



Career Exploration in Mozambique: Exploratory Study with Secondary Students

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Abstract

This paper is part of a larger research project on the evaluation of career intervention needs in Mozambique. It consists of an exploratory study of the career exploration process of Mozambican students attending the 12th grade. The results of the construct validity and clustering analyses of the responses to the Career Exploration Survey (CES; Stumpf, Colarelli, & Hartman, 1983) are discussed, in the light of the career exploration theory and empirical research, namely the cognitive-motivational approach of career exploration proposed by the CES original authors. Implications for the design of career interventions in Mozambican socio-cultural context are also drawn.

Key-words: Career exploration, career interventions, adolescence, secondary education.

Introduction

Even with the scientific advancement of recent decades, career guidance remains a challenge in virtually all societies. Whatever the focus of concern in several countries, there are still many unresolved issues when the focus is the development of career intervention in school settings (Grispurn, 1994).

In Mozambique, the social reintegration of many children and young person's is a role assumed by the school system, which therefore should assume also an important role in the career guidance and career development of students. In this context, the valuable contributions of Vocational Psychology should be considered, because since the last 50 years, this field has provided valuable insights and empirical findings on the vocational behaviour of diverse populations, as well as on the models and methods of career intervention (Taveira & Silva, 2008).

In this regard, one of the major challenges of the current Psychology is to be able to reach a quota of people that are normally excluded from psychological practice. It has been questioned, even so, the type of training that the scholars in psychology have, to respond to this challenge, and whether this training actually facilitates the understanding of socio-cultural and economical diversity of populations to serve, contributing to the expansion of knowledge and of practice. We believe that this development is only possible through the contact with and through the study of the social reality that the researcher or practitioner wants to transform. This will help modify the elitist image of Psychology (e.g., Macedo, 1994).

These considerations are also the basis of more recent interest in studying the role of schools in educational and vocational guidance of young people, and in their career development at international level (e.g., Athanasiou & Estroock, 2008; Taveira, Coelho, Oliveira & Leonardo, 2004).

The evaluation of career intervention needs in Mozambique can be an added value to the development of practices culturally situated, and for the development of psychology itself, since it can be enriched by the research realities and problems of the African continent.

In Mozambique, it is important breaking the walls of universities and institutions in private sector, which perform some practice, with the help of career teachers, and conduct an exploratory study on the advantages and disadvantages of adopting career interventions and services for the population of public schools.

The present study aims at analyzing the cultural validity of the career exploration construct proposed by Stumpf, Colarelli and Hartman (1983), and the characteristics of the career exploration process of Mozambican 12th grade students, in order to derive implications for career interventions in schools.

Method

Subjects

The sample of this study is composed of 314 Mozambican students of both sexes (Boys N=120, 38.2%; Girls N=194, 61.8%) with ages ranging from 15 to 24 years (M=17.05; SD=1.23), attending the 12th grade in six secondary schools (public N=3; private N=3), in the capital Maputo and Matola city. Only 16% (N=47) of the sample registered they had previously received career guidance. The sample parental socio-occupational status includes: administrative qualified professionals (3%), scientific and technological qualified professionals (20.4%), intermediate qualified technicians and services professionals (36.6%), and less qualified or non-qualified workers (32.5%).

Procedure and Instrument

The subjects completed an informed consented form (explaining the research goals and confidentiality norms, and registration of voluntary participation), and the Career Exploration Survey (CES). The administration of the instrument occurred at the beginning of the school year, between March and April 2009.

Career Exploration Survey (CES; Stumpf et al., 1983, adapt. by Taveira, 1997). The CES is a multidimensional self-administered scale with 62 items using Likert-type response format, designed to assess six beliefs about exploration (employment outlook, certainty of career exploration outcomes, external search instrumentality, internal search instrumentality, method search instrumentality, and importance of preferred position), seven dimensions of the career exploratory behaviour (extent of environment exploration, extent of self-exploration, intended-systematic exploration, frequency, amount of acquired information, number of occupations considered), and three reactions to exploration (satisfaction with information, exploration stress and decision stress). The evidence for the multidimensionality, reliability and validity of the CES was assessed by Stumpf et al. (1983) on four studies with college students and professionals. Bhattacharya (1988) developed a version of CES for young adults, adding four new items to the self-exploration scale, one item to each of the stress scales, and a new four-item subscale measuring career decision-making instrumentality was introduced; additional satisfactory reliability data were obtained and reported for this version of the CES (Taveira, Silva, Rodriguez, & Maia, 1998, pp.91). With the exception of the single item of "number of occupations considered", this version of the CES was adapted to Portuguese 9th (N=700) and 12th (N=700) graders, and includes 53 items representing the following 12 dimensions: employment outlook, certainty of career exploration outcomes, external search instrumentality, internal search instrumentality, and importance of preferred position, extent of environment exploration, extent of self-exploration, intended-systematic exploration, amount of acquired information, satisfaction with information, exploration stress and decision stress. The factorial invariance of the dimensional patterns derived from exploratory factorial analysis was tested and evidenced in a confirmatory factorial analysis, both for gender and the two grade-level groups (Taveira et al., 1999).

In the present study, this refined version of the CES was factor-analyzed for construct validity, using the exploratory method of Principal Component Analysis. The findings indicated that a 11-factor model best described the data from Mozambican 12th graders, explaining a total variance of 56.6%. This model included 6 simple factors representing certainty of career exploration outcomes (F1, $\alpha = 0.59$), importance of preferred position (F4, $\alpha = 0.63$), amount of acquired information (F7, $\alpha = 0.55$), extent of environment exploration (F5, $\alpha = 0.67$), extent of self-exploration (F6, $\alpha = 0.58$), intended-systematic exploration (F3, $\alpha = 0.62$). The five remaining factors were more complex and comprised exploration and decision stress items (F1, $\alpha = 0.83$), internal and method instrumentality items (F9, $\alpha = 0.50$), career decision-making method, and external instrumentality items (F2, $\alpha = 0.75$), career decision-making and method instrumentality items (F8, $\alpha = 0.53$), and employment outlook and satisfaction with information items (F10, $\alpha = 0.46$). New studies of this version of the CES are under development. For the purpose of the present study, only the components with clearer dimensionality and more satisfactory consistency were used (F1 to F5).

Results and Discussion

The total sample means and standard-deviations for CES dimensions are presented in Table 1. Three exploration dimensions means are above the mid-point of the scale (ESI, IPI, EE), and two are below (ISH, EDS). These results indicate that, in general, the adolescents in this study reported fairly positive beliefs about the instrumental value of career exploration activities (the probability that exploring the environment for career opportunities will lead to obtaining career goals), salience of career goals (satisfactory degree of importance placed on obtaining one's career preference), and recent involvement in exploratory activities (extent of career exploration regarding occupations, jobs, and organizations within the last three months). However, these adolescents also reported low intended systematic action (the extent to which one acquires information on oneself and the environment in an intended and systematic manner) and strong anxiety (undesirable stress, relative to other significant life-events, with which one has to contend, felt as a function of the career exploration and the career decision-making processes), related with career exploration. These results are consistent with those registered in previous studies with north-American (e.g., Bhattacharya, 1988) and Portuguese students' samples (e.g., Taveira, 1997; Faria, Taveira, & Saavedra, 2008).

K-means clustering analysis offers the opportunity to compare and classify each subject results profile, in relation with the total sample career exploration pattern of results. The career exploration dimensions, sex and age groups were included as variables in the analysis. The final solution of five clustering was chosen (see Table 1). All the sample subjects were classified in the analysis.

Table 1
Career Exploration of Mozambican 12th graders: descriptive statistics and K-means clusters

Dimensions	Scale		Scores		Total (N=314)		Cluster 1 (N=50)	Cluster 2 (N=47)	Cluster 3 (N=64)	Cluster 4 (N=90)	Cluster 5 (N=66)
	Mid-point	Mean	Min	Max	Mean	SD	Mean	Mean	Mean	Mean	Mean
Beliefs	ESI-External Search Instrumentality (4 items, 5-point scale)	24	15	33	26.3	4.5	22.18	27.84	21.93	29.14	26.69
	IPI-Importance of Preferred Position (5 items, 5-point scale)	15	7	25	19.4	3.3	17.82	20.24	16.69	21.26	20.67
Behaviors	EE-Environment Exploration (4 items, 5-point scale)	12	4	20	13.0	3.7	12.98	14.16	11.42	13.77	13.02
	ISE-Intended-Systematic Exploration (3 items, 5-point scale)	9	3	15	6.9	2.8	7.20	6.44	6.97	7.05	6.71
Reactions	EDS-Exploration and Decision Stress (9 items, 7-point scale)	36	8	56	35.0	10.7	42.98	17.96	27.78	48.42	34.77
Gender Groups	Girls; Boys	-	-	-	-	-	1	1	1	1	1
Age Groups	15-16 years; 17-18 years; 19-24 years	-	-	-	-	-	1.68	1.80	1.66	1.80	1.72

The first cluster, named **Challenging Exploration**, classifies a subgroup of 50 (16%) subjects, mainly girls aged 16 to 17 years old, and who registers the highest intended-systematic exploration (above the sample mean value). Moreover, the levels of exploration and decision stress registered by this subgroup are higher than the sample mean values, while the levels of external exploration instrumentality and of importance of career preference are lower. The levels of exploratory behavior registered are around the sample mean values. This subgroup of students may require more appropriate support in their career exploration and decision activities from career practitioners, teachers and parents. This involves providing the students with well-planned experiences based on indoors and outdoors career exploratory activities, and on concrete experiences of self-narrative, critical thinking and questioning, in a nurturing but secure and reassuring helping context, where they feel accepted and valued, and helped in moving towards the achievement of their life-career aspirations.

The second cluster, named **Activation of Casual Exploration**, classifies a subgroup of 45 (14%) subjects, mainly girls aged 16 to 18 years old, who registers the lowest intended-systematic exploration and exploration and decision stress mean values, and the highest environment exploration. Besides, the mean values of external exploration instrumentality and of importance of career preference are lower than the sample mean values. These students would benefit from brief-structured career interventions, seeking to promote more intentional career exploration, centered on life-roles management and gender and societal issues, as a means for advancing in proximal career decision-making and in vocational identity construction.

The third cluster, named **Compromised Exploration**, classifies a subgroup of 64 (20%) subjects, mainly girls aged 16 to 17 years old, who registers the lowest values of external exploration instrumentality, of importance of career preference and of environment exploration, along with lower levels of exploration and decision stress and higher levels of intended-systematic exploration, when compared with the sample means. This subgroup could also benefit from brief-structured career interventions centered on promoting knowledge and essay of career decision-making and life-design processes.

The fourth cluster, named **Fager Exploration**, classifies a subgroup of 65 (21%) subjects, mainly girls aged 15 to 17 years old, who registers the highest mean values of external exploration instrumentality, of importance of career preference, and of exploration and decision stress, and higher levels of intended systematic exploration and of environment exploration when compared with the sample mean values. These students register an active pattern of career exploration which maintenance implies, among other things, self-regulation of anxiety levels. Career practitioners can help these students to evaluate, monitor and self-regulate the eventual negative emotional effects of career exploration, for example, through planned preventive career development workshops or career counseling interventions in secondary schools.

The fifth cluster, named **Normative Exploration**, classifies a subgroup of 90 (29%) subjects; mainly girls aged 16 to 17 years old. When compared with the total sample, this subgroup registers higher mean values of external exploration instrumentality, of importance of career preference and of environment exploration, and lower mean values of intended systematic exploration. Levels of exploration and decision stress are around the sample mean values, although slightly below. This subgroup of students can benefit from career practitioners' support designed to share developmental information on the role of career exploration in effective career decision-making and self-career management, and to raise students' sense of urgency in terms of career decision-making and planning.

Conclusions and Limitations

The study of the cultural validity of CES constructs and measures for use in Mozambique educational context needs further developments. Attention to individual characteristics in career exploration contributes to the design and implementation of effective career interventions in school settings.

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