01-03. Pretoria: Statistics South Africa. Available at http://www.statssa.gov.za/publications/Report%2092-01-03/Report%2092-01-032016.pdf. Accessed 11 February 2017.
Stead GB & Watson MB 1998. The appropriateness of Super's career theory among black South Africans. *South African Journal of Psychology*, 28(1):40–43. doi: 10.1177/008124639802800107
Super DE 1990. A life-span, life-space approach to career development. In D Brown & L Brooks (eds). *Career choice and development: Applying contemporary theories to practice* (2nd ed). San Francisco, CA: Jossey-Bass.
Tau T 2016. Education system is 'sick'. *The Citizen*, 6 January.
Taylor S, Van der Berg S, Reddy V & Janse van Rensburg D 2015. The evolution of educational inequalities through secondary school: Evidence from a South African panel study. *Development Southern Africa*, 32(4):425–442. doi: 10.1080/0376835X.2015.1039710
Van Broekhuizen H, Van der Berg S & Hofmeyr S 2016. *Higher education access and outcomes for the 2008 national matric cohort*. Stellenbosch Economic Working Papers: 16/16. Stellenbosch, South Africa: Department of Economics and The Bureau for Economic Research, Stellenbosch University. Available at http://www.ekon.sun.ac.za/wpapers/2016/wp162016. Accessed 22 May 2017.
Van der Berg S 2015. *What the Annual National Assessments can tell us about learning deficits over the education system and the school career year*. Stellenbosch Economic Working Paper: 18/15. Stellenbosch, South Africa: Department of Economics and The Bureau for Economic Research, Stellenbosch University.
Van der Berg S & Shepherd D 2015. *Signalling performance: Continuous assessment and matriculation examination marks in South African schools*. Stellenbosch Economic Working Papers: 28/10. Stellenbosch, South Africa: Department of Economics and The Bureau for Economic Research, Stellenbosch University. Available at http://www.ekon.sun.ac.za/wpapers/2006. Accessed 23 May 2017.
Watson M, McMahon M, Foxcroft C & Els C 2010. Occupational aspirations of low socio-economic black South African children. *Journal of Career Development*, 37(4):717–734. doi: 10.1177/0894845309359351
Watson MB, Stead GB & De Jager AC 1995. The career development of black and white South African university students. *International Journal for the Advancement of Counselling*, 18(1):39–47. doi: 10.1007/BF01409603
Watts T 2009. The role of career guidance in the development of the National Qualifications Framework in South Africa. In South African Qualifications Authority (SAQA). *Career guidance challenges and opportunities*. Waterkloof, South Africa: SAQA. Available at http://www.saqa.org.za/docs/genpubs/2009/career_guidance.pdf. Accessed 17 May 2017.
Yon KJ, Joeng JR & Goh M 2012. A longitudinal study of career maturity of Korean adolescents: the effects of personal and contextual factors. *Asia Pacific Education Review*, 13(4):727–739. doi: 10.1007/s12564-012-9232-y

Yu D 2013. Youth unemployment in South Africa revisited. *Development Southern Africa*, 30(4-05):545–563. doi: 10.1080/0376835X.2013.830964