In the final section "additional comments" (Appendix M p.95) a number of students advocated introducing career counselling at the primary school level so that correct subject choices could be made. There were also a number of repeated requests for information on bursaries, University courses and opportunities in career fields.

2.5.4 Cost Analysis of the two Interventions

As NIPR staff salaries are confidential, a Counsellor's (Masters Graduate) salary was taken as Rx/hour, and a Psychometrist (Honours Graduate) salary was taken as Ry/hour for the purpose of this study.

A cost analysis (Appendix N pp. 96,97) showed that the personnel costs for individual counselling (R1,5x + R0,67y) are considerably higher than those for group counselling (R0,6x). The difference in materials costs is marginal and the individual counselling requirements for venue space exceed those of group counselling by 60 percent. There is therefore little doubt that group counselling is far more economical than individual counselling.

3. Discussion

3.1 The Career Questionnaire - Factors affecting the Career Choice of Black Students

A large percentage of black students gave "helping the Black community" and "helping Black individuals" as one of the reasons for their career choice. Both male and female students showed an equal concern with uplifting the Black community as a whole but female students tended to focus on individuals within the community to a greater extent than male students. A similar helping orientation was indicated by pupils responses to Questions 13, 35 and 39 on the post-test of the CMI Attitude Scale.

This helping orientation and group commitment has been well described by Tabani (1979) and Monganyi (1981). Godsell (1983) used the Nguni word "ubuntu" best translated as "humaneness" to capture the essence of the affiliative concept.

More than 90 percent of students responses to items 13, 35 and 39 on the post-test of the CMI Attitude Scale had to be marked incorrect. These responses relate to the Black affiliative norm which contradicts the Western norm of independent behaviour. The use of the CMI Attitude Scale for differing cultures is based on the assumption that the factors underlying Career Maturity are universal. However, if as seems possible, Career Maturity in Blacks is related to affiliation rather than independence, the validity of the relevant scale items for use with Blacks is open to question.

A number of students were considering a university degree which appeared to be an unrealistic expectation in view of their poor school results. Student responses to Questions 9, 11 and 35 on the post-test of the CMI Attitude Scale are further suggestive of unrealistic aspirations. These findings concur with the results of previous studies which have indicated an almost inverse relationship between the percentage of students expecting to enter professional occupations and the percentage of Black individuals actually employed at this level (Cloete, 1981; Erwee, 1981; Visser, 1978).

It would seem that accurate self knowledge, as well as occupational knowledge in critical areas such as university and college entrance requirements, availability of bursaries, and knowledge of the job market, are prerequisites for helping Black students to establish more realistic aspirations. It has already been stated that the two counselling approaches in the present study focus primarily on self knowledge. There is therefore a need to develop additional methods for increasing students' occupational knowledge.

The further possibility that the poor results of students are indicative of inadequate schooling rather than lack of ability cannot be excluded. Counsellors therefore have the difficult task of helping students to set realistic goals for the immediate future, without negating the possibility of future growth with improved tuition.

3.2 The CMI Attitude Scale and the I - E Scale

a) The CMI Attitude Scale

A revised form of the CMI Attitude Scale was effective in the present study as a criterion measure for evaluating the outcome of the two career counselling programmes. However, it seems that there are serious drawbacks attached to using the complete test with Black students. Firstly, the internal consistency of the total test was relatively low and secondly, items relating to "a helping orientation" appear to be unsuitable for use with Black students as they contradict the affiliative norm which prevails in their culture. The first problem was dealt with by eliminating eleven items from the scale, which raised the reliability coefficient to an acceptable level. These eleven items included two of the three items relating to "a helping orientation". However, if affiliation correlates positively with Career Maturity as the writer has hypothesised, it would probably be more advantageous to revise, rather than eliminate, the "helping orientation" items so that they reflect the Black affiliative norm.

It would therefore appear that while the CMI Scale is not without merit, it should be critically evaluated and revised for use with Black South African students.

b) The I - E Scale

The findings of the present study indicate that the Locus of Control orientation of students is not significantly correlated with their Career Maturity levels and does not differentially affect the changes in their CMI scores depending on the type of counselling intervention used. However, this finding should be viewed with caution as the internal consistency of the I - E Scale was found to be relatively low in the context of the present study.

The Rotter I - E Scale requires students to choose between two explanations for success or failure - an internal explanation asserting that what happens in real life is a result of skill, ability or effort, and an external explanation asserting that success or failure is the result of chance or fate. However, Black students in South Africa experience numerous external obstacles to success as a result of the discriminatory practices of the Apartheid system. While these obstacles are outside their control they are not related to chance or fate, and in fact may be realistically perceived by Black students as occurring systematically, predictably and reliably. The I - E Scale does not offer this third choice of an explanation for success or failure to students. Answers indicating an external orientation will therefore represent a confounding of those reflecting the belief that success or failure is based on chance or luck, and those reflecting a realistic assessment of the situation. This aspect of the I - E Scale may have contributed to its low reliability when used with Black South African student sample.

The results of the present study would appear to contradict those of Mwamwenda and Mwamwenda (1986) who used the I - E Scale successfully in demonstrating that Locus of Control orientation was related to academic ability in a sample of Transkeian student teachers.

As the Transkei has been an independent homeland since 1976, Black Transkeian students would probably have been less exposed to the restrictive policies of Apartheid than Black students in South Africa. An external orientation would therefore be more likely to reflect the single belief that success or failure is based on chance or luck.

The contradictory findings of the Transkei study and the present study indicate the need for further research on the use of the I - E Scale with Black students. However, there do appear to be logical grounds for developing a South African Locus of Control scale that differentiates between external explanations of success or failure based on chance, and those based on a realistic appraisal of obstacles created by discriminatory practices. Gurin, Gurin, Lao and Beattie (1969) have developed such a multidimensional scale for use with American negroes. Whilst differences in the situations of American and South African Blacks preclude the direct application of the scale to South African Blacks, it might serve as a useful basis for developing a South African scale.

3.3 A Cost-Benefit Comparison of the Individual and Group Counselling Interventions

The results of this study indicate that, while both the individual and group counselling approaches produce significant gains in student levels of Career Maturity, there is no significant difference in their degree of effectiveness. The possibility that the student attribute "Locus of Control" might be masking significant differences (Kivlighan et al) was excluded in the present study, as students Locus of Control orientation was not found to have a differential effect on their Career Maturity gains, depending on the type of counselling intervention used. However this exclusion is tentative as the low reliability of the I - E Scale with the present sample of students may have reduced the validity of Locus of Control scores.

The results obtained by students on the psychometric testing component of the individual programme were generally very low, despite the fact that efforts had been made to establish comparable norm groups. This made interpretation of the tests difficult and raised serious doubts as to their suitability and validity when applied to black students.

Grant (1969) and Kendall (1971) have shown that student performance on aptitude and ability tests is positively associated with education. Political unrest has caused a serious disruption to education in recent years, with certain areas and schools being more seriously affected than others. It is possible therefore that the low results obtained by students in this study are a reflection of poor schooling rather than a lack of ability. As such they are difficult to interpret and provide the counsellor with little useful information on student capabilities and potential for further education. In view of the disparities in education, the usefulness of norm groups is also open to question, as norm groups by definition imply uniformity and stability. There are thus serious drawbacks attached to the use of psychometric tests with Black South African students. In the Group Counselling programme, students are helped to obtain similar information about themselves through a guided process of self assessment. While the subjective nature of this exercise may introduce some inaccuracies, these don't appear to be as serious as the drawbacks associated with testing.

The analysis of the Evaluation of the Career Programme questionnaire indicated that there were only marginal differences in the overall effectiveness of the two approaches. However the analysis of the students' responses to Questions 7 and 8 indicated that the group counselling students appeared to gain a greater awareness of the factors involved in career decision making than their individual counselling counterparts. This may be a result of their closer participation in the assessment process.

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The group counselling programme therefore appears to be as effective, and in certain important aspects possibly more effective, in increasing students levels of career maturity and meeting their guidance needs.

The cost analysis showed that the group programme was considerably more economical than the individual programme both in terms of personnel and venue requirements. It would be possible to increase the cost advantage of the group programme still further by using a lay counsellor as group leader. Research studies showing the effectiveness of lay counsellors have been quoted in the "Introduction".

In summary it may be concluded that the group counselling programme affords students the same, or increased benefits, when compared to the individual programme, at considerably reduced costs.

3.4 Student Need for Information

Both interventions in the present study concentrated largely on self knowledge and referred students to outside reference sources for information on bursaries and career and study opportunities. Students from both intervention groups expressed a need for more of this type of information to be included in the counselling sessions, and for arrangements to be made for them to visit relevant reference libraries, Technikons and Universities. This concurs with the findings of Hall (1980) Chuenyane (1983) and White (1986) that students have an urgent need for information and practical help with specific career planning. The interventions in the present study take approximately six hours each, and the time factor would prevent the incorporation of further practical help and information giving. However, it does appear that there is

a need to develop an additional programme geared specifically towards helping students to make use of reference facilities and to help them to plan their future studies.

Counsellors taking part in such programmes would need to have an extensive working knowledge of a number of career opportunities for Blacks, as well as access to a comprehensive career reference library. While the Soweto Career Centre and the Education Information Centre do have such libraries, there is a general dearth of literature on occupational opportunities relating to Blacks. Although much of the general career information is relevant to all racial groups, many of the training facilities and vacancies are specific to particular groups (Hall, 1980). There is therefore an urgent need for research into the study facilities and occupational opportunities for Black students, and for such information to be circulated to schools and career reference libraries.

3.5 Career Guidance in the Schools

The present study has provided guidelines for improving Career Guidance facilities in organisations outside the school system. However with an enrolment in 1980 of 100,399 pupils in the senior primary and secondary Black schools in the Johannesburg metropolitan area alone (Spence, 1982) organisations such as the National Institute of Personnel Research, The Education Information Centre and the Soweto Careers Clinic can only make a limited impact on the demand for guidance services.

The provision of two guidance teachers for each Black school in 1981, appears to provide the basis for a more comprehensive solution to the problem. However:

.... the level of curriculum development in guidance is very primitive, and little help is given -- in terms either of materials or training -- to help teachers in working out how best to tackle the various topics they are required to cover (Watts, 1980, p.73).

The results of the present study indicate that while teachers do appear to influence the career choices of male students (48 percent) they have very little influence on the career choices of female students (20 percent). The main alternative source of influence appears to be parents (Males 38 percent, Females 51 percent) who are often illiterate and ill-informed (Mojalefa, 1980). There is therefore an urgent need to train teachers in Careers Guidance.

The Group Counselling Approach, "The World of Work and Me" could be used by teachers to help students improve their self knowledge. As it is composed of a number of units each focusing on a particular facet of self knowledge it could be broken down into smaller discrete units that could be implemented within school guidance periods.

Guidance teachers could also play a valuable role in helping to meet the students' need for information discussed in section 2.6.4.

The programme "The World of Work and Me" assumes, perhaps incorrectly, that students have a working knowledge of a number of careers.

Teachers might therefore initiate a careers guidance programme with information on a variety of careers. Students might be encouraged to research careers and report back their findings, guest speakers could be invited and visits could be organised to areas of possible future employment. A programme such as the "World of Work and Me" could then be used to improve the students self knowledge, and in so doing to narrow their field of interest. At this point guidance teachers might show students how to go about obtaining information on study opportunities as well as how to use Careers Libraries to research specific interest areas. For those students intending to enter the employment market immediately, teachers could provide guidance on writing letters of job applications, as well as helping students to role-play interviews with prospective employers.

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3.6 Limitations of the Study

Although the two intervention approaches were similar in a number of respects they differed on the two treatment parameters of individual vs group counselling and psychometric testing vs introspection and group discussion. The confounding of these two factors restricts definitive conclusions to the two particular approaches used. However tentative conclusions may be drawn about the comparable efficacy of group and individual counselling and psychometric testing as opposed to introspection and group discussion, which may form a basis for future research.

3.7 Implications for Research and Practice

The cost-benefit analysis of the two interventions indicates that there is support for replacing the Individual Counselling programmes presently in use with the Group Programme "The World of Work and Me". Registered counselling psychologists may be used to train lay Black counsellors as group leaders. There is a need to develop a further supplementary programme to provide students with specific advice and practical help with study and career planning.

Career counselling should be introduced into the schools guidance curriculum and the programme "The World of Work and Me" might be useful in this regard.

Both the Attitude Scale and the I - E Scale have been shown to have flaws when used with Black students and further research is required to determine whether the scales should be revised or new ones developed.

APPENDIX A

<u>Table 1</u>
Summary of Comparitive Evaluative Studies of Career Counselling Interventions

Author	Date	Counselling Techniques	Dependent Variable	Instrument Used	Results
Cates, C.W.	1979	1) Individual Counselling 2) Group Counselling	Self awareness Career decision making ability Career problem solving ability Career planning ability Vocational maturity Self concept Client satisfaction with counselling	Student Questionnaire	The individual counselling group showed no improvement The group counselling group showed improvement on five of the seven variables
Glaize, D.L. & Myrick, R.D.	1984	1) Computer assisted approach 2) Group counselling approach 3) Combined computer assisted and group counselling approach	Career maturity Career decision making Client goal directedness Student attitudes on self, school, world of work	CMI Attitude Scale Career Decision Scale Student Attitude Inventory (SAI) Career goal directed behaviour	Significant improvement in the treatment groups on career maturity and career decision making. No significant difference between three treatment conditions No significant improvement i student attitudes measured by SAI or in career goal directed behaviour

44

Hamm, V.C.	Graff, R.W. Danish, S.& Austin, B.	Glenn, G.G.	Author
1977	1972	1978	Date
1) Individual Counselling 2) Self directed Counselling 3) Group Counselling	1) Individual Counselling 2) Group Counselling 3) Programmed Self Instruction 4) Control	1) Group Counselling 2) Self directed Search 3) Self directed Search + Individual Counselling	Counselling Techniques
Vocational Maturity Vocational Competence Self Concept	Vocational Development	Career related activities and attitudes	Dependent Variable
CMI Attitude SCale CMI Competence Scale Tennessee Self- Concept Scale	Client Ratings on seven criteria in a Vocational Developmental Assessment Questionnaire	Career Maturity Inventory (CMI) Scale of Vocational Indecision (SVI) Vocational Information-seeking Behaviour Checklist	Instrument Used
Treatment groups showed no significant improvement on the scales	Treatment groups showed a significant improvement The self instruction approach was more effective than the other approaches on three criteria	Treatment groups showed a significant improvement on all the scales There were no significant differences among the treatment groups	Results

Krivatsky,S.E. & Magoon, T.M.	Hoyt, D.P.	Hanson, J. & Sander, D.	Author
1976	1955	1973	Date
Hollands Self Directed Search (SDS) Individual Vocational Planning (IVP) Traditional Vocational Planning	1) Group Counselling 2) Individual Counselling	1) Individual Counselling 2) Group Counselling	Counselling Technique
Frequency and Variety of Vocational Information- Seeking Satisfaction with treatment Vocational Maturity Satisfaction with Vocational plans	Satisfaction with vocational choice Certainty of vocational choice Realism of vocational choice	Realism of Vocational Choice	Dependent Variable
Vocational Guidance Questionnaire Vocational Checklist	Concensus on ratings by experienced counsellors	Ratings by Experienced Counsellors	Instrument Used
There was no significant difference between the treatment groups	Both treatment groups showed a significant improvement on all scales There was no significant difference between the treatment groups	Treatment groups showed no significant improvement	Results

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tvair, c.	Smith, R.D. &	Pyle, K.R.	Author
	1973	1976	Date
2) Individual Counselling 3) Control	1) Experimental Group Guidance	Group Counselling Computer assisted Counselling	Counselling Techniques
2) Student Assessment of Assistance received	1) Vocational Development	Career Maturity	Dependent Variable
	Student Questionnaire	CMI Attitude Scale	Instrument Used
The improvement of the experimental group was significantly greater than that of the individual counselling group	Both treatment groups showed a significant improvement on all	Computer assisted counselling group showed a significant improvement	Results

Sullivan,S.E.	Sobchuk, P.A.	Author
1976	1978	Date
1) Decision making group counselling 2) Decision making individual counselling 3) Traditional individual counselling	Vocational Exploration Group	Counselling Techniques
Career Maturity	1) Choice realism 2) Aspirational congruency 3) Choice consistency 4) Choice differentiation 5) Career maturity	Dependent Variable
CMI Attitude Scale Counselling Assessment Questionnaire	General Aptitude Test Battery (GAT B) Occupational Aptitude Patterns (OAP) Hollands Future Possibilities Task Self Directed Search (SDS) CMI Attitude Scale CMI Competence Scale	Instrument Used
Treatment groups showed a significant improvement on the CMI There were no significant differences amongst the treatment groups	Treatment groups showed a significant improvement on all scales There was no significant difference between the treatment groups	Results

APPENDIX B

Description of the Biographical Questionnaire and the tests making up the individual counselling psychometric test battery.

1) Biographical Questionnaire

The bi graphical questionnaire used was the standard one used by NIPR to provide more information on the student, and to mitigate the disadvantages of attempting an objective evaluation of the student based only on the results he/she achieved during a single test period. The student is required to supply details of educational and family background, work experience, health, hobbies and parental aspirations for his/her career. There is also a scale of needs which each student is required to rank in order of importance for himself (e.g. work which provides status, money, adventure, excitement, etc..)

2) The Rothwell-Miller Interest Blank (RM.IB)

The RMIB consists of nine blocks, each containing twelve occupations. Students are required to rank the occupations on each block from one to twelve in order of personal preference. These rankings are then totalled to give a score in each of the twelve interest fields - outdoor, mechanical, computational, scientific, persuasive, aesthetic, literary, musical, social service, clerical, practical and medical. The lowest score would indicate the preferred field and the highest the least preferred.

Studies have shown that the Blank is suitable for use with Black populations (Hall, 1980).

3) Intellectual Abilities.

a) NIPR Intermediate Level Mental Alertness Test

This test forms part of an Intermediate Battery of Tests developed by NIPR for use with White South Africans who have completed ten to twelve years of formal schooling. It includes number and letter series, analogies, arithmetical problems and similar items designed to determine problem solving ability.

The test was normed on black male students from Beats College (N=253).

b) The Figure Classification Test

This is a test of intellectual ability in which students are required to classify six geometric figures into two groups of three figures each.

The test was normed on Promat College students and black female applicants for technical posts (N=263).

4) Educational Aptitudes

a) NIPR Intermediate Level Comprehension Test

This test was part of the NIPR Intermediate Battery of Tests and was used to establish the students command of English.

The test was normed on Black Standard 10 male and female students at Pace College (N=125).

b) NIPR Intermediate Level Computation Test

This test was part of the NIPR Intermediate Battery of Tests and was used to determine the students mastery of routine arithmetical processes.

The test was normed on Black medical technologists (N=152).

5) Special Abilities

Spot the Error Test

This test was used as a measure of clerical ability.

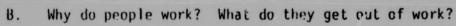
The test was normed on Black Standard 10 male and female students at Pace College (N=125).

APPENDIX C

THE WORLD OF WORK AND ME



- 1. WORLD OF WORK
- A. What is work?







Author Davies R G

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