

THE RELEVANCE OF A NEEDS ANALYSIS OF LIFE-SKILLS IN TERTIARY STUDENTS IN THE CURRENT SOUTH AFRICAN MILIEU

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OPSOMMING

Die studie behels die uitvoer van 'n behoeftebepaling ten opsigte van, lewenskundighede en vaardighede van voltydse 1992 ingeskrewe eerstejaarstudente aan die Vaaldriekhoekse Technikon, Vanderbijlpark. Ten einde die hipotese te evalueer, is respondente wat die self-evaluering Lewenskundighede en Vaardighede: Algemene Vraelys oor Lewenskundighede en Vaardighede, voltooi het, in taalgroepe opgedeel (Afrikaans, Engels en Afrika). Data verky, dui daarop dat daar wél 'n verskil is tussen die behoeftes van die groepe onderling, asook tussen die behoeftes van manlike en vroulike respondente. 'n Literatuuroorsig toon dat daar leemtes bestaan met betrekking tot lewens- en werkvaardighede van persone wat die arbeidsmark vir die eerste keer betree. Bevindinge bevestig die noodsaaklikheid van lewens- en werkvaardighede-opleidingsprogramme vir tersiêre studente wat kennis neem van kultuur- en taalverskille.

ABSTRACT

This study encompasses a needs analysis of life-skills in 1992, first-year full time students at the Vaal Triangle Technikon, Vanderbijlpark. To evaluate the hypotheses, respondents who completed the self-assessment Life Skills and Competencies: General Questionnaire on Life Competencies and Skills, were divided into language groups (Afrikaans, English, African). Data indicates differences between the needs of the language groups themselves and between male and female respondents. A literature review reveals that first-time entrants into the job market have defective life- and job-skills. The findings of this study confirms the necessity of a life- and job-skills training programme for tertiary students which takes cognizance of language and cultural differences.

One could infer from literature, that the presence or absence of life-skills would influence academic achievement, as available literature (Gazda, Childers & Brooks, 1987:150; Marais, Whittle, Puth, Bredenkamp, van Rooyen & Korb, 1988:24; Pickworth, 1990:77 & 1989:1; Sadie, 1988:9) stress, that the rapid changes occurring in South Africa in economic, political, social and educational fields make it essential for individuals to possess a wide range of life-skills in order for them to meet future challenges. The focus of this study was to conduct a needs analysis of life-skills, in order to identify the reported life-skill needs of 1992 first-year, full-time students at the Vaal Triangle Technikon and to stimulate research in other tertiary institutions.

Data obtained during 1992, indicate that in spite of selection according to the Swedish model, compulsory psychometric testing, career counselling, group study method workshops and individual counselling in study and examination techniques, as well as easy access to therapy, 33% of the first year, full-time students failed their courses. On the basis of a life-skills questionnaire, an assessment was made of what needs the aforementioned interventions were not addressing and whether any of these needs were reported by employers as defective skills in young employees.

For the purpose of this study, the definition as provided by Schmidt, Brown and Waycott (1988:113), who assert that the term "life-skills" is self-defining, in that it covers the skills and competencies an individual needs to enrich and sustain life, was applied. Hopson and Scally (1981:63) and Pickworth (1990:18) contend that life-skills contribute towards a greater range of alternative behaviours, which enable the individual to take charge of his/her life and which eventually leads to self-empowerment.

Matthee (1991:150) recommends that research on life-skills be conducted in a "multi-cultural" society. He states that this would make a contribution to counselling practices in the "New South Africa".

Pickworth (1990:77 & 1989:1) asserts that the fact that current society in South Africa is changing, can not be denied and that even if these changes have become a cliché, it is a known fact that South Africa is moving from an industrial era to an information era, this change being characterized by an information explosion. In addition to this, Studd (1981:36) asserts, that many individuals will not find employment as a result of the changes occurring world-wide. Pickworth (1989:1; 1990:77) and Van Rensburg (1992:5) contend, that chronic unemployment is already a feature of modern life in South Africa and that the key to our future lies in knowledge, skills and services.

Viewing the increasing number of black students who enroll at tertiary training institutions, Van Rensburg (1992:18) concludes, that it is evident that there is a need to facilitate the optimal self-realization of the individual's potential. However, he cautions that these disadvantaged youths are functionally illiterate and do not possess the basic life-skills needed to become self-supporting, productive workers and full members of society.

It is inferred from the above, that it is evident that the demand for the supply of suitably skilled people is increasing in a rapidly changing South Africa, together with its urgent need for economic and industrial growth. A conclusion is that there is a need for training in technological and work-skills, as well as for stable individuals who have acquired the needed life-skills. Presently institutions in South Africa, especially at tertiary level, tend to concentrate on the so-called academic and related practical skills, centered around a chosen career.

The research aim is to identify the life-skills needs of Group 1 (total group) and to compare the different group's reported life-skills and competency needs with regards to Community and Social Development; Development of Person and Self; Self Management; Physical and Sexual Development; Career Planning and Life and World Orientation.

Available literature on the employers' expectations of first-time entrants into the job market was also reviewed (See Raijmakers, 1993:42-56 & 105-107).

RESEARCH DESIGN

The Respondents

The respondents consist of first-year full-time students at the Vaal Triangle Technikon, who reported for the compulsory psychometric testing on 10 and 13 January 1992. The test battery included the Life Skills and Competencies: General Questionnaire on Life Skills and Competencies. The respondents were regarded as a population (N=1129). Group 1 consisted of 1129 students (Male 578, Female 551). Group 1 was split into Group 2 [white Afrikaans-speaking (N=695), 351 Male, 344 Female], Group 3 [white English-speaking (N=147), 70 Male, 77 Female], and Group 4 [African language students (N=184), 101 Male, 83 Female]. Group 5 [African language students (N=103), 56 Male, 47 Female], consisted of students who completed the questionnaire on 23 and 24 March 1992. These respondents were included, as the researcher found that information could not be generalized to the total first-year full-time student population, as only 184 out of a total of approximately 435 expected African language students, completed the compulsory psychometric test battery. To control for the learning effect, Group 5 was not incorporated into Group 4, as significant differences were found between the data obtained on the two test dates.

Measuring instrument

The Life Skills and Competencies: General Questionnaire on Life Competencies and Skills, edited by Jacobs, Olivier and Gumede (1992), was used (Human Sciences Research Council, Catalogue Number 3083). This self-assessment questionnaire was available in both English and Afrikaans. The 150 questions address six broad fields, which each has five sub-fields i.e. *Community and Social Development*: Mental Health, Community responsibility, Human rights, Road safety and Technological development; *Development of Person and Self*: Leadership, Literacy/Education, Self-concept/Self-assertion, Peer group influence and Identity development; *Self Management*: Time and self-management; Financial management, Handling stress, Study methods, Communication skills; *Physical and Sexual Development*: Sex guidance, Alcohol and drug abuse, Exertion and recreation, Healthy life style, Acceptance of one's own body; *Career Planning*: Entrepreneurship [Initiative], Problem-solving and decision-making, Finding and keeping work, Career planning and development, Work values; *Life and World Orientation*: Religious orientation, Life-and-world orientation, Political orientation, Cultural orientation, Family education. Matthee (1991:79 & 182) asserts, that the questionnaire is scientifically accountable, as it meets the requirements of an objective testing instrument, in that specific and uniform test instructions are used and the responses marked by using a scoring key.

Procedure

As the Vaal Triangle Technikon is a multi-cultural, dual-medium, tertiary institution, which attracts students from the Pretoria, Witwatersrand and Vaal Triangle (Gauteng) areas, it was decided to include in the study all the 1992 first-year full-time students who registered on 9 and 10 January 1992. No distinction is made based in respect of the academic course registered for. Adkins (1984:49) emphasizes the importance of first conducting a needs assessment and states, that it is essential to attempt to find out from the target population "where they hurt". The aim is to identify the psychological and social problems the individuals can not solve themselves. He refers to the various living problems that cause the target population emotional pain and distress e.g. anxiety, despair,

fear, hate or boredom. Studd (1982:37) stresses that needs assessments indicate that students need help in discovering their strengths and abilities, as well as in choosing jobs which are consistent with their own values.

Hypotheses tested

Ho₁: No life-skills and competencies needs will be identified in the total group (Group 1) of the respondents, as specified by the Life Skills and Competencies: General Questionnaire on Life Competencies and Skills.

Ho₂: There will be no difference between the life-skills and competencies needs of Groups 2, 3, 4 and 5, as specified by the Life Skills and Competencies: General Questionnaire on Life Competencies and Skills.

Ho₃: There will be no difference between the life-skills and competencies needs of the male respondents in Groups 2, 3, 4 and 5, as specified by the Life Skills and Competencies: General Questionnaire on Life Competencies and Skills.

Ho₄: There will be no difference between the life-skills and competencies needs of female respondents in Groups 2, 3, 4 and 5, as specified by the Life Skills and Competencies: General Questionnaire on Life Competencies and Skills.

RESULTS

The Statistical Analysis System (SAS) computer programme (SAS Institute, 1985) was used to analyze the data. To identify like-skills and competencies for the groups, the average percentage "yes"-responses were calculated. Results obtained for Group 1 are presented in a table of frequency scores of 50% and higher "yes"-responses (Table 1). Effect sizes (Cohen 1977:20) were calculated for Groups 2, 3, 4 and 5, to determine whether there were significant differences between the needs reported by these groups, as well as those reported by the males and females. Effect sizes were used to confirm practical significant differences between group means (Cohen, 1977:20). The effect sizes for a difference between groups, is defined as: $d_{23} = (\bar{X}_2 - \bar{X}_3)/S_{23}$ where \bar{x}_2 and \bar{x}_3 are the mean scores for groups 2 and 3 respectively, while S_{23} is the mean of the standard deviations of groups 2 and 3 (Cohen, 1977:20). In the same way, effect sizes d_{24} , d_{35} and d_{25} are obtained.

Life-skills and competencies needs of the total group (Group 1)

TABLE 1
FREQUENCY SCORES OF 50% AND HIGHER FOR
"YES"-RESPONSES TOTAL GROUP (GROUP 1) [N=1129:
MALES=578; FEMALES=551]

Sub-field	Item No:	Total	Male	Female
A3	93	61,8%	60,0%	63,7%
A4	64		63,5%	
A5	125	54,8%		60,8%
B3	8	61,5%	61,1%	62,0%
B4	39	55,9%		60,4%
	99	73,9%	68,1%	80,1%
B5	40	66,0%	61,2%	71,0%
C3	13	65,8%		73,2%
	73	79,5%	74,6%	84,6%
	133			63,5%
C4	14	77,3%	73,6%	81,2%
	134	82,9%	82,7%	83,2%
D1	76	63,3%	63,5%	63,0%
D2	107	55,8%		67,2%
D5	110	55,4%		70,0%
E1	51	55,5%		61,8%
	81	58,5%		63,5%
E2	142	83,5%	82,7%	84,4%
E3	53	60,1%		66,4%
	113	89,3%	88,2%	90,4%
	143	67,7%	62,8%	72,9%
E4	54	75,8%	71,7%	80,1%
	144	64,0%	59,2%	69,1%
F1	116	62,1%		67,6%
F4	59	81,1%	78,4%	83,9%

Using the 60% cut-off score, as recommended by Von Hörsten (1990:68), data from Table 1 indicated that significant problems were reported in Field A: *Community and Social Development* in the sub-fields: Human rights; Road safety and Technological development. Field B: *Development of Person and Self* in the sub-fields: Self-concept/Self-assertion; Peer group identity and Identity development. Field C: *Self-management* in the sub-fields: Handling stress and Study methods. Field D: *Physical and Sexual Development* in the sub-fields: Sex guidance; Alcohol and drug abuse and Acceptance of one's own body. Field E: *Career Planning* in the sub-fields: Entrepreneurship; Problem-solving and decision-making; Finding and keeping work and Career planning and development. Field F: *Life and world orientation* in the sub-fields: Religious orientation and Cultural orientation.

Data in Table 1 do not substantiate hypothesis Ho₁, which states that no life-skills and competencies needs will be identified in the total group (Group 1) of the respondents; it is thus rejected. Table 1 indicates that life-skills and competencies needs are identified in the sub-fields of the broad fields for Group 1.

DISCUSSION

Data in this study confirms that the measuring instrument (Life Skills and Competencies: General Questionnaire on Life Skills and Competencies) has value, as it is capable of identifying needs, as addressed by items within the fields and sub-fields. These findings concur with those of Malan (1991:15) and Matthee (1991:79), in that the questionnaire is suitable for use in a needs analysis and in that it produces significant results.

Language groups

TABLE 2
EFFECT SIZES WHEN COMPARING GROUPS 2, 3, 4 AND 5 PER SUB-FIELD FOR BOTH SEXES [N=1129]

Groups	Sub-fields							
	A1	A2	A3	A4	A5	B1	B5	C1
2 with 3		-1,11			-0,56			-0,84
2 with 4					-0,70	-0,53		
2 with 5	-0,52				-0,79		-0,75	
3 with 4		0,75	0,50	0,60				0,82
3 with 5		0,70	0,58	0,64				0,71
4 with 5								
	C2	C3	C4	D1	D2	D4	D5	E1
2 with 3	-0,57	-0,81	-1,05		-0,63	-0,84	-0,68	
2 with 4		-0,54	-0,52			-0,61		-0,63
2 with 5	-0,50	-0,88	-0,79	-0,90		-0,74		-0,71
3 with 4			0,53		1,02		0,54	
3 with 5				-0,53	0,82		0,55	
4 with 5								
	E3	F1	F3	F5				
2 with 3			-0,53					
2 with 4			-0,65	-0,68				
2 with 5		-0,76		-0,81				
3 with 4	0,53							
3 with 5		0,54						
4 with 5	-0,58							

KEY: * Only effect sizes in absolute value larger than 0,50 are displayed. 0,50 to 0,79 = A medium effect. 0,80 and higher = A significant effect. A negative sign (-) indicates that the latter group's effect sizes are larger

The measuring instrument distinguishes between language groups needs. Hypothesis Ho₂, which states that there will be no difference between the life-skills and competencies needs of Groups 2, 3, 4 and 5, is thus rejected. Findings in this study indicate that Group 3 (English language) reports significantly more needs than does Group 2 (Afrikaans language) and Groups 4 and 5 (African language). Groups 4 and 5 (African language) report more needs than does Group 2 (Afrikaans

language). These findings verify the recommendation by Matthee (1991:150), that additional research be conducted in a multi-cultural society and that the different culture and language groups be compared. The contribution to counselling practices in the new South Africa, referred to by Matthee (1991:150), lies in the fact that this study indicates that cognizance must be taken of the identified differences in needs as reported by the language groups.

Males in Groups 2, 3, 4 and 5

Data in Table 3 indicate a difference between the life-skills and competencies needs of the male respondents in Groups 2, 3, 4

TABLE 3
COMPARISON OF MALES IN GROUPS 2, 3, 4 AND 5, EFFECT SIZES [GROUP 2 MALES = 351; GROUP 3 MALES = 70; GROUP 4 MALES = 101; GROUP 5 MALES = 56]

Groups compared	Sub-fields					
	A2	A5	C1	C3	C4	D2
2 with 3	-1,00		-0,81		-1,04	
3 with 4	0,99		0,80		0,86	0,99
3 with 5	0,83					
2 with 5		-0,82		-0,83		

KEY: * Only effect sizes in absolute value larger than 0,50 are displayed.

0,50 to 0,79 = A medium effect.

0,80 and higher = A significant effect

A negative sign (-) indicates that the latter group's effect sizes are larger

and 5 and therefore, hypothesis Ho₃ is rejected. The measuring instrument distinguished between the needs reported by males. Findings of this study indicate that Group 3 males (English language) report significant needs when compared with Group 2 males (Afrikaans language) in the sub-fields of community responsibility, time- and self-management and study methods. Group 3 males (English language) also report significant needs in community responsibility, time- and self-management, study methods and alcohol and drug abuse, when compared with males in Groups 4 and 5 (African language). The males in Group 5 (African language; tested in March 1992) report significant needs in technological development and handling stress when compared with males in Group 2 (Afrikaans language).

Females in Groups 2, 3, 4 and 5

TABLE 4
COMPARISON OF FEMALES IN GROUPS 2, 3, 4 AND 5, EFFECT SIZES [GROUP 2 FEMALES = 344; GROUP 3 FEMALES = 77; GROUP 4 FEMALES = 83; GROUP 5 FEMALES = 47]

Groups compared	Sub-fields						
	A2	C1	C3	C4	D1	D2	D5
2 with 3	-1,22	-0,88	-0,90	-1,03		-0,87	-0,83
2 with 4				-0,84			
2 with 5			-1,00	-1,15	-1,10		
3 with 4		0,86				1,06	
3 with 5						1,05	
	E1	F1	F5				
2 with 3							
2 with 4			-1,07				
2 with 5	-0,85	-0,81	-1,04				
3 with 4							
3 with 5							

KEY: * Only effect sizes in absolute value larger than 0,50 are displayed. 0,50 to 0,79 = A medium effect.

0,80 and higher = A significant effect

A negative sign (-) indicates that the latter group's effect sizes are larger

Differences are found in the life-skills and competencies needs of female respondents in Groups 2, 3, 4 and 5. Hypothesis H_{01} , which states that there will be no difference between the life-skills and competencies needs of the female respondents in Groups 2, 3, 4 and 5, is therefore rejected. Data in Table 4, indicate that the measuring instrument distinguishes between the needs reported by females. Findings of this study indicate that Group 3 females (English language) report needs which are of practical significance, when compared with Group 2 females (Afrikaans language) in the sub-fields of community responsibility, time- and self-management, handling stress, study methods, alcohol and drug abuse and acceptance of one's own body. Group 4 females (African language) report significant needs (practical significance), in the sub-fields of handling stress and family education. Females in Group 5 (African language) report significant needs (practical significance), in the sub-fields of handling stress, study methods, sex guidance, entrepreneurship, religious orientation and family education, when compared with females in Group 2 (Afrikaans language). Females in Group 3 (English language) report significant needs (practical significance), in the sub-fields of time- and self-management and alcohol and drug abuse, when compared with females in Groups 4 and 5 (African language).

Life-job skills reported defective by employers in first-time job entrants

The literature review, reveals that employers in studies conducted in the United States of America, Canada, Wales and South Africa, report that defective skills in first-time job entrants encompass: communication skills, interpersonal, personality and social skills; problem-solving and thinking skills, looking for work skills, work attitudes and value systems (See Rajmakers, 1993:105-107). It is apparent that there is a similarity between problems as reported by the respondents in this study (Table 1) and defective skills in first-time job entrants, as reported by employers. This emphasizes the importance of a life-skills training programme to address these areas.

CONCLUSION AND RECOMMENDATIONS

Significance of findings

The importance of first conducting a needs analysis to determine the needs of the target population, before designing a life-skills training programme, is confirmed by findings of this study. Data indicate, that differences exist between the needs of not only the different language groups but also in respect of males and females.

Necessity of a life-skills training programme

Findings in this study confirm the necessity that first-year full-time students at a tertiary institution receive training in life-skills. The training programme must also address defective job-skills as identified by employers. Innes (1993:6) stresses the importance of tertiary institutions taking cognizance of the African National Congress (ANC), Education and Training Policy which states that the ANC will promote training and development of marketable skills among all South Africans. The aim is to over time produce a skilled, efficient and effective work force by creating one department of education, vocational training and development at a national level and by integrating education in schools and at tertiary levels, with training within and outside the workplace. In line with this, Hofmeyr (1993:11) reports, that the provision of basic life-skills and personal skills, features prominently in the findings of research based on the views of 37 human resource executives, especially regarding success factors for affirmative action.

Language differences

The English language group (Group 3), consistently reports more needs than the Afrikaans language group (Group 2) and African language groups (Group 4 and 5). An attempt could be made to counteract any possibility of denial of problem areas by the other language groups, by using the needs reported by the English language group as a framework, when designing a life-skills training programme.

Gender differences

Data in this study raise the question, as to whether there is a relationship between gender (male/female) and reported needs in the fields and sub-fields of the measuring instrument (See Table 1), as the females report more needs than males.

Implications of findings for the design of a life-skills training programme

Each target population's needs must first be assessed so as to determine which skills have to be addressed. Keefe (1988:369), Renton (1988:24-25) and Uys (1989:130) agree on the importance of assessing the target population's needs, as well as of obtaining information from employers on the type of behaviour expected from first-time job entrants; their rationale being, that by identifying genuine training needs and setting priorities, both time and money are saved. Renton (1988:24) contends, that in South Africa we can ill afford not to pinpoint gaps in skills and thus recommends a needs analysis, using a standardized questionnaire and computerized data processing techniques, so as to provide objective, easily interpreted data which are essential when designing applicable life-skills training programmes. Renton (1988:26) concludes, that a needs analysis is successful only if it results in an appropriate plan of action.

Cultural differences

The necessity of taking into consideration the deeper effects that the "apartheid" system in South Africa has had on education and on the lives of individuals, is stressed by Rossiter and Parry (1988:10-11). Pickworth (1990:85), Sternberg (1983:10) and Wood (1982:213-214) state, that cognizance must be taken of the learner's culture, available facilities, values and life expectancies. Feuerstein (1980:13) again, asserts that cognizance must be taken of the disabling effect of being deprived of one's own culture. Rossiter and Parry (1988:11) contend, that one needs to create conditions in which individuals can come to terms with the past and use the resulting energy to develop the skills needed to create the future they desire. They recommend Adler's 1980 Cultural Synergy approach as an appropriate approach to adopt.

In sum, data obtained from the Life Skills and Competencies: General Questionnaire on Life Competencies and Skills reveal, that the total group of respondents report a need for training in life- and job-skills (See Table 1). The importance of including first-year full-time students at a tertiary institution in a life- and job-skills training programme, is substantiated by findings in this study. A holistic approach towards tertiary education, must be adopted so as to enable students to be academically successful, as well as to allow them to acquire life-skills, which include coping and job-related skills. This is in line with findings by Conger and Mullen (1981:305-318), Hopson and Scally (1981:10), Schmidt et al., (1988:111) and Thomes and Bajema (1983:47-48) who concur, that clearly stated process objectives aimed at developing a balanced, self-determined individual, capable of solving problems in a creative way, are crucial aims of a life-skills training programme.

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