Career decision-making amongst high school learners: A descriptive-exploratory study from South Africa

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Abstract

The study examined factors influencing career decisions using a sample of high school learners in the Eastern Cape Province of South Africa. A mixed-method approach was utilised. In the quantitative phase of the study, a sample of 536 high school learners in South Africa filled out the Career Interest Inventory (Fisher & Stafford, 1999) in understanding factors that influence career decisions. Phase two sought to understand qualitatively how the identified factors from phase one influence the enactment of career decisions using focus groups with 60 learners drawn from the sample in phase one. Results from phase one showed that learners' career decisions were highly influenced by academic experiences and self-efficacy, parents, teachers, and peers, respectively. Learners perceived ethnic-gender expectations and negative social events as having low levels of influence when making career decisions. Female learners are significantly more highly influenced by parents, teachers, academic experiences, and self-efficacy than their male counterparts. Findings also reveal not only the complexity but also the sense-making that occurs when making career decisions. Implications are made based on these findings.

Keywords: Career counselling, career decisions, career development, high school learners;

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1. Introduction

There is a noted focus on paying attention to challenges that are prevalent within an educational context. In a study, Kozikoglu (2017) grouped these challenges to be related to themes such as: a) instructional challenges, b) relational challenges, c) adaptation challenges, and d) physical infrastructure and facilities of the school. Other challenges may also include issues to do with careers and the ensuing outcomes linked to these (Yasar & Turgut, 2019). Given changes happening within modern society, career choice enactment is difficult due to the many pressures affecting individuals (Kulcsar, Dobrean & Gati, 2020). Therefore, a need exists to diagnose problems faced within a school system and provide a platform to proffer solutions. The type of solutions must respond to challenges related to academic factors, academic skills, academic support, and career counselling issues (Lombard, 2020).

In South Africa, most learners face many frustrations. First, a lack of knowledge about careers (Chinyamurindi, 2016a; Maree, 2020), and this often comes about due to a lack of career preparation (Levinsohn, Rankin, Roberts & Schoer, 2014) and career guidance (Maree, 2020). Second, Chinyamurindi (2016b) noted a flux environmental context characterised by a 26.2% unemployment rate (Statistics South Africa, 2017). This state of affairs leaves young people vulnerable and in an acute situation (Levinsohn et al., 2014). Third, South African research concerning career choice issues, in general, is relatively sparse (Maree, 2016), which could be due to the low levels of literacy and a lack of career information (Guest, Lotze & Wallace, 2015). A solution to this has been proposed to consist of education, outreach, and awareness (Maree, 2020; Pettipas, Bernier & Walker 2016). In essence, there is a need for interventions, considering challenges presented in the international literature (Kozikoglu, 2017; Yasar & Turgut, 2019; Chinyamurindi, 2016a), that assist in improving aspects concerning decision-making for better choices.

The study's backdrop is influenced by views placing an important emphasis on studying how career decision-making occurs, especially amongst vulnerable groups (Chinyamurindi, 2016a). Career decision-making, though viewed to be a complex process, is one that can be linked to how an individual's self-identity and the quest for development occurs (Oosthuizen, Coetzee & Kruger, 2014). Thus, calls exist in understanding the factors that influence career decision-making and the complexity that accompanies such processes as a basis for making career counselling interventions (Vilhjálmsdóttir & Arnkelsson, 2013). For instance, it has been found that that complexity in social environment factors affect how learners experience learning (Atmaca & Ozen, 2019). Further, such complexity and the need to study it may also emanate from the classroom setting and how this affects not just teachers and learners but also the home front (Sorakin-Balli, Basari & Guldal-Kan, 2020).

The environment is argued as an important construct that influences teaching and learning issues and affects parents and teachers and learners (Khasawneh, 2011). This environment can include: a) the family environment (Kucukkaragoz, 2020), and b) the school environment (Sorakin-Balli et al., 2020). The emphasis within a South African context is placed on the environment's role in influencing career decisions, especially amongst the learners (Chinyamurindi, 2016b; Stead & Watson, 2006; Watson, McMahon, Foxcroft & Els, 2010). The thinking here could be that at this age, the vocational identity is still forming and malleable to external influences, thereby easily (Super, Savickas & Super, 1996) resulting in behaviours such as career exploration (Super, 1990) which leads to a stronger identity (Inkson, 2007). One way to aid learners in the making of career choice could be assisting in processes leading to the enactment of career decisions through information acquisition (Taveira & Moreno, 2003).

Within a South African context, Pillay (2020) argued that, given contextual challenges, the need exists to provide help and support in assisting with career guidance and counselling. This is noted as important, especially in sectors deemed to be critical in improving a nation's competitiveness (Chinyamurindi & Louw, 2010), and these being in Science, Engineering and Technology (SET) (Moletsane & Reddy, 2008). Thus, empowering learners in how they make career decisions by understanding the factors that influence career decisions and the processes leading to this can be vital in addressing the challenge of career indecision (Coetzee & Roythorne-Jacobs, 2012). Further, this can also be a useful basis through which both career counselling and educational interventions are proposed. Notably, assisting high school learners in making decisions around career choice helps them select the subject choices for tertiary studies and prepares them for the world of work (Hung, Shu-Shing & Lim, 2012; Irvine, Code & Richards, 2013).

1.1 Goal of the study

The study's goal was to examine the factors that influence career decision-making amongst a sample of high school learners within a South African context. This goal is guided by identifying the factors and exploring the extent of influence these identified factors have on career decision-making.

1.2 Research questions

The specific research question that guided the research was: What factors influence career decision-making amongst a sample of high school learners within a South African context, and to what extent do these factors manifest?

The rest of this paper follows a structure. First, the literature review is presented. This is followed by the methods used in this study. Finally, the paper concludes by discussing the findings of the study, including its contribution.

2. Literature Review

This section outlines the theoretical and empirical frameworks adopted in this study. The first section positions the theoretical overview underpinning the study. Linked to this by exploring the international and South African literature, the conceptual framework and underlying literature are presented. Finally, we position our rationale for this study.

2.1. Systems Theory Framework

The study hinges on the Systems Theory Framework (STF) (Patton & McMahon, 1999, 2006) as its underlying theoretical foundation. The STF is deemed comprehensive considering the individual life-span issues factoring in time and individual career complexity issues. The underlying premise around the STF is the consideration of factors that influence career decision-making. These have been noted to be those factors related to the *individual influence system* (e.g. age, personality, gender, beliefs, interests, and ethnicity), the *social influence system* (e.g. family, school, peers, and the media), and the *environ-mental-societal influence system* (e.g., geographic, political and socio-economic factors) (Stead & Watson, 2006). In essence, these sets of factors manifest in these varying systems of influence affect decision-making and how individuals enter and survive with economic systems (Stead, 1996; Stead & Watson, 2006).

The STF helps in the theorising of this work. First, the STF provides a map for understanding the origins of career counselling and the dilemma it is now facing (McMahon, Watson & Patton, 2015). Second, the STF allows for a lens through which the individual system and related factors (personal and contextual) interact (Patton & McMahon, 1999, 2006). This is because individuals do not live in

isolation; the individual system is connected with influences that comprise the individual's social system and the broader environmental/societal system (McMahon et al., 2015). Thus, the STF is deemed a useful framework in incorporating the linkages between the individual and context-specific factors (Patton & McMahon, 2006). This is a view supported by other theorists on the inseparability of career behaviours and influencing factors specific to the individual (e.g. Betz & Corning, 1993; Cochran, 1997; Krumboltz, 1994) and their context (e.g. Stead & Watson, 2006).

Further, the STF reinforces how these systems affect individuals through different points in their lives (McMahon et al., 2015). Chinyamurindi (2012) applauded the STF as assisting in giving a comprehensive picture of how career decision-making occurs through the range of systems it encapsulates. This becomes important, especially in countries noted to be undergoing a varying range of socio-economic challenges (Albien & Naidoo, 2016). Finally, the STF also places emphasis on the role of recursiveness and the role of events of chance in influencing career decision-making (Patton & McMahon, 1999, 2018). Stead and Watson (2006) commended the STF as accounting for factors that other traditional career theories may not consider, such as recursiveness and the role of events of chance. This has been a point that has received continued support (McMahon & Watson, 2007). These issues emerge as a rationale for using the STF in relation also to the research problem. The next sub-section presents the empirical literature on factors that influence career decision-making.

2.2. Empirical literature

The extant literature identifies some factors that influence how career decisions are made. The presentation will be made considering an international perspective and leading to the context under study in South Africa.

In the United States, there is an argument that the role of the development of the national economy is influential in the types of career paths that are chosen (Doyle, 2012). Usually, the movement appears to be towards those sectors of the economy with a positive outlook (Lee, Huh & Jones, 2016). This becomes an important consideration in the type of career paths that are chosen (Chuang, Lee & Kwok, 2020). This position appears to be supported by some seminal authors (e.g., Parsons, 1909; Zytowski, 1972) advocating that a match can exist between an individual in the form of their aptitudes, abilities, interests, and ambitions with a career choice. In essence, the match could be between the environment and the individual. Thus, individual-specific traits can inform the career choice that can be made (Lee, Lee & Dopson, 2019). This appears supported in South Africa, where those careers to be in sectors with a greater chance of employment are preferred (Oluwajodu, Blauw, Greyling & Kleynhans, 2015). Therefore, the need exists for career guidance interventions to be aware of such a trajectory (Chetty, 2012; Coetzee, 2012).

Another viewpoint appears to argue that the lack of resources impedes the enactment of career choice. Issues concerning the lack of resources are specific to South Africa and acknowledged to be an international phenomenon (Schindler & Schreiber, 2015). In South Africa, resources' challenge appears centered within the schooling system (Sedibe, 2011). This includes a lack of trained personnel to assist learners through career guidance (Pillay, 2020). This is something that has been going on for a prolonged period of time. Furthermore, it is noted that such challenges are flagged early in South Africa (Mathabe & Temane, 1993). Subsequently, this limits the choice and quality of decisions that can be made.

Internationally, there is also an acknowledgment of the challenge of factors in the schooling environment that affect career decisions and how learning occurs (Khasawneh, 2010; Kozikoglu, 2017;

Yasar & Turgut, 2019). Such challenges can limit and potentially render individual agency around decisions not to be exercised (Kulcsar et al., 2020). This requires a responsive agenda considerate of the role that the environment plays in affecting aspects of career decision-making and issues concerning teaching and learning within schools (Lombard, 2020).

Within a South African context, there is an argument concerning the influence of factors within the education system on learners and the communities they come from (Robertson & Graven, 2020). This pattern is also supported in the international literature (Yasar & Turgut, 2019). In the literature on careers, there is an argument that what happens in the classroom has a way of informing how career decisions are made (Chinyamurindi, 2016a; Geldenhuys & de Lange, 2007; Jordaan, Smithard & Burger, 2009; Myburgh, 2005). However, this can be limited due to the challenges that schools in South Africa face (Heeralal, 2014) attributed to the apartheid legacy the country is emerging from (Chinyamurindi, 2016a). For instance, Kheswa, Sandlana, and Kwatubana (2014) noted that some schools attended by learners in South Africa have challenges emanating from the historical past, and as a result, this affects learners in the present day. Given this, the enactment of career choice is likely to be affected, especially amongst learners (Mapotse, 2015). Another stream of empirical evidence pays credence to factors outside the classroom as influencing the enactment of career decisions. Some (e.g., Geldenhuys & de Lange, 2007) place impetus on factors within the learner's home, including their socio-economic status, as influencing access to career information and, eventually, career decisions.

Others (e.g., Austin & Cilliers, 2011; Koekemoer, 2014; Mudhovozi & Chireshe, 2012) found macro-economic factors as influencing and determining the enactment of career choice. Despite the context of influence, such a state of affairs has a way of affecting not only the educational but also job-related opportunities for the future (Abbott, 2013). Finally, other researchers have found individuals such as parents, relatives, and teachers (Chinyamurindi, 2012; 2016a; Myburgh, 2005) play a role in how learners make career decisions. From a social side, the presence of role models in friends and peers has also been found to influence how career decisions can be made (e.g., Arkhurst & Mkhize, 1999; Mudhovozi & Chireshe, 2012; Shumba & Naong, 2012).

2.3 Rationale for this study

We have been drawn to this research-based for two reasons. First, as academics in higher learning institutions, we have taken the advice of Maree (2014) that we should be instrumental in assisting young people (especially high school learners in this study's case) in making sound career decisions. This can be done by identifying the factors that influence career choice and the processes that accompany such activities. By doing this, career counselling interventions that assist vulnerable groups such as young people can be suggested (Chinyamurindi, 2016a). Finally, as lecturers within a higher education setting, we note that we are recipients of learners from the high school system. By understanding factors that influence career decisions, we can help learners make choices that impact the qualifications that learners study within a higher education context. This study seeks to make these contributions not only theoretically but also practically.

4. Method

For this study, we selected a mixed-methods approach using a combination of the quantitative and qualitative research approaches (Creswell, 2013). The purpose here was to first quantitatively identify factors that influence career decisions and then provide a qualitative explanation of how this happens. This was a suggestion guided by literature concerning such methods'

benefits (Denzin & Lincoln, 2013). The research was split into two phases, one and phase two, based on the adopted research approaches.

4.1. Phase one data collection

We adopted purposive sampling using six randomly selected high schools in East London, South Africa. The eligibility and exclusion criteria were mainly focused on including only learners in senior high school, i.e., grades 10, 11, and 12. All other learners were not included in the study. Data was collected from a sample of 556 learners out of the possible 720 learners who were part of the population. This yielded a response rate of 77%. This study design and ethics were approved by the institutional review board of Fort Hare University and the Department of Education in the Eastern Cape Province, South Africa. Eligible learners signed a consent form before completing an anonymous paper-and-pencil survey. In the case of those below the age limit of 18, parental consent had to be obtained.

4.2. The data collection instrument

The Career Influence Inventory (CII) (Fisher & Stafford, 1999) measured six factors that influence career decisions. The CII comprises six subscales with 35 items. The 35 items for all subscales were rated on a 5-point Likert scale with the following anchors: 1 = Strongly Disagree; 2 = Disagree; 3 = Neither Agree nor Disagree; 4 = Agree; and 5 = Strongly Agree. The career influence inventory had an overall reliability coefficient of 0.89 and moderate to high-reliability coefficients for all constructs ranging from 0.74 to 0.91 (Fisher and Griggs, 1995; Fisher and Stafford, 1999). The CII was revised and validated by various researchers (e.g., Grygo, 2006; Khasawneh, 2010). In terms of validating the CII, we conducted an exploratory (EFA) and confirmatory (CFA) factor analysis using the IBM Statistical Package for Social Sciences (SPSS) version 25 and AMOS, respectively. For assessing the reliability of the established items and factors, the Cronbach's alpha coefficient was adopted. The CII domains consist of six theoretical constructs with items that assess perceptions of events and interpersonal relationships that are believed to influence career decisions by measuring teachers', parents', and peers' influences; negative social events; high school academic experiences and self-efficacy; and ethnic-gender expectations. The CII can be completed in approximately 15 minutes. The EFA, CFA, and reliability analysis findings are discussed and presented in the results section. Biographical questions such as gender, race, and home language were also included.

4.3. Data analysis procedure

SPSS version 25 and AMOS were used for the analysis. Firstly, data was coded into SPSS, and thereafter, data analysis commenced. Exploratory factor analysis using SPSS and confirmatory factor analysis using AMOS was used to determine the items that load to specific theoretical constructs for the study's CII. To establish the presence of the six constructs for the CII, an exploratory principal component analysis with varimax rotation using Kaiser normalization was conducted using 35 quantitative items from the CII. After EFA, confirmatory factor analysis was conducted in order to establish the factor structures of the constructs. Several model fit indices and their criteria were used to examine the model's goodness-of-fit with the given dataset. After evaluating the model fit, we calculated the average variance extracted (AVE) for discriminant validity.

After establishing the constructs, the Cronbach's alpha coefficient was used to assess the reliability of these constructs. A descriptive analysis was used to describe the study's demographic features. A descriptive approach, coupled with a one-sample Wilcoxon signed-rank test for the mean responses of established constructs, was conducted to establish the participants' perceptions of the

established theoretical constructs. To establish the dominant construct/s that exist within the sampled organisation, a Friedman's two-way ANOVA test was conducted. For mean comparisons of the study's theoretical constructs on gender, a Mann-Whitney U test was used, which is a rank-based non-parametric test to determine if there are statistically significant differences between the mean ratings of the established constructs.

4.4. Phase two data collection

The purpose of phase two of the research was to qualitatively understand how exactly the identified factors from phase one influence career decisions through focus groups with 60 learners – 15 taken from each of the six participating schools. The attendance register was used, and the learners were selected by using simple random sampling. Focus group sessions provided a platform for participants to have a group discussion in understanding how they make sense of the phenomena under study (Silverman, 2013). Three focus group sessions were run and split into two sub-sessions: a) an ice-breaker exercise and b) a discussion on how each of the identified factors from phase one influences how the learners have made career decisions. The focus group sessions ran for at least an hour at the schools of the participating learners and followed a guide comprising: a) an introduction section to put the participants at ease; b) a session dedicated to understanding the careers the learners wanted to be in their adult years; c) understanding those factors influencing student career decisions; and finally d) a closing session where a recap was provided to the participants of the salient ideas presented during the focus group discussion. All focus group sessions were transcribed *verbatim*, with the researchers making notes as the sessions were running.

The transcribed focus group discussions were exported into QSR International's NVivo 9, a data analysis and management software package, for data analysis; this is useful when dealing with a lot of text, graphic, audio, and video data (Reuben & Bobat, 2014). Thematic analysis, a commonly used method of analysis in qualitative research, was used to reduce texts to codes that represented themes or concepts to capture the complex meanings within a textual data set (Guest, MacQueen & Namey, 2012).

To ensure data quality, three steps were taken. First, the researchers pre-tested the guiding questions used in the discussion components of the focus group sessions with a sample of 20 non-participating learners. Second, a process of content and face validity was conducted on the study's questions by consulting a) an educational psychologist, b) a research professor in education, and c) a qualitative research expert. Third, to ensure credible data, all the discussions were recorded through audio to transcription within twenty-four hours of the data being collected.

5. Results

5.1. Phase one results

The EFA retained 19 items from the 35 items of the CII. Explorations of various factor solutions were conducted employing additional extraction and data rotation methods to find the most parsimonious set of factors has been done. The most parsimonious result was achieved with six factors: using principal component analysis using varimax rotation with Kaiser normalization. The Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy was 0.792, above the commonly recommended value of 0.6, and Bartlett's test of sphericity was significant (Chi-square = 2325615; df = 171; p = <0.0001), and the communalities were all above 0.50. Given these overall indicators, exploratory factor analysis was deemed suitable, with 19 items having 16 items being eliminated. The cumulative variance accounted for with the eight established factors was 60.99%, which accounts for

almost 61% of the total variability. After evaluating the survey items and associated variables, the eight factors were named, "Peer Influence" for Factor 1, "Teacher Influence" for Factor 2. "Ethnic and Gender Expectations" for Factor 3, "Negative Social Events" for Factor 4, "Academic Experiences & Self-Efficacy" for Factor 5 and "Parental Influence" for Factor 6. All items have high loadings (i.e., all ≥ 0.60), suggesting strength to the constructs' empirical validity. These factors and their respective items (see Table 1) were then submitted to a CFA, which retained the 19 items.

Table 1: The Career Influence Inventory EFA, CFA, and internal consistency output

Factor/Item	EFA Loadings	CFA Loadings	Alpha if Item Deleted
Factor 1. Peer Influence			
My friends served as role models for me.	0.713	0.593	0.699
My friends were interested in doing well in school.	0.703	0.627	0.691
My friends encouraged me to do my best in school.	0.691	0.681	0.681
My friends did not care about my career plans.	0.784	0.704	0.660
Cronbach's alpha = 0.741; Average Variance Extracted (AVE) = 0.43			
Factor 2. Teacher Influence			
My teachers expected me to keep trying when faced with obstacles.	0.609	0.574	0.606
My teachers encouraged me to do my best in school.	0.640	0.672	0.574
My teachers were interested in my career plans.	0.773	0.637	0.559
Cronbach's alpha = 0.681; Average Variance Extracted (AVE) = 0.40			
Factor 3. Ethnic and Gender Expectations			
My parents encourage me to perform well because of my sex.	0.818	0.653	0.625
My teachers expected me to work hard because of my sex.	0.817	0.775	0.549
My parents expect me to work hard in school because of my race.	0.686	0.602	0.688
Cronbach's alpha = 0.711; Average Variance Extracted (AVE) = 0.46			
Factor 4. Negative Social Events			
Some of my friends did not care about doing well in school.	0.782	0.614	0.633
Some of my friends became dependent on drugs.	0.771	0.742	0.577
Some of my friends died violently.	0.773	0.641	0.625
Cronbach's alpha = 0.703; Average Variance Extracted (AVE) = 0.45			
Factor 5. Academic Experiences & Self-Efficacy			
I felt confident about my ability to do well in high school.	0.773	0.695	0.515
I was aware of the strategies needed to be academically successful.	0.724	0.568	0.609
I felt competent in all subjects in school.	0.741	0.629	0.566
Cronbach's alpha = 0.660; Average Variance Extracted (AVE) = 0.40			
Factor 6. Parental Influence			
My parents expect me to keep trying when faced with obstacles.	0.622	0.614	0.562

My parents serve as role models for me.	0.764	0.652	0.521
My parents expected me to go to college.	0.709	0.624	0.492

Cronbach's alpha = 0.625; Average Variance Extracted (AVE) = 0.40

Note: For CFA the model fit parameters are Chi-square df = 2.242; CFI = 0.922; RMSEA = 0.048 and PCLOSE = 0.651. Overall Cronbach Alpha = 0.743.

Several model fit indices and their criteria were used to examine the goodness-of-fit of the model. Firstly, we considered factor loadings above 0.5 because several studies reported that factor loadings should be greater than 0.5 for better results (Truong & McColl, 2011), including in the tourism context, where Chen and Tsai (2007) also considered 0.5 as a cut-off for acceptable loadings. The Chi-square degree of freedom was less than the recommended cut-off point of 3 (cmin/df = 2.242), indicating a good fit. The comparative fit index (CFI) was greater than 0.90, also indicating a good model fit for the factor established structure. On the other hand, the root mean square error of approximation (RMSEA) and its associated goodness-of-fit parameter (PCLOSE) both revealed a good model fit with RMSEA = 0.048 (< 0.05 with a 90% confidence interval 0.041 − 0.055) and PCLOSE = 0.651 (which is recommended to be > 0.05 for good model fit).

The fitness indexes assessment results for the structural model of the confirmatory factor analysis show that the established model is adequate. Lastly, the Average Variance Extracted (AVE) was then calculated for each established construct. A minimum cut-off point of 0.5 is recommended, but 0.4 can be accepted provided the composite reliability is higher than 0.6, thus the convergent validity of the construct is still adequate (Fornell & Larcker, 1981). The internal consistency of the validated instrument was then examined using Cronbach's Alpha Coefficient. Our findings show that the Cronbach's alpha for the scales ranged from 0.625 to 0.741, which showed relatively good acceptable reliability coefficients for the established theoretical constructs (see Table 1). It is also important to note that the overall Cronbach's alpha for the validated instrument is 0.743.

Table 2 reports on the analysis of the biographical data in phase one of the research. The majority of the sample were females (57.65%, n = 309). Further, most of the sample classified themselves as Black Africans (92.35%, n = 495), with their home language being IsiXhosa (83.40%, n = 447).

Table 2: Characteristic of respondents

Variable	Description	Frequency	Valid %
Gender	Male	227	42.35
	Female	309	57.65
Race	Black African	495	92.35
	Indian	4	0.75
	Coloured	34	6.34
	White	3	0.56
Home language	IsiXhosa	447	83.40
	English	17	3.17
	Afrikaans	25	4.66
	Other	47	8.77

Note: N = 536.

From the 536 questionnaires, means and standard deviations for the six career influence variables based on the CII were computed (see Table 3). Cut-off points on the means were established to describe perceptions as "high influence" (H) if the mean score on the 5-point Likert scale was 3.5 or above and "low influence" (L) if the score was below 2.5. Mean scores within the 2.5 to 3.5 range were regarded as neutral. A comparison of the mean of the factors' distribution was desired, but due to the non-normality of the factors, a Wilcoxon signed-rank test was carried out. The one-sample Wilcoxon signed-rank test is a non-parametric alternative to a one-sample t-test when the data cannot be assumed to be normally distributed. We used it to determine whether the median of the factors is equal to a known standard theoretical median of 3.5 according to the established cut-off points.

Table 3: One-sample Wilcoxon signed-rank tests for the mean responses in order to determine the factors influencing career decisions

Factor/Construct	Mean (SD)	Observed Median	Test Statistic	Asymptotic Sig. (2-tailed
1. Peer Influence	3.88(0.80)	4.00	10.583	<0.0001**
2. Teacher Influence	3.96(0.78)	4.00	12.494	<0.0001**
3. Ethnic and Gender Expectations	2.99(1.15)	3.00	-8.644	<0.0001*
4. Negative Social Events	2.89(1.15)	3.00	-10.542	<0.0001*
5. Academic Experiences & Self-Efficacy	4.13(0.78)	4.33	15.154	<0.0001**
6. Parental Influence	4.11(0.82)	4.33	14.404	<0.0001**

SD – Standard Deviation. Statements were rated on a 5-point scale. (*) Represents a statistically lower median**.** (i.e., lower than the hypothetical median of 3.5). (**) Represents a statistically higher median**.** (i.e., Higher than the hypothetical median of 3.5).

As shown in Table 3, the observed medians for the items relating to peer influence were found to be above the 3.5 cut-off point (mean = 3.8, SD = 0.80, median = 4.00; p = <0.0001), indicating that peer influence was a highly influential factor for the participants in the study. Moreover, the items that relate to teachers' influence were also found to be above the 3.5 cut-off point (mean = 3.96, SD = 0.78; median = 4.00; p = <0.0001). This suggests that the influence of teachers was also highly influential for the participants in choosing their careers. Academic experience and self-efficacy was also identified to be an influential factor (mean = 4.13, SD = 0.78; median = 4.33; p = <0.0001) and so was parental influence (mean = 4.11, SD = 0.82; median = 4.33; p = <0.0001). Thus, participants felt that the influence that they get from their parents, as well as their academic experiences and self-efficacy, has a highly positive influence in choosing a career. Several items that concerned ethnic-gender expectations (mean = 2.99, SD = 1.15; median = 3.00; p = <0.0001) and negative social events (mean = 2.89, SD = 1.15; median = 3.00; p = <0.0001) were found to be significantly below the 3.5 cut-off point, thereby indicating levels of disagreement by participants wherein these items were not highly influential in their choosing of a career.

Table 4: Friedman's two-way ANOVA pairwise comparisons on the most influential factors

Sample 1 – Sample 2	Std. Test Statistic	Sig	Adj.Sig.
Peer Influence – Teacher Influence	2.106	0.035	0.211
Peer Influence – Academic Experiences & Self-Efficacy	-5.808	0.000	<0.0001*
Peer Influence – Parental Influence	6.565	0.000	<0.0001*

Teacher Influence – Academic Experiences & Self-Efficacy	-3.702	0.000	<0.0001*
Teacher Influence – Parental Influence	4.460	0.000	<0.0001*
Academic Experiences & Self-Efficacy – Parental Influence	0.757	0.449	1.000

Statistically significant differences (* $p < .05$). Each row tests the null hypothesis that sample 1 and sample 2 distributions are the same. Asymptotic significances (2-sided tests) are displayed. Significance values have been adjusted by the Bonferroni correction for multiple tests.

Of the identified influential factor/s, it was necessary to establish the dominant influential factor. To achieve this, Friedman's two-way ANOVA test was conducted. Table 4 shows that academic experiences and self-efficacy were rated significantly higher than peer influence and teacher influence. This was also a similar case for parental influence as it was regarded as significantly more influential than peer and teacher influence. There was significant evidence to conclude that of the influential factor, peer influence and teacher influence were regarded as less influential than academic experiences and self-efficacy and parental influence. The influential role of academic experiences and self-efficacy, and a parental influence, were significantly the same.

To examine if any statistically significant differences exist on the factors influencing career choice by gender, a non-parametric Mann-Whitney U test was conducted. Results in Table 5 show that there is statistically significant evidence to suggest that teacher influence (U = 28290.00; p = <0.0001), academic experience and self-efficacy (U = 29195.00; p = 0.001) and parental influence (U = 30489.50; p = 0.009) are more highly influential in females than males in their career decisions. On the other hand, peer influence (U = 31802.00; p = 0.063), ethnic and gender expectations (U = 32558.00; p = 0.173) and negative social events (U = 34391.50; p = 0.700) showed no significant differences in their influential role both on males and females.

Table 5: Mann-Whitney U tests for differences on the level of influence of the factors by gender

Factor/Construct	Male (n = 227)		Female (n = 309)		Mann-Whitney U Statistic	p-value
	Mean Rank	(Mean ± SD)	Mean Rank	(Mean ± SD)		
1. Peer Influence	254.10	(3.81 ± 0.79)	279.08	(3.92 ± 0.81)	31802.00	0.063
2. Teacher Influence	238.63	(3.81 ± 0.83)	290.45	(4.07 ± 0.73)	28290.00	<0.0001*
3. Ethnic and Gender Expectations	278.57	(3.08 ± 1.14)	260.21	(2.93 ± 1.16)	32558.00	0.173
4. Negative Social Events	265.50	(2.86 ± 1.09)	270.70	(2.91 ± 1.19)	34391.50	0.700
5. Academic Experiences & Self-Efficacy	242.61	(4.02 ± 0.78)	287.52	(4.22 ± 0.76)	29195.00	0.001*
6. Parental Influence	248.31	(4.02 ± 0.83)	283.33	(4.18 ± 0.81)	30489.50	0.009*

(*) Statistically significant differences in mean ranking.

5.2. Phase two results

Based on the results of phase one, which identified the following factors as having a high influence on the individual's career decision-making: a) parental influence, b) teacher influence, c) peer influence, and d) academic self-efficacy, phase two sought to investigate the aforementioned factors further and provide a rationale for explaining phase one's data. Table 6 presents illustrating quotes, together with themes that emerged as to why and how the identified factors from phase one influence career decision-making amongst the sample of learners.

Table 6: Illustrating quotes of main themes

Factor	Emerging theme	Example quotes
Parental influence	Position of authority and experience in life	*"I did not have much of choice; my parents, especially my dad, directed me to a career choice in medicine. I listen to him because he is my dad."* John
		"For me, history has been set; all my siblings are teachers following from my father and his grandfather. I have decided to continue the family tradition. Experience also teaches us, and jobs are just plenty in teaching." Nwabisa
		"Choice is what the white kids at Selbourne or Grey College have. For me, I had to listen to my uncle as he is my guardian. He knows best, and his suggestion for me was accounting. I have come to accept this." Siphokazi
Teacher influence	Position of authority and experience in life	*"My teacher is a role model; he is always available to assist with the challenges that we face; he is always encouraging us to study and even consider going to university. Through his influence, I have chosen a career as an actuarial scientist."* Noluthando
		"Our science teacher told us of her wishes to be a medical doctor. Unfortunately, due to apartheid, she could not enter the medical field. What I learnt from all this and her life-story is that she did not have a choice, but I do. So I want to take the opportunities available to me. The experience of my teacher motivates me to do so." Thembani
		"Mr. Mali always asks us to think before we decide. I now see how important this is, especially when making a career choice. Thankfully he also gives us time during life orientation class to help us not make good choices but also think." Thozama
Peer influence	Role identity and peer influence	*"My friend and I love traveling a lot and meeting new people. Based on this like, we really think a career in tourism is best for us. We just see it like that and help each other along the way."* Sivuyile
		"Some of my friends have fallen victim to a life of crime and drugs; I see myself influencing the one friend I have left to think above all this. It is the only way out of the township life. I see my best friend, Sdi, as a person I want to be like each day, focused on their dream." Billy

		"We have formed a club called the Township Brother; our aim is to influence each other for good and to be people that live a life that matters. So we are there for each other physically and also through our dreams and ambitions." Sabelo
Academic Experiences & Self-efficacy	Feedback from class performance	*"I am more comfortable with biology as compared to the social subjects; this is one of the subjects I not only perform better but look forward to each time. I am hoping to be a botanist one day.* Robbie
		"Wake me up anytime, pick a topic, and we can debate together. I am doing so well in History and also English. So for me, I know which career path to follow, it must have History or English." Themba
		"I do not see myself as a numbers person, [it is] too difficult, and so I am putting efforts towards a career in law. I am just not doing well with the numbers." Funeka

6. Discussion

This study aimed to examine the factors that highly influence school learners in making career decisions and explaining them. In achieving this, a mixed-methods approach was used. The quantitative section of this research helped identify four main factors influencing career choice: 1) parental influence, 2) teacher influence, 3) academic experiences and self-efficacy, and 4) peer influence. These identified factors are in line with previous studies (e.g., Chinyamurindi, 2012, 2016a, 2016b; Watson et al., 2010) and can be thought of as assisting in developing a self-identity (Oosthuizen et al., 2014). The qualitative section of this research moved attention away from just identifying factors but also explained the nuances and complexities that accompany the enactment of career choice (Coetzee et al., 2012) argued to be prevalent especially dealing with modern-day learners in their transition to adulthood (Hung et al., 2012; Irvine et al., 2013). Thus, using a mixed-method approach appears to form a useful basis through which rich information (subjective and objective) can be gathered and where career counselling interventions can emerge (Maree, 2014).

The findings of this research also reveal how complicated the enactment of career choice can be, especially on how young people place value on the role of complexity (Chinyamurindi, 2016a) while at the same time highlighting the inter-relatedness of the identified factors in making career choices (Patton & McMahon, 1999). For instance, in previous studies, parents and teachers were found to influence career decision-making (Chinyamurindi, 2012, 2016a; Heeralal, 2014). However, as this study illustrates, this influence appears to stem from a power base informed mainly from a position of authority due to social standing. Given this responsibility, career counselling interventions should not ignore such individuals' empowerment, as argued by Mapotse (2015). In our work, we note a common thread in helping such individuals, the power of information (Taveira & Moreno, 2003). Thus, career counselling is effective when conducted within an institution of learning alone and within a socio-cultural milieu where ordinary yet influential people reside. Based on this, we have started the second phase of this project, where we visit schools and communities to offer career guidance information to learners, their peers, teachers, and parents.

Another finding of this work is its support to the social learning view of career development (Krumboltz, 1993), which places emphasis on the feedback attained from the academic performance as informing the career choices made. This finding has ramifications in assisting learners to enter into career paths that are deemed most needed by the economy, albeit the noted high unemployment South Africa faces (Oluwajodu et al., 2015), especially in the Eastern Cape Province of South Africa where our work is based. Based on this, subjects shunned by learners can receive attention from educationists in order to understand why this is so and to propose remedies. Further, within a classroom context, there is a need (as shown in this study) not to ignore peers' role in how career choices are made. This finding is similar to previous findings (e.g., Arkhurst & Mkhize, 1999; Mudhovozi & Chireshe, 2012; Shumba & Naong, 2012). However, our work appears to suggest that a basis for peer inspiration be informed by the way learners identify with each other based on similarity in life-events and challenges. Thus, some form of sense-making awareness is needed in understanding these events and challenges that learners face (Chinyamurindi, 2012) as they form a basis on which role-modelling is founded to cover the difficulties apparent in making a career choice (Vilhjálmsdóttir & Arnkelsson, 2013). A practical intervention here could be to chronicle the life stories of learners to create a platform for inspiration and a basis to learn not just about career choice but also the resolution of challenges accompanying this process.

7. LIMITATIONS OF THE STUDY AND RECOMMENDATIONS FOR FUTURE RESEARCH

The current study was limited to high school learners in selected schools in the Eastern Cape. The results show that most of the respondents were female students, and their home language is isiXhosa. The study's applicability is limited as it does not cater to other ethnic groups found in South Africa, and the schools under study are believed to be from a poor background, which might influence how they choose their careers. Future studies should explore a wide range of samples of different backgrounds to understand better the factors that influence career decisions. Different locations may also generate more significant insights that promote further understanding of the factors that influence career decisions. Though located and magnifying issues of career choice-making within a high school context, this work can be considered a useful window of learning for the higher education sector given the linkages between the two. Finally, future research should explore more factors that may affect the career planning of learners through extensive qualitative interviews and focus groups with learners, teachers, and parents.

8. IMPLICATIONS FOR PRACTICE

As a recommendation and based on our experience when conducting this study, institutions of higher education where we are based must take an active role in assisting high school structures around them. This can be done by ensuring that each university faculty and the community engagement office make it a priority to visit local schools to impart information related to careers. One of the most compelling arguments why this must happen lies in the eventuality of the university system being a receiving ground of the high school system.

The study also found that the factors that influence the students in their career choice stem from a power base informed mainly from a position of authority due to social standing. Career counselling interventions should consider the empowerment of such individuals and understand the socio-cultural dynamics the students live in. Career professionals should educate parents and teachers about the vital role they play in the learners' future career decisions. Also, because peer influence is based on students identifying themselves with others from the same background and who have experienced similar challenges, sense-making awareness is needed in understanding these events.

Chinyamurindi, W. T., Hlatywayo, C. K., Mhlanga, T. S., Marange, C. S. & Everson, T. C., (2021). Career decision-making amongst high school learners: A descriptive-exploratory study from South Africa. *Cypriot Journal of Educational Science*. *16*(1) 129-147 https://doi.org/10.18844/cjes.v16i1.5516

This can be done by chronicling the life-stories of students to provide a platform for inspiration and a basis.

9. CONCLUSION

This study carries a significant contribution to the existing literature on factors that influence career decisions. Ethnic-gender expectations and negative social events were perceived by learners as having low levels of influence when making career decisions. The study shows that learners' career decisions were highly influenced by academic self-efficacy, parents, teachers, and peers, respectively. It has been noted in previous studies that parents and teachers influence career decision-making; however, this study shows that this influence appears to stem from a power base that is informed mainly from a position of authority due to social standing. Girls who participated in this study are significantly more highly influenced by parents, teachers, and academic self-efficacy than boys. In addition, when it comes to peer influence, the study identified that peer influence is based on the way learners identify with each other concerning similarity in life-events and challenges. Understanding these factors will ensure students are given the right assistance in making choices that impact the qualifications that students study within a higher education context.

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