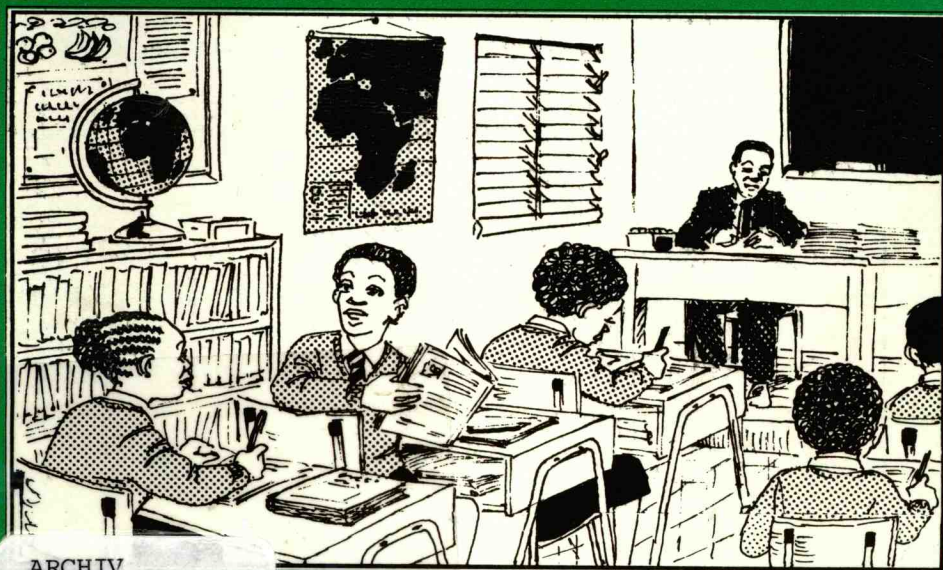# Teaching
and
Psychological
Research

Eastern and Southern Africa

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PSYCHOLOGICAL RESEARCH

AND TEACHING

FOR SOCIAL DEVELOPMENT

IN EASTERN AND SOUTHERN AFRICA

Selected Proceedings of the Seminar

on

The Current Status of Teaching of Psychology and

Psychological Research in Eastern and Southern Africa

Nairobi, Kenya September 24-30, 1989

Edited by

F.M. Okatcha   I.M. Omari   P.W. Kariuki
Kenyatta University   IDRC Nairobi   University of Nairobi

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PREFACE

This book is based on the proceedings of the Regional Conference on the current status of the Teaching of Psychology and Psychological Research in Eastern and Southern Africa which was held in Nairobi in September, 1989. Since December 1975, when the Regional Conference on Cross-Cultural Psychology was held in Nairobi, no other psychology conference had been held. Consequently, there was little information about what was happening in psychology within the region.

However, in spite of this lack of knowledge, it was evident that psychology had not played a very significant role in national development plans. The study of psychology in universities and other institutions had been marginal and its place in the research enterprise had become rather limited. This was certainly a sad state of affairs. Considering the immense potential of psychology in many development areas such as education, the social services, family life, health, law, government, private organizations and management, it is imperative that every effort should be made to promote the study of psychology as a science. Furthermore, psychological research should be an integral part of the formulation of development policies and psychologists in African universities and other institutions of higher learning should practice their trade like any other profession.

Thus, the main purpose of the September 1989 Regional Conference was to find out what was happening in psychology in Eastern and Southern Africa and how the study of psychology and psychological research could be promoted. More specifically, the following topics were addressed:

- research priorities in various fields of applications;

- the current status and promotion of teaching of psychology at both undergraduate and graduate levels;

- current status and promotion of psychological research;

- certification of psychologists and psychological counsellors;

- the current status of psychological services in schools and places of work;

- establishment of a regional centre for postgraduate studies in psychology;

- formation of a regional association of psychologists;

- the development of teaching materials.

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Participants in the regional conference comprised individuals teaching psychology in Eastern and Southern African universities, as well as practising psychologists within the private and public sector.

Countries represented Kenya, Uganda, Tanzania, Zambia, Zimbabwe and Botswana. For each of these countries, there was a state of the art paper on the teaching and role of psychology. There were also some presentations on the application of psychology in everyday life by practising psychologists. Substantive papers, some of which constitute this book, covered the following areas: general and methodological issues, teaching and training of psychologists, guidance and counselling, and some empirical studies. The book is therefore organized along these lines.

An examination of these presentations makes it evident that there is still a lot to be done in promoting the teaching of psychology, psychological research, and the provision of psychological services.

The idea of forming a regional association received unanimous support, and a committee was formed to prepare a draft constitution to be discussed at the next regional conference scheduled for late 1991 in Harare at the University of Zimbabwe. It was hoped that after forming a regional association of psychologists, it would be possible to form a continental association of psychologists to be known as the Pan-African Psychological Association (PAPA).

On the whole, a lot was learnt at the Conference, and it is hoped that some of the suggestions made to improve the status of psychology will be taken seriously.

Obviously, without financial support, the regional conference on psychology could not have taken place. It is therefore appropriate that the generous financial support received from the sponsor of the conference, the International Development Research Centre (IDRC), be acknowledged with deep thanks. Also special thanks go to the British Council and the Kenya National Commission for UNESCO for their modest but essential support to the conference.

Unfortunately, it was not possible to include all the presentations in these proceedings. However, all of them presentations are cited in Appendix 'A' and are available from the authors on request. We greatly regret this inability to include all the papers as they went a long way in making the one week conference the success it was.

F.M. Okatcha   **I.M. Omari**   **P.W. Kariuki**

SECTION I: GENERAL AND PARADIGMIC ISSUES

1. THE GROWTH AND METAMORPHOSIS OF

PSYCHOLOGY IN EASTERN AND SOUTHERN AFRICA

I.M. Omari

Introduction

A cursory glance at the short history of psychology in the region gives a rather mixed picture of the development of the discipline. In the 1960s and early 1970s, the tempo of psychological activity in the universities of the region was quite robust, culminating in the seminal 1975 Cross-Cultural Psychology Conference held in Nairobi. The economic and political crises of the late 1970s and early 1980 seem to have had their toll on the discipline too. The then seemingly blossoming centres of excellence in the University of Zambia, Makerere, Nairobi, Dar es Salaam and Addis Ababa are currently either depleted of manpower or very thin on material resources for research and teaching. While this situation is not unique to psychology, it is proper that psychologists should ask hard questions regarding the nature and direction of the discipline with a view to rekindling interest in, and drive towards, a regional network of like minds. Indeed for a long time now there has been no collective retrospection so as to arrive at a relative consensus regarding our discipline of evocation and practice. In asking questions about the discipline, one needs to peruse the traditional classical issues, which include:

- What should be the scope of the discipline and its relationship with other social and related sciences?

- What theoretical paradigms are the most relevant and resilient to be used for the explication of the developmental problems of the region?

- Which methodological paradigms are to be used in the study of these developmental problems?

There is no doubt that the central concern of this conference is to look at the applied aspects of psychology and how research can contribute to social development. Yet all research is guided by either explicit or implicit theories of the nature of psychological knowledge and the process of inquiry. In this regard, it is important that the Suppes (1962) hierarchy of theories (Leakey, 1987) as reproduced in Figure 1 should be reflected upon. Questions about the nature and direction of the discipline have to relate to all those levels of articulation which have a bearing on any inquiry.

Terms and processes   Abstract,
like long-term memory, <------   Psychological   ----->counterfactual
retrieval ...   Theory   idealized world

                                      ↕

Selection of stimulus <-------   Theory of the   ---->Translates
theory items, response   Experiment   into specific
measures ...   ↕   situations

Anova, t-test, X^2 <-----------   Theory of   --------->Transforms
factor analysis ...   Data   numerical data
                                      ↕   into useful form

Use of control groups,   Theory of
uniform procedures ... <------   Experimental   ----->Criteria of a
                                  Design   good experiment
                                      ↕

S not brain-damaged,   Ceteris-paribus   Rarely stated
speaks English ... <---------   Conditions   ------->   assumptions
                                      ↕   about experi-
                                                                       mental
                                                                       conditions

Latencies, number of   ↓
correct responses ... <------   Phenomena   ------->   Observations
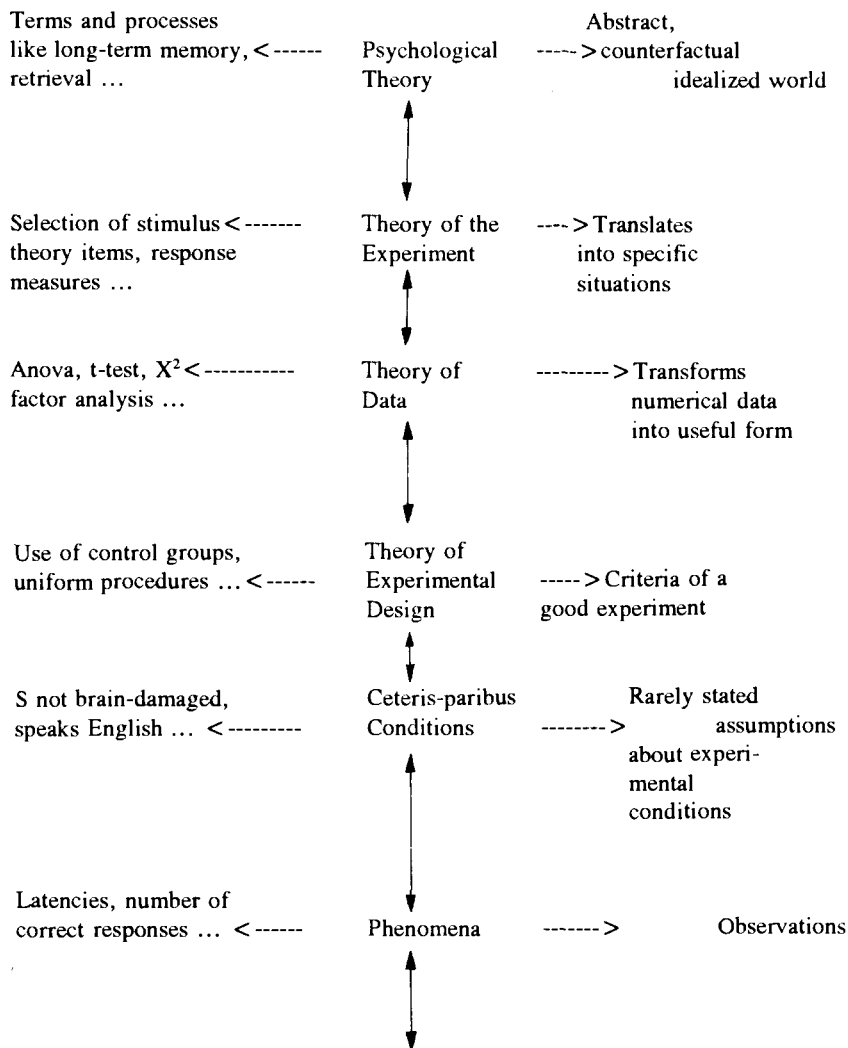
                                      ↕

Figure 1   The hierarchy of theories in psychology

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It is this understanding of the different levels of theories and articulations in any research project that makes the choices of paradigms and techniques easier and meaningful. As a science of behaviour, psychology is a changing collection of ideas to which short-lived human beings contribute. It conforms to the basic tenets of scientific inquiry, including theoretical formulations, model building prediction and verification. Yet ultimately, the utility of the discipline will be judged on how it provides intellectual leadership in the search for new and better personal and social relationships and this calls for relevance to social parameters. The leadership is not likely to come through behavioral technology but through a consideration of what Miller called 'a broad mutation of human and social values' rather than a mechanical application of theories and contents of the discipline. This can be a significant departure from the traditional approaches to the study of the discipline in terms of its internalities, that is, the development of technical ideas independent of the broader intellectual and social context in which it operates. It calls for the study of the discipline from its external perspectives: how it relates to the wider intellectual and social parameters and how these have an impact on it.

It is in this context that the impact of the discipline itself on social, cultural and personal development can be ascertained. It is particularly important in psychology as a discipline which deals with human nature, a field in which everyone has opinions. This makes the discipline subject and vulnerable to the challenges and thrusts of the large intellectual community. In other words, it is penetrable by social and intellectual forces, unless the protagonists collectively and individually can stand up to the challenges in a way that makes both social and intellectual sense. Psychology compares unfavourably with disciplines such as physics which are and therefore not open to intellectual influences from the common wisdom. Indeed, when the social sciences went through some transformation in the region and became more active in creating a horde of development praxeologists, psychology appeared to have been left in limbo.

As Sinha (1983) pointed out, psychologists seem to be new in the development enterprise and for a long time they were relegated to laboratory studies, with atomistic approaches to the study of any given phenomenon, using the individual as the locus or unit of analysis. While the individual is obviously important, psychologists have tended to isolate this individual from the processes of social development and change and this may have socially retarded the discipline, as, indeed, the social milieu in which individuals operate is not composed of antagonistic, fragmented elements. It is thus proper for questions to be raised as to the status and direction of the discipline in the context of both social and intellectual developments in the region. This is an excellent opportunity to do that, as it has taken us more than ten years to meet.

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The Status of Psychology in the Region

There must be some generic methods for the study of the status of any subject. With respect to psychology, the relevant questions to be asked after such a span of time would include:

- Is the subject dead, alive, the same or improved in its internal robustness and productivity?

- Has it declined in importance in the society?

- Has it desynthesized into more analytical and, possibly, more specialized subparadigms and disciplines which deal with more complex psychological phenomenon in developing countries?

- Has the discipline gone through a dynamic evolution or revolution in the right direction?

- At this material time, does the world need more of development praxeology or theoretical abstraction?

- Is it legitimate to look for where things went either wrong or right?

While raising some of these questions may sound like one is about to offer an obituary of psychology or induce unnecessary pessimism about the state of the discipline, some psychologists hypothesize that either psychological activity has declined, or there has been a decline in the importance of psychology in the region or both of these trends, given the spirited decades of 1960 and 1970 when the discipline was really blossoming. Yet many of us believe in its great potency to make contributions to the social evolution and transformations taking place in the region. Indeed, the subject may not be at its most spectacular phase, but one would like to think that it is alive and well; that it still deals with the same central phenomena and concerns of psychology, that is, man and his environment; and with the same methodological rigour. It is conceivable that a subject could go through a process of metamorphosis or diffusion or desynthesis but still retain its essential characteristics and essence.

Psychology acquired autonomy as a discipline due to its distinctive organized body of knowledge and theories, consisting of concepts, definitions, testable hypothesis and scientific methodologies. It has contributed immensely to the development and evolution of other social and health science disciplines in other parts of the world, especially at the methodological level, without claiming credit for it. It will thus be a pity if it loses the initiative, drive, impetus and the dynamic force which can be brought to bear on research

projects and methodology courses in sociology, anthropology, education, political sciences, and health sciences.

In Eastern and Southern Africa, one could use hunches to launch a study that would actually test the status of psychology as a discipline. One could also test three types of hypothesis with their alternatives:

  i.   that the vitality of the discipline has remained high and has grown over the years;

  ii.   that in fact the level of activity and importance of the discipline has declined;

  iii. that the discipline is literally dead, and all there is, is the teaching of disparate topics, "using yellow" notes and antiquated text books.

This would need a collection of information along the following lines and collectively we could debate the issues to see if we would arrive at a consensus:

- the number of psychology books written in the region in the last five years;

- the number of periodicals on psychology started and/or thriving in the region;

- the number of original and review articles written on issues pertaining to the region in the last five years;

- the number of Ph.Ds and Masters degrees in psychology obtained by people from the region in the last five years;

- the number of psychologists in the region in the last five years;

- the number of subdisciplines of psychology taught in universities, both at undergraduate and graduate levels. Similarly at other training institutions such as teachers colleges;

- the number of psychological conferences: national, regional and international, held in the last five years;

- the number of trained psychologists identifying themselves with the subject in each country;

- the number of consultancies entrusted to psychologists to execute in the last five years.

It might be a futile exercise to try to get into extensive quantification and analyses of these elements; but one would want to raise the question whether these elements constitute an adequate criteria for judging the health and the status of a given discipline. Hunches would suggest that the subject is very weak in all these criteria. The challenge before us is to think of how to stimulate activities in all these fronts and, especially, in the production of new knowledge, given the current gross asymmetrical power relations between psychologists in developing countries and those from developed countries. Otherwise, we shall end up parroting the wrong paradigms and irrelevant findings.

Thinking of Psychology as a Subject

Given the diversity and the array of problems and issues that psychology deals with, starting with the study of nerve cells in neurophysiology, memory, matrimonial counselling, learning and teaching, to what is getting to be called sociobiology as an aspect of psychology, one needs to think of the totality of the subject while developing the priority areas of specialization and concentrated research activity. It would seem that, for some time now, most psychologists have concentrated on a few applied areas such as educational psychology or guidance and counselling. This may be attributed to the specific characteristics of establishments but has inadvertently resulted in a narrow conception of the discipline and its areas of application, especially in the eyes of the laity and the political elite.

It is a challenge to us to visualize a future where psychologists will act in unison while at the same time dealing with diverse issues rather than operate in disparate situations and relations as if there was no unity of professional purpose, ethics and methodology. The depiction of the discipline in Figure 2, while not exhaustive, needs to be elaborated and taken into account in the training and retraining of psychologists, and in the conceptualization of research problems and projects. This will also ensure that the need areas are covered. Likewise, those branches of the discipline which may be suffering from atrophy can receive special attention.

The fundamental question at this juncture is whether the psychologists from all these branches illustrated in Figure 2 have a common mission and vision of their discipline. It seems to me that, judging from the representation in this Seminar, only a few branches of psychology are active in the field or, perhaps people from other branches of psychology were not invited. Likewise, people in other disciplines such as sociology, political science,

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philosophy and the health sciences can make significant contributions to psychology. They should have been represented. There is, therefore, a dire need to broaden our thinking of psychology as an applied subject that operates with a broad spectrum of subjects dealing with man and his environment.

Obviously this categorization of the discipline as in Figure 2 is incomplete. It is only one way of 'slicing the goat', but indeed this is itself part of the problem. Institutions in developing countries have used different categories to describe the same fields in terms of substance and sometimes this has led to the establishment of disparate, non-viable, one person research units and training departments. This may, in part, be due to the rampant copying of Western models, which is, in itself, an artefact of the training psychologists got from Western universities. It is important that relevant models of collaboration and more indigenous establishments be developed.

Indeed, the survival of the discipline will depend on how psychologists hang together across all the sub-disciplines and develop a common agenda and goals. Artificial boundaries and rivalries by individuals and departments only create a good environment for neocolonial penetration and dependency. In addition, isolated psychologists will be offering the usual mono-incomplete causal explanations of such complex phenomenon as human behaviour. However, together placed in larger units and looking at the same phenomenon from different perspectives, we may be able to come up with accurate and relevant theories on this subject for Africa and thus bring more power and influence to bear on it.

In this regard, psychologists will have to anticipate and accept shifts of emphasis from pure psychology to other non psychological subjects but still deal with the central theme of psychology - which is man and his environment. Indeed, the natural tendency for any dynamic subject is to acquire a more comprehensive and multidisciplinary character and thus get integrated into the wider community of intellectuals dealing with the same phenomenon, both from the purely policy perspectives to the actual field inquiries, dissemination and the utilization of research results.

The Challenges of Psychology in Developing Countries

It is quite evident that among us are development praxeologists; those committed to the idealogy that the challenges of any discipline lie in the confrontation with the acute development problems of the region such as stark poverty, famines, malnutrition, general deprivation amidst plenty, poor education, non-existent or substandard shelter, and disease. The era of the search for the 'African Child' with unique characteristics seems to be on the wane, while the quest for unique cross-cultural paradigms appears to have yielded only clues but not solutions to these problems.
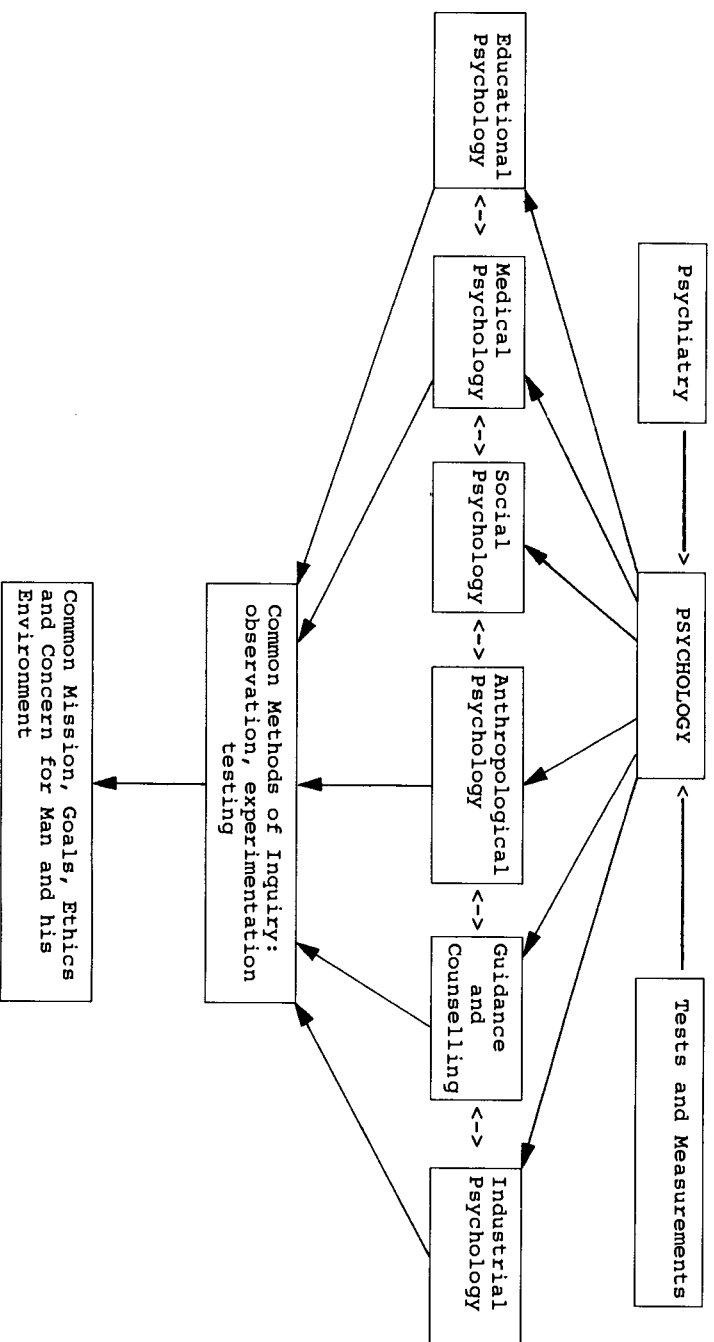
Figure 2   Interconnectedness among branches of psychology

Educational Psychology <-> Medical Psychology <-> Social Psychology <-> Anthropological Psychology <-> Guidance and Counselling <-> Industrial Psychology

Psychiatry

PSYCHOLOGY

Tests and Measurements

Common Methods of Inquiry: observation, experimentation testing

Common Mission, Goals, Ethics and Concern for Man and his Environment

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The challenge now is to evolve multiple approaches, based on current theories, knowledge and intuition, to solving these developmental problems. While it is obvious that there could be unique Third World contributions to the ways of thinking, perceiving and responding to a psychological phenomenon, it is the active participation of psychologists in the diverse social and argued that if psychologists need to be heard, to make an impact, to influence social courses, they will have to do applied research and get their hands 'dirty' at some stage.

Hitherto, psychology has not evolved as a problem centred discipline in developing countries. More seriously, it has developed to serve the needs and interests of the modern sector only, divorced from the needs of the vast majority of the people in the traditional sector, thus only acquiring the role of a fantasy creating discipline. This is an extremely dangerous trend as it retards the discipline in terms of the flow of resources for research and training and thwarts appreciation by the public. Only in Latin America has the glimmer of a more active participation of psychology in public life started to emerge. This is being achieved through a fine blend of macro and micro analyses, to borrow the economist's terms or what Sinha (1983) calls macrocosmic and microcosmic approaches to issues. Moghaddam and Taylor (1986) urge psychologists not to wait to be enlisted in the development challenges, but to enlist themselves through actions and research as these are the essential inputs into the social process of change.

Likewise, Sinha (1983) challenges psychologists to be a party to the development equation, since development is not only a matter of economics but rather, and of necessity, the incorporation of social and psychological variables that guarantee continuity and stability in the social systems and in the development processes. This becomes particularly true when development is recast to mean 'people development', as, indeed, ultimately this is what economic growth and development is all about.

In this context, psychology can play a crucial role in identifying and analyzing the:

- factors and variables facilitating change;
- factors and variables inhibiting change;
- relevant social and psychological adjustment mechanisms so as to minimize the negative psychological costs of rapid development and change.

The final challenge is that of developing a priority research agenda for the region. Obviously, this has to be a collective endeavour and a dynamic process that ensures responsiveness rather than an arbitrary and static collection of topics and issues. Yet, some issues in this region are likely to remain generic and to persist for a long time to come. These include:

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The psychological dimensions of modernization and social change: What are the correlates of modernization and rapid social economic development; impact of change on individuals, social units, institutions, and the associated management issues?

Rural Development: What are the psychological stimulants and blocks to rural development, the motivational and attitudinal variables to this process and peasants' responses to it?

Urbanization: There is an impact on social units and individuals There are the essential consequences of rapid urbanization such as violence, aggression, marginalization, pauperization, and loss of self. How can these impacts be mitigated given that global urbanization is not a reversible process?

Schooling: There are internal and external efficiency issues - variables for effective and efficient teaching, learning and retention; jobs and career aspirations and placement, social and school selection processes;

Socialization and personal growth: What are the variables that guarantee the development of motivated, productive, self reliant individuals?

Facilitation in the operationalization of some fads and social ethos: These include ones such as African socialism, humanism, Nyayoism, conscientism, and self reliance. Otherwise, the discipline will be part of the confusion and therefore also part of the problem.

It has to be said again that developing a list of priority research agenda and areas of action can be a futile exercise, if the process is not continuous and dynamic. Worse still, the agenda and the theoretical and research paradigms to be used in research will remain irrelevant if the issue of centre-periphery dependency relationship is not addressed. In the now seminal monograph containing the papers of the 1984 conference on 'The Impact of Psychology on Third World Development', there is a lamentation to the effect that there was a wholesale importation of Western models and paradigms to Third World countries, some of which were completely irrelevant and inappropriate (Sinha and Holtzman 1984). There were no signs of understanding and apprecation of grassroot issues and there were no efforts to tackle them.

While a complete disengagement may not be feasible in the short run, the processes of thinking through issues from the perspectives of local circumstances is essential in ensuring an appropriate and correct application of the more general psychological body of knowledge, theories and tools of inquiry. In considering what appropriate psychology and research approaches for developing countries to use, the six

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criteria developed by Moghaddam and Taylor (1986) seem to be instructive. That is, one has to take into account issues such as scientific independence in the evolution of paradigms and concepts, needs responsiveness (but also ask: whose needs?); cultural compatibility; institutional feasibility; economic suitability/defensibility; and political practicality. It is by evaluating a subject and its mode of inquiry from our own perspectives that indigenous psychology and paradigms will emerge.

As Miller would say, 'fish will be the last creature to discover water', it may be extremely difficult for psychologists to find out where things went wrong; but it would be a disaster if we assumed that all was rosy. It is indeed healthy to be critical about ourselves as a group and this is not new in psychology, and certainly not in other disciplines in the region and in other places. Salford (1965) had the audacity to critique the discipline in the U.S.A. before the general conference of the American Psychological Association when he said:

> 'Psychology is really in the doldrums now. It is fragmented, over-specialized, method centred and dull, same mould in research design and reporting style, inflation of jargon, professional baggage substituted for psychological insight and sensitivity'.
> (cited in Sinha 1983 p.11).

Where does psychology stand in the region now in relation to these allegations? Self-criticism should give rise to hope and invigoration for a better and productive future of the discipline. This should also be seen in the context of the fact that the success of psychology will also account for its weakness. People will look into psychology for advice and solution to all sorts of personal and social problems whose complexities may have no scientific basis. Thus the occult, craftsmen and pseudoscientists will always have the possibilities of associating themselves with the subject, as they too can give advice! Yet when psychology is failing, we should not give up and leave too much room to hermeneutics, occults and pseudoscientists. Neither should we claim credit for everything, for this may be injurious to the discipline. Rather, there should be a continuous and dynamic process of interaction among psychologists and with others so as to rise to the challenges of development through research and social actions. It is the critical reviews of prescribed solutions to social problems that will put psychology back on the map.

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2. THE HISTORY OF PSYCHOLOGY IN AFRICA:

IMPLICATIONS FOR RESEARCH, TRAINING, AND ACTION

Alastair Mundy-Castle

Historical Perspective

As far as I am aware, there have been four previous comparable psychological conferences on the African continent. Two of them were regional meetings of the International Association for Cross-Cultural Psychology (IACCP): the first held in Ibadan in 1973, the second in Nairobi in 1975. Probably, the key conferences relating to the development of psychology in Africa were the ones held in Ibadan in 1966, concerning social psychological research in developing countries and the 1985 Ife Conference on Human Behaviour and the Challenges of National Development in Nigeria.

At the first Ibadan Conference in 1966, there were very few African psychologists present and, indeed, apart from the exclusively white European-oriented psychology departments in South Africa, there was only one psychology department on the African continent, at the University of Nigeria, Nsukka. But by 1985, when the Ife Conference was held, Nigeria possessed five full psychology departments: at the Universities of Lagos, Jos, Ibadan, Ife and Nsukka, together with specialized psychological teaching and research centres in Benin and in the other universities. There were also strong psychological departments in Ghana, Zambia and Zimbabwe, and a burgeoning one in Malawi. There were by then several thousand locally trained African psychologists on the continent, in sharp contrast to the three or four present at the 1966 Ibadan Conference. Clearly, a significant change had occurred in the intervening eighteen years, and it was gratifying to see that the focus of the 1985 Ife Conference was on the role of psychology in national development.

It has long puzzled me that to this day there is no psychology department in Kenya and very few, if any, in Eastern Africa. Thus, I cannot but agree with the statement in the announcement about the present conference, that looking at what happens in many African Universities, especially in Eastern Africa, the picture one gets of the status of psychology is a very disturbing one, as psychology plays a very insignificant role. It is for this reason that this presentation is addressed to Africa as a whole, since East Africa, in the current move towards expanding the role of psychology in its Universities, has a lot to learn from the experiences of psychology departments in other African countries, notably Nigeria,

Ghana, Zambia and Zimbabwe. I agree wholeheartedly with the statement of the present conference organizers: 'It is imperative that every effort should be made to promote the study of psychology as a science and as a profession', and this conference should serve as a catalyst for the formation of an Association of African Psychologists, comparable in its scope to the American Psychological Association and the British Psychological Society. This is very important because the history of psychology is full of racist overtones.

Even today, with the recognition of cross-cultural psychology as a new and necessary discipline within psychology, the running of the International Association for Cross-cultural Psychology (IACCP) has come under attack for its regulation by a small, essentially North American clique. The underlying racism of contemporary psychology is, I think, a function of its domination by the dogma of empiricism most clearly seen in the neobehaviourism of Burrhus Skinner. This should serve as a powerful rationale for the formation of a Pan African Psychology Association (PAPA), whose function should be to nurture and develop psychology as a science within the African continent in a manner which is fitting for African peoples. And that means not in the foreign tradition of neocolonialism, but in the African tradition of humanism. But the first question that arises is: How can it be ensured that African psychology will not also be racist?

My immediate and spontaneous reply is: 'Through African intelligence' - which is the subject of the next section of my paper, concerned with the concept of a total or global intelligence yet to be achieved by the people of our planet.

The notion of total intelligence was adumbrated in a series of papers, presented at a little known and unreported workshop on Social Psychology, organized jointly by the Makerere Institute for Social Research and Syracuse University and held in Lubin House, New York City, 17-20 December, 1968 under the chairmanship of Marshall Segall. The ideas presented in this paper were gained as a result of working for five and a half years with the National Institute for Health and Medical Research in Accra, Ghana, between 1961-66. There I became deeply involved in Developmental Psychology, making several extended field trips in Southern and Central Ghana, studying modes of infant and child rearing. My eyes were opened on a new world, one much more like the one I had dreamt of as a frustrated middle class schoolboy in South Eastern England in the late twenties and thirties. I was yet to formulate what it was I was experiencing: I talked of acting in the light of others' views, of pleasure rather than drudgery, of fact, intersexual ease, unselfconsciousness and ready acceptance of others' values. In the 1968 paper, I endeavoured to crystallise these ideas, drawing critical distinctions between both art and intelligence in Africans compared with Euroamerican cultures.

To quote: 'Art in African societies serves the vital function of unifying the people within the society, of preserving traditional customs and beliefs, of acting as a record of tribal history and folklore, and of enunciating cosmological and philosophical beliefs... Art

in the industrialized, highly technological society stands in contrast, being essentially individualistic and frequently outside the body of society. It is intellectualized to an extraordinary degree, giving rise to such phenomena as are provided by Walter de Maria, who filled three rooms in a gallery with two feet of dirt, calling it "concept art", observing that it can be just as strong in ideas as real sensation. Here the matter is dirt, the mind is everything...'

I recognized these extremes as reflecting fundamental differences in the philosophy of existence. The illiterate African draws no clear distinction between physical and spiritual words: mind and matter are one. Society's values are directed towards the maintenance of cohesiveness and solidarity, and one of the strongest social control agencies is the extended family, imbued with the general principle of collective responsibility. This is quite different from the dualistic patterning of the Western mind, reflected dramatically in the historical development of behavioursim, from Descartes through La Mettrie (C'homme machine), Hartley, Pavlov and Watson to Skinner. It arose in Europe with the transition from feudalism to capitalism, and provided the conditions for the rise of science and unbridled individualism. It was facilitated by Gutenberg's printing press (e.g. Mcluhun), and led to an increasing emphasis on 'out of-context' thinking, or abstract as opposed to concrete, unreal as opposed to real. From it emerged the narrowly defined notion of intelligence as 'g', which in my language refers to technological ability. It arose as part of Western society's cultural tradition, and encouraged a facility for solving problems on models of reality rather than reality itself. As I have already detailed, this whole process is imbued with racist ideology.

No longer was it valid to say, as the Yoruba traditional educationist would, that 'what a man knows is less, far less important than what he does'. Now one should be able to represent real life in the abstract, and work out problems accordingly. Social considerations are inevitably neglected, since the problem is conceived and resolved out of context. No wonder that at that time, when I worked with Jerome Bruner at the Centre for Cognitive Studies, Havard University, terms like 'disembedded', and 'decontextualized' were 'Ok' words: they reflected the Western world's concern with individualistic, out of context solutions of problems, and technological thinking generally.

My conclusion from these ideas was to recognize the need to study social intelligence in relation to technological thinking and, in particular, to explore the psychology of Africans as they are, not as they would be, or how they are, or how others feel they should be. I also wished to understand the nature and logic of social intelligence: could technical skills be considered in the same terms as social skills?

These ideas led to my writing, 'The Descent of Meaning' in 1970 and 'Social and Technological Intelligence in Western and Non Western Cultures', in 1973. In these papers, I endeavoured to define both aspects of intelligence and to argue for a reciprocal

facilitation of the two, combining them into a total intelligence going far beyond either and leading us into a more unified and ecologically sensitized world. Towards this endeavour, I proposed the incorporation of socially mediated art and discovery in education, as advocated, in particular, by Jerome Bruner. We also launched ourselves (in Lagos and later in Harare) into a variety of socially relevant research projects, notably, on the mother-infant relationship as an educational and psychotherapeutic paradigm, and on the development of language and morality.

It is particularly interesting that the character of social intelligence favoured by African and other Third World cultures fits the newly emerging post-positivist paradigm far more closely than the old positivist paradigm of behavioursim, which has so long dominated the patterning of psychological theory, research and teaching. This may be seen in the following characterizations:

Post-Positivist Paradigm	*Positivist Paradigm*
Intersubjective	Objective
Spiritual	Scientific
Holistic	Fragmented
Belief-oriented	Data-driven
Undifferentiated	Differentiated
Emotional	Withdrawn
Cultural	Philistine
Open	Closed
Warm	Cold
Social	Technological
Mutually causal	Linearly causal
Holographic	Mechanical
Heterarchic	Hierarchic
Complex	Simple
Indeterminate	Determinate

The post-positivist paradigm is essentially one of humanism and intersubjectivity. It recognizes that reality is essentially a social contract, as long ago advocated by Vygotsky and, more recently, by Moscovici in his theory of social representations (R.M. Farr and S. Moscovici (eds.) 1984). It is now clear that the social is primary, the technological secondary and derivative. The pattern of our teaching of psychology should follow in this vein. It fits the African traditional way of life far better and, in the long run, may serve to reinject soul into the coldly logical, over-rational world of the West - to retrieve the soul from ice.

The Teaching of Psychology

It is, I submit, an intuitive recognition by politicians and policy makers of the inherently dangerous racist undertones of positivist psychology that kept some African countries without any psychology departments, notably in East Africa. In this connection, too, it is interesting that the research concerns of Southern and Central Africa seem, in the first instance, largely due to South African influences, to have been focussed on psychometrics and human assessment, with the aim of making comparative studies of mental abilities rather than showing a concern for social processes. Until fairly recently, this was to some extent the case in Zimbabwe, although now it is changing, and in Zambia, thanks to the contribution of Serpell and his colleagues, psychometrics is no longer a dominant concern.

As earlier indicated, psychology in free Africa began in Nigeria (at Nsukka in 1966), where there are five or more departments of psychology, making it by far the best endowed of African nations in its psychological teaching and research resources. At this point, I wish to propose that we consider seriously the idea of supporting the production of an overall, historical and contemporary account of all psychology departments on the African continent. I think this would serve a very useful and constructive function.

What, then, is the ideal syllabus for African psychology departments? I see the following as basic and essential, with the proviso that they are geared towards the new, post-positivist, humanistic paradigm. First of all, a general introductory course in the first year covering the whole field of psychology together with its history. This course should be open to all departments in the university, and strongly recommended for all social sciences, education, law and mass communication students. There should also be courses in the techniques of psychology, by which I mean research methods, statistics and psychometrics, the use of computers, and experimental psychology. Other essential basic courses are developmental and social psychology, and neurocognitive psychology.

The third year should include systems and theories, and a must is the research project or honours thesis. Indeed, I do not feel a graduate who has not completed such research can properly be called a psychologist. All these courses would involve practical components and the research project should be conducted within the community. In my own experience, especially in Nigeria and Zimbabwe, a great deal of important research has been initiated and developed from what in the first instance were 3rd year undergraduate projects. There should not be a focus on questionnaire studies, since these can easily become thoughtless and meaningless exercises.

In addition to the basic psychology courses, the applied areas should be covered, notably clinical, industrial and organizational, educational, guidance and counselling, legal and environmental psychology.

With regard to post-graduate teaching, the first year of the Master's course should involve course work as well as advanced research methods. In my own experience, the post-graduate student has quite often forgotten much of what he learned as an undergraduate and undoubtedly needs further training in research strategies and procedures.

To summarize my key recommendations:

- We should work towards the formation of a Pan African Psychology Association.

- We should endeavour to produce a documentation of the history and status of all African psychology departments.

- There is a set of core courses which all departments should include.

- Every student doing a full psychology degree programme should conduct a supervised field research project in his third or final year.

- Advanced research methods should form part of the first year course work of a post-graduate Master's Degree.

- Full recognition should be given to the paradigm shift currently occurring in all the sciences, most significantly in psychology. The old dominant themes of behavioursim should not be discarded, but used if needed as techniques within the post-positivist paradigm and explained thereby. The new emerging paradigm is akin to phenomenology, existentialism, social representation theory, and humanism. The subject matter of psychology is real life. The laboratory is the community.

I would also like to stress the importance, where possible, of interdepartmental visits of the kind we have found so successful between Nigeria and Ghana, Zimbabwe and Zambia. These involve road travel of groups of students and staff from one country to another, and the holding of student seminars as well as social gatherings. We have found these interactions to be highly instructive, enjoyable and memorable, and I strongly recommend that other University departments try to do the same.

In closing, I wish to thank the International Development Research Centre (IDRC) and the British Council for enabling me to be in Nairobi to present this paper.

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3. PSYCHOLOGY FOR PERSONAL GROWTH: HUMANISTIC PERSPECTIVE

A.A. Olowu

Introduction

Most people are content to live an animal sort of existence. They are content to inhale and exhale, eat and sleep and apply themselves to the routine necessities of life, day in and day out, until they pass on. They do not live at all, in the broadest sense of the term. True living consists in constant growth into the large life, the broader experience, the deeper culture. True living consists in developing our manhood and womanhood, not just physically, but mentally and spiritually as well.

Scientists and psychologists tell us that the so-called average person uses a very small percentage of his mental potential. The amount has been placed somewhere between three and ten percent. We are mental pygmies and as such our lives are stunted. What the world needs is not college diplomas but common sense. It is not the name of the school you attended that counts but rather whether the food of knowledge was properly assimilated for practical use and individual growth. Some men become physical giants and nothing else. Others succeed only in making money. They grow in one direction. They are like a tree with but one branch. Regardless of how large the branch may become, such a tree does not present a beautiful image, because of its deformity. We should grow into complete manhood as the mighty iroko tree with all its many limbs fully developed.

Let our tree of life be firmly rooted in principle. Let us direct the life-flowing power within towards all branches of character and other personality traits that comprise the whole man, the well-rounded personality. May our growth unfold into a masterpiece of nature (Bremer, 1971, p.198). *

The time to grow, to begin to let go of one's present self-concept, is evidenced by boredom, failure and anxiety. These experiences signify that you and your real self have changed but that your self-structure has not. You are *impersonating* an identity that up to yesterday may have been authentic and life-giving. Now it is not.

If your present identity is not sustaining a rewarding and health-engendering life and you do not see ways to grow and change, then it might be valuable to find a personal counsellor or psychotherapist. Conversations with a professional person can frequently lead to growth-producing changes that are not destructive (Jourard, 1974, pp.200-201).

Psychology

Traditionally, psychology is defined as the scientific study of human behaviour and experiences. This science has three major aspects. First, there is the *knowledge* of *behaviour* which and *experiences* which consist of scientifically established facts and theories regarding behaviour and experiences, not half truths, old wives' tales, slogans, intuition, wild guesses, bold assertions, or even unsubstantiated common sense. Psychology is concerned with facts and the theories they support. Second, there are the *methods* and *research* used to obtain this knowledge, commonly referred to as scientific methods, which are the accepted procedures for studying behaviour and experiences in an objective way. Third, there is the *application* of this *knowledge* to psychological problems in order to improve the general welfare of all people through the use of scientifically established psychological facts and theories. This is a challenge to all of us.

Psychology has grown immensely in its relatively short history. It has brought more and more aspects of behaviour and experiences under its purview and has attracted to its fold persons of many different persuasions. It has striven, often self-consciously and defensively, to take its place as a real science in the ranks of the natural sciences and, in doing so, has frequently seemed to depart from its original pre-occupation: the moral behaviour of man.

The point here is that, for whatever reasons, man as a whole, man as a functioning, *personal* and social organism, has many times disappeared from view. It is appropriate, now that man often stands with his back to the wall, when the civilization he has created seems at times to hang in the balance, that psychology should be mindful of him. Man must be seen as an open system, not only adaptive but capable of unique expressive behaviour, manifested in each individual's particular style of life.

Psychology should reject any attempt to separate the study of behaviour from the process of living. Man should be seen as a self-affirming being who strives, through his chosen goals, to realize his potentialities.

A revolution is going on in psychology. A different image of man is being tried as a guide to research, theory and application. Over the years, theorists have conceptualized man as a machine, as an organism comparable to rats, pigeons and monkeys; as a communication system; as a hydraulic system; as a servo-mechanism; as a computer - in short, he has been viewed by psychologists as an analogue of everything but what he is, a person. Man is indeed like all those things; but first of all, he is a free, intentional subject.

The disciplines of existentialism, phenomenology, humanism, and personalism are gradually being absorbed by workers in the field and psychology is being reworked,

rewritten and re-applied. Psychologists are using their experience of themselves as persons as a guide to exploring and understanding the experience of others. This is not the death of objective scientific psychology, rather it is a proof of the birth of a scientifically informed psychology of human persons - a humanistic psychology.

We should accept Jourard's (1968) invitation to become educated men as we become trained psychologists. Jourard argued that psychologists who are educated men cannot help but be active humanistic psychologists. A sure sign of this is by devoting the powers of rigorous inquiry to the questions and answers which will form a growing, more viable image of man as a human being with potentiality, not solely a biological or socially determined being.

According to Boring (1958), psychologists should stop resisting the humanizing deviations that would bring their science over toward scholarship and wisdom and understanding. This resistance goes on because they are dedicated to a narrow empiricism (p.62).

Personal Growth

Otto and Mann (1969) opined that growth has always fascinated man, but that he has studied it only from the outside. None of the scientific accounts of growth and development are *informed by the experience of the one growing*. Instead, we have accounts of physical and behavioral development, as these appear to the scientist's eyes, or as they leave traces on his recording apparatus, to show up as 'growth curves' in a scientific treatise. The other side of growth needs to be shown, if for no other reason than to round out the story.

Jourard (1968) defined growth as the disintegration of one way of experiencing the world followed by a reorganization of this experience, a reorganization that includes the new disclosure of the world. The disorganization, or even the shattering of one way to experience the world, is brought on by new disclosures from the changing being of the world-disclosures that were always being transmitted, but which were usually ignored.

People strive to construct a stable world, a world they can control and get their bearings in. The disclosure of change is going on all the time. The retotalization of experience which consumates a growth cycle happens when a person sets goals and projects for himself, when he envisions a possibility and sets about trying to bring it to fruition.

When then?

In fact, the growth cycle is often tripped off by a failure in goal-keeping. As one sets about trying to make or do something, one finds that one's initial concepts and beliefs about

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what and how things are, are not so. Faced with failure, one must then suspend one's present beliefs and let the world disclose itself as it now is.

A growth cycle can also be triggered when goals and projects turn stale. Boredom signifies the immensity of growth. The time is ripe for the experience of new goals, and new unfoldings of our being. It is time to let the world and ourselves disclose their being to our experience. We may undergo this new experience in delight, or in the terrifying realization that we are going out of our minds.

Martin Luther and Goethe have shown us that inner turmoil could be a forerunner of vital improvement. The enlargement of experience, the wisdom and perfectability to which it may lead, is born in an inner strife (Bonner, 1965).

How?

Psychology has been shown to hold out hope for man. The process of personal growth has been shown in existentialism, logotherapy, humanistic psychology, Rogerian psychology and in the psychiatric work of Menninger (1963). Although based in the Freudian framework, Menninger's view of man is at variance with the metapsychological pessimism of Sigmund Freud. Man, he conjectured, is capable of self-abnegation that the pleasure principle cannot explain or justify.

Bonner (1965) argued that the psychological investigation of perfectability is the most difficult task in the study of man. He contended that perfectability can be understood better when we know the barriers which block or prevent the realization of one's potentialities. These barriers have been widely considered in connection with the problems of development and growth; but their relevance to human perfectability has been neglected.

Psychology should be made more relevant by the fuller development and individualization of persons. This is why the humanistic breed of psychologists seeks to find new ways to do research, to invite man to disclose himself and to utilize findings that will further free man from the stagnant images of his possibilities.

In the words of Jourard (1968), he would seek ways to maximize growth and to discover the social conditions that make such self-actualization possible for more people. He would like to help the little man become less little and would like to see more psychotherapists function as gurus and counsellors for transcendence rather than as skilled spokesmen for, and reinforcers of the status quo. Psychologists should function as protectors of human freedom and enlightenment, as disclosers of man to himself, to balance the effects of those whose work has served as guidance for industrial, business, political and institutional leaders.

Psychology should not follow psychiatry in the search for pockets of pathology. Elsewhere, Olowu and Lamikanran (1986) have advocated for a de-emphasis on physical therapy and asked for a step-up on growth guides.

I subscribe to Jourard's view that the concern for human possibilities that marks a humanistic psychologist makes him an important resource person to such agencies as the Ministry of Education, offering guidance and suggestions as to the means for enriching our present institutions of learning, so that they educate and liberate people as well as they presently indoctrinate and socialize them (p.230-231).

We should not be soulless pendants, furiously busy with issues in the backwaters, rather than the mainstream, of the human course.

The Process of Personal Growth

Growth of the self is not the same as physical growth, although both dimensions of growing are simultaneous in children. Growth of the self is a change in the way of experiencing the world and one's own being. However, not all change in experiencing is growth. Growth is only when the changes enhance the person's ability to cope with the challenges in his existence. Jourard (1974) opined that some alterations in experience, such as occur in psychosis, make effective action impossible. They may be described as regression rather than growth.

Personal growth is likened to the experience of a voyage, leaving home (one's present identity or view of self), travelling to strange places (openness to new dimensions of experience of self and the world), and a return, to enlarge the home in ways that befit the larger person one has become (Laing, 1967, 1970).

All meditative disciplines, such as Zen and various yogas function as a means of disengaging a person from his ways of experiencing and releasing new dimensions of consciousness. Several psychedelic drugs also disengage a person from his projects and his accustomed experience of self and the world. The process of being 'saved' is also similar to the person 'leaving home' and opening himself to the free play of perception, thinking, remembering, imagining and feeling.

The writer is not advocating the use of psychedelic drugs for growth-enhancement. On the contrary, he agrees with Jourard (1974) that, if a person is of narrow perspective, immature and incompetent and not responsibly engaged in work and personal relationships, such powerful disengagement from his customary identity can be destructive to his capacity to cope with the world.

Exposure to a perspective larger than one's own can also disengage a person from his commitment to his present view of self and the world. Thus, a dialogue with a sage, a counsellor or therapist, can be an eye-opener, and can explode a person's view of his possibilities. The same can happen through reading books written by authors who have achieved larger perspectives. An encounter with death, either through a near escape or the loss of a loved one, can persuade a person to suspend his present identity and the way of life that accompanies it, in order to review new possibilities. The realization that one will inevitably die can liberate a person from attachment to unimportant activities, relationships and confining places.

In other civilizations and times, a variety of techniques for letting go were employed in religious ceremonies and rites. In a sense, they were deemed ways of encountering the gods in the quest for guidance in life. Thus, fasting, chanting, dancing, retreat into the desert or to a mountain, all have been employed to disengage a person from reminders of who he has been, so that he might become a different, more viable self.

A growth cycle is completed when a person affirms his larger experience of self and the world and modifies his concept of self, his public self and his self-ideal, in light of the enlarged awareness. He now knows he is more and can be more and different, than he hitherto believed possible. This alteration and enlargement of one's sense of self is desirable and conducive to a healthy personality.

However, difficulties are bound to arise with people around one who do not change. They may resent the changes which the growing person has introduced and even attempts to cause him to back-pedal, which would be disastrous.

Growth is change, in the direction of greater awareness, competence and authenticity. Every episode of growing enlarges a person's knowledge of the world and the ability to be aware of what is going on. Growth makes it possible for a person to see connections between ways of behaving and their consequences on well-being. It is difficult to allow for growth as the old ways are apparently more comfortable. Growing goes on throughout a person's life span, if he is courageous enough and, if he is encouraged. The person who encourages is a psychotherapist who may be a psychiatrist, a clinical psychologist, a counselling psychologist, a social worker, a clergyman or a nurse. He is trained to help people explore new ways of being when their customary ways have led them to an impasse or sickness. In the humanistic approach, this psychotherapist is a listener, who respects his patient (client). He enlightens and demystifies his clients. The therapist is attentive to dreams and body language and invites his patients to greater immediacy. He inspires them with hope and faith, and leads them to act in the ways that generate health and growth. He does not push his religious convictions down the throat of his patients.

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The encounter group situation, which stems from this approach, gives ample opportunity for personal growth, freer communication and fosters a healthier personality in many settings. Other personal growth groups include Alcoholics Anonymous, Synanon, the Integrity Group, and Weight-Watchers.

Personal growth can also be attained by psychoanalytic methods, which are time consuming, expensive and hard to get. The Behaviour Modification Programme is another method, where good behaviour is reinforced with better conditions while bad behaviour is ignored. This method has been used by such psychiatrists as Wolpe (1969) and Ullman and Krasner (1965, 1973). People suffering from phobias, inhibitions, compulsive acts are put through extinction procedures, desensitization, aversive training and programmes of positive reinforcement for desirable behaviour.

What we are saying is that this humanistic approach is most personal and gives respect to the client. Some people say it is un-African because it does not dogmatically lead the client. This is a narrow or rather un-informed concept of Africa. In Africa, the old order has changed and yielded ground to a new order. To this criticism, it is only proper to say in Yoruba that, *Alatishe ni mo atise ara re* (Everyone is the architect of his own fortune). Nobody really knows how the approach feels but the person himself. There is no substitute for personal experience.

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4. THE IMPORTANCE OF CHOICE OF PARADIGMS

IN PSYCHOLOGICAL RESEARCH IN AFRICA

Barbara Garner Koech

Introduction

As a field of investigation, Psychology has not been free of conceptual or ideological debate concerning the appropriate subject matter or the basic assumptions and the methodologies employed in the study of human behaviour and thinking. Historically, one can trace diverse schools of thought within the science, including structuralism, functionalism, behavioursim, gestalt psychology, psychoanalytic psychology, cognitive psychology, existential psychology and humanistic psychology.

This paper focuses on the applicability of diverse and seemingly incompatible paradigms of psychological research in Africa. The goal is to present a rationale for the use of divergent research paradigms and designs in order to increase our understanding of the behaviour and thinking of the African people from their own rather than from a Western or European perspective in cross cultural comparison.

Specifically, the paper introduces the phenomenological paradigm and its methods and discusses the value of employing these naturalistic reflexive methods as the basis of research or, in the initial stages, of empirical research studies. The theme presented is that we need choices in our selection of paradigms and their research methodologies. The subject of study in the science of psychology is complex and capable of intentionality and reflexivity. The inclusion of the phenomenological paradigm and its methods will increase our ability to understand the thinking, feeling and behaviour of the people of this continent.

Alternative Conceptual Paradigms Within Psychology

Psychology, like other social sciences, has not been stagnant conceptually; rather, it has been affected by cultural and individual influences, resulting in diverse branches and schools. Some of these conceptual and philosophical changes have come as a radical response to other conceptualizations. For example, behavourism developed in response to introspection and the study of unconscious processes; humanistic psychology in response to the mechanistic study of behavioursim and neobehaviourism.

The presence of alternative conceptualizations within the science is a problem to some and not to others. It is a problem to those who conceptualize psychology as a single, conceptually coherent discipline; to those whose own conceptualization is challenged. Others (Koch, 1976; Royce, 1986) consider these diverse conceptualizations and radical shifts within psychology to be endemic to scientific psychology itself. Humans are complex and multifaceted; the subject matter which focusses its study on them cannot be less so. Consequently, diverse theoretical perspectives and conceptualizations that focus on human behaviour, conscious experience, underlying unconscious and mental physiology are needed. This latter perspective is taken by the writer.

A closer look at several radically divergent and potentially or seemingly incompatible paradigms within psychology is warranted. However, prior to that, the concept of 'paradigm' itself needs clarification, as it is used on two levels of generality. 'Paradigm' is primarily a sociological concept, proposed by Kuhn (1962). It refers to agreement among a group of scientific practitioners concerning the following:

- the basic assumptions on which the practice of science depends;

- theoretical framework concerning the type of questions that will be asked; and

- methodological procedures.

Paradigms within this view are incomparable, as the questions asked under one cannot be asked under the other and the basic assumptions are different. Paradigms, according to Kuhn, are broader than different and divergent methodological procedures such as naturalistic versus experimental research approaches. The latter is not the original conceptualization of the term and is not what is meant within this paper when 'paradigms' are described.

What constitutes a paradigm within psychology is open to debate. Palemo (1970) identifies several paradigms and paradigm shifts: structuralism, behavioursim and the more recent paradigms from the linguistic and computer sciences. In contrast, Warren (1971) believes that psychology is in the pre-paradigm stage with its multiple schools of thought. For the purposes of this paper, the writer will focus on two schools of thought in psychology, accepted by Valentine (1982) as meeting the criteria of explicitness necessary to be conceptualized as distinct paradigms. These two schools are behavioursim and humanistic psychology, and, more specifically, phenomenology.

The two paradigms discussed here are not to be critiqued in this paper. Rather, they are both presented as being viable perspectives concerned with the study of humans, each with an alternative world view, assumptions, questions to be asked and answered, and

methods. Because the newer paradigm (phenomenology) may be less familiar to the reader, the focus of the paper will be on the relevance of that particular paradigm in the African context.

Behaviourism

Behavioursim and its empirical methods within positivist science is generally familiar to psychologists worldwide. Historically, it is traced to Russian psychologists and then to America where it has flourished. A brief overview of the behaviourist movement follows.

Ivan Pavlov charted a new direction for psychology and psychological investigation with his animal experiments. He was part of a team of Russian neuropsychologists who rejected the introspective approach of psychology and advocated a strictly objective experimental approach that is the hallmark of behavioursim even today. Through his concept of the conditioned reflex and the conceptualization of classical conditioning, Pavlov enabled psychologists to explain certain behaviours and differences in behaviour.

John Watson, an American psychologist, is credited with the founding of 'behavioursim' as a school of thought. Within the behaviourist school, study is focussed on observable responses to specific stimuli. These responses can then be measured as they occur. Watson, however, also emphasized the mechanisms of learning and the role of the environment in developing and maintaining behaviour.

Another American psychologist, B.F. Skinner, popularized behavioursim. While narrowing its specific predictive claims in reference to the behaviour explained, he also broadened its social implications. He proposed that the consequences of behaviour provide the basic mechanism for predicting and shaping future behaviour. The techniques of reinforcement - controlling the consequences which follow behaviour - are used extensively in behaviour modification programmes and programmed educational programmes, etc. In addition, Skinner's research methods have become the basis of numerous laboratory experiments.

Some of the recent areas of study in cognitive psychology share the mechanistic model of behavioursim. Specifically, information processing and the computer simulation model of the brain have expanded the original conceptualization of behaviour to include thinking. However, the focus is on neuro-physiological responses rather than on thinking as a constructive process. The latter is within a different school of thought.

As has been stated, then, one of the hallmarks of behavioursim as a world view is this mechanistic perspective in which man is comparable to a machine which responds to environmental control. Its focus on observable behaviour as the appropriate area of study was a rejection of the study of the unconscious and the use of introspection as a

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method. The behaviourists' goals of explanation and then prediction of behaviour are best realized through empirical methods and tightly controlled laboratory experiments. The subjective lies in opposition to objective reality and must be controlled through use of specific techniques.

The philosophical basis of behavioursim is 'positivism' as espoused in the nineteenth century by the French philosopher, August Comte, and then by the logical positivists. According to Comte, human behaviour, institutions and political organizations could be investigated and ultimately brought under control by the same kind of methods and principles used in the natural sciences. Psychology would benefit and develop as a science if it were to employ the methodologies of physics, for example.

From logical positivism, which was a conservative form of positivism popularized in the 1920's in Vienna, came the notion that science and philosophy should be purged of metaphysics. Morality and questions of values were considered unscientific and only scientific statements whose contents were capable of verification publicly were appropriate. Verification became the cornerstone in behavioursim. A discussion of values was unscientific as non-verifiable.

The 'cause and effect' model employed in behavioursim has its roots in the eighteenth century philosopher, David Hume. Although Hume felt that the concept 'causes' is a metaphysical notion, one could speak of antecedent events which precede behaviour with sufficient regularity to predict future behaviour. In early behavioursim, the antecedent events were events in the outside world; they were stimuli which elicited responses from a passive organism. In later behavioursim, stimuli are mediated by the organism rather than having a direct effect: the social learning theory and the mediation model of Bandura are examples. However, in these latter forms of behavioursim, the original 'causal' model is conceptually the same as before: the organisms' behaviour is a response to external stimuli.

Phenomenology and Humanistic Psychology

Humanistic psychology is a diffuse movement which is unified by its philosophical base. Historically, the main antecedents of humanistic psychology are phenomenology and existentialism. A description of phenomenology is particularly warranted for its contrast with behavioursim.

The term phenomenology was coined in the mid-19th century (from the Greek 'phenomenon' meaning appearance, that which shows itself) to refer to the study of the essential nature of consciousness. According to phenomenology, reality is relative to consciousness but transcends it. The goal of phenomenology is the systematic description

of the invariant structures of consciousness which constitute the necessary preconditions for experience and knowledge (Valentine, 1982, p.154).

In some descriptions of the movement, it is pointed out that what unites phenomenologists is their conviction that it is only through returning to the primary sources of direct intuition and to the insights into the most basic structures derived from their intuition that they shall be able to clarify the concepts and problems of philosophy intuitively, to restate them intuitively and eventually to solve them, at least in principle. This reflexive intuition is the basis for science, particularly the science of the study of man.

Phenomenology, as well as areas of symbolic interactionism, naturalistic behavioursim, ethnomethodology and ecological psychology, is based on the doctrine of 'verstehen'. The 'verstehen' tradition as described by Patton (1980) and Bogdan and Taylor (1975) stresses that man can be understood in a manner that other objects cannot, and that there is a human capacity to know and understand others through sympathetic introspection and reflection on detailed descriptions and observations. This tradition emphasizes *understanding*, focussing on the meaning of human behaviour and the context of social interactions. Bogdan and Taylor trace 'verstehen' to Max Weber's perspective which aims at an interpretive understanding of humans. They suggest that 'the phenomenologist is concerned with understanding human behaviour from the actor's own frame of reference ... (and) examines how the world is experienced' (Bogdan and Taylor, 1975, p.8).

Historically, phenomenology is traced back to the work of two German philosophers, Franz Brentano and Edmund Husserl. To Brentano, psychology is the necessary, if not sufficient, foundation of philosophy; but his view was that psychology would be free from the physicalism and physiologism of the previous period. He conceived of a pure psychology based on independent sources which were intentional reference structures of psychological phenomenon.

The first concern of Franz Brentano in psychology was to develop a characteristic which separates psychological from non-psychological physical phenomena. Intentionality became a decisive constituent (structure) of psychological phenomena. The concept of intentionality was in response to British empiricist philosophers such as David Hume who regarded the mind as nothing but a bundle of different perceptions which succeeded each other with unconceivable rapidity and were in perpetual flux and movement. Intentionality points to the acts of consciousness as being distinct from the object about which one is conscious. To Brentano, there can be no tears without something to cry about and no joy without an object which makes us joyous. That which brings out the tears or joy is distinct from our awareness of that object. In psychology, these acts, which Brentano categorizes as representations, judgments and emotive acts (love and hatred) are the proper subject

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matter for psychology. Of these three categories, representations are the primary phenomena and the foundation for acts of judgment and emotive acts.

Edmund Husserl was interested in establishing pure logic without psychological prejudices. Pure logic is a two levelled structure consisting of:

- truths which are propositions studied and composed of meaning in various combinations; and
- things to which these propositions refer, such as states of affairs to which they assert a relationship that will be investigated.

In his analysis of consciousness, Hesserl enriched Brentano's concept of intentionality. To him, the acts of consciousness themselves (noesis) and the contents of consciousness (noema) are distinguished and investigated not on the basis of empirical generalizations, but through an intuitive grasp of their essence. The methodology he proposed involves stripping away the subjective interpretation of what is seen until the pure essence of it remains.

To clarify the construct, let me use the description in reference to an object and the meaning it has for an individual. In Hesserl's theory, there is a difference between an object which is intended (identified, constituted) and the object as it was intended. The latter is what we identify with meaning. The brain does not just perceive as empiricists contend, but attributes meaning to what is perceived.

According to Hesserl, this meaning is shared among individuals and groups so that the world as it is understood, conceived and interpreted by certain social groups is accepted as reality. In science, this interpretation becomes 'the subjective bias' which must be stripped away in order to reveal the pure essence of what is being studied.

Phenomenological psychology in Hesserl's view would investigate the intentional structure of consciousness. Only through achieving a description of the essences of psychological phenomena, such as memory or representation, could studies of correlation and causation be undertaken meaningfully.

Phenomenology has become the basis of several views and perspectives in humanistic and existential psychology. In reference to personality disorders, both perspectives insist on the phenomenological approach that stresses the individual's freedom to make a choice, individual uniqueness and the potential of persons.

The contrast between phenomenology and behavioursim is complete. Phenomenology studies the essential nature of consciousness, the invariant structures of consciousness which constitute the necessary preconditions for experience and knowledge;

behavioursim is concerned with behaviour rather than experience or consciousness and the emphasis is on learning rather than on constructing meaning.

The phenomenologists study subjective meaning, which is anathema to the behaviourists. In fact, phenomenology rejects the subject-object dualism and the reduction of one to the other, which empiricists and behaviourists accept. A central tenet of phenomenology is the interdependence of the knower and the known. To a phenomenologist, science constitutes rather than discovers the world as empiricists believe. The rationalism tradition of behaviourists implies knowledge is chiefly 'a priori', prior to and independent of experience.

The behaviourists and phenomenologists approach different problems and seek different answers because of their different assumptions and goals. Whereas the behaviourist investigates the causes of social phenomena without interest in the subjective states of individuals, wanting to explain the causes of behavioral events to the greatest extent possible with the goal of being able to predict and control behaviour in the future; the phenomenologist wants to understand a person's subjective construing of reality.

Because each of these paradigms has different assumptions and questions, the methodologies demanded are also very different. The methodology of phenomenology will now be described.

Research Methods in Phenomenology

Analysis in phenomenological psychology called 'reductions' in phenomenologists' own technical language can 'in principle reveal the structures that have to be explained by natural scientific psychology' (Wetherick, 1979, p.101). It is then fundamental as a base for understanding phenomena from which hypotheses may be formulated and tested. For the purpose of analyzing phenomena to understand their essence, or the essence of consciousness itself, introspective methods such as were popular at the turn of the century are unacceptable to phenomenologists since they leave the presuppositions of the research intact. In the reductions of the phenomenologists, the subjective world view of the individual must be stripped away.

Phenomenology seeks to investigate the theme of how we subjectively construe reality by suspending the belief that reality is objective and putting aside the subjective into 'brackets'. The phenomenologist suspends his subjective perspective through a process involving a series of graduated reductions.

Reduction in phenomenology is a technique of changing the focus as one relooks at something that was already in experience prior to the external initiation of that change in focus. The shift in focus is an active search for presuppositions and the essence of what

is being looked at. It allows 'imaginative variation to work out an explication of consciousness already operative and effective' (Bourgeois and Rosenthall, 1983, p.134).

During these reductions, a phase of categorical intuiting occurs. For Hesserl, this involves a careful consideration of representative examples which are used, in the words of Spielberg, as 'stepping stones' for the generation of an ideation. The examples must necessarily be varied freely but methodically in order to grasp essential relationships between phenomena. Spielberg describes this intuiting phase as 'intense concentration on, and an attentive internal gaze at, phenomena' (Spielberg, 1971).

Following this intuiting phase, there is a period of analyzing. Here the various constituents of phenomena and their relationships to one another are found. The third phase is that of describing of providing, 'an account of intuited and analyzed phenomena such that they can be understood by others' (Spielberg, 1971).

In the process of conducting phenomenological techniques or research, the researcher does not separate himself from the phenomena to be studied by the use of objective instruments. He is the instrument for data gathering and is to take part with the participants in the research as a 'disinterested observer'. Hesserl contends that the phenomenologist is not 'uninterested', but rather he remains without values concerning the phenomena - he is nonjudgmental.

The data generated in phenomenological research is qualitative in nature. The process and technique of phenomenology is rigorous, if properly done, and may be coupled with the safeguards proposed by Egon Guba (1980) to ensure, as it were, the trustworthiness of the data. Methods proposed by Kitwood (1977) for analyzing qualitative data are also useful. These have been described in another paper (Koech, in progress), and will not be discussed further here.

Relevance of Phenomenology for Researchers in Africa

We began this paper with the recognition that there are at least two paradigms within the science of psychology and we have traced the philosophical bases of the two prevalent ones in order to try to comprehend their fundamentally different perspectives. In the preceding section, we considered some of the basic research methods of phenomenology. Now we come to the question: So what relevance, if any, does phenomenology have for us as Africans and African researchers?

The value of phenomenology to us is threefold. First, phenomenology can be viewed as a possible way to get to understand ourselves, our consciousness as Africans, as either Kenyans or Nigerians or Zimbabweans, and as Luo or Shona. This is the ambitious

search for the consciousness of the African people. More specifically, it is the investigation of the contents of the thinking, remembering, judging of the African people for the purpose of having them understand themselves. It is not self-conscious soul-searching, but rather a rigorous, scientific attempt to comprehend and document the contents of the consciousness of specific groups of people in order to eventually derive the essence of broader groups and then of 'African consciousness'. This becomes the philosophical basis for new forms of thought, new philosophical traditions. Perhaps this may never be realized, but, to the writer, it is a worthwhile venture for psychology among Africans.

Second, Hesserl suggested that researchers involving others in an experiment should themselves take the perspective of the experimentee. They should then reflect upon the experience in an attempt to identify their own presuppositions and values which are being communicated to the subject and which could bias the subject. This, therefore, is the value of the technique of reductions (in the phenomenological sense) to the researchers involved in the empirical method, particularly in experimentation.

Third, phenomenology is a valuable research tool with which to derive a greater understanding of the processes related to consciousness such as judging, thinking and remembering. It affords the researcher an opportunity to 'see' the process as it occurs in a natural setting. In addition, it permits relationships among phenomena to 'emerge'. Consequently, potentially influencing factors can be identified for further investigation. It is highly relevant then as a means and a basis for the generation of hypotheses.

Implications and Recommendations

If phenomenology has relevance to us as African researchers, what are the implications for training researchers and funding research? In reference to the training students receive in their undergraduate and post graduate coursework, the writer's concern is great. Do we discuss phenomenology and phenomenological reduction techniques, analysis of data generated by categorical intuiting and proper accounting of descriptions in our courses on research methods? Does the list of our specific courses reflect a presupposition that behavioursim is the only paradigm or that the empirical method is preferable to all other methodologies? Do we have available adequate models of the techniques employed in phenomenological research? Do we encourage students to select topics for study which could be investigated through phenomenological techniques or is our accepted model of postgraduate research exclusively one of hypothesis testing?

If the answers to these questions are in the negative, a review of the policy decisions and their underlying assumptions could suggest how the option of choice could be incorporated. Extensive dialogue concerning the different but potentially complementary nature of the paradigms will be necessary to reduce the tensions and feeling of competition at a time of limited financial resources for research, laboratory equipment and supplies.

Perhaps specialization in one of the two paradigms discussed in this paper by particular institutions could provide for 'Centres of Excellence' in each of the research methodologies, rather than having each university attempt to cover both with equal treatment. Training sessions in the techniques of phenomenology and a demonstration of the rigour of reductions may necessitate some visits by phenomenologists to the institutions where phenomenology has not played a substantial role in courses and research methodologies. Collaborative ventures among institutions in the region would be helpful, particularly due to the requirement of phenomenology to strip away the researchers' presuppositions. Collaborative ventures would allow for cross comparisons and discussions of the construed meanings each researcher takes for granted as being the reality.

In the areas of guidance and counselling, are we including the techniques of phenomenology in our syllabuses? Are they taught the theoretical aspects alone without seeing the reduction techniques in practice? Training in these techniques is extremely valuable in order that they may become effective. Students are given practice in statistics and test construction. Are they given practice in reductions?

Funding agencies in general and particularly at times of economic 'belt-tightening', prefer to fund problem-centered areas of research rather than the basic research that is at the heart of phenomenology. However, phenomenological techniques can be used to focus on a problem such as AIDS, road carnage, or child abuse in order to identify the underlying thinking of people about the problem, its causes and relationships of the phenomena to others. Consequently, the researcher interested in phenomenology needs to focus the study on the consciousness of people concerning a specific problem and indicate clearly how their insights will ultimately lead to an understanding thereof from the point of view of the people. This, in turn, will suggest the sources or causes of the problem.

Attitudes and conceptualizations concerning what is and is not research may require adjustment in order to encompass phenomenology and its descriptive accounting of events. We have been accustomed to research questions, hypotheses and tests of significance. However, I suggest that it is time to open up to this other research paradigm, to allow it to enhance our understanding of people and the development of the science. This does not jumping on the bandwagon of phenomenology. Rather, it is an appeal that we not handicap ourselves here in Africa by ignoring one of two viable research paradigms and thus the insights it could lead us to. Valentine points out that phenomenology recommends a method of theoretically neutral observation and description, which it shares with functionalist psychology and the early stages of ethology. Although unattainable in the limit (presuppositions cannot be entirely eliminated nor can non-conceptualized experience be communicated), it is laudable as an aim. It is particularly desirable at an initial stage in a complex discipline and too often bypassed in psychology (Valentine, 1982, p. 157).

Let us not bypass phenomenology in our African research and teaching institutions. Rather, let us be open and provide for a choice of paradigms.

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SECTION II: TEACHING AND TRAINING OF PSYCHOLOGISTS

5. THE LINKAGE BETWEEN UNDERGRADUATE STUDIES IN PSYCHOLOGY AND POST-GRADUATE STUDIES IN EDUCATIONAL PSYCHOLOGY

F.M. Okatcha

This paper examines the current status of teaching psychology, with specific reference to Kenya. In doing so special attention is focussed on the importance of increasing our understanding of complex human behaviour, the relevance of undergraduate studies in educational psychology to post-graduate studies in educational psychology, the role of educational psychologists in society and how they should be trained so that they competently play such a role.

Understanding Complex Human Behaviour

Psychology is best defined as the scientific or systematic study of behaviour, which operates within testable hypotheses. Thus, psychology aims at explaining human behaviour. It enables us to understand why some people behave the way they do.

Psychology is not a new discipline as some people claim. It has existed for many years. We know, for example, that even at the time of creation, it was used to control behaviour. In Genesis Chapter 3, we are told that when Adam and Eve indulged in undesirable behaviour, God punished them. Since then, punishment has been used by individuals, parents, governments, and many other institutions to control behaviour; while attempts to explain it have been made through various theories. Some of these were advanced by individuals who were not necessarily psychologists but had a keen interest in human behaviour.

For example, in 400 B.C. Hippocrates, the father of modern medicine, came up with an interesting theory that explained man's behaviour in terms of body humours. According to this theory, human beings have four humours - black bile, yellow bile, phlegm and blood which are supposed to be of differing amounts in different individuals. Individuals with a lot of black bile are supposed to be sad and those with a lot of the yellow are supposed to be easily excitable.

Many years later, the phrenological theory also attempted to explain man's behaviour in terms of the structure of the head. According to this theory, you could tell or predict someone's behaviour by just looking at the structure of his head. Thus, for

phrenologists, a man with some bumps at the back of his skull was supposed to be a lady killer.

This kind of theorizing continued into the 20th Century during which, for example, Sheldon (1940) tried to explain man's behaviour in terms of body types. He advanced what is known as the somatotype theory, according to which, human beings can be classified into three categories: endomorphs, mesomorphs and ectomorphs.

Endomorphs are fat and have round tummies. They worry a lot and love eating. Mesomorphs are the athletic type; they are supposed to be adventurous. Ectomorphs are skinny or bony. These are the ones who complain too much and are also both unfriendly and unsocial.

Thus, for a long time, there has been a strong interest in explaining man's behaviour through various theories and although the three theories cited here have been branded pseudoscientific theories of behaviour, their influence on some people's perception of what psychology is all about cannot be ignored. It is evident in the way some people view or define psychology. For some, psychology is still viewed as a study of the mind. On this basis, psychologists are expected to read people's minds. In other words, they should be able to tell what other people are thinking by just looking at them.

The influence of these pseudoscientific theories is also seen in the way some people form stereotyped impressions about others. Thus, a man in a decent suit is judged or perceived to be more honourable and trustworthy than a man wearing torn clothes, hence Shakespeare's quotation of Julius Caesar:

> Let me have men about me that are fat
> Sleek-headed men, and such as sleep o'nights;
> Young Cassius has a lean and hungry look;
> He thinks too much; such men are dangerous.

A careful examination of what has already been pointed out shows that, in spite of the development of psychology as a science and a profession over the years, psychology is still perceived, especially in developing countries, in pseudoscientific terms. The main reason for this lingering misconception is probably because psychology has never been regarded as an important subject of study in those countries, especially in Africa, where the study of literature or history is more valued. This is certainly an unfortunate state of affairs, and, therefore, something must be done to educate people on what psychology is all about and what its potential uses in everyday life are. In order to achieve this, it is necessary that every effort should be made to promote the study of psychology, both at the undergraduate and the post-graduate levels so that our understanding of human behaviour is increased.

Undergraduate Studies in Psychology

The study of psychology as a science and profession is taken very seriously in most universities in Europe and North America. For example, in most North American universities, one finds large departments of psychology offering a wide range of courses not only to undergraduate majors in psychology but also undergraduate students majoring in other subjects. Certain psychology courses are compulsory for all undergraduate students regardless of their major subjects.

In addition, students majoring in subjects such as law, medicine, business administration, and architecture are usually required to take certain psychology courses relevant to these professions.

With regard to psychological services, it is noted that guidance, counselling and psychological clinics in most European and North American Universities are actively manned by qualified and certified professional psychologists.

Psychology, therefore, occupies a very central position in most of the universities in the developed world. This is largely because of the realization of the fact that psychology can make immense contributions in many areas of human activity. Psychology is useful to teachers, parents, lawyers, administrators, medical doctors, nurses, priests, counsellors, law enforcement officers, architects and even thieves, among others.

When one looks at what happens in many African universities, especially those in Eastern and Southern Africa, the picture one gets of the status of psychology is a very disturbing one. Indeed, psychology plays a very insignificant role in most of these institutions. Even in those universities where some time back psychology was beginning to make a mark, noticeable deterioration has set in. For example, it is not unusual in some of the universities to find non-psychologists teaching undergraduate and post-graduate courses in psychology. These non-psychologist teachers are usually referred to as *one course* or *two course* "psychologists", suggesting that they took one or two courses only during their graduate work.

Obviously, these one course and two course "psychologists" are not psychologists and, therefore, have no business teaching psychology in universities. Their presence whether in the department of psychology or departments of educational psychology, is not only a mockery of psychology as a science and profession, but it also does harm to the students who are being taught psychology by such individuals. This pathetic state of affairs partly explains why some of our students taking psychology courses are gullible believers of some of the pseudoscientific classification theories of behaviour that have been mentioned earlier in this paper.

To add insult to injury, it is also not uncommon for some of these non-psychologists to act as external examiners of undergraduate and graduate papers in psychology. How are such individuals identified and appointed as external examiners in psychology?

Considering the immense potential of psychology in many areas such as education, social services, health, law, government, and private organizations, it is imperative that every effort should be made to promote the study and teaching of psychology as a science and profession in our African universities. To this end, it will be necessary for all of our universities to establish full-fledged departments of psychology. Such departments should offer courses for B.A./B.Sc. degree in psychology, and also courses for M.A./M.Sc. and Ph.D. degrees in various branches of psychology. Those charged with the teaching of these courses should be properly trained psychologists.

It is heartening to note that some of the universities in Eastern and Southern Africa have already established such departments. However, some of these departments offer psychology programmes that are too theoretical. Students in such programmes graduate without having been exposed to experimental work in laboratories, research techniques or the preparation of research reports. Other psychology departments exist only in names in the sense that the courses offered are only in educational psychology; there are no courses in the other branches of psychology.

It should be noted that a B.A. or B.Sc. degree in psychology is useful in at least two ways. First, the holder of such a degree is likely to be useful and more effective in areas where the application of psychology is needed. Secondly, a first degree in psychology, though not a must, serves as a good academic background for post-graduate studies in the various branches of psychology. It is expected that an individual with a first degree in psychology will have a good academic background for post-graduate studies in the various branches of psychology. He will have acquired the necessary basic concepts in psychology, the principles of behaviour, and the language of psychology.

However, it is not being suggested that only those individuals with a first degree in psychology need to be considered for post-graduate work in various branches of psychology. Individuals without an undergraduate major in psychology could be considered for post-graduate training in psychology provided that such individuals take certain required undergraduate psychology courses without credit.

With regard to post-graduate studies in the various branches of psychology, it may not be possible for our universities to offer post-graduate courses in all the branches. Branches of psychology that may need immediate attention at the post-graduate level are educational psychology, clinical psychology, industrial psychology, developmental psychology, and social psychology. Of these, educational psychology is my major interest,

having studied it via general and experimental psychology. Consequently, I shall now turn to post-graduate training in educational psychology.

Post-graduate Studies in Educational Psychology

It is rather disheartening to note that as we approach the 21st Century, there is still some confusion as to what educational psychology is, its scope, and whether it is a branch of psychology or education. Some people are still debating what educational psychologists actually do, who is eligible for training as an educational psychologist, whether educational psychology should be offered in education or in psychology, and what kind of educational psychology programmes for the M.A. and Ph.D. degrees should be established in African universities. These issues therefore need clarification.

Definition of Educational Psychology

Educational psychology is a science and a profession in its own right. It seeks to explain the nature of the learner, the learning processes, how learning can be made more effective, and also how the information thus gained could be systematized, stored, and utilized.

Indeed, educational psychology is a bridge between education and psychology. Educational psychologists are scientists among teachers. They are intermediaries in psychology and education, between pure research and its application in education. Educational psychologists help in the generation of educational hypotheses and also in helping teachers and educational administrators to develop or acquire the attitudes and skills needed for hypothesizing and testing hypotheses.

Scope of Educational Psychology

In general, the following are the five main content areas of educational psychology:

1. Human Growth and Development;
2. Learning and Cognitive Processes;
3. Personality and Adjustment (Mental Health);
4. Measurement and Evaluation;
5. Statistics and Research Techniques.

Post graduate training in educational psychology normally entails taking courses in all of the above mentioned areas and specializing in one or two of them.

Educational Psychology as a Branch of Psychology

Educational psychology is an applied branch of psychology which mainly operates in educational settings. It is a discipline with its own subject matter and, therefore, does not consist of mere applications of the principles of general psychology to education. In fact, some of the content areas such as test construction, guidance and counselling, covered in educational psychology, are usually not covered in general psychology.

Educational psychology cannot be a branch of education. This is because education is not a discipline but a social process. It is a collection of almost everything - history, literature, economics, philosophy, sociology, psychology, politics and so on. Hence the contention that educational psychology is a bridge between education as a social process and psychology as a science.

The Home of Educational Psychology

As already pointed out in this paper, most universities in Europe and North America have both psychology and educational psychology departments. This is a luxury we cannot afford in Africa. In view of our limited resources, it makes sense to offer educational psychology courses within the department of psychology.

In housing educational psychology within the psychology department, special care must be taken to ensure that what is offered as educational psychology is indeed genuine educational psychology. It must cover the main content areas and most of those teaching these content areas need to be genuinely qualified educational psychologists.

M.A. and Ph.D. Programme in Educational Psychology

The central role of post-graduate training in educational psychology is the generation of theoretical knowledge and its application. Thus, post-graduate programmes should prepare educational psychologists as behavioral scientists. They should emphasize theory formulation, critical analysis and research competence and produce individuals who are able to tell which research findings are relevant and which are irrelevant to school learning situations. Most of the research done by educational psychologists is relevant to classroom learning situations, whereas research findings of some of the esoteric research by general psychologists may not be that relevant.

To ensure that post-graduate programmes in educational psychology produce genuine educational psychologists, coursework and examinations should be made compulsory. These courses should cover all areas of educational psychology, and there should be a provision for specialization in one or two of these areas. At the doctoral level, these courses and examinations should be more rigorous to ensure that students master

educational psychology before they can contribute thereto through doctoral dissertations. These are supposed to be original contributions, but one cannot contribute to a field that one has not mastered. This therefore means that giving master's and doctoral degrees in educational psychology by thesis alone should be abolished.

Post-graduate Course in Educational Psychology

As already pointed out, individuals seeking admission into a post-graduate course in educational psychology should preferably have a first degree in psychology. If not, they should be required to take certain undergraduate courses in psychology, but these courses should not count towards the graduate degree.

Secondly, it is important that those individuals interested in training to become educational psychologists should have some background in what is happening in education. They should be familiar with the philosophy and sociology of education, curriculum development, and the principles of educational administration. For those individuals who may not have this background, arrangements should be made to enable them to take the relevant courses without credit.

While what has been proposed here may improve the quality of educational psychologists, it should be made clear that this improvement can only be possible if most of those participating in the undergraduate and post-graduate programmes have the relevant qualifications and competence in educational psychology. In this connection, it is disturbing to note that some of the universities in Eastern and Southern Africa offer graduate programmes in educational psychology, but that none of the psychologists participating in the teaching of such programmes is an educational psychologist. These anomalies must be ended.

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6. POSTGRADUATE TRAINING IN

INDUSTRIAL PSYCHOLOGY:ISSUES AND PROBLEMS

Peter D. Machungwa, Ph.D.

Introduction

The application of psychology in industrial and organizational settings is a much younger discipline than, and is indeed a much later addition to, the broad general field of psychology. Like its parent field of psychology, the branch of industrial psychology has grown and expanded at such a fast pace that in some countries it is now referred to as Industrial and Organizational Psychology to reflect its wider focus. It now includes the sub areas of personnel, organizational, engineering and consumer psychology, industrial relations, organizational development, and vocational and career guidance (Muchinsky, 1987).

This rate of development can be attributed to a large degree to the concern about events in the work place shown by modern societies. Concerned with social, economic, industrial and technological development, modern societies have focussed more and more attention on improving man-machine system interactions, human resources management through better staffing, leadership, motivation, communication techniques and many other processes and variables to improve the performance of organizations which, in turn, impacts on the performance of entire economies. As a result of this concern, much work has been done, especially in industrially advanced countries, to develop, teach and apply behavioral science concepts and principles to improve performance in the work place.

Many developing countries, such as those in Africa, lag far behind in economic, industrial and technological development. Today, these countries are attempting to industrialize, build up their economies and foster quick social and economic development.

Unfortunately, these countries tend to focus more on the development of infrastructures like roads, railways, electrical power and communication networks, as well as the acquisition of capital as a precondition to development. Little emphasis has been placed on the development, teaching and application of behavioral science and management concepts that are also essential ingredients to fast social, economic, industrial and technological development (Heller, 1969; Machungwa and Schmitt, 1983). And as the economic situation in many developing countries has deteriorated over the last decade or so, even fewer resources have been allocated to research, development and the teaching of concepts and principles in behavioral science disciplines such as psychology (industrial

psychology in particular) which are supposed to contribute to the much sought after social, economic and industrial development.

Why is this so? What are the main issues that have hindered the setting up of post-graduate programmes in psychology, and especially in Industrial Psychology, in many African countries, particularly those in the Eastern and Southern regions?

This paper addresses itself to some of the issues and problems involved and makes some recommendations for redressing the situation. It should be noted that, although the focus is on Industrial Psychology, most issues raised have relevance for many other branches of psychology.

Problems and Issues

Perhaps one of the most important problems in teaching industrial psychology is the great scarcity of programmes offering it. A quick look at a number of university prospectuses will show that there are not many universities offering psychology programmes in Eastern and Southern Africa. Universities with established postgraduate programmes in Industrial Psychology are even fewer. An examination of the programmes of African Universities listed in the 1988 issue of the *Commonwealth Universities Year Book* showed only three universities with postgraduate programmes in industrial psychology: the University of Zambia, Nigeria's University of Jos and the University of Nigeria at Nsukka. Of course, this search does not include the Republic of South Africa which has a number of universities with similar programmes. However, even allowing for a few such programmes that may have been established in the last year or so and those that may exist in French and Arabic speaking African countries, this number is simply inadequate and reflects the magnitude of the problem.

With such a scanty number of postgraduate programmes in our region, most students intending to pursue studies in Industrial Psychology have to study abroad. While this broadens their scope and enriches them, it is not without problems. Entry to postgraduate programmes in psychology, especially those in Clinical and Industrial Psychology in Western countries, is highly competitive and this has the result of reducing the number of people entering these programmes from our universities.

Coupled with this problem is the difficulty of acquiring scholarships to support postgraduate studies abroad. As the financial positions of many governments in our region have deteriorated, so the limited available finances have tended to be allocated to what are considered priority areas (notably agriculture and health) which usually do not include psychology. Again this means that fewer and fewer persons from within our region can specialize in this field.

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The combined result of the scarcity of postgraduate programmes in industrial psychology at home, the difficulties experienced in entering such programmes abroad and the very limited financial resources to support studies in such programmes, is that there are few indigenous persons in our regions with postgraduate training in this field. This is in fact, very much the situation today in many countries in Eastern and Southern Africa.

As a consequence of the limited availability of suitably trained personnel, academic institutions in these countries find it extremely difficult to establish programmes in this field and will continue to do so. Even where a country can, at some point, afford the huge costs of attracting high calibre academics to establish such programmes, the programmes may remain unstable because of non continuity in staffing. And in the event that a country is no longer able to attract suitable personnel on the international market, such programmes may remain in limbo for a long time.

There is yet another concern that arises when we send individuals to study abroad in fields such as industrial psychology. Many issues that need immediate research attention and practical solutions in our countries may not be deemed as important in the countries where our students go to study. The issue of what are referred to, in Zambia, as Mishanga boys is a case in point.

These are boys ranging in age from 9 to 20 years who have dropped out of primary or secondary schools due to lack of places and various social as well as economic reasons. They buy and resell at a profit, essential commodities that are in short supply or offer all kinds of services, including looking after your car while you shop, carrying heavy shopping to your car or, jostling for a ticket for you in a long queue, for a fee.

There is also the question of the adequacy and suitability of conceptual frameworks and, in some cases, even the tools of analysis developed in industrially advanced countries when these are applied to situations in our region. For, although it can be said that work organizations have similarities and that all human beings are similar in many respects, it must be remembered that attitudes, approaches and the 'motivation of members to belong, work and advance in the organization may be different from society to society' (Tannenbaum, 1980, p.283).

The obvious solution to some of the foregoing would be the setting up of more postgraduate programmes in psychology in our universities were it not for the constraints which have already been mentioned. For even where these programmes have been established, they are beset with many problems.

Owing to the usually limited funding situations experienced by many universities in our region, support facilities and services are not satisfactory. For example, computer and/or microprocessor facilities and even copiers may be lacking, while libraries are not

adequately stocked or up-to-date with book and journal publications. A related point here is that financial support for research for students and faculty may be so little that not much work can be done in that area. Often, students and even the faculty may tend to choose research topics based on what support is available and not on the theoretical and practical significance of the topic. For this reason, commissioned research has become a preoccupation.

Another important concern is the relative instability of staffing. Since many newly established postgraduate programmes usually rely, to some degree, on the presence of expatriate personnel, their continuation can easily be jeorpadized if replacements cannot be found for departing faculty personnel. This has, in fact, happened at a number of universities in the region. Even where the programmes are staffed mostly by local academicians, the relatively unattractive conditions of service at many universities are not much of a guarantee that these people will not leave. This is especially true in fields like industrial psychology, where academic personnel may not only depart for other countries but can easily cross over into lucrative positions offered in industry.

Yet another feature that is not conducive to the existence of durable and viable postgraduate programmes is the political instability that keeps rocking some developing countries from time to time. Although Eastern and Southern African universities have perhaps seen fewer intrusions into university life and affairs by military and other dictatorial regimes than other regions, the little that has taken place destroyed what would have continued to be very viable programmes. (What happened to Makerere during the Idi Amin era is a good example.)

A further constraint is that even when programmes with adequate staffing levels exist, there may not be adequate numbers of students. This is largely because there are usually not enough scholarships to support postgraduate studies even at local institutions. While many work organizations are willing to sponsor individuals to pursue diplomas and first degree, few are willing to invest in postgraduate programmes, except where they consider it really necessary. Consequently, where the government or the University itself is unable to support students for postgraduate degree programmes, very few students will get sponsored.

Low student enrolments in postgraduate programmes become even more of a problem in countries with very low populations, such as the smaller countries of Southern Africa.

An issue which is more directly related to the teaching of postgraduate programmes in industrial psychology is that, because of the applied nature of the field, it is necessary to arrange for student internships in work organizations during long vacations. This is especially critical for students who, with no work experience, may have proceeded

to the programme straight from their first degrees. But because industrial psychology is not well understood by administrators in many work organizations, great difficulties may be encountered in arranging internship placements. Although this problem is perhaps more readily surmountable than others, it still is a constraint.

Finally, there are problem areas that have come about because of either inadequate activity or a complete lack thereof on the part of all of us who have been working in the field of psychology teaching, research or practice. One is that psychology has not received its deserved share of support of scarce resources from authorities in our countries. Although I have no data to support this contention, I am convinced that if we had control over the limited resources available to policy makers and government administrators for supporting educational programmes in our countries, psychology would not have fared as badly as it did. We as psychologists need to develop what I may call a psychology lobby and outreach programmes to let people in decision making positions understand and appreciate the contribution of our work to national development.

The second problem is that there has not been much liaison among psychology departments, institutes or units in the region to discuss and share ideas, experiences and, where necessary, even pool resources for research teaching or other projects. I must say that the majority of the contacts that have existed hitherto have usually been at the individual rather than institutional level.

Recommendations

All the foregoing issues and problems make work in psychology, including the teaching of postgraduate programmes, research and even practice a difficult task. They also make it difficult for this group of disciplines to contribute more effectively to the much sought after social and economic development. So what can be done to improve the situation?

Many of the issues and problems raised in the last section of this paper directly stem from, or are related to, the rather poor economic state of the countries and the resultant limited financial and other resources available to universities in our region. As has been shown, this situation makes it difficult to sponsor students abroad, to establish new programmes, attract and retain staff, provide back-up facilities and services, and maintain reasonable levels of research support. There is not much that psychologists can do overnight to turn around the economic fortunes of our countries and universities. In the long run, of course, the application of the principles of psychology and its sub-disciplines can help improve the social and economic standing of our countries. However, under the present circumstances, several approaches seem, to me, to hold some promise.

Need for Regional Programmes

The few postgraduate programmes available in our region can be more effectively utilized and would stand a better chance of getting support if they were given a regional rather than a national status. The prevailing situation where each university tries to set up several postgraduate programmes is not only economically not feasible. It may also not be justifiable on account of low enrolments since each country will most likely have an insufficient number of graduates to pursue studies in all the programmes.

Need for a Psychology Lobby

Unlike many other physical and social science disciplines, psychology is not much known by the average administrator/policy maker, let alone the average person in our countries. Many people appear to believe that it is merely the reading of a person's mind and has some applications only when dealing with the insane. A few I have talked to have even called it the white man's witchcraft. Under the circumstances, there is a strong need for us as psychologists to come out with some kind of psychology lobby and educational programmes aimed at making people, especially those in decision making positions, understand and appreciate the contributions that psychology can make to national development.

Need to Involve More Industrial Organizations

Related to this is that a more concerted effort should be made to explain to individual organizations what skills and services psychology graduates, departments and related establishments can offer. These should be accompanied with attempts to encourage, persuade or entice more industrial organizations to be involved in funding psychology programmes. In this respect, the work of the organizers of this workshop in obtaining IDRC support is most laudable.

Need for Regional Cooperation

Another issue that was noted as a constraint earlier is the relatively low level of liaison and cooperation among the units engaged in psychology teaching, research and application in Eastern and Southern Africa. An increase in the joint discussions of programmes, projects, problem areas and the possible pooling of resources could benefit institutions in the area. Unfortunately, this has not been used to advantage. In this regard, however, I am pleased to note that, over the last two years or so, there has been an active student exchange programme as well as discussions among the faculty of psychology departments at the University of Zambia and the University of Zimbabwe. A conference such as this one is also a most welcome development in the same direction, as it is likely to lead to greater collaboration and cooperation among psychologists in the region.

Although these suggestions will not solve all the problems related to psychology programmes (research, teaching and application) in our region, I believe that they will, if implemented, go a long way in helping us contribute more effectively to national development in our respective nations and to the general academic and professional development of our discipline.

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7. PSYCHOLOGY TEACHING AND RESEARCH AT THE

UNIVERSITY OF ZAMBIA

Irene M. Maimbolwa-Sinyangwe

<u>A Brief History of the Teaching of Psychology in Zambia</u>

Psychology in Zambia started with the introduction of the Human Development Research Unit (HDRU) in 1965 at the Institute for Social Research, now called the Institute for African Studies. Professor A. Heron, the Director of the Institute at that time and a psychologist himself, negotiated for funds from the British Government for the Research Unit and, later, the establishment of the psychology laboratory at the University of Zambia's main campus. Research fellows from the Human Development Research Unit contributed to the teaching of psychology and, later, in 1966, full-time staff were appointed (Serpell, 1982).

This paper focusses on the current status of psychology teaching and psychological research at the University of Zambia. The distribution of psychologists within the University and the courses offered are presented. This is followed by a discussion of the results of interviews with faculty members on their experiences of teaching psychology at the University and their research activities.

The distribution of psychologists and course offerings at the University of Zambia are found in the psychology department in the School of Humanities and Social Sciences, the School of Education, the Educational Research Bureau, and the Institute for African Studies. The responsibility for teaching falls mainly on the psychology department and, to a lesser degree, the School of Education. This means that there are more courses taught each year in the psychology department than in the School of Education. It does not, however, imply that those in the School of Education have a lighter load than their colleagues in the psychology department. In fact, the classes in the School of Education, especially the compulsory courses for teachers, tend to be large (150+). Psychologists in the research units also contribute to teaching as they are called upon to assist whenever the need arises.

At its inception, the psychology department was to produce graduates with a major in psychology and also to assist in widening the knowledge base of students majoring in other disciplines such as education, medicine, nursing and social work. Later, in the early 1970s, a degree of education with psychology was introduced at the request of the Ministry of Education. Students in this degree were to work for the psychological services of the same Ministry upon completion. Up to date, there are close to 200 psychology graduates

whose main employers are the University of Zambia, the Ministries of Education, Labour and Social Services, Health, and major industries such as the Mines.

Psychology teaching at the University includes courses in the following areas: cognitive, social, developmental, educational, industrial and organizational, physiological, clinical psychology and psycholinguistics. It is important to note that courses in the first four areas are also taught by the School of Education. The psychology department, in addition to teaching courses in the School of Humanities and Social Sciences (which students from other schools can take) also offers courses in the School of Medicine. The School of Education, on the other hand, offers courses specifically for would-be teachers of arts, science and nursing tutors.

The psychology department also offers a Masters degree in Educational Psychology, while the new department of Educational Psychology teaches the subject to students taking the Masters degree in Education. The question being debated now is whether the MA programme in Educational Psychology should continue to be housed in the psychology department or be moved to the School of Education.

Teaching Experiences and Research Activities of Faculty Members

To find out the teaching experiences and research activities of faculty members, seven people were interviewed from the psychology department, the School of Education and the Educational Research Bureau. These were the people available at the time of the interviews and only three other potential respondents could not be reached.

Teaching Experiences

The writer sought information on the length of time the interviewees had been teaching at the University of Zambia, their activity areas, class enrolments and whether or not these had changed over the years; student motivation, the availability of reading materials and equipment, and what they thought was the future of teaching psychology.

The period of service at the University of Zambia ranged from one to twenty four years. The longest serving member, Professor R. Serpell had, ironically, taught all the other respondents except one in their undergraduate programmes. The rest had been teaching for 12, 8, 7, 4, 2 and 1 year periods. The absence of many, long serving faculty members is partly due to the fact that initially all the psychologists at the University were expatriates who decided not to renew their contracts after a certain number of years. Zambians have also been leaving to join industrial firms or other universities outside the country with better conditions of service. At the time of the interviews, the head of the psychology department was sure of only three faculty members who would stay, as more

people were due to leave before the new academic year, while the department of Educational Psychology and Sociology had only one psychologist.

The responses on the rest of the issues were generally similar across the range of respondents. Classes in the psychology department were manageable, with class sizes ranging from 14 to 30, except for the introductory course which was over 100. As mentioned earlier, the compulsory courses for teachers in the School of Education were large. Enrolments in the psychology department had been highest in the mid 1970s but dropped after that and then picked up from 1986/87 when the School of Humanities and Social Sciences introduced the quota system, and so forced more students to major in psychology. Enrolments decreased because many students preferred other fields of study such as economics and business administration, which assured them of better paying jobs. Psychology graduates have had problems finding jobs and, when they did, their conditions of service were not as good as those of their counterparts in other areas.

At one point, it was decided to force students to take psychology courses. This increased the numbers, but had a negative effect on student motivation. They tended to perform poorly in their courses and also to make poor psychologists.

On teaching materials, faculty members felt that the University library had a fairly large stock of books and other reading materials on psychology compared with the other fields. The problem, however, was that most of the materials were fairly old (1956to mid 1970s); as a result of which lecturers had trouble keeping up with recent developments in their areas. The few recent materials in the bookstore were extremely expensive. Nevertheless, the psychology department received a grant from NORAD to purchase materials for their Masters programme. But faculty members also stated that the field of psychology had an advantage of having a base of psychological research done in Zambia and, therefore, of using ideas derived from local findings.

The psychology laboratory was generally described as being quite good, except for the problem of maintaining or replacing old equipment. Respondents also regretted the lack of other support services such as photocopying and duplicating.

Lecturers were generally sceptical about the future of psychology teaching, basically because of the shortage of lecturers. The few that were available had had to teach courses outside their areas of interest in addition to their own courses and this was quite taxing. Despite the air of uncertainty, the respondents still believed that psychology would continue to be taught for the same reasons that it was introduced in the first place. A small number of graduates (5-15) would be produced each year to replace those who left or died. They perceived advanced training in psychology as being necessary for the sake of quality and hence saw the need to consolidate graduate studies at the University.

<u>Research Activities</u>

Research in this area started with the establishment of the aforementioned Human Development Research Unit. The objectives as set up by Heron and his associates were, first, to ascertain the extent to which knowledge based on studies in the West could be generalized to Central Africa; second, to apply locally obtained data to social and educational planning in Zambia and, third, to provide a research base for undergraduate teaching of psychology at the University (Serpel, 1982; Peltzer and Bless, 1989).

The tradition of conducting research whose findings are used in teaching has continued. It was quite gratifying to find that the people interviewed were actually conducting research of a psychological nature despite the financial constraints in the University as a whole. The research activities of the faculty members covered a variety of topics, including work motivation, medium of instruction, home environment and its potential for health and psychological development, AIDS and prostitution, empowerment and women, effects of teenage pregnancy and motherhood on a variety of psycho-social indicators, and the development of assessment procedures for mentally disabled children.

Like teaching, the future of psychological research was not considered very bright. Interviewees felt that there could be more research conducted if funds were available and lecturers had lighter teaching loads. In addition, the same lecturers had to do other things to supplement incomes which were low and extremely inadequate.

Overall, lecturers felt that psychological research was not deemed a priority in national development in contrast to activities such as agriculture, science and technology. Consequently, it has become increasingly difficult for researchers to conduct studies that need funding without outside help, which means tailoring them to the demands of the sponsors. This is an unfortunate development, because studies that are externally funded tend to be practical in nature. Academicians, on the other hand, need to do research for purposes of theory building as well. Psychology from the African point of view will never emerge and come of age without the opportunity for psychologists to engage in research for its own sake.

The question of whether or not psychology has contributed to national development is out of the scope of this paper. Mwanalushi and Ng'andu (1981) have pointed out the many ways in which this contribution has been made. Psychologists have, for instance, served on national committees dealing with elections, Zambianization, and mental health. Studies conducted by faculty members of the University of Zambia and those by their students, such as attitudes towards abortion or integration of handicapped children into the normal classroom, do address practical problems. The onus of educating the public on the importance of psychology seems to be on the psychologists themselves. In addition to writing professional papers, psychologists need to use other media to which the general

public has access. Psychologists in Zambia also need to revive the Psychological Association of Zambia (PAZ) through which their profession can be publicized and they can come together often and share ideas.

Summary and Conclusion

This paper has looked at the status of psychology teaching and research at the University of Zambia. The distribution of psychologists in the University shows that they serve in different units of the University, apart from the psychology department. The overlap in the courses offered by the psychology department and the department of educational psychology and sociology seems to make close collaboration a possibility, considering the chronic shortage of staff. The extent to which psychological research is conducted is influenced by several factors, including the shortage of academic staff, poor salaries and lack of research funds. Finally, unless conditions in which academic members of staff at the University of Zambia adequately match those of similar institutions in the region, psychology teaching and research will continue to be unsatisfactory.

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8. TEACHING PSYCHOLOGY FOR PROFESSIONAL

EDUCATION SERVICES

R.P. Bundy

Introduction

In the past few years, my experiences both as a university psychology teacher and as a professional educational psychologist have led me to the conclusion that psychology departments cannot be treated as an academic luxury. African psychologists have an increasingly important role to play in national development through their participation in, for example, education, health care, and industrial organization. University departments thus have the task of producing the manpower to fill the various requirements of professional psychology at the national level.

In this sense, a department of psychology is an essential component of the modern African university. However, this also places a great responsibility on the academic staff to tailor both curricula and teaching methods to local requirements.

From this point of view, the responsibility also extends to the realm of research and is particularly important in countries which have recently reduced university and research funding. In Zimbabwe, for example, the imminent establishment of one or possibly two new universities will inevitably be subsidized to some extent with funds currently enjoyed by the singular University of Zimbabwe. Thus, psychology department staff are morally obliged to carry out research and train future professionals to meet the real needs of national development. This paper focusses on one professional activity, namely, psychological services offered to schools in Zimbabwe and examines the implications for university training.

Schools Psychological Services (SPS) in Zimbabwe

For more than 10 years, the Zimbabwe Ministry of Education has contained a unit made up of psychologists and educationists whose primary job is to see to the welfare of school children who have learning difficulties, behavioral problems, who are at risk in the social and/or material environment, or who need guidance and counselling. Primary education is compulsory in Zimbabwe, so the majority of the children seen by SPS are aged 5-13 years, although the services extend from children of preschool age to those in the top forms of secondary school.

As in many other countries, the Ministry believes in integrating the handicapped into the mainstream of society. Institutions for the hard of hearing, visually impaired and mentally handicapped are being encouraged to allow their more able pupils to attend normal school where the Schools Psychological Services, together with the department of Special Education, sets up facilities to handle their special needs.

Functions of the Schools Psychological Services

The various activities aimed at implementing these policies may be detailed as follows:

- Individual or group psychological assessments of children are carried out, usually at the request of the school. The subject of assessment varies through the whole spectrum of behavioral, emotional and psychological problems, handicapping disorders, vocational guidance and, perhaps frequently, classroom learning difficulties.

- Setting up and monitoring both primary and secondary school programmes which cater for pupils with specific learning difficulties, usually problems with either mathematics or reading.

- Establishing and monitoring Special Classes with specially trained teachers whose skills cater for children with general learning difficulties. These children comprise those who have missed major subjects in their education and for whom the individual attention of a Special Class teacher is likely to allow them to return to the normal class after some time; and those who might be classified as mildly and moderately mentally handicapped. At times these classes also cater for the more severely mentally handicapped.

- Individual teachers are advised on programmes of instruction and the times for therapy for children in schools with no special class. There are at present about 120 special classes in Zimbabwe and, although these are well spread to cater for clusters of schools in both rural and urban areas, more are still required.

- Resource Rooms for the hearing impaired and visually handicapped are being set up in both primary and secondary schools at strategic locations to serve handicapped children from the local community, or at times children who can board; for example, in mission schools. These are staffed by specially qualified personnel who have usually completed an appropriate diploma course at the United College of Education,

Bulawayo, and who are assisted as necessary by psychologists from the Schools Psychological Services.

- S.P.S. is also involved in the implementation of Outreach Programmes aimed at discovering children of primary school age who are not attending school, usually as a result of their family's negative attitude towards a handicapping condition.

- Finally, the Schools Psychological Services is involved in research programs aimed at designing and validating psychological instruments appropriate to local conditions. However, test development often has to take a back seat while more urgent priorities, particularly the needs of the handicapped, are served.

Structure of the Schools Psychological Services

Zimbabwe is divided into nine regions, including Harare, the capital city. Seven of these have SPS offices, all of which are coordinated by a Head Office housed in the Ministry of Education itself.

Each Regional Office is headed by a Senior Educational Psychologist, who is assisted by one or two Educational Psychologists and up to four Assistant Educational Psychologists in training. In addition to the psychologists, there is a Speech Correctionist, a Guidance and Counselling officer, two Research Assistants and a number of Remedial Tutors. These are specially trained teachers who are deployed in the districts principally to set up the remedial programme in schools. However, their decentralized activities give them an additional liaison function, all of which is coordinated by a Senior Remedial Tutor in the regional SPS office.

Although the above is the ideal establishment, there is a shortage of more qualified psychology personnel and a high turnover of trainees (about 20 in the SPS at present), many of whom use the post as a stepping stone to more lucrative pastures.

The Graduate Psychologist in SPS

In Zimbabwe, the practice of psychology is governed by The Psychological Practices Act (1971) and the subsequent gazetted legislation. The aims of the Act are, amongst other things, to protect the public and to bring the practice of psychology under the authority of a government-approved body; namely, the Health Professions Council. In reality, a sub-committee of the Zimbabwe Psychological Association - the Psychological Practices Advisory Committee (PPAC) - makes recommendations to the Health Professions Council

on applications for registration, registration procedures, ethics, and disciplinary issues arising from contravention of the Act.

The current regulations governing registration are constrained by the psychology manpower situation in Zimbabwe; that is, they are not as rigorous as they may be in a few years time, when there should be more available psychologists in the country. Currently, no distinction is made between different types of psychology, one just registers as a psychologist.

At the present time, in order to become a registered psychologist, one must have an honours degree in psychology. In addition, it is necessary either to have a higher degree in psychology, or to have undergone a 3 year period of supervised internship to the satisfaction of the PPAC. This serves to indicate that the new university graduate is not considered ready to function as an independent qualified psychologist. In the Schools Psychological Services, the most common route to registration is via the 3-year internship, although an increasing number of graduates are pursuing part-time Masters degrees in educational psychology. In either case, while the new honours graduate is not expected to be able to carry out the duties of an educational psychologist, he may be expected to bring with him certain skills acquired at university which would facilitate his developing into a competent professional.

In order to identify the skills required of a new Assistant Educational Psychologist, we may highlight the salient features of the trainee's work-situation as follows:

- The trainee must be able to use a wide variety of psychological tests ranging from IQ and attainment tests, developmental checklists, vocational interest blanks and social skills inventories. In addition, the trainee must be able to interpret norms, and, in cases where available tests have inappropriate norms, use what is at hand in a diagnostic fashion.

- The trainee is required to write sensible, comprehensive reports from formal and informal test results, as needed in a manner which is informative for the child's teachers and parents.

- The trainee is expected to appreciate and be able to identify likely causal factors ranging from aspects of medical history to features of the social and material environment, and to recommend referral to other appropriate professionals.

- The trainee must be able to relate to both adults and children in a professional manner: with authority but without arrogance, with sympathy

and empathy but without romanticism; with objectivity, in an informed and helpful manner, without mystification - all these and more, adjusted to the interpersonal requirements of the situation.

- The trainee needs to be emotionally strong when confronted by children with severe handicaps: often a traumatic event for the new recruit.

- The trainee will often need to make informed but unaided decisions which will be scrutinized by his supervisor at a later date.

- Trainees are required to carry out psychometric and sociometric field research, often without direct supervision.

- It is helpful if a new trainee is familiar with as many aspects of educational psychology in SPS as possible, has a broad foundation in psychology and brings with him a realistic enthusiasm for his intended profession.

Implications for a University Syllabus

While these salient features may represent an ideal, much can be done in a first degree program to produce well prepared trainee educational psychologists. The relevant elements of a B.Sc. (Hons.) in Psychology are:

1. Following a general introductory course, core courses in developmental, social and environmental, neurophysiological and cognitive psychologies, together with research methods and statistics are required. All of these should be complemented by practical work wherever possible and put into context by an ongoing course in the systems and theories of psychology.

2. Traditionally, educational psychology is taught in the faculties of education and not departments of psychology. In countries where an educational psychologist must have an honours degree in psychology, a teaching qualification, and a postgraduate qualification in educational psychology, this is not a problem. But where the demand for educational psychologists far exceeds their supply, both the postgraduate degree and the teaching qualification are often relegated to the realm of the ideal future. Hence, in Zimbabwe, our trainee educational psychologists have virtually no prior grounding in educational psychology and have to learn during their internship.

It is not surprising, therefore, that elements of both personal and professional tension exist between professional educationists and educational psychologists who lack formal teacher training. A part-solution to this dilemma is to provide educational psychology as an undergraduate option. In the absence of an educational psychology department, the most appropriate place to offer such a course would be in the department of psychology itself. The choice of which department should offer the course rests largely on how the balance of education and psychology is viewed in terms of its contribution to the educational psychology course: if one understands educational psychology to be more closely related to education than psychology, then it should be offered in the faculty of education. But if it relies more on pure psychology than educational theory, then it should be offered by a department of psychology.

3.   Another essential ingredient of the undergraduate psychology programme is a course in psychometrics, with as large a practical component as possible, involving some testing of adults or children outside the university and incorporating training in report writing.

4.   A third year honours dissertation is also regarded as essential and, whenever possible, should involve data collection outside the confines of the university environment. While this type of research experience is often considered necessary only for those students intending to go on to higher degrees, it should be pointed out that most graduates moving into the professions are likely to be asked to collect data and do some form of research at some time or another. The third year dissertation is the culmination of research training, in which the student is required to operate independently in the outside world; learn how to interact with non-university people at a semi-professional level; experience the realities of unprotected research environments; and thus gain both the experience and confidence necessary for embarking on professional training after graduation.

5.   Through informal activities organized by the department or student psychology association, familiarization should be encouraged with established professional psychologists (especially educational psychologists in this context), preferably at their place of work.

It may be noted that, while these suggestions are oriented to the requirements of future educational psychologists in Zimbabwe, similar observations might be made for other areas of professional psychology, and the core courses recommended for them would be almost identical to those just outlined.

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Conclusion

This paper has briefly attempted to describe academic and personal qualities that would benefit a trainee educational psychologist in Zimbabwe. These qualities have then been used to suggest essential features of the B.Sc. (Honours) degree which is the basic qualification for acceptance as a trainee. I would like to propose that this method of using professional and trainee-professional requirements for evaluation and development of university courses is one useful way of bringing together the teaching of psychology and the needs of the nation.

9. THE ROLE OF EDUCATIONAL PSYCHOLOGY

IN AN EDUCATIONAL SYSTEM UNDER SIEGE:

THE CASE OF ZAMBIA

R.F. Zimba

This paper suggests that the emotional, medical and militaristic sense of the concept siege describes the current state of the Zambian educational system and gives ways in which educational psychology can make a contribution towards the efforts to rescue the system from a rather catastrophic attack.

The first manifestation of the siege is a lack of physical school facilities, equipment, manpower and financial resources. To concretize this state of affairs further, it was recently reported that Kamwala Primary School in Lusaka had classrooms without doors, window panes, desks or roofs. Students sat on the floor and used their laps as desks. Each time it rained, the school had to be closed, because the classrooms were flooded (*Sunday Times*, July 19, 1987; ZNBC News, January 1989). It is unlikely that this situation describes an isolated case; similar cases have, in fact, been reported from other parts of Zambia. Likewise, there is a critical shortage of teaching materials and aids and learning materials such as textbooks.

The shortage of school resources has led to yearly low progression rates from grade 7 to 8. For example, out of 178,000 students who sat for grade 7 examinations, only 39,000 went on to grade 8 (Zambian *Daily Mail*, February 1986). This represents a progression rate of about 22 per cent.

In manpower terms, the lack of resources is evidenced by a severe shortage of primary and secondary school teachers, college and university lecturers. For example, notwithstanding its active staff development programme, the University of Zambia is beset by an exodus of staff to countries that share boarders with South Africa.

The Zambian education system is beleaguered and severely constrained by the government's inability to provide free education and the reintroduction of tuition, boarding, lodging and other types of fees which affect primary, secondary and tertiary level students. In addition to this, the educational system is besieged by health problems. There are reported outbreaks of deadly diseases such as typhoid and cholera in primary and secondary schools. As if this was not enough, the system has regularly been afflicted by robberies and vandalism.

Pedagogically, most of the educational system is plagued by curricula that are irrelevant to the educational objectives, cultural and economic needs of Zambia (Kelly, *et al.* 1986; Zimba and Gay, in press). According to Kelly *et al.* the following aspects constitute the general objectives of the system:

i.   to produce independent - thinking and adaptable citizens;

ii.   to produce citizens skilled at different levels in various areas of expertise;

iii.   to produce citizens with a firm commitment to the values of the Zambian nation and its philosophy of humanism;

iv.   to produce individuals who would perceive the educational system as an enterprise that is flexible and adaptable to the varying needs of a diversified society in a changing country and world.

The authors are convinced that, to a large extent, these objectives are not attained. In fact, current educational practice is not related to the objective conditions of Zambia and does not promote students' ability to construct and appreciate Zambia's contextualized cultural heritage, customs, social systems, thought forms, values and the development of a sense of social responsibility. Furthermore, instead of nurturing and promoting the student's divergent and independent thinking, problem-solving ability, creativity and innovation, the system produces largely convergent thinkers who lack initiative.

It is important to note that the siege on the educational system is a reflection of a more pervasive siege on Zambia's political, social, economic and cultural systems. Because of this, it may be asserted (Lulat, 1982) that, attempting to rescue the educational system, when other societal systems on which it is based are under siege, is unrealistic.

However, earlier rescue operations need to be revisited. The major thrust of the current effort is to take a fresh look at the rescue operation from an educational psychological perspective. The common definition of educational psychology is that it is a field of study which applies knowledge and methods from the field of psychology to the study of classroom and school life. It is held to be that field which offers psychological knowledge about learners that is necessary to develop instructional skills for effective teaching (Glover and Bruning, 1987, p.3; Anastasi, 1979). The point to note in this definition is that, although educational psychology deals with classroom and school life, it is *dependent* on the field of psychology as opposed to some definitions of educational psychology that underscore its independence from the field of psychology.

In this context, I wish to argue that the best that educational psychology can do to this end is to help produce teachers and learners who will transcend intellectual arrogance

and impotence (Zimba and Gay, in press) and create knowledge, come up with solutions to vexing educational problems and adhere to a humane sense of social responsibility. To produce such individuals, learning institutions in Zambia should focus on intellectual growth for sustained learning, creativity and innovation. The idea of growth is here used in the way that Dewey (1938, p.36) described it when he stated:

> That a man may grow in efficiency as a burglar, as a gangster, or as a corrupt politician, cannot be doubted. But from the standpoint of growth as education and education as growth, the question is whether growth in this direction promotes or retards growth in general. Does this form of growth create conditions for further growth or does it set up conditions that shut off the person who has grown in this particular direction from occasions, stimuli and opportunities for continuing growth in new directions? ... when and *only* when development in a particular line conduces to continuing growth does it answer to the criterion of education as growing.

Dewey's ideas call for producing creative individuals and creativity can be promoted among learners by:

> *Accepting and encouraging divergent thinking*: This can be done by asking learners to provide different ways of solving problems and reinforcing unusual solutions to problems. Moreover, allowing learners to ask strange, unusual and odd questions can further promote the nurturance and growth of divergent thinking. This should be done even though it may make lecturers and teachers appear ignorant and inadequate. After all, we are all fallible!

> *Tolerating dissent*: Lecturers and teachers are encouraged not to penalize nonconforming students, but instead to allow them to receive a fair share of privileges and rewards. It should be noted that conformity does not always lead to learning: it can, in fact, discourage the growth of independent and critical thought. Unlike conformity, nonconformity stands a better chance of promoting the ability to innovate.

> *Providing models for creative thinking and behaviour*: Learners need to be exposed to creative persons and their products. The Zambian community has creative engineers, doctors, farmers, teachers, lawyers, business men and women, politicians, civil servants and scientists. These outstanding individuals should be used in learning episodes to communicate the idea that products of creativity can be attained under the yoke of material shortages and social suffering.

This is not to say that divergent thinking is *better* than convergent thinking. What is being emphasized, however, is that classroom activities should not end at making

students think in a conventional manner. They should, in addition, be allowed to develop the ability to innovate and think divergently. Furthermore, it is proposed that producing a cadre of creative individuals who delight in solving educational problems in original ways can lead to more sustainable socio-economic growth in Zambia than depending on external material, financial and expert help.

Giftedness has been defined as an 'extraordinary promise for productivity or performance in areas of work that are publicly prized' (Tannenbaum, 1983, p.89). This productivity is publicly prized because it is conducted in spheres that enhance the moral, physical, emotional, social, intellectual and aesthetic life of humanity. This extraordinary promise for productivity or performance is expressed by individuals with either extremely high general or special ability, high ego strength, a high degree of dedication to a chosen field of productivity and by those who are willing to sacrifice short-term gratification for long-term accomplishment. Stimulating home, school and community settings have been found to nurture this extraordinary promise for productivity.

The gifted learner in Zambia ought to be considered an asset in the process of rescuing the education system from siege. He should be looked at as an individual whose intellectual prowess may enable him to invent, devise and discover ways of overcoming the problems besieging the educational system. Yet recognizing this fact is not enough. How can we nurture giftedness in Zambian learning institutions? One way is through acceleration and enrichment programmes in which the gifted are admitted early into elementary, secondary schools and university. In addition to this, the learners may be allowed to skip grades and earn course grades before entering colleges and universities. By doing so, they escape from boredom and are enabled to begin careers as early as possible. Research has shown that exposing gifted learners to accelerated programmes does not adversely affect their academic performance and social adjustment. In fact, it enhances their academic advancement (Robeck, 1968; Justman, 1954; Daurio, 1979; Stanley, 1976; Worcester, 1955 and Cohn, 1980).

In these programmes, the gifted students are not pulled out of regular classrooms and exposed to special courses. Instead, they cover the same curriculum as is covered by non-gifted students. The only difference is that the gifted students cover the material in the curriculum faster than the non- gifted ones. The enrichment programmes entail telescoping, the coverage of regular subject matter, expanding the learning of basic skills such as those of reading, writing and computing; and programmatic augmentation of the learning materials, so as to promote growth at each encounter (Tannenbaum, 1983, pp.429-439).

Telescoping the coverage of regular subject matter means teaching conventional subjects such as mathematics, language, literature, physics, chemistry and biology in less time in order to move up to higher levels as quickly as possible. This is done to save gifted students, who are usually rapid learners, from the 'tedium of dwelling on content that

they either know already or can absorb in a short time', thus giving them time to concentrate on more challenging and advanced materials in the various school subjects. This is of course only possible through a combination of individualized and group learning experiences.

The process of expanding the learning of basic skills is founded on the premise that gifted students should be encouraged to go beyond the mere learning of how to read, write and compute, the only tools for producing knowledge. Talented and gifted young writers need to learn how to express themselves in poetry, drama and essays. This should be in addition to mastering the usual narrative and critical writing skills. Budding mathematicians need to be introduced to units in mathematical logic and the languages of computers. Potential, acclaimed scientists require exposure to the scientific research method. They should be introduced to the basics of how to find and define a research problem, exploring and critically discussing literature on it, collecting and analyzing data, discussing research findings and arriving at theoretical and practical conclusions based on these findings (Zimba, 1989). Moreover, potential scientists need to be taught how to write and publicly present research reports.

In an attempt to help gifted students determine what kinds of new knowledge should be developed, their knowledge base needs to be expanded laterally through programmatic augmentation. This refers to the process of teaching topics in subjects such as mathematics, language and science in *greater depth* by using a *variety* of instructional media and methods. For example, folk tales on Zambian oral literature may be better appreciated by gifted students if a cross-cultural perspective is taken. Gifted children may also be helped to understand the history of Zambia and other parts of the world through art, music and literature instead of relying solely on political, military and economic data.

The enrichment programmes are normally designed to cultivate and stimulate gifted students' cognitive power and growth (Tannenbaum, 1983, pp.435-438). Teachers can do the following for the gifted students in this respect:

- Encourage them to make the familiar strange in order to take a fresh approach to its understanding. There is always room for producing new knowledge. Innovation is not necessarily limited by familiarity; in fact, unfamiliarity, originality, can spring from familiarity.

- Ask students how they would improve the welfare of the poor in Zambia. In addition to the application of brainstorming, the gifted are here urged to apply their mental prowess to generate solutions to problems which reduce the quality of human life.

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- Encourage gifted students to reflect on what they would like to know more about in any realm of inquiry. It is not enough to inquire into what is known without bothering about the unknown. They should, in addition, develop, seek and search for initiatives of their own that would stimulate disciplined curiosity and independent thinking. They should be encouraged to move from what is to 'what might be'.

- Encourage gifted students to develop skills in speculation by having them forecast possible changes in technology, politics, ecology and international relations. This speculation needs to be based on reasoned judgment and evidence. Furthermore, they should be asked to indicate solutions to problems that may come about as a result of the forecast changes.

Cognitive growth is not all that enrichment programmes are about. They should not merely produce,

> a cadre of technocrats who are brilliant in the work they do but have no conscience or commitment to a set of values and are willing to sell their talents to the highest bidder (Tannenbaum, 1983, p.438).

Using simulated conflict resolution and reflective social reasoning exercises, the gifted students should be helped to develop (i) faith in the power of reason and in methods of experiment and discussion; (ii) the wish to improve human life and conserve material resources; and (iii) preference for the general welfare of the public over the benefits to specialized and narrow interest groups. In short, they should, at an early age, learn that their productions, inventions and social actions ought to protect human beings from harm, disease, suffering, poverty and famine.

An instructor in a Zambian learning institution can easily create conditions for intellectual retardation by boring learners to death, promoting excessive competition and encouraging the worship of the 'survival of the fittest' ethic. Boredom is promoted when the teacher fails to relate learning episodes to students' needs, interests and valued real life experiences. In an atmosphere of boredom, students consider such learning experiences meaningless, uninteresting and unmotivating. Learning experiences can also be unmotivating when the main goal of their presentation is to classify students into categories such as those of 'above average, below average; bright, dull, idiotic, gifted and talented'. The object of this classification is competition and not mastery of intellectual and other skills.

In the social-economic context of limited material resources, scarce financial rewards, undifferentiated entertainment and lack of diversified sources of intellectual

aspirations, the 'survival of the fittest' ethic thrives. When promoted in the classroom, this ethic may become a source of motivation but surely students should not be trained to aspire for the consequences of brute-like force but rather to appreciate the ideals of social obligation being mindful of others' welfare, fairness, public service and justice.

Motivation has been defined as that which initiates, energizes, directs and maintains thought and behaviour. In addition, it is that construct which enables individuals to attain perceived goals (Woolfolk, 1987). Three perspectives on motivation need to be described and discussed when relating the construct to perceptions of competence and growth in the Zambian context. The first is Weiner's (1979, 1984) attributional theory of motivation. The main thesis here is that attributions about causes of success and failure act as sources of motivation. Three dimensions have been empirically arrived at to explain how this operates:

     i.   external versus internal causes of success or failure;

     ii.   controllable versus uncontrollable causes of success or failure; and

     iii.   stable versus unstable causes of success or failure.

In the first dimension, an example of an external cause of success or failure is task difficulty, while an example of an internal cause of success or failure is ability. Attributing success to ability may result in the expectation that one would succeed in future given similar performance conditions. Attributing failure to lack of ability may, however, lead to the belief that one would fail in future. This would hamper the motivation to succeed.

An instance of a controllable cause of success or failure is effort and an example of an uncontrollable cause is luck. Attributing success to a lack of effort may mean that, with increased effort, one would succeed in future. Attributing success or failure to luck may, however, lead to a feeling of ambivalence about future performance. As a source of motivation, luck does not initiate and energize learning behaviour but thwarts it.

One major lesson from Weiner's theory is that the perceived causes of either success or failure which are internal, unstable and controllable facilitate the motivation to achieve. A Zambian instructor may enhance student motivation by explaining success and failure in terms of causes of this type. One such cause is effort, which may either be reduced or increased by the learner. Blaming student failure on lack of ability diminishes the motivation to succeed. Moreover, Weiner's theory assigns the source of success to the learner: the learner must recognize that, in order to grow, he must be in control of his achievement.

The second theory of motivation to be considered is advanced by Abraham Maslow (1968, 1970), who mainly proposes that need is the major source of motivation. He has arranged a hierarchy that includes survival, safety, belonging, self-actualization needs, in that order. According to his theory, in order for higher needs in the hierarchy to motivate behaviour, the lower ones must first be met. For instance, before an individual aspires for intellectual achievement in the classroom, his or her needs for survival, safety, belonging and self-esteem must be satisfied. This implies that if food, water, shelter, physical and psychological security, love, acceptance, approval and recognition are not provided for, then an optimal use of time in pursuit of intellectual achievement and excellence cannot be expected from students.

An important lesson from Maslow's theory is that the assumption that learners are motivated only by the need to excel and understand the social and physical world is, to a large degree, not correct. A teacher in a Zambian secondary school may promote academic achievement by making sure these lower psychological needs are met.

The third theory of motivation is that of John G. Nicholls (1978, 1983, 1984) who postulates the two major sources of motivation as being task-involvement and ego-involvement. Task-involvement refers to a situation where individuals are motivated by skill mastery, by being able to solve moderately difficult problems and by understanding phenomena. In this situation, high ability is demonstrated when learning for the sake of learning has taken place.

On the other hand, ego-involvement is presented as a condition in which individuals are motivated by their relative and evaluative standing in a group when exposed to academic and other tasks. High ability is here demonstrated when one performs better than his or her peers at tasks perceived to be of moderate level of normative difficulty. In the state of ego-involvement, learning is not an end. One's demonstration of competence by doing better than others, however, becomes an end of intellectual pursuits. Learning is perceived as a means to this end. Ego-involvement is promoted when competitive test-like instructional arrangements and examinations are employed as a basis for categorizing students.

Nicholls' main contribution to be noted by the educator is that, if learning and growth are conceived to be the end of instructional activities, task-involvement as a source of motivation should be stressed. Students should be encouraged to derive motivation from experiencing task-oriented competence, excellence and growth. Given the characterization of ego-involvement, one would, in the Zambian educational context, discourage the use of norm-referenced examinations as a source of motivation.

In summary, it should be noted that attributing success to effort, recognizing that intellectual achievement has social and psychological prerequisites and fostering task-

involvement is a sound use of motivational theories when equating education with intellectual growth.

Conclusion

According to the main thesis of this paper, the primary role of educational psychology in rescuing the Zambian educational system from siege is fostering intellectual growth for sustained learning, problem-solving, and the production of socially responsible, creative, innovative and intrinsically motivated persons. It is argued that a cadre of such persons can possess qualities and the relevant skills to confront and solve a variety of serious problems besieging the educational system. This argument is based on the premise that convergent thinking abilities that are currently promoted in learning institutions in Zambia thwart the emergence of a spirit of intellectual independence and self-reliance. To cultivate this spirit, it is recommended that programs for creativity, gifted education, motivation for sustained growth and general problem solving be essential parts of school programs, research and teaching.

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10. A MODEL FOR EVALUATION OF

PSYCHOLOGICAL AND EDUCATIONAL SELECTION TESTS

Donton S.J. Mkandawire, Ph.D.

Introduction

In developing countries, it is increasingly being realized that the acceleration of economic and technological advancement has also produced an urgent demand for appropriate occupational and education selection procedures. Because of the limited resources available, the need for selection procedures has become more pressing. It has generally been accepted that it is impossible to educate and train all individuals eligible for educational programmes. Psychologists, educators and psychometricians have come under great pressure from policy makers to introduce allocation methods which will correctly identify individuals for the relatively few places available in both educational institutions and occupations. As a consequence, the fields of educational and psychological measurement will, for a long time to come, be preoccupied with the use of tests both in occupational and educational selection.

In their efforts to establish selection procedures, most testing institutions have found it necessary to follow a validation model which requires predictive validity research studies on all test batteries before they are implemented. The worthiness of selection test batteries has been determined principally by the extent to which predictor tests included in the selection plan correlate with the criterion variables which are the scores in later school examinations.

Professional workers responsible for developing selection tests have sometimes used expectancy charts and validity coefficients to express the worthiness of such tests. However, policy makers and administrators have demanded to know what gains would be achieved by introducing selection programmes in relation to what it costs to establish them. Private industries have been reluctant to adopt the use of them unless a net gain in their profits can be demonstrated with the use of selection tests.

Although governments and other organizations want better selection procedures, which they hope will bring about the greatest benefit from their human resources, they do not have a meaningful way of evaluating selection tests.

The purpose of this study was to explore an alternative model in evaluating the worthiness of tests using prediction model procedures.

Selection Programmes

Hills (1971) has pointed out that an institution that contemplates establishing a selection programme must:

- know what benefits it expects from the programme;

- decide whether the treatment, once applicants have been selected, will be *fixed* or will be *adaptive*. In a fixed treatment, everybody does similar types of work or goes through the same educational programme. In adaptive treatment, the type of job or educational programme is modified to accommodate the characteristics of the selected applicants in order to achieve the desired outcomes. In most African countries, owing to limited financial resources, the people who are selected receive the same treatment. The selection-rejection model used is of the fixed treatment type;

- know in advance whether everybody applying can be considered, or whether restrictions will have to be imposed on the applicant population;

- decide what selection instruments will be used in making the selection decisions;

- know how the measures on the instruments will be combined;

- know the cutoff points.

Evaluating the Benefits of a Selection Programme

A selection programme, like any other programme, should be subjected to an evaluation to see if it meets the original goals. Since most selection decisions are based on test scores, or a composite thereof, evaluators have to determine the best combination of tests which can be used in the selection battery.

When tests in a selection programme are developed and recommended to possible users, the validity coefficient per se does not tell how much gain is likely to accrue from their use. A model which applies decision theory has been suggested as an alternate way of evaluating the worth of psychological tests used in occupational and educational selection. The main objective of the decision theory approach, while recognizing the concern for accuracy of psychological measurement, is to provide a meaningful way of demonstrating to the test user the worth of a test in terms of *its utility*. Cronbach and Gleser (1965) view the purpose of testing as being able to help educators, employers, or

any other users, to arrive at *rational decisions about applicants*, and not to be solely preoccupied with how accurately tests measure the attributes of people.

Statement of the Problem

While decision theory promises to be a reasonable alternative evaluation model for selection tests, little empirical work has been done with it. The objective of this study was to investigate the application of the decision theory model as a way of evaluating the worthiness of selection tests or test batteries, and to compare the decision theory approach with the usefulness of psychological tests for educational and personnel selection.

Educational Importance of the Study

The decision theory approach to test validation represents a revolution in thinking about educational and occupational selection. Blum and Naylor (1968), in re-emphasizing the importance of decision theory, stated that there is a growing interest in the application of decision theory to selection problems.

> There is no question but that (the decision theory approach) ... is a more general and better model for handling this kind of decision making (selection), and we predict that, in the future, problems of selection and placement will be treated in this context more frequently -perhaps to the eventual exclusion of the more stereotyped correlational model (p.58).

If it is feasible to apply decision theory as an alternative model to the precision and prediction outcome models in deciding which tests to use, then the professionals involved in developing selection procedures could make greater application of it. The evaluation of the worthiness of tests, specific to the unique circumstances for each institution, will make it easier for interested users to decide whether or not to use tests. This decision can be made on the basis of expected net gain in utility when selection tests have been implemented.

Cronbach and Gleser (1965) have noted that the professionals who are concerned with the problems of occupational and educational selection can expect, and can continue to look for, some inevitable drastic changes and refinements in scientific selection procedures as the application of decision theory becomes more workable and better known. They concede, however, that the application of decision theory will need much detailed measurement and research. The results of this investigation are intended to shed some light on the feasibility of applying decision theory to psychological measurement as it relates to the selection problem.

<u>Literature Review of Procedures for Evaluating Selection Tests</u>

A decision problem has been described as a situation in which an individual is confronted with alternative courses of action from which he must choose. Cronbach and Gleser (1965) have emphasized the fact that personnel decisions represent a special case within the statistical decision theory as originally developed by Wald (1950). This can best be demonstrated in the selection of applicants for educational programmes or jobs (Cronbach, 1971). Decisions are made whenever there is a need to assign one or more applicants to treatments and the *eventual outcome* of such assignment is of major importance to the institution concerned.

There are two types of personnel decisions frequently encountered. First is the selection decision problem in which an institution has to decide to accept some applicants and assign them to treatment, and to reject others. Examples of this would be hiring or rejecting applicants for employment, or admitting some applicants to an academic institution and rejecting others who do not qualify.

Second is the classification decision problem in which there are two or more paths along which assignment could be made. In classification there is no rejection as an acceptable alternative. Rather, a decision is made regarding to which one of several available treatments applicants should be assigned.

<u>Basic Selection Model</u>

The basic model which is often used in selection procedures is in Figure 3. Thorndike and Hagen (1969) have described personnel selection research as beginning with the identification of promising predictors which are then related to a suitable measure of success. On the basis of statistical regression analysis, the most effective predictors are selected. Once the evidence of a statistical relationship has been demonstrated, a good validity coefficient established and cross validated, then the test battery is used year after year to select future employees or students. The battery could be revised periodically.

Ordinarily, in the basic prediction model, a test or a test battery is used to select from a group of applicants those individuals who are likely to perform efficiently on the job or in school. This is the reason why some measure of job success or school achievement is used as a criterion. The worthiness or value of a test in this context has been *judged traditionally simply by the accuracy of prediction of this criterion*. The accuracy of prediction assumes that the predictor measures are used as a substitute for the criterion measures.

Cronbach and Gleser (1965) noted, however, that reliability and the accurate prediction of the criterion measure is just one of the components in the decision making
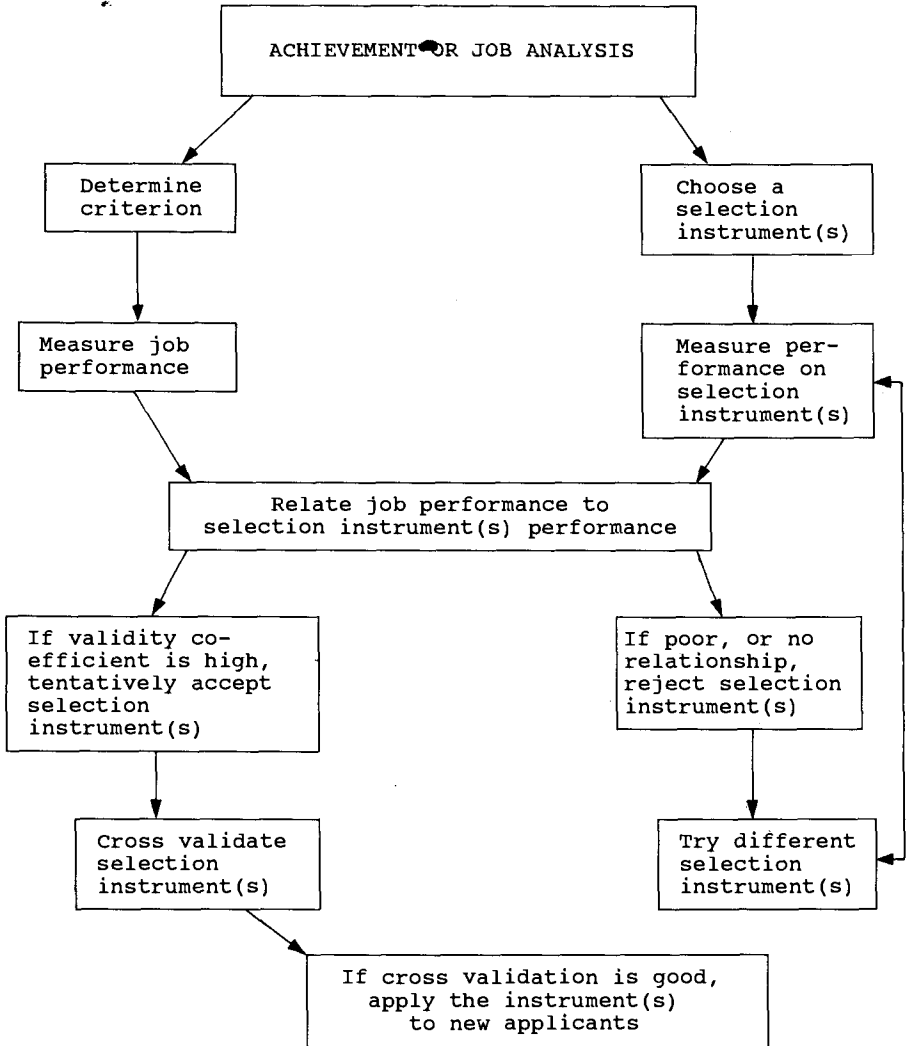
process. The most important consideration is the outcome of decisions made as a result of the selection process. Wiggins (1973) also stresses the fact that the outcomes of personnel decisions should be evaluated on the basis of their consequences on the individual and institutions within the society.

Biesheuvel (1952) suggested that selection should not be viewed from a prediction viewpoint only, but also in the wider context of more fully developed methods of recruitment, job requirements, work organization and factors which determine motivation within them. If all these variables could be considered, the use of tests in selection, according to Biesheuvel, could be viewed as one of the many elements in the complex of manpower utilization. Because of these variables, one should not appraise the worth of tests without taking into account the elements that determine the functioning of the system. Schwarz (1961) sees the values of predictor tests as being the *improvements in the accuracy of decisions* that would result.

Prediction outcomes, as Cronbach and Gleser (1965) have pointed out, do not depend on the validity coefficient only. Prior knowledge of the *base rate* needs to be considered. The same authors believe that the number of correct decisions, that is, the valid positives and valid negatives made by a selection procedure are data more useful than the validity coefficient which establishes the degree of relationship between the predictors and the criterion. How useful a test is, therefore, depends on the *importance of the decision to be made, the cost of testing*, the proportion of employees considered (selection ratio), the proportion of employees considered successful when selection is random or done by a previous means *(base rate)*, and the *validity coefficient of the test*. This model suggests that the criterion for evaluating tests should be the estimated proportion of valid positives in training programmes or in industrial settings, given the base rate, selection ratio, and validity coefficient. The gain through the use of test batteries has been expressed in terms of the increase in the proportion of persons passing the training programme or demonstrating success on the job. This proportion, which has also been called the *discriminative efficiency criterion*, is used in the evaluation of the extent to which any selection battery is able to discriminate valid positive outcomes from valid negative ones.

Decision Theory Model

Cronbach and Gleser (1965), not satisfied with the then existing types of models for evaluating tests, developed ones which evaluate the worthiness of tests in the context of decision theory. The main aim of their approach has been to suggest that, before test users implement selection tests, test developers must demonstrate the worthiness of tests in terms of *their utility*. The psychometric criteria of reliability and validity emphasized in classical tests theory (Culliksen, 1950; Lord and Novick, 1968) can be used to evaluate measurement and prediction per se, but a selection plan should be evaluated in terms of the resulting *consequences of outcomes*. From their viewpoint, the evaluation of a test, if included in

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            ┌─────────────────────────────────┐
            │    ACHIEVEMENT OR JOB ANALYSIS   │
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| Determine criterion | | Choose a selection instrument(s) |

| Measure job performance | | Measure performance on selection instrument(s) |

| Relate job performance to selection instrument(s) performance |

| If validity co-efficient is high, tentatively accept selection instrument(s) | | If poor, or no relationship, reject selection instrument(s) |

| Cross validate selection instrument(s) | | Try different selection instrument(s) |

| If cross validation is good, apply the instrument(s) to new applicants |

Source: Adapted from Blum and Taylor, Industrial Psychology: Its Theoretical and Social Foundations, 1968.

Figure 3:   **Schema of the Basic Selection Model**

a selection strategy, would be incomplete, unless the evaluation procedure included the evaluation of the *institutional gain or loss* as a consequence of not using tests in the strategy.

A decision strategy is defined by them as any rule used to arrive at a decision. An outcome is a consequence of an act or a decision made by the decision maker.

Cronbach and Gleser see the task of a decision maker who employs tests in his selection strategy as collating the predictions from both *a priori* strategy and selection tests data, with the values of the society or institution which he represents, in such a way that he will maximize the objective or goal of his institution.

Wiggins (1973) stated that:

By considering the total contributions of a test in making decisions over all outcomes, Cronbach and Gleser (1965) have arrived at highly challenging implications for such things as test design, contribution of selection batteries, the meaning of validity coefficients, and the use of tests for selection (p.225).

A schematic view of a decision process using test scores in a selection problem as conceived by Cronbach and Gleser and modified by Wiggins is shown in Figure 4.

A strategy or a decision rule as represented in this figure would be to administer a selection test battery to the applicants. Those above a defined cut score would be accepted; the others would be rejected. The outcomes for each accept-reject decision expressed as probabilities are P (VP), P (FP), P (FN), and P (VN).

It should be noted that the prediction outcomes are a function of the base rate, selection ratio, and validity coefficient. Each outcome is evaluated and a value assigned to it which expresses a measure of satisfaction. This measure of satisfaction is what has been called 'utility' (U). The decision theory assumes that the "value of various outcomes can be expressed in "equal units of satisfaction" or the like, which are additive over many decisions' (Cronbach and Gleser, 1965, p.11).

Cronbach and Gleser (1965) and Wiggins (1973) have recommended that since institutional selection decisions aim at maximizing the average gain and minimizing the average loss, only tests which contribute to expected gain in utility are worth using. Institutions expect that, from the use of tests, their overall utility will be maximized across the selection decisions of all the applicants. Cronbach and Gleser (1965) have thus suggested a new way of evaluating selection tests based on the *utility model*.

Data   **Decision**   **Outcome of Decision**
Utility

O_1: Valid Positive;   Ц
P(VP)

Accept

O_2: False Positive; U_2
P(FP)

Test

Cutting

| ----> Score

O_3: False Negative;   Ц

P(FN)

Reject

O_4: Valid Negative;   Ц
P(VN)

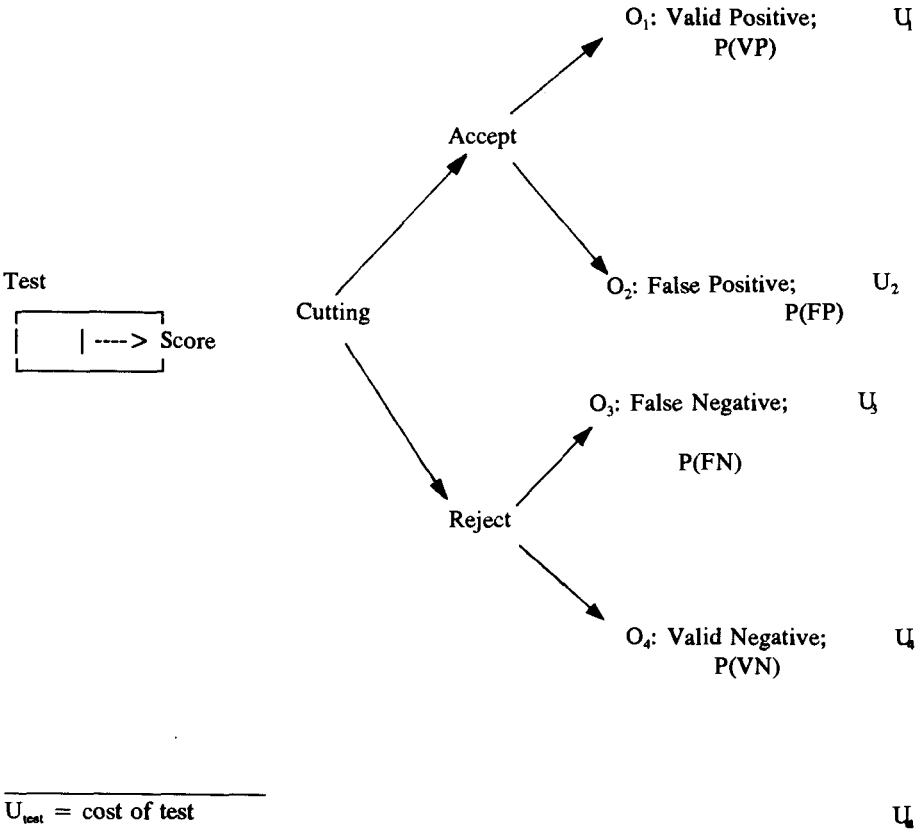$\overline{U_{test}} = \text{cost of test}$ Ц

Figure 4 Outcomes and utilities of a single stage decision

They contend that before a test or a test battery is implemented, the utility value of the strategy which uses the test must be determined by first comparing the utility of the strategy not using a test battery. Only when appreciable gain can be demonstrated should testing be adopted. A rule of thumb would be to compare the expected utility to be gained by assigning actions without using the test (e.g. by random selection) with the expected utility to be gained by using the test.

Procedures

The objective of this study was to evaluate the worthiness of selection tests by applying a decision theory model, and to compare the results of this evaluation with the results of the evaluation of the same tests when the prediction outcome and the precision models were used. The establishment of utilities for this study followed the guidelines of Brogden and Taylor (1950), Rimm (1963), and Cronbach and Gleser (1965).

The evaluation of test batteries by the precision model was carried out by examining the validity coefficients, indices of forecasting efficiency, coefficients of determination, and coefficients of alienation. Prediction outcome results were determined from tables by Taylor and Russell (1939) which gave the probability of valid positives for each selection battery.

Source of Data

The data for the study were obtained from a commercial company which employs salesmen to staff its sales districts. New salesmen are recruited annually. The professional staff of the company go into the field to conduct prescreening interviews to eliminate those applicants who, in their judgement, are unfit for the sales positions. Data on personal history, experience and educational background are then collected on all remaining applicants. These biographical data are evaluated and certain preliminary preferences on leadership qualities are established. Day long personal intensive interviews are conducted with each applicant and the final decisions to select or reject applicants are based on the evaluated biographical data and interview scores. Those selected are then put through a training programme and, in their first year after training, they are assigned to similar sales districts. Assignments to districts are done according to the exigencies of the company's needs, without regard to the preferences of an individual sales trainee.

The company wanted to improve its selection decision by introducing employment testing and requested a consulting firm to recommend a battery of tests which could be used for this purpose.

The data of the forty salesmen who had been recruited were used. The predictor data consisted of the ratings on the evaluated biographical data, the interview scores and test scores on the experimental selection test battery consisting of:

- Guilford-Zimmerman Aptitude series (Guilford and Zimmerman, 1956), Part I - a verbal comprehension test (GZVC) which tests vocabulary;

- Watson-Glaser Critical Thinking Appraisal (Watson and Glaser, 1952) (WGCT), Form AM - a measure of logical reasoning ability; and

- Guilford-Zimmerman Temperament Survey (Guilford and Zimmerman, 1949) - a self-description inventory having scales on personality traits which include: general activity (GZGA), restraint (GZRESTR), ascendance (GZASCEND), thoughtfulness (GZTHOUGT) and personal relations (GZPREL).

Selection Procedures

The various selection procedures evaluated in this study were based on the existing company selection procedure and the test battery described.

The different selection procedures were as follows:

Procedure 1. The selection procedure which the company was using. This was based on the biodata and the interview scores.

These scores were used with a multiple regression equation to predict the criteria without attempting to eliminate any predictor variables.

Procedure 2. The optimal selection procedure determined by using the forward selection regression analysis from the battery now used by the company.

Procedure 3. The third procedure was the new test battery comprising the Guilford-Zimmerman Verbal Comprehension Test (GZVC); Watson-Glaser Critical Thinking Appraisal Form AM (WGCT); and Guilford-Zimmerman inventory scales, which included general activity (GZGA), restraint (GZRESTR), ascendance (GZASCEND), and thoughtfulness (GZTHOUGT). These scores were used with a multiple regression equation to predict the criteria without attempting to eliminate any predictor variables.

Procedure 4. The optimal selection procedure determined by the forward selection regression analysis from the recommended tests included in Procedure 3.

Procedure 5. This procedure included the tests in Procedure 3, plus a Guilford-Zimmerman Personal Relations survey scale (GZPREL) not included therein. These scores were used with a multiple regression equation to predict the criteria without attempting to eliminate any predictor variables.

Procedure 6. This consisted of using an optimal test battery from Procedure 5 as determined by the forward selection regression analysis.

Procedure 7. A combination of what the company currently uses and the test battery (in Procedure 3). These scores were used with a multiple regression equation to predict the criteria without attempting to eliminate any predictor variables.

Procedure 8. An optimal battery selected from Procedure 7 was determined by the forward selection regression analysis.

Procedure 9. A combination of the selection battery in Procedure 5 and what the company now uses, that is, Procedure 1.

Procedure 10. Through the forward selection regression analysis, an optimal battery was determined from the battery in Procedure 9.

Criterion Scores

The company provided the end-of-year job performance ratings of all forty salesmen included in the study. The Development Characteristics Audit (DCA), Part I, was an overall rating of present job performance by district level sales managers. The job ratings were used as a criterion in computing the validity coefficients under the precision and prediction outcome models.

Precision Model Analysis

The precision model evaluates tests by examining how accurate applicant selection scores forecast their criterion performance. In this study, the use of the precision model to evaluate the selection procedures was done as follows:

1.   If a selection procedure had only one test in the battery, Pearson product-moment correlation r was calculated between the test scores and DCA. This was the validity coefficient of the selection procedure. The coefficient of determination, r^2, which is the proportion of variance accounted for by the test, was then computed.

2.   If a selection procedure consisted of a battery of more than one test, then a multiple correlation R was computed. R^2, the coefficient of determination, was also calculated. The corrected multiple coefficient R^3, and R^2, which have been suggested to be better estimates of the predictability in future samples than their counterpart R and R^2, were also computed for each selection procedure.

Prediction Outcome Model Analysis

The probability of valid positives P(VP) for each selection procedure was determined from tables by Taylor and Russell (1939). These can be used to determine the net gain in the proportion of men who will be satisfactory among those selected [proportion of valid positives, P(VP)], attributable to the use of tests in a selection procedure for given values of validity coefficients, selection ratios and prior knowledge of the percent of satisfactorily selected applicants (Anastasi, 1968). The 'percent of satisfactorily selected applicants' is the percentage of persons selected, using an existing procedure, who are at or above a predetermined minimum 'success' level on a criterion. The company provided data over a six year period from which this percentage was estimated.

Decision Theory Model Analysis

In order to use the Cronbach and Gleser (1965) decision theory model, it was necessary to develop a money (dollar) criterion which required expressing criterion scores for each salesman in money value utilities. It was assumed that the final objective of the company whose data was employed in this study was to maximize profits and that any net gain in utility as a result of a selection procedure had to reflect this objective. It was necessary, therefore, to include in the selection procedures only those tests in the battery which were related to the overall objective of the company. This meant that whatever money-criterion was developed it had to measure each salesman's contribution to the overall profit making objective of the company.

Determination of Validity Coefficient (r_{ye})

The values of r_{ye} were determined by computing Pearson product-moment correlations between the test scores from each of the ten selection procedures and the net dollar criterion which was the evaluated outcome for every salesman.

Results

Pearson product-moment intercorrelations for all the tests and the two criteria, that is, the Development Characteristic Audit (CDA) and the net dollar-criterion (utility) are summarized (tables available from author) in this section.

Results for the DCA Criterion

When validity coefficients (R_c) and coefficients of determination (R^2_c) were computed for the ten selection procedures, the following results were found:

1. Procedures 1 and 2, based on the company's present selection battery, were found to be unrelated to the DCA job criterion.

2. Procedures 3 and 4, which were based on the new battery described in the study as recommended by the consulting firm, were found to be statistically related to the DCA job criterion.

3. When an extended test battery (Procedure 5) was considered, the multiple correlation was found to be not significant. However, the multiple correlation for Procedure 6 was found to be significant.

4. When the company's test battery was combined with all the added selection tests in the battery recommended by the testing agency (Procedures 8 and 10), the multiple correlations were significant.

Precision Model

When validity coefficients and coefficients of determination for all the significant selection procedures were compared, there were no differences among Procedures 4,6,8, and 10.

Prediction Outcome Model

The procedures which resulted in significant multiple correlations with the DCA criterion were evaluated under the prediction outcome model. According to this model, the proportion of valid positives when a new test battery is used, is compared to the proportion of valid positives which resulted from previous selection procedures. The improvement (if any) is used to judge the usefulness of the new battery.

The company reported that their selection ratio was .38. Of this proportion of hired salesmen, the data from the company indicated that 94% of these persons could be considered satisfactory or successful according to the DCA criterion. The remaining 6%, who were regarded as unsatisfactory were either encouraged to resign or their services were terminated by the company because of their inadequate sales. The questions here are whether using one of the four procedures yielding significant multiple correlations will result in an improvement in the valid positives on this DCA criterion, and which procedure (if any) yields the greatest improvement.

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The result obtained from tables by Taylor Russell (1939) yielded 97% valid positives on the DCA criterion. This is an improvement of 3% over the 94% expected when the company's current selection procedure is used. The other procedures result in 98% of those selected being satisfactory, which is an improvement of 4%. An improvement of 3% or 4% may or may not be considered worthwhile. For example, with a 94% initial success rate, there could be only a maximum of 6% improvement.

Results Using the Dollar-Criterion

When the net dollar-criterion was used as a criterion for selecting significant procedures, the following results were found:

1. Procedure 1, in which the measures in the company's present battery (interviews and evaluated biographical data) compared to the overall dollar contribution of salesmen to the company at p.057.

2. The interview alone as presently conducted is, on its own, an optimal selection procedure.

3. When all the tests in Procedure 5 were included in the prediction, this extended test battery did not yield a significant multiple correlation. However, an optimal battery derived from Procedure 5, and called Procedure 6, was found to be significant at p.05.

4. Procedure 7, which included the company's measures and the six tests recommended by the industrial consulting firm did not yield a significant multiple R. However, an optimal battery from this set, Procedure 8, did give a significant multiple correlation.

5. Procedure 9, which statistically combined all the seven tests administered by the consulting firm and the company's present measures, was not significant. However, an optimal battery from this set, Procedure 8, did give a significant multiple correlation.

5. Procedure 9, which statistically combined all the seven tests administered by the consulting firm and the company's present measures, was not significant. However, an optimal battery from this set, Procedure 10, did give a significant multiple correlation.

Precision Model

A comparison of validity coefficients and the coefficients of determination for the selection procedures that resulted in significant multiple correlations suggests that selection Procedure 10 would be the most desirable if the size of the validity coefficient were used as the evaluative index.

When indices of alienation and forecasting efficiency were used to evaluate the test batteries, the validity coefficients of all the selection procedures were found to be unsatisfactory for the same reason as when the DCA was used as a criterion.

Utility Model

The results of the expected net again in utility per man, accepted when the Cronbach and Gleser decision theory model was used, indicates that:

1.   there is a substantial expected net gain in dollars over random selection;

2.   the amount of expected net gain is different for each selection procedure. Selection Procedure 10 has the greatest expected net gain in utility. Procedure 1, which is currently used by the company, has least expected net gain in utility.

In all, therefore, applying the decision theory to evaluate the selection procedures considered in the study, the rational decision would be to make institutional selection decisions based on Procedure 10 so that the expected net gains in utility could be maximized. Decision theory stresses the fact that since states of nature are beyond the decision maker's control, it is reasonable to assume that each of them has a probability of occurrence, and that a rational decision is to choose, among alternative actions, that one which maximizes the expected utility (Adams, 1960; Chernoff and Moses, 1959; Wald, 1950).

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SECTION III : GUIDANCE AND COUNSELLING

11. GUIDANCE AND COUNSELLING IN THE AFRICAN CONTEXT: CHALLENGE AT THE INTERFACE

D.H. Balmer

Introduction

This paper seeks to explore the activity at the interface between the demand and the supply of guidance and counselling services in Africa. It is clear that there is a demand for those services and this is due to the erosion and decline of the traditional sources of guidance and counselling in the community. To date, the demand has been met in a rather haphazard way. A more professional approach is needed if the development of theory, the supervision of training, and the ethical control of practice is to be substantive.

Development of Guidance and Counselling in Africa

At present, guidance and counselling come with the optimism of something untried; yet this optimism is misplaced. In fact, guidance and counselling has been an essential part of every society. It is as old as civilization itself. Every society has had its source of received wisdom which controlled and regulated social interactions. In African societies, the provision of guidance and counselling was effected through identified people to whom members could turn when necessary (Makinde, 1984).

What is new, however, is the approach, and this is what makes it exciting and challenging. As the traditional sources of guidance and counselling in Western society have been eroded and fallen into disuse (Halmos, 1965), they have been replaced by more theoretical, dynamic and systematic methods (Krumboltz and Thorensen, 1976; Cox, 1978; Egan, 1986).

In Africa, the decline in traditional sources of guidance and counselling has been acknowledged and the necessity for alternative services noted (Erny, 1981; Kayongo-Male and Onyango, 1984; Bray, Clarke and Stephens, 1986). For instance in Kenya, the Ministry of Education established a unit for Guidance and Counselling in 1971 under the Inspectorate. Various government reports have commented upon the urgent need to expand this service, particularly in the field of education (Ominde, 1964; Kamunge, 1988). However, guidance and counselling has a wider function in African society, and other vocational and voluntary agencies have explored the national need for this function and it has been found to exist in all aspects of society, not just education. It concerns HIV patients, refugees, families in conflict, career development, problems associated with retirement and migratory workers moving from rural to urban areas.

Despite this increasing demand for the implementation of guidance and counselling, little progress seems to have been made. It is suggested that the reason for this lack of progress stems from the fact that guidance and counselling has not been grounded in the academic body of knowledge that conceptualizes the discipline. This academic body of knowledge should be the motivating force for progress. It should generate theory, initiate innovations, monitor the practice and ensure that it complies with international ethical standards.

In common with other academic disciplines, guidance and counselling draws its authority from an academic body of theoretical knowledge. Like physics, mathematics, anthropology and psychology, guidance and counselling is defined and conceptualized by its theoretical knowledge. When this is validated, it is accorded the strength and robustness of fact. So factual knowledge becomes the foundation upon which the discipline is grounded. Once that foundation has been established, a research programme can commence and the practical aspects can be operationalized (Stefflre and Matheny, 1968). It is argued that the process of establishing the foundations for this academic body of knowledge has not been carried out in Africa and, consequently, it has caused a lack of development.

Guidance and counselling is not just a body of theoretical knowledge. It is also a set of practical skills. These skills are illuminated by the definition concepts of the theoretical body of knowledge and are used to bring assistance to people with problems. They are as important as the theoretical knowledge and there is a reciprocal relationship between the two. It is the theory that gives the practice its strength and robustness, and the practice that gives the theory its accuracy and validity. But without the theoretical foundations, guidance and counselling cannot provide the helping relationship which is the source of its therapeutic effectiveness.

Theories of Guidance and Counselling

The theoretical foundations of guidance and counselling were laid at the beginning of this century. It is not necessary to trace their subsequent development here; it has been adequately done elsewhere (Patterson, 1966; Hansen, 1969; Aubrey, 1977; Fretz and Whiteley, 1980). These foundations led to two emerging but separate theoretical orientations - guidance and counselling. The two are complementary but discrete. However, they have harmoniously co-existed, largely because the same set of practical skills are appropriate for both.

For the purposes of this paper, a distinction will be drawn between guidance and counselling. Generally, the distinction is an area of fervent academic debate, and this is noted. Many theorists have drawn boundaries at different places between the two. The distinction made in this paper is simple yet fundamental: guidance is concerned with

effecting inputs; counselling with generating outputs. Guidance focuses on effective inputs of information and advice to allow clients to resolve problems: counselling is concerned with generating outputs - having solved the problem the client becomes self actualizing and self determining, controlling and taking responsibility for his own future (Brammer and Shostrom, 1982).

The two theoretical positions will now be considered separately.

Theories of Guidance

Guidance has a directive orientation for the individual and concentrates upon effecting inputs. It gives information and advice that the individual requires to regulate his life. It may be in the context of medical, occupational, leisure or educational concerns. The advice or information is controlled by the theories of guidance. These relate to social, occupational and educational guidance. The more influential theories are those by Roe (1956), Ginzberg (1951), Super (1951) and Holland (1966).

Roe (1956) hypothesized that the early childhood experiences of acceptance, avoidance and emotional concentration determined adult occupational choice. Ginzberg (1951) viewed career choice as covering three developmental periods. The first was of fantasy choice between the ages of 6-11, then tentative choice was between 12-17 and finally realistic choice from age 18 onwards.

Super (1951) related career choice to an individual's self concept. He maintained that an individual was qualified for many occupations and choice depended upon parental socio-economic level, ability, personality and opportunity. Holland (1966) saw occupational choice in a wider vocational context. He hypothesized six personality types: realistic, intellectual, social, conventional, enterprising and artistic. This developmental theory helps a person facing a career choice to consider the complex personality dimensions of occupations in a systemic and realistic manner.

These theorists were American and based their thinking upon American cultural patterns. There have been attempts to validate their theories in other cultures, but these have been mainly European (Hoxter, 1984; Super, 1985; Bingham, 1986). In Africa, studies have tended to concentrate upon the Ivory Coast (Perrier, 1986), Benin (Houeto, 1985), and Nigeria (Okon, 1983).

The challenge for Africa is to determine how appropriate these theories are to national needs, since they were developed in countries that are highly industrialized. Although Africa is becoming increasingly industrialized itself, it is still largely agrarian. Most of the psychometric tests used in the field of guidance are based specifically on the

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employment patterns of a Western economy. There can be no assumption that they have a direct relevance to Africa. The challenge is to test them in an African context and to establish their relevance or otherwise.

Theories of Counselling

Counselling is concerned with generating outputs; with the way in which internal decisions are reached and outcomes actualized. Then the outcomes are evaluated to assess their therapeutic effectiveness. There are three main theoretical orientations that regulate counselling interventions: psychoanalytical, behavioral, and humanistic. The interventions may take place in either an individual or group setting.

The psychoanalytical theory evolved from the work of Freud (1922). It was developed and adapted by Adler (Ansbacher and Ansbacher, 1956), Jung (Fordham, 1953), Klien (Segal, 1973), Alexander (1963), Fromm (1951), Bloch and Crouch (1985). Emphasis is upon the:

- mind and body being generally ignored;
- therapist who acts as an expert;
- belief that a person's problems are rooted in childhood experiences.

Concurrent with the psychoanalytical theory, behavioral theory was being developed. It evolved out of the work of experimental biologists such as Pavlov and was altered and adapted by the work of Watson (1931), Skinner (1973), Wolpe (1973), and Bandura (1977). These theories emphasize:

- the consequences of behaviour rather than its causes;
- short term behavioral change;
- that behaviour is learnt.

Humanistic theories developed as a reaction against the strict behavioral practice of the behavioral counsellors. The main ones can be found in the work of Moreno (1940), Rogers (1957), Maslow (1962), Perls (1976), Berne (1961), Egan (1986) and they tend to emphasize the:

- essential goodness of human beings;
- importance of the congruence of feelings;
- opportunity for self determinism, self actualization and self renewal.

These three general approaches have their own strengths and weaknesses. However, some counsellors found that none of them totally satisfied their individual preferences. This led to the emergence and development of eclectic counselling (Frey,

1972), or what Brammer and Shostrom (1982) were to call creative synthesis. In these cases, the eclectic counsellor selects from the three theories what seems to be appropriate, given his own philosophical preferences and beliefs. In studying the views of many counsellors, it seems that no single theory can be applied adequately to the many kinds of clients they dealt with. Eclectic counselling has become one of the major theoretical thrusts of the last two decades.

However, the four main theoretical approaches do have certain common philosophical assumptions which seem to encapsulate the essence of counselling, whether individual or group:

- a concern and respect for the uniqueness of clients (Tolbert, 1969);
- an emphasis on the inherent worth and dignity of people (Rogers, 1957);
- helping others to attain their self determined goals (Hansen, Stevic and Warner, 1977);
- valuing freedom and the opportunity to explore one's character and potential (Maslow, 1962).

The challenge for Africa, therefore, is to test and evaluate the various theories and approaches in a national context. At present, it is clearly appropriate to experiment with all the theoretical orientations in order to evaluate their effectiveness. The greater the diversity, the greater the variety of discussion. For example, behavioral counselling could be used for drug abuse, humanistic counselling for HIV patients, psychoanalytical counselling for child abuse and eclectic counselling for chronic illness. Hopefully, this diversification creates a stimulating and challenging climate for debate.

Despite the singularity and uniqueness of these theories, the practice which is defined by them is of equal importance. Assessing their practical efficacy is a critical determinant of their success. However, proving the success of any counselling theory has, to date, remained somewhat elusive.

Efficacy of Counselling

It is worth spending some time reviewing the literature on the efficacy of counselling. Rogers (1957) made the first attempt to elicit the therapeutic factors of a successful therapy and he maintained that the therapist had to be warm, empathic and genuine. He also argued that these attributes were necessary and had to be in sufficient quantity for successful outcomes. The attributes became known as the core conditions, which were qualities to be demonstrated by counsellors. Rogers made reference neither to the client's part in the counselling interaction nor to the treatment technique, which was not an essential condition of a successful therapy.

This early and positive attempt to assess outcomes suffered a setback with the work of Eysenck, (1960), who maintained that the number of successful counselling interventions was no greater than the rate of spontaneous remission. Although his research was methodologically flawed and its sample drawn from a psychiatric population, it was to have an influence beyond its importance. Eysenck was able to show that two-thirds of the neurotic patients recovered or improved to a marked extent within two years of the onset of their illness if left untreated, and this was equal to the success rate of counselling.

This piece of research by Eysenck was challenged by Traux and Carkhuff (1967). They attempted to review the evidence and worked out what it was that made counselling effective in the successful cases. Traux and Carkhuff supported the core conditions asserted by Rogers and added a fourth dimension which was the client's depth of self exploration. They also made suggestions for training counsellors.

The research methodology used in many of these evaluations was not very rigorous. Indeed, the whole question of evaluation in such a subjective area raises profound questions.

Another influential study was that of McCord (1978) who carried out a retrospective analysis of counselling efficacy. Thirty years after the termination of treatment, 250 treated and 250 untreated patients from a matched control group were traced. Although 80% of the treated group thought they had benefitted from the counselling, the employment, criminal and health records showed the treated group had done less well compared with the control group. However, after a thirty year time lapse, it is difficult to argue for a causal relationship.

The debate surrounding the effectiveness of counselling continued. Part of the problem was the difficulty of ascribing outcomes to specific interventions. But evaluation studies did become more sophisticated in the area of both individual and group counselling. They have since continued to refine and improve and have attempted to assess outcomes for specific interventions as recommended in the seminal paper by Herr (1976).

Concurrent with these developments were changes in the field of group counselling. This was also based upon the psychoanalytical, behavioral, humanistic and eclectic theories. The psychoanalytical approach has had a continuous development since the First World War. But it was not until 1955 that Corsini and Rosenberg reviewed the literature of some 300 studies. They concluded from them that nine therapeutic factors could be identified. This number was added to by Yalom (1975) who, by clinical observation, theoretical formulation and systematic research, extended the list to twelve factors. In turn, this was reduced to ten by Block and Crouch (1985), when they reviewed 95 case studies. The therapeutic factors were:

Insight (self-understanding) - where the patient learns something important about himself.

Interpersonal interaction - where patients relate more sensitively, intimately or assertively to each other.

Acceptance (cohesiveness) - being emotionally accepted by the group.

Self-disclosure - where patients reveal information about their life outside the group.

Catharsis - the release of pent up feelings.

Guidance - being given help with personal problems.

Universality - patients appreciated they had common problems;

Altruism - becoming important in the lives of others through helping them.

Vicarious learning - understanding the course of other members' therapy.

Instillation of hope - believing that improvement was possible.

In common with humanistic and psychoanalytical counselling, behavioral counselling has demonstrated its therapeutic effectiveness by proven techniques. These are generally considered to be assertiveness training, sexual training, relaxation training and systematic desensitization (Hansen, Stevic and Warner, 1986).

Support for the emerging eclecticism was found in Prioleau, Murdock and Brody (1983) who concluded there was no difference in effectiveness between psychoanalytical, behavioral or humanistic theories. This finding was supported by Smith, Glass and Miller (1980). This latter study, based upon 500 evaluative studies, concluded that counselling was 50% more likely to produce an improvement than would have occurred without it.

From this brief review of the evidence, it can be seen that there is a growing acceptance that the therapeutic effectiveness of counselling can be shown. A general consensus is now accepted that counselling does improve outcomes (Parloff, London, and Wolfe, 1986; Stiles, Shapiro and Elliott, 1986). The challenge is to continue this work in Africa. Many of the studies would need to be replicated and the outcomes assessed in order to establish their effectiveness in this context. The main theoretical orientations would need to be evaluated to determine their appropriateness and the therapeutic factors

of counselling would have to be validated in this new environment before further progress was made.

Training Counsellors

Traux and Carkhuff (1967) maintained that, once the therapeutic factors had been identified, it was possible to train counsellors in their use. It has been shown that there is now a pool of recognized therapeutic factors drawn from the three main theoretical orientations that make counselling interactions successful. Students should, therefore, be trained in their use. The training should be done by providing suitable courses, which should be officially recognized and their content clearly stated. Such courses, it is recommended, should be both theoretical and experimental, full time, examinable, last one year, and give priority to personal reflection. They should provide a comprehensive understanding of the main approaches both at a theoretical and a practical level. Then it should be possible for students to select the theoretical orientation that they prefer for further study.

Training programmes have been devised that accommodate these different focusses. Students interested in the humanistic school can follow the training programmes available in a variety of sources; those interested in the psychoanalytical school can follow the training suggested by Cox (1978), while those interested in the behavioral school can follow the work of Krumboltz and Thoresen (1976).

The challenge is to provide effective training of sufficient quantity and quality in order that the supply of counsellors meets the demand. That should provide a comprehensive understanding of the theoretical approaches plus the inculcation of the practical skills in order that counsellors can deal with the complete range of clients they will meet.

Supervision of Counsellors

The evidence discussed suggests that the efficacy of counselling has proved to be rather tentative. So instead of engaging in optimism, it is more appropriate to warn of caution. One obvious area of concern is that of counsellors who are currently practising but who do not evaluate their efficacy, or keep up to date with research and professional developments. It is a crucial area and if counsellors do not undertake professional reviews, then the standard of ethical practice will fall. It is recommended that trained counsellors be properly supervised in order that the opportunity for playing an important role in society might not be lost.

The supervision of such practice should be determined by ethical considerations. It is important that a Code of Ethics such as the British Association for Counselling (1987)

recommends be followed. Without a code that regulates good practice, it is unlikely that the professional integrity of counselling can be vouchsafed. All counsellors, it is recommended, should, without exception, submit to regular supervision.

Indeed it has been noted that the formalized nature of the counselling service has not been followed in Africa. It is not uncommon to find untrained or unsupervised counsellors and this makes the practice of counselling appear only to need common sense. This misconception causes confusion, not only among practitioners, but also among clients (Kayonge-Male and Onyango, 1984).

The challenge in Africa is to provide a service that clients trust. Clients have the right to know that the counsellor whom they consult is properly trained and adequately supervised. The client should know that the counsellor belongs to a professional body that exists to safeguard the client's interests.

Centre for Guidance and Counselling

This paper has noted that guidance and counselling has been a part of every society. In Africa, traditional sources of guidance and counselling have been eroded and fallen into disuse. Now this service needs to come from a new source. It is suggested that practitioners of guidance and counselling are ideally placed to fill the vacuum. However, it is imperative that the service should be regulated and supervised. The regulation and supervision would: validate and develop the theoretical body of knowledge upon which the service is based; establish the efficacy of the service; train students in the theories and skills of guidance and counselling; and safeguard the professional development and effectiveness of practising counsellors through supervision and support. It is argued that these functions could best be assumed by a Centre for Guidance and Counselling. Such a Centre would have the following objectives:

1.   to develop as a national and international focus of academic excellence;

2.   to initiate a research programme that responds to current and future needs;

3.   to provide training at all levels in the theories and skills of guidance and counselling;

4.   to provide adequate supervision for practising counsellors;

5.   to compile a valid, reliable and appropriate quantitative and qualitative data base relevant to need;

6.   to disseminate knowledge;

7.   to evaluate and review its own progress.

These are demanding objectives and ones which require careful monitoring and evaluation, but they are feasible. Fortunately, guidance and counselling does not require large financial inputs, nor does it need specialized equipment or buildings. With a room, two chairs, a counsellor and a client, the process can begin.

The demand exists, but to date it has outstripped the supply. The Centre would have the responsibility of rectifying this imbalance. In satisfying this shortfall, there is no reason why the Centre should not achieve international recognition. Such recognition would come from extending the boundaries of human knowledge and understanding in the field of guidance and counselling. This is an exciting prospect and this is the challenge.

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12. PSYCHOLOGICAL PROBLEMS AND COUNSELLING UNIVERSITY STUDENTS : THE KENYAN EXPERIENCE

Aggrey M. Sindabi

<u>Introduction</u>

Kenya, as a rapidly developing society, is undergoing drastic social economic and educational changes. Problems brought about by these changes have made guidance and counselling services in the country's educational institutions a necessary component of the curriculum. As the Kenyan society continues to move away from old traditional ways towards more modern ones, students experience many new problems. The need for guidance is, therefore, increasing greatly. As a result of the complex and dynamic economic and social infrastructure, the youth need career guidance to help them develop decision making skills that will tide them over their transition from the protective home and school environments to the world of work. Social and cultural changes in a society normally result in a change in people's traditional, personal, family and group lifestyles, thus causing psychological problems. The problem of psycho-social adjustment is just one of many aspects of a complex social life characteristically associated with modern, urban and industrialized communities. According to a number of reports and studies (Mack, 1979; Yusuf, 1983), there is evidence that African university students face numerous psychological problems. Academic programmes of study also continue to grow in number and sophistication necessitating the student's need for guidance and counselling to assist them to draw up suitable individual academic programmes in line with their felt and manifested future career aspirations.

Whatever the immediate objectives of a university education may be, one philosophical issue in education cannot be disregarded: the student's development as an individual human being with qualities of initiative, reliability, a sense of responsibility, an independence of spirit and an inquiring mind. In the words of the philosopher-educator, Dr. Radhakrishnan:

> Knowledge is not something to be packed away in some corner of our brain, but what enters into our being, colours our emotion, haunts our soul and is as close as our life itself. It is the over-mastering power which, through the intellect, moulds the whole personality, trains the emotions and disciplines the will.

The Kenyan youth has a right to higher education that is designed to conduce to the development of individual excellence, or 'areta' as the Greeks put it, the total excellence

of man. Guidance and Counselling Programmes in the national universities and other educational institutions need to strive to encompass and apply this philosophical assumption.

A Brief Historical Development of Counselling in Kenya

Guidance and Counselling as known and practised in the Western countries was introduced in Kenya in the early 1960's. In 1962, the Ministry of Labour, in conjunction with the Ministry of Education, prepared some career guidance material to be used by career masters in secondary schools who were charged with the vocational guidance of students. By 1965, the Employment Department in the Ministry of Labour had produced a career information booklet to assist career masters carry out their vocational guidance responsibility more effectively. A formal Guidance and counselling programme was initiated in the Kenyan education system with the establishment of a Guidance and Counselling Section within the Ministry of Education in 1971. It was charged with the responsibility of introducing guidance programmes in secondary schools as well as preparing an updated guidance handbook to be used by guidance counsellors appointed from among the teachers in secondary schools, to provide career guidance.

The section was also charged with the task of coordinating in-service workshops for guidance counsellors aimed at introducing them to the fundamental concepts and principles of career guidance. The current functional status of guidance and counselling services in the Kenyan Secondary School system and related educational institutions is a separate subject of study as mentioned in the introductory phase of this paper.

This author has found that very limited research has been done in the area of guidance and counselling in Kenya. Eshiwani (1981) has pointed out the fact that the areas of student evaluation, including guidance and counselling services, are almost untouched in research. According to Tumuti (1981), the guidance and counselling needs of the Kenyan youth are not clearly defined, let alone receiving serious attention from teachers.

The Report of the Kenya Ministry of Education (1978) revealed that, as of 1977, only a few districts had established guidance and counselling programmes in the country's schools. This author has, however, found a steady increase in the awareness, introduction and implementation of guidance and counselling services in Kenya's secondary schools, and related educational institutions. Now, with the introduction of the 8-4-4 system of education (eight years of primary education, four years of secondary and university education respectively), the need and urgency of initiating and developing comprehensive guidance and counselling programmes in the national education system should be seriously looked into and implemented fully.

A survey of available university counselling services and their functional status within the four national universities in Kenya produces diversified findings. The oldest university, that of Nairobi, has a student affairs department which offers career placement services to graduating students as part of its general student welfare administration. There are no professional counsellors catering for the psychological counselling needs of students. Students who experience severe personal and psychological problems of whatever nature are referred to the University Medical Centre where further referrals are made to psychiatric facilities in Nairobi. Wardens are appointed from among the senior lecturers of the University and attached to Halls of Residence to coordinate residential social programmes and attend to the personal needs of students in the Halls. The wardens are not professionally trained as counsellors.

Moi University has a counselling unit staffed with professional counsellors. In addition to the responsibility of coordinating counselling services, the counsellor at this university is also charged with coordinating the academic advisory system. Academic advisors are appointed in the departments to advise students, especially in matters to do with subject choice and problems related to their programme of study. Academic advisers at Moi University are assisted by the Student Counsellor in terms of materials and approaches for effective academic advising and counselling.

Kenyatta University has a fairly well established and staffed Guidance and Counselling Unit. Here counselling includes catering for the needs of disabled students, mainly the blind. These students obtain assistance from volunteer peers who offer to read to them. Their braille typing is coordinated at the Counselling Unit. The counsellors at Kenyatta University do some teaching in the Department of Educational Psychology. They teach the guidance and counselling courses offered by the department to trainee secondary school teachers and college tutors.

Egerton University has a counsellor in the student affairs department. The Dean of Students is also a trained counsellor.

The conclusions that can be drawn from this survey of existing counselling programmes are as follows:

- The counselling needs of Kenyan university students have definitely been established and are of an academic, occupational, social, and psychological nature.

- All the universities have at least instituted counselling programmes. The nature and scope of each programme reflects differences that could be a

function of factors such as the mission and goals of each university, the calibre of counsellors employed, and the availability of administrative support, facilities and materials to develop the counselling programmes.

- The number and ratio of trained counsellors in each university vis-a-vis the student population is far too small.

- All things considered, the present scope of the counselling programmes, across the board, is still very inadequate.

Proposals of what needs to be done in order to develop viable programmes of a good standard in our universities in particular, and the Kenyan education system in general, will follow. First, however, the psychological problems and needs of university students, and the type and calibre of counsellors who can assist and facilitate the growth and development of our youth will be discussed.

University Students and Their Counselling Needs

A growing population of young adolescents is graduating from secondary schools and competing for places in the national universities and other tertiary institutions. The 1980s and 1990s are expected to be a period of increasing enrolments in Kenyan universities, (Second University Report, 1981). Entry age, especially with the new 8-4-4 system of education, will be relatively lower. Increased costs and more individual responsibility for one's education and future are inevitable consequences of these new developments. The University continues to grow and to change in complexity. Diverse groups of students, with varied backgrounds and non-traditional attitudes and values of education are putting in an appearance. The changing economy and social environment affect and influence the reasons why students attend university, their career aspirations and future plans (Tolbert, 1982). The students' problems and needs are, consequently, fast becoming more and more sophisticated. These young people need, therefore, to be provided with the facilities, materials and services which will enable them to take advantage of these opportunities and new responsibilities.

There is lack of a systematic linkage and continuity between the secondary school system and the university and, in the absence of appropriate counselling and guidance services in the former students usually develop misconceptions and are naive about university programmes and expectations. When they enter the university, they need proper guidance to enable them to make suitable academic subject choices which have functional relationships with their career aspirations. Fortunately, students, lecturers and administrators in the universities are gradually gaining awareness of guidance and counselling services. Although Western style counselling had been assumed to be primarily for white middle class people, it has come to be regarded as being valuable to other people

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in other countries as well, since the problems of living, mental illness, deviant behaviour and related psycho-social concerns to which it applies are universal.

According to Ipaye (1982), in the African culture, people voluntarily seek help and they do so under conditions of absolute sincerity and trust. The expectation is that such help will be readily offered in a congenial atmosphere of give and take, thus enabling people to facilitate the achievement of each others' goals for physical survival, emotional balance and psychological growth.

Student Conflict

A large proportion of university students are from the rural areas of the country, where the majority of Kenyans live. The other proportion comes from the urban areas. Both groups experience conflicts resulting from their inherent social and, cultural characteristics as well as their interaction within the same environment. Vassaf (1983) found in his study that a great contrast emerges when students are compared in terms of their father's occupation, educational level of parents and the family socio-economic status. Such conflicts reflect in microcosm the effects of development in Third World countries which manifest a chaotic convergence of the traditional rural and the radically foreign culture within the urban centres. Students must make psychological and social adjustments to an environment which is itself in a rapid transition. Passing from a traditional to a transitional society exerts psycho-social pressures on the individual student. This is besides the human developmental-emotional and social crises that have to be overcome by the adolescent in the process of becoming an adult. Many students are faced with an identity crisis and behave like displaced persons in search of a self image.

Students from rural backgrounds find it difficult to adjust to the fast, modern pace of campus life. They find themselves trapped. They experience frustration if they cannot belong and fit in, and feelings of guilt if they do, since this means compromising traditional values. The composition of university students in terms of their sex and sexual behaviour, depending on their social-cultural background, contributes to conflict. We have students from relatively rich families who are, consequently, urbane in social outlook. Other students are from the rural setting and tend to be traditional in their upbringing and outlook. Some students have had social relations but no sex; some have had sexual experiences with prostitutes but have, most likely, not known how to be out with girls socially. Many of the students lack basic sex education and easily fall victim to unwanted pregnancies and sexually transmitted diseases. While on the campus and interacting together, these students experience conflict which may be attributed to their different expectations. They, therefore, misunderstand and mistreat each other to the point of committing rape, suicide and physical violence.

Students' political behaviour is another aspect that needs mentioning. Vassaf (1983) in his research on university students in a developing country, found that the subjects tended to be predominantly leftist - anti-establishment politically, economically, socially and culturally. A developing country will very quickly crack down on student campus unrest. Some students unknowingly get mixed up in campus politics and thus become victims of political agitation perpetuated by anti-government forces. The rural background of the many innocent students leaves them with very limited scope for solving conflicts and disputes. They revert to physical violence, a behaviour that is somewhat reflective of the characteristics of a clan-tribal blood feud encountered in rural villages. The question or problem posed to the counsellors in the universities is how such a student can be helped. Vassaf concluded that:

> conflict at the university level is an identity crisis, a lack of basic trust in a rapidly changing environment, undefined sexual roles, an amorphous value system, and more. Conflict ensues from an exploitation of social differences between student groups by reactionary forces and results in violence and a lot of personal injury and destruction of property in the university.

According to Yusuf, the basic psychological research premise regarding the personality of the student activist is that he is a special type of person, perhaps from a broken family or home or of maritally troubled parents, and long ago should have been identified and counselled by the University Counsellor.

Ipaye (1982) and Makinde (1975) have observed that belief in witchcraft is still a factor to reckon with in some African ethnic groups and that it is based on irrational and illogical thinking. In Ipaye's words, witchcraft is a concept which a superstitious society tries to make its members believe and accept. The African, because of his religious commitment to supernatural powers or deities, attributes whatever he cannot explain to these powers. Psychologists, sociologists and counsellors, among other African scholars, should understand the danger that witchcraft, and the superstition that goes with it, poses to the development of African countries, especially in the rural areas. The young must be educated and counselled to overcome the problems brought about by such cultural facts as witchcraft. Ipaye concludes that, through carefully construed counselling efforts, when working with students in relation to their attitudes, values and beliefs about certain cultural facts, the counsellor can assist them to overcome these tendencies and in fact control both their social and cultural environment.

The author's counselling experience at Egerton University included all of the psychological problems analyzed above as well as drug abuse, suicide attempt, sexual deviant behaviour, depression and interpersonal relations difficulties. These and many others are typical counselling cases a university counsellor in Kenya is apt to have to deal with.

Counsellor Functioning and Cultural Constraints

Counselling is a learning oriented process which is carried out in a simple one to one social relationship in which a counsellor using professional methods appropriate to the needs of the client, and within the context of the total personal programme, seeks to assist the client to learn about himself and accept himself and to learn how to put such understanding into effect in relation to more clearly perceived, realistically defined goals with the ultimate objective that the client may become a happier and more productive member of his society and in his environment. Hohenshil (1979), defines it as a process in which a trained professional counsellor utilizes appropriate resources and materials to assist an individual to develop according to mutually agreeable guidelines. The client's development entails growth in personal, psychological, social, educational and career aspects.

According to Carl Roger's theory of counselling, an individual or client must be totally involved in the counselling process. His client centred counselling approach demands that the counsellor should assume a non-directive approach when helping an individual to resolve his problems. The counsellor merely facilitates the client's realization of his problems.

Super (1956) viewed the major approaches to career counselling as conceived to assist an individual in developing and accepting an integrated picture of his or *herself* and *role* in the world of work, to test this concept against reality, and to convert it with satisfaction to self and benefit to society.

Counselling, in the university in particular, and in other institutions in general, should be aimed at helping the youths to achieve personal freedom, confidence in themselves and healthy-wholesome self concepts. Ways must be found to open the youths to themselves and make them knowledgeable about their personality, about their abilities and interests and about the world around them. It is only with this knowledge that they can exercise intelligently the right of free choice in the field of academics, areas of interest or range of vocations.

Philosophical and Cultural Factors in Counselling

According to Castle (1966), guidance and counselling are indispensable ingredients of the culture in the traditional African education system. The introduction and development of counselling services programmes in the university and related institutions in the context of the prevailing social cultural background of Kenya, presents certain philosophical problems. There is a need to investigate and examine the philosophical framework of the emerging guidance and counselling movement in the country. The Western philosophy and modalities of counselling must be adapted to the local needs, to find common ground with the goals

of educational institutions, consonant with the philosophical ideals of the African cultural realm.

Ipaye (1982) postulates that the educational situation and various cultural factors have a strong bearing on the way the counsellor is able to function in Africa. The counsellor's training should, therefore, attempt to integrate the beneficial aspects of the traditional African helpers' approach with what can be learned from Western theories and approaches. According to Okon (1983), counsellors in practice must recognize that no guidance or counselling practice in a country can be presumed scientific or meaningful if such practice is not based on the value orientations of the people. A sound philosophy for counselling practices and processes in any country must be based on the values the people hold and by which, consequently, their behaviour is consciously or unconsciously regulated.

In explaining the concept of attribution of causality in human behaviour, Sue (1978) states that, after an event or experience, especially one relating to failure or misfortune, people sit back to attribute causes. Generally, we visualize such causes as either lying within us or as being external. The way we attribute the cause of an event or experience influences our subsequent behaviour. Sue has related attribution of causality to world views or the way people interpret nature and life. This is highly correlated with a person's cultural upbringing and life experiences. World views, according to Sue, are composed of our attitudes, values, opinions and concepts, and these directly affect our pattern of thinking, making decisions, behaving, and interpreting and defining events and experiences.

In active counselling with students, a counsellor will encounter clients who manifest the phenomenon of attribution of causality in human behaviour. In working with them, the counsellor needs to assist them to attempt to take responsibility for what is happening to them and endeavour to master and control environmental forces influencing their behaviour and personality. Attributing the causality of personal experiences to external causes or perceiving life events as wholly a matter of fate tends to contribute to the psychological and social maladjustment of people. Counselling people should aim at making them at least able to influence the development of their behaviour and personality. Counsellors have to devote more time to the psychological education of their clients by getting them involved in the process of self-analysis, and thus helping them to accept and assume responsibility for the outcomes and consequences of their behaviour and decisions, (Ipaye, 1982).

The Role of the Counsellor

The major objective of university education is to prepare and produce a well educated citizen who will be able to participate fully in the social, economic and civic activities of

the nation and the wider world community in general. The role of the counsellor in a university is to facilitate the optimum development and full realization of the potentiality of a student. The counsellor helps the student to acquire the insights and techniques necessary to enable him to solve his own future problems.

A university counsellor needs to be a professionally trained and qualified person who should fulfil the following requirements:

- have undergone training to achieve adequate competences in the area of learning and developmental psychology, research inquiry and evaluation methodology, career development and the world of work, individual and group counselling theory, consultation methods, psychological assessment and testing;

- have undergone a supervised practicum experience of, in-training probably in an educational institution of higher learning;

- demonstrate effective communication skills in interpersonal relationships;

- demonstrate the ability to identify and specify problems and client's needs and apply selected individual counselling techniques and special group counselling methods;

- be able to organize and administer a counselling services programme;

- be able to engage in research and evaluation of the counselling services programme and keep up-to-date by participating in professional seminars, conferences, workshops, research and publication;

- demonstrate social sensitivity, avoid narrow parochialism in his or her approach and keep in touch with national trends and needs.

On a typical day, the counsellor, besides receiving students in his office, performs responsibilities that take him all over the university campus: he spends some time talking to a student to help him deal with overwhelming anxiety resulting from a personal problem; he meets with a group of hostel assistants to help them learn techniques for communicating with students; he takes part in meetings to discuss students' discipline cases; he engages in group counselling with students experiencing marital or family related problems; he confers with heads of departments and academic advisers on methods of improving student academic guidance; he participates in the orientation of new students and, in some universities, he teaches courses in psychology and guidance and counselling.

Concluding Comments

This paper has analyzed the status of counselling services programmes and the psychological needs of students in Kenyan universities. The fact has been established that these programmes are still formative in their development and a great deal of work still needs to be done so as to speed up their development. The universities should identify and recruit more counsellors to organize and develop viable counselling programmes. In view of the new 8-4-4 university education curriculum and the relatively younger students due to enrol in the universities, guidance and counselling services are going to be a necessary component of the curriculum.

The issue of cultural factors that have a strong bearing on the nature of counselling modalities and counsellor functioning in relation to the African social-cultural milieu should be recognized and researched. Psychologists and counsellors in Kenya, in particular, and Africa, in general, should perform research and publish in the areas of psychology and counselling, with specific reference to the African situation.

The number of professional psychologists and counsellors in Kenya is relatively very low. Psychology and guidance counselling teaching should be intensified in the universities and colleges in order to increase the awareness of many potential scholars in these disciplines.

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SECTION IV : EMPIRICAL STUDIES

13. FACTORS INFLUENCING THE LEVEL OF GROUP COHESIVENESS IN SCIENCE CLUBS IN KENYANS SECONDARY SCHOOLS

J.M. Kivilu

Introduction

The overall effective functioning of any organization is determined by how well the various groups forming it perform their activities as measured by the outcome. For example, the functioning of the various groups in the form of clubs and societies found in schools will determine the total performance of the school in a variety of activities. Group cohesiveness has been identified as one of the main group properties which influence the operations of the group. Cartwright (1968) defines it as the resultant of all forces acting on members to remain in the group. The forces are determined jointly by certain properties of the group and the characteristics of the members which together can be conceived as the immediate determinants of cohesiveness.

Group cohesiveness has been investigated from two view points: first, as a dependent variable. This approach undertakes to ascertain the conditions that bring about the various levels of cohesiveness. Second, as an independent variable, whereby the effects of different levels of cohesiveness upon the group and its members are investigated.

Various studies have been done using the first approach and looking into the effect on the level of group cohesiveness of certain group properties such as interpersonal attraction, instrumental value, leadership style, risk-taking and communication patterns (Lott and Lott, 1965, Cartwright, 1968; Festinger and Kelly, 1951; Stokes 1983). Stokes (1983), for example, carried out an investigation into the components of group cohesiveness in therapy groups, including interpersonal attraction, instrumental value and risk-taking and found a strong relationship between these components and group cohesiveness.

For purposes of the present study, the variables under investigation had the following meanings:

Risk-taking: This is the members' willingness to risk embarrassment in contributing to the group's deliberations.

Interpersonal attraction: This means enjoying spending time with the other members of the group; that is, liking the other members as individuals and being willing to socialize with them.

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Instrumental value: This is the benefit gained by the members through participation in the group or simply by being a member thereof.

In the present study, one aim was to replicate Stoke's study using school groups and to find out the contribution made by each of the components on the level of group cohesiveness. The other was to find out whether there was any gender influence on the levels of group cohesiveness and the three factors by using science clubs from mixed, boys only and girls only schools. In order to be able to investigate and analyze these postulates statistically, the following null hypotheses were formulated:

H_1:   There is no statistically significant relationship between the levels of group cohesiveness and those of interpersonal attraction, risk-taking and instrumental value.

H_2:   There are no statistically significant differences among the science clubs in the three school types as concerns the levels of group cohesiveness, interpersonal attraction, risk-taking and instrumental value.

METHOD

Subjects

The study was based on secondary school science clubs in Machakos District. The selection of the district was prompted by the investigator's familiarity with its many areas. This consideration was appropriate in view of the temporary financial constraints that beset the study. The science clubs were selected because of the following reasons: first, they are both academic and social groups forming a back-up function to the science subjects and providing opportunities for members to satisfy their social needs. Second, they offer opportunities for students of different academic levels to interact and exchange ideas, ar.d, lastly, they further a positive interest in and attitude towards the sciences.

The target population consisted of all the science clubs in secondary schools in the district which had participated consistently for the last three years in the Annual District Science Congress.

Using the school type as a stratum, the researcher employed the stratified sampling technique to select the sample for the study from the already identified target population. Eight schools were selected as follows: four mixed schools, two boys' only and two girls' only schools. These numbers were determined by the properties of the three types of schools in the target population. All the members of the science clubs in the eight schools participated in the study. The total number of subjects was 320.

Procedure

The survey research technique was utilized to obtain data. Kerlinger (1973) observed that the survey researcher is primarily interested in what people think and what they do. The questionnaire which Sax (1968) described as a means of eliciting the feelings, beliefs, experiences, or attitudes of some sample of individuals, was used for the study. It consisted of three sections. Section one sought the biographical information of the members. Section two was made up of items adopted from the Gross Cohesion Questionnaire (Schutz, 1966), which is the most widely used measure of cohesiveness in various groups (Stokes, 1983). Section three was made up of items mostly drawn from the The Factor Questionnaire developed by Stokes (1983). This section was meant to measure the three factors: interpersonal attraction, instrumental value, and risk-taking.

In order to suit the group under study, most of the items in sections two and three were modified where appropriate. In these last two sections, the subjects were to respond by rating the appropriate response on a 4-point Likert-Scale, ranging from strongly agree to strongly disagree. Percentage scores were computed in the four variables for each subject. The upper quartile of the scores for each variable was considered high level, the immediate quartile below the upper one was considered moderate, while the bottom two quartiles were low level.

The questionnaire was piloted in one of the schools in the target population. This was done, first, to find out if any of the items was ambiguous. Second, to determine the extent to which the instrument would provide the type of data anticipated. Third, to determine if the desired data could be meaningfully analyzed in relation to the hypotheses and, lastly, to determine the internal consistency or reliability and the validity of the questionnaire. This was found to be of fair quality, with a reliability coefficient of 0.93.

The questionnaires were administered by the investigator himself. Out of the 320 subjects who initially filled them, only 309 had all the important parts filled. These were the ones used for data analysis.

Data Analysis

The data was subjected to statistical analysis using the microcomputer sub-programmes in the statistical package for the social sciences (SPSS/PC). Descriptive statistics like frequencies, means and variance were used to describe the overall nature of the data obtained so as to provide a basis for the conclusions to be made in relation to the hypotheses postulated in the study. The Chi-square test and the multiple regression analysis were used in testing the first hypothesis which sought to establish the existence of relationships between the levels of group cohesiveness and those of the three factors. They were also used to find the contribution made by each factor on the level of group

cohesiveness. The Analysis of Variance (ANOVA) was used to test the second hypothesis, which sought to find whether there existed gender differences as regards the levels of the four variables in the different types of science club composition.

Results

According to the Chi-square values obtained, the first hypothesis was rejected at the $p \leq 0.05$ level of significance. Thus, we may conclude that there existed significant relationships between the levels of group cohesiveness and those of interpersonal attraction, instrumental value, and risk-taking. However, the relationships were weak as indicated by the various values of the contingency coefficient. Table 1 gives a summary of the results.

In order to find the contribution made by each of the three factors to the level of group cohesiveness, a multiple regression analysis was carried out, first, assuming that there were no interactions among the independent variables. Table 2 gives a summary of the results of the analysis.

Table 1   **Levels of cohesiveness**

Levels of	X^2	D.F.	Contingency Coefficient
Interpersonal Attraction	22.91	4	0.26
Risk-taking	11.64	4	0.19
Instrumental Value	14.36	4	0.21

From the table, interpersonal attraction made the highest contribution, while risk-taking made the least. This is indicated by the partial effect values. The standard error of estimate of 0.465 showed that, on average, the predicted level of group cohesiveness deviated from the actual one by 0.465 units on the group cohesiveness measure.

Table 2 **Regression analysis for interpersonal attraction and risk-taking**

Independent Variable	Partial effect	Standard error			
	B	S.E	T	D.F.	Remarks
Interpersonal	0.11092	0.03826	.302	2	S	Attraction
Risk-taking	0.06193	0.03657	2.899	2	S
Instrumental Value	0.08716	0.03786	1.693	2	S
Constant	2.16618	0.12296	17.617	2	S

The coefficient of determination R^2 represents the proportion of variation explained by the variables in the regression equation. In this case, $R^2 = 0.084$, which means that about 8.4 % of the total variance in group cohesiveness was accounted for by the three variables. The R^2 value being that low, the investigator repeated the multiple regression analysis, this time incorporating interactions between independent variables.

All the interaction terms were significant, except that between G_2 and G_3 which was, as a result, left out of the regression equation.

The value of R^2 increased from 0.084 to 0.1498, meaning that, with the interactions between the variables taken into account, the amount of variation explained by the variables increased to 15 %. This percentage of variance is still low. The 85 % unexplained variance could be attributed to other functional transformations of the three variables and other factors contributing to the level of group cohesiveness which were not considered in the present study.

The second hypothesis, which sought to find out if there existed differences between the club types (in terms of sex) and the levels of group cohesiveness, risk-taking interpersonal attraction and instrumental value, was tested using the Analysis of Variance (ANOVA) technique. The F-ratio values of ANOVA for club type and the four variables are summarized in Table 4.

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Table 3 **Regression analysis incorporating independent variables**

Variables	Partial regr. coeff.	Standard error (S.E.)	T	Remarks
G_2	.13213	.16732	.790	S
G_3	.08266	.15955	.518	S
G_4	.38705	.22405	1.728	S
G_2 & G_3				NS
G_2 & G_4	.15295	.08964	1.706	S
G_3 & G_4	.09333	.08697	1.073	S
G_2, G_3 & G_4	.02759	.02533	1.089	S
Constant	2.80819	.44546	6.304	

Multiple R $= 0.387$ $R^2 = 0.1498$
F $= 4.315$ (Significant at $p \leq 0.05$)
standard error $= 0.445$

Table 4 **F-ratio values for ANOVA**

Variable	F-ratio	Comment (p 0.05)
Group cohesiveness	5.8104	S
Interpersonal attraction	0.2701	NS
Risk-taking	0.2962	NS
Instrumental value	1.3877	S

The results revealed that there were significant differences between the club types as indicated by the school category and the levels of group cohesiveness and those of instrumental value. The mixed clubs (both sexes) indicated the highest level of group

cohesiveness, while the girls only clubs had the lowest. As concerns the levels of instrumental value, the single sex clubs indicated a relatively higher level than the mixed ones.

There were no significant differences between the club types and the levels of interpersonal attraction and those of risk-taking. This meant that the composition of the science clubs in terms of sex had no effect on the levels of the two variables.

Discussion of Results

Significant relationship was found between the levels of group cohesiveness and those of interpersonal attraction. These results confirm previous findings by Stokes (1983) who found that the degree of group cohesiveness was predictable from that of interpersonal attraction. However, these findings differed from those of other studies, especially by Ribner (1974), which showed that group cohesiveness was not based on interpersonal attraction. The difference in results could be attributed to the different characteristics of the groups studied.

A significant relationship was established between the levels of group cohesiveness and those of instrumental value. These findings are in accordance with some previous studies: Frank (1957), Homan (1961) and Stokes (1983). Since these were done using different types of groups, it can be concluded that instrumental value is an important component in determining group cohesiveness irrespective of the nature of the group.

Risk-taking was found to be the weakest predictor of the level of group cohesiveness. This could be attributed to some exponential functions of risk-taking in the linear multiple regression equation. It could also be due to the fact that risk-taking may be a more important factor in determining the level of group cohesiveness in certain groups while it is not in others. Other studies which established a relationship between the two variables include Ribner (1974), Crews and Melnick (1976, Kirshner *et al.*, (1978), Bednar *et al.*, (1974), Yalom (1975), and Bednar and Evensen (1978). However, the findings conflicted with those by Schaul (1972) and Bugen (1976). Bednar and Lee (1977) found an inverse relationship between the levels of risk-taking and those of group cohesiveness; that is, the conditions that produced the highest risk-taking produced the lowest cohesiveness scores. This, as already mentioned, could be attributed to differences in the nature of the groups studied.

On the second hypothesis, the results indicated that mixed clubs had a relatively higher level of group cohesiveness than those of single sex. These results support earlier findings that, in mixed sex groups, the girls' performance or behaviour is motivated by a desire to please others. The competitive desire in both boys and girls could be said to be responsible for this in the mixed clubs. Bednar and Evensen (1978) found no relationship

between the sex of the group members and those of cohesiveness. The difference here could be due to the nature of the group, whereas they studied therapy groups, the present study considered school groups which are quite different.

The single sex clubs indicated a relatively higher level of instrumental value than the mixed ones. These results are in accordance with Hagstrom and Selvin (1965), who found college girls to be attracted to certain social groups because membership made it easier for them to satisfy some social needs. Similar anticipations were made in the present study.

No differences were found between the sex of the members, the levels of risk-taking and those of interpersonal attraction. Bednar and Evensen (1978) found the sex of group members was not related to the levels of interpersonal attraction and risk-taking. Thus, it can be concluded that the composition of the science clubs had no effect on the two variables. This conflicts with the investigators' prediction on the two variables, since they are influenced by sex composition.

These findings might have some heuristic value. It could be that certain aspects of cohesiveness are more important for certain types of groups. Thus, a more precise operationalization of cohesiveness may facilitate a better understanding of the relation of cohesiveness of various group processes. Thinking of cohesiveness in terms of the various factors will lead to new ideas about how to increase it in school groups. An experimental study could be carried out to find out if increasing the levels of one of the factors would affect the others. Ways should be devised to foster cohesiveness in school groups by attending to each of the factors affecting it. For example, risk-taking may be improved by rewarding those who make risky attempts or give an honest feedback to other group members during group discussion or other activities. Interpersonal attraction may be improved by the group leader by creating expectations in members that they will benefit from each other. The instrumental value of a group may be enhanced by having the group focus explicitly on its goals and by helping redirect the group when the members' needs are not being met. For the foregoing suggestions to be feasible, school authorities need to give the necessary support and cooperation to the groups in their schools.

More information on groups in schools may be obtained by carrying out studies on other group properties and seeing how they influence the general group performance. A larger sample can also be used to replicate the present one in order to obtain more generalizable results. Other groups in the school can also be used for additional information on the various group processes.

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14. PSYCHOLOGICAL RESEARCH ON AIDS IN AFRICA

David Wilson

Introduction

Pattern II infection, with heterosexual transmission and an equal male-female HIV seropositivity ratio, prevails in sub-Saharan Africa (South Africa also has Pattern I infection). Anal intercourse and intravenous substance use are rare and blood transfusions can only explain a fraction of HIV infections. Vaginal coital and vertical or perinatal transmission are the dominant modes of HIV transmission (Biggar, 1984; Mann, Chin, Piot and Quinn, 1988, Quinn, 1987). Ronald, Ndinya-Achola, Plummer *et al.* (1988) estimate that 50 million people in Africa (or 8% of the continent's entire population) may have HIV by 1993 and eleven million may die by 1995. Those of sexually - and economically - active age (15-30 years) may be most affected.

Most sub-Saharan countries have initiated national AIDS campaigns using print and electronic media, brochures, posters and health personnel to advocate fidelity to one faithful partner and, in some cases, consistent condom use, to prevent HIV transmission. African responses to AIDS are differentiated from Euroamerican responses in that government, as opposed to community, activities constitute the first responses to AIDS and their emphasis was on fidelity as opposed to condom use (Population Reports, 1989).

KAP Research

KAP surveys constituted the largest and, indeed, the only single substantial body of psychosocial studies at the Fifth International AIDS Conference (Wilson, 1989). They reinforced emerging views (Population Reports, 1989) that, while awareness campaigns can raise awareness in some groups, misconceptions about casual transmission endure. Some reports indicated that AIDS awareness is lower among rural individuals and those of limited education or literacy (Hassan, 1989; Oyewo, Bambose, Adetugba *et al.*, 1989), which raises serious concerns about the representativeness and generalizability of African KAP surveys: few of them examined rural samples and still fewer used probability techniques. Better sampling approaches are essential in KAP research. Moreover, given the efforts devoted to data collection, KAP research should be expanded beyond description to examine psychosocial predictors of behavioral risk reduction. A more sensitive, in-depth coverage of relevant cultural influences is also needed. Without these changes in emphasis, KAP research cannot be considered a priority.

Social Forces

We intuitively know how social forces have rendered the region vulnerable to HIV; but detailed, carefully illustrated, sociological accounts of these forces are needed. Urbanization wrought profound social changes in Eastern and Southern Africa. Many traditional African societies had conservative sexual mores. Older women gave younger women sex education, monitored their contacts with men and occasionally conducted virginity inspections. Community influence reinforced compliance. Urbanization dissolved traditional ways of imparting sex instruction without providing any alternative, removed community influence and gave young people anonymity or facelessness in towns (Pela and Platt, 1989). Some countries, notably Uganda, emphasize the restoration of traditional values to prevent HIV transmission.

In parts of Central Africa, as in South Africa, urbanization was accompanied by migrant labour. Dormitory towns were built in many major urban centres. Initially, at least, these were largely restricted to male employees, whose wives remained on subsistence farms in rural areas. This pattern was reinforced by low wages, which women had to supplement with agricultural produce. From the inception of the dormitory towns, prostitution sprang up to service men separated from their families and commercial sex became commonplace and largely acceptable.

The remarkable fact that HIV infection is much lower in West Africa than in Central or Eastern Africa may be further evidence of the role of social factors as West Africa's familial, social and cultural structures were much less disrupted by colonization.

To urbanization and migrant labour must be added another element - the poverty and dependency of women. Consider these Zimbabwean figures: only about 8% of Zimbabwe's adult population has formal employment and only 16% of these are women (CSO, 1987).

In some areas, war, which exacerbates poverty, and reliance on commercial sex, is another contributory factory.

This general sketch clearly awaits a detailed sociological treatment.

Commercial Sex

Commercial sex is seminal to HIV transmission in sub-Saharan Africa (D'Costa, Plummer, Bowmer *et al*, 1985; Piot, Plummer, Rey *et al.*, 1987). There is evidence that condom promotions may reduce HIV infection among sex workers in Kenya (Ngugi, Plummer, Simonsen *et al.*, 1988) and Zaire (Mann, Quinn, Piot *et al.*, 1988). Health interventions among sex workers are underway in several African countries, including Cameroon

(Manny-Lobe, Nichols, Zekeng *et al.*, 1989, Kenya (Plummer, Scarth, Ngugi, *et al.*, 1989), Nigeria (Soyinka, Hassan, Onayemi *et al.*, 1989), Senegal (Siby, Thior and Sankale, 1989), and Zimbabwe (Wilson, Sibanda, Mboyi *et al*, 1989).

However, sex workers have received scant attention in social science literature and the effectiveness of health interventions may be vitiated by the absence of ethnographic, psychosocial and sexological information about commercial sex. In order to plan properly targeted interventions, the following information is needed: sociodemographic characteristics (including age, marital status, number of children, support for children, education, employment, income); patterns of work (seasonal, weekly patterns); organization of work (relations with police, health personnel, bar personnel, security personnel, residence proprietors, informal leadership, networks, interactions among sex workers, involvement of pimps, role of boyfriends); nature of work (nights, hours worked, place of recruitment, place of service); commercial transactions (mode of identification, initiation of approach, strategies and extent of bargaining, locus of final decision); role of repeat clients (specific sex behaviour, clients per night, duration of sex acts, specific acts performed); HIV risk factors (sex during menses, use of astringents, sex with genital ulceration, circumcision and ulceration among clients, condom use, absence of or incorrect lubrication, anal intercourse, oral intercourse); sex sequence and opportunities for intervention (opportunity for inspection of clients, opportunity for sex worker fitting of condoms, conversation before/during sex sequence, opportunity to educate clients); health knowledge and beliefs (knowledge and attitudes towards AIDS, perceived efficacy of condoms, attitudes toward female condoms).

African research in this area is beginning (Wilson, Sibanda, Mbayi *et al.*, 1989; Wilson Chiroro, Sibanda *et al.*, 1989) but much more is needed. Interdisciplinary social research, with particular emphasis on ethnographic techniques, is essential. It is also vital to extend this research to other high risk groups; above all, clients of sex workers, but also STD patients, long distance drivers and soldiers.

Sex Research

Detailed information about sex behaviour in the general public is essential to plan effective behaviour change programme (Reinsisch, Sanders and Ziemba-Davis, 1988). The research should examine sex outside unions, commercial sexual exposures of STD patients and sex with and among minors. It should address ethnic and sociodemographic differences. It should also examine the role of alcohol, which may increase biomedical vulnerability to HIV and have a disinhibitory effect, in sexual interactions.

Implications of Family Planning Programmes

Family planning programmes, which have existed for thirty years, provide numerous hypotheses about the determinants of effective AIDS preventions (Population Reports, 1989). Lessons from family planning programmes that may be applicable to HIV prevention are (Population Reports, 1989):

- modifying sexual behaviour involves both mass media information and face-to-face contacts with family and friends;

- use of barrier contraception requires discussion and shared responsibility among sex partners;

- separate outreach activities for men are necessary;

- informational approaches must be accompanied by improved distribution of prevention materials;

- peer group support must be mobilized;

- health counsellors need initial and recurrent training;

- song, dance and drama are culturally appropriate in many African contexts and likely to be effective;

- projects which begin as pilot studies, with realistic goals, are more likely to succeed.

Predictors of Behavioral Risk Reduction

Research must identify psychological predictors of behavioral risk reduction, so that these factors can be emphasized in AIDS prevention messages. The Health Belief Model has been shown to predict safer sex behaviour in North American samples. Zimbabwean studies have found that the major predictors of behaviour change include the knowledge that babies can be born with HIV, the belief that condoms seldom break or leak and are effective against HIV, perceived peer and parental support for condom use, talking about AIDS with friends and teachers and exposure to pictures and films depicting people with AIDS (Wilson, Larelle, Hood et al., 1989). These results suggest that AIDS prevention activities in Zimbabwe should emphasize that fidelity or condoms protect babies and families; persuade people that condoms are reliable and effective against HIV; foster the perception that there is powerful peer support for condom use and that unprotected sex is

normatively unacceptable; encourage face-to-face discussion about AIDS, especially with teachers in schools, and encourage personalized depictions of people with AIDS.

Beyond Informational Approaches

African AIDS prevention campaigns tend to be limited to informational approaches. However, Western research indicates that approaches emphasizing social and behavioral skills and face-to-face discussion are more effective. Given the importance of peer and social influence in the African cultural context, this may be especially true in Africa (Pela and Platt, 1989).

Counselling

Few African AIDS workers have written about counselling. Foster (1989) of Zimbabwe has noted that, while insufficient HIV counselling is done in Zimbabwe, existing counselling services are often underused. This may be because Western counselling approaches are inappropriate, so it is vital to develop culturally appropriate models to conduct essential AIDS prevention and treatment counselling.

Discrimination

African countries have neither enacted discriminatory legislation against people with HIV/AIDS nor anti-discrimination legislation (Akawasi, 1989). The absence of anti-discrimination legislation is only justifiable in the absence of discrimination. The absence of documented cases of discrimination in Africa almost certainly reflects a lack of research, not the absence of discrimination. Research on the forms and degree of discrimination against people with HIV/AIDS in Africa is urgently required. It may help to secure appropriate anti-discrimination legislation.

Role of the Media

Pitts and Jackson (1989), reviewing Zimbabwean media coverage of AIDS, concluded that it had eschewed sensationalized accounts of AIDS (Gay Plague Kills 80 Year Old Grandmother!), but that it has also avoided individualized depictions of people with AIDS. While the former is commendable, the latter may be regrettable, as there is Western and African evidence that exposure to personalized illustrations of the effects of AIDS is related to behavioral risk reduction. Social scientists can help to guide appropriate media responses to HIV/AIDS.

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Evaluation

Evaluation of national and localized HIV prevention programmes is essential. Self-reports of behavioral risk reduction are the most common means of evaluation. However, a recent North American study (Leonard, Freund and Platt, 1989) found that client reports of the frequency of condom use in paid sex acts were markedly lower than those of sex workers. In contrast, a Zimbabwean study found that client reports closely corroborated sex worker reports in this area (Wilson, Sibanda and Mboyi, 1989). Concerns about self-reports are, however, justified, and other data should be sought. Other outcome measures include client or partner corroboration, producing condoms on request; increased condom distribution; other STDs (a practical, desirable measure) and, where feasible and ethical, HIV antibody status testing.

Conclusion

Interdisciplinary social science research, with ethnographic techniques and goals at the centre, is an essential element of the campaign against AIDS. In view of the urgency of the AIDS problem, social research should, wherever possible, be combined with the establishment of HIV prevention counselling programmes.

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15. CHILDREN AS DOMESTIC WORKERS:

A CLANDESTINE FORM OF CHILD ABUSE

Priscilla W. Kariuki

Introduction

It is normal and quite common in African families for children to work in their homes. This is part of the education parents give to their children; an informal preparation and training for the more demanding tasks of adulthood. In performing light tasks, the child feels useful and important while the work instils in him/her a sense of responsibility towards others and a sense of belonging.

In the African traditional society, parents always valued the labour of children; they were assigned work to do such as looking after cattle, helping with domestic chores and taking care of the younger ones. Children's work was seen as a way of training, educating and socializing them. The tasks they performed were not deemed exploitative, since each family member was expected to contribute to the family's social and economic well-being. In the process, the children not only learned useful skills, but also acquired social values and came to adopt a positive attitude towards work.

The Concept of Child Abuse

Parker and Collmer (1975) describe the abused child as 'any child who receives non-accidental physical injury or injuries as a result of acts of commission or omission on the part of his parents or guardians, that violate the community standards concerning the treatment of children.' This definition takes into account the intention of the act, the seriousness of the injury and the context of the community standards for how children may be treated by their parents.

Child abuse expresses itself in an obvious manner, as in cases of battering which attract much attention because of their seriousness. Eloquent descriptions of abuse are elaborated in the children's wards of Nairobi's hospitals, which are admitting, in ever increasing numbers, young victims of parental and guardian violence. These children find themselves recovering in hospitals not because they have been ill, but because they are sick from lack of love, attention, care and tenderness at home. These children are, indeed, the most vulnerable members of our fast-paced, competitive city life. They suffer most severely from these deprivations and are, as a result, becoming hard-hearted.

For the purpose of discussion in this paper, child abuse is defined as a situation in which a child is growing up under conditions which threaten his/her physical, emotional and psychological well-being. The discussion is centred on a much more subtle, less obvious form of child abuse; that is, the employment of children and young adolescents in domestic work in private urban homes. The living conditions of these young child workers indicate that they are abused by their employers and that, in return, they abuse the children they are supposed to look after. This type of abuse is so concealed that it is hardly seen by employers and society at large as abuse and it is precisely this that makes it a very serious problem. The discussion is not an easy one because it invariably raises emotions and people frequently avoid talking about it and even deny its existence.

Variables Related to Child Abuse

There are a number or reasons that give rise to this form of child abuse. In the modern and urbanized setting in which both the father and mother have to work outside the home, they must, of necessity, leave someone behind to do the housework, guard the home and take care of the children. The person they employ for these tasks may be related or unrelated to them. The situation would not cause as much concern as it does today, if the employers of domestic workers, especially of housegirls, hired older, more mature and experienced caretakers and treated them humanely.

The rising rate of unemployment complicates this form of abuse, since there are many school leavers and school dropouts looking for any type of employment. There is, therefore, a mutual need between the working parent who needs household help and the young person who needs employment. Rural poverty is another problem that forces young adolescents to leave home and seek any kind of employment in urban areas in order to supplement the family income. When families are very poor, they hire out their children as labour to others to earn some money. This is done directly, or indirectly, through middlemen and the children in the process become marketable commodities. In this case, the protection of the family structure is removed and the child may become an object of abuse by non-familial employers. The child becomes totally dependent upon the living conditions provided by the employer as a function of the employer's profit maximization motives.

The current economic situation has necessitated the employment of mothers, who have, as a result, left the task of bringing up their children in the hands of other caretakers. Observations from the urban areas indicate that most domestic workers are girls below the age of sixteen, from below average income families. The fairly limited number of studies in Kenya (Kayongo-Male and Walji, 1984; Onyango and Kayongo-Male, 1983; Kariuki, 1989) show that even nine and ten-year olds are quite commonly employees. The efforts demanded of these children by their work often exceed their physical and mental capacities.

Children who are put to work at such an early age are deprived of their childhood and do not benefit from leisure time for educational or psychological development.

In the Kariuki (1989) study, it was shown that such childworkers found themselves in very difficult situations: lonely, uncared for and unable to cope with their emotional, physical, social and spiritual needs. The reason for their taking on employment at such an early age was simply in order to survive, and, to some extent, meet the needs of their families.

One of the contributing factors to the problem of child abuse is the fact that our traditional social structures have, to a large extent, been disrupted by Western ideas and thinking.

In a situation of rapid social change, we find an increasing lack of understanding, by parents, of the needs of their children, leading to abusive actions. Parents who abuse children seem to do so out of economic or social frustration, including marital difficulties, poor housing conditions, financial strains, parental occupation with outside activities and poverty. For many young individuals who have moved from the rural to the urban areas, the dislocation of family life, lack of parental control, household disorganization and other personality problems appear to be closely related to their abusive behaviour.

The Young Domestic Worker Syndrome

It was observed and noted in the Kariuki (1983) study that the relatively affluent members of our society, in the middle and upper classes who are educated and would be expected to understand the hazards of child labour, are the very same people who employ young children as domestic workers and, although child labour exploitation is officially banned in Kenya, many people do not see anything wrong with the practice. This is in spite of the fact that they would not like their own children to be exposed to such conditions of labour.

Kiambi (1980) refers to this problem as the 'ayah complex', which means the semi-permanent absence of working parents, with their children left in the care of young adolescents who should still be under parental care and in school. Children under sixteen years of age growing in these conditions of heavy responsibility without their needs being met socially and emotionally are likely to view their situation with fear, demoralization, feelings of injustice and insecurity from the wider society.

These findings show that the young domestic workers are responsible for all domestic chores, which include preparing meals, cleaning floors and walls, washing dishes, laundering and ironing clothes. Their most important job, however, is to look after the small children of the family, clean and feed them, and generally see to it that they are comfortable and out of mischief.

The tight schedule of the domestic worker, which has no defined number of hours in a day, means that she has to start work very early in the morning and continue late into the night. Many employers do not even consider giving their domestic workers holidays or days off.

Another area of concern for domestic workers is their very low wages. Employers justify low pay by contending that they provide food and accommodation to their employees and that, as such, they have few demands. In some households, the domestic workers eat alone in the kitchen and always after the family has eaten. In residential areas where no servant's quarters are provided, the young domestic workers sleep on mats or mattresses in the kitchen or sitting room, if no other arrangements can be made. The young workers resent these forms of treatment, but have no recourse. This lack of acceptance in a family for which they work so hard can be seen as both unjust and discriminatory.

Besides living under insecure and demeaning working conditions, most of the domestic workers also suffer from restricted social interaction. They are not normally allowed to socialize by visiting or receiving friends. This limitation is unjustified, especially for children who so badly need it. Often the result of their confinement to the house is apathy, which is extended to the employer's children. Such child employees who are pitched into life without passing through the psychological stages of puberty and adolescence, who have restricted social interaction, and long hours of work inevitably suffer crippling effects on their emotional development.

Although fairly uncommon, cases of young domestic workers being abused and physically maltreated by employer's children and sometimes being sexually assaulted by husbands or older male children have been reported. This creates fear, anxiety and resentment in the child and has a profound, adverse influence on her psychological development.

Social-Psychological Problems of Child Workers

Onyango and Kayongo-Male (1985) highlighted the plight of children working as household helpers. Their findings showed that the consequences of the child's work included poor health, malnutrition, denial of education, recreation, emotional disturbances, limitation of creativity, poor social relationships, moral degeneration, and deficient socialization that makes it difficult for the child to be integrated into the society. The nature and degree of these problems depends largely on the type of work environment and the special situation of being both a child and a worker.

One of the major social psychological problems faced by these children is their relatively deprived status vis-a-vis other children in the household. The child worker is deprived of clothing, food, affection, schooling, freedom of movement, freedom to play, sound sleep and respect from other members of the household.

The second major problem is poor social relationships within the household and with others outside it. Within the household, the child worker is allowed to interact only superficially with the children in the household. When the other children are playing, the child worker is busy with household duties. Inferior treatment and verbal abuse of the child worker limits her ability to enter into conversation or to interact positively with the family members.

Kayongo-Male (1985) found that employers usually restricted the child workers' contacts with people outside the household. The child did not even visit her own family for several months. The result of all these restrictions usually is that the child is not given the opportunity to grow and develop basic social skills. Similarly, by being kept out of school and being subjected to a tedious and strenuous work schedule, the child becomes 'mentally crippled', unable to think creatively or make intelligent decisions.

The above analysis shows a situation in which the child's expressions of developmental needs are treated as misbehaviour. The child is expected to act as an adult and is punished when she acts like a child. The child's needs are ignored or suppressed by the employer. Some of these needs include the need to play, to make independent decisions, to complete tasks with a feeling of accomplishment and to develop a positive self-image.

From these studies, it is possible to make out the reactions that children in this domestic work situation manifest. These include the following:

Withdrawal: The child does not interact with people, even when allowed to do so. She fails to respond to questions from adults or other children.

Regressive behaviour: The child reverts to behaviour such as temper tantrums typical of very young children.

Premature aging: The child's facial expressions and general behaviour resemble that of a much older person; may be due to fatigue, inadequate food and sleep.

Depression: The child is often depressed and in low spirits.

Inferior status identity: The child lacks confidence and feelings of self-worth.

Resistance: The child openly defies the efforts of the employer to mould her behaviour. Resistance to physical abuse and threats by the employer may lead to stealing, which in turn may land the child in a remand home for delinquents.

Justification by Child Employers

Those who employ young domestic workers say that it is not just the poor parents who want their young children employed; they too prefer young workers. They argue that younger persons stay on longer and have fewer demands; that they accept limitations on their freedom more readily than older ones. The employers justify their treatment of keeping the workers in the house and occupied all the time as an attempt to keep them away from bad influence, which may come as a result of mixing with others. They fear that such bad influence would be extended to their own children.

Thus, the ideal domestic worker is young and ignorant, preferably from the rural areas and with limited knowledge of the town. The worker is usually not personally known to the family she works for and would not have been admitted into the household if it were not for the fact that the mother must go out to work. Employers also say that they are helping their workers to escape rural poverty and they should be grateful for whatever they receive.

Cases have, however, been reported of domestic workers who leave suddenly without any notice or warning. Employers then find their children locked up in the house crying and they cannot trace the caretaker because nobody knows where they have gone. The irony is that it is the treatment that these juvenile workers receive which makes them seek contacts outside their places of work and move on as soon as they see a chance. They are children and the employers know it and take them on just because they are children, and yet they do not treat them as such.

Suggested Solutions

In view of the fact that mothers must continue to go out to work and their children do need someone to look after them, the following suggestions are offered:

- The child labour law which provides for the special protection of children should be strictly enforced. The employment of children below the age of sixteen as domestic workers should be punishable by law.

- There are many cases where some families need additional income to meet their basic needs and may, therefore, allow their children to be employed. In this situation, a law should be formulated allowing the employment of such minors but imposing on the employer certain strict conditions limiting the working hours, allowing time for recreation and some form of education.

- The dignity of housework should be enhanced through institutionalized training for domestic workers. Training courses should give proper recognition to the trainees by giving them certificates upon completion of the course.

- Employers who obtain their workers from these institutions should be encouraged to give their household help proper terms of service and reasonable working conditions. The domestic worker should be properly remunerated and given incentives for increasing job satisfaction.

- The current shortage of organized pre-school and childcare centres should be urgently addressed by concerned individuals, voluntary organizations, women's groups, churches and other community groups.

The centres should be made cheaper than the services which are commercially available so that the children of poor working mothers can also be looked after.

In conclusion, it should be noted that child abuse has always existed in one form or another. There are no ways to make it disappear completely. Our role should be to create awareness and to stimulate initiatives that may alleviate the problem. This calls for efforts to educate employers and parents as well as some change in public opinion such that the society at large is sensitized to deal with this complex phenomenon.

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16. THE LEVELS, TRENDS AND PATTERNS OF DRUG ADDITION AMONG STUDENTS IN SELECTED SECONDARY SCHOOLS IN NAIROBI

David G. Kariuki

Drug use has a long history. According to Yusif (1983), the Chinese knew about Cannabis Sativa in 2700 BC, while the Egyptians used Opium from 1500 BC. Drug use became common in the 18th Century, especially in America, slowly becoming a major issue in the following century as a result of the introduction into common use of heroin and related substances.

The first survey studies were initiated by the United Nations Educational Scientific and Cultural Organization (UNESCO) in 1971. The results of these studies gave an important initial insight into the drug problem.

Drug use among scholars is a relatively new problem, generated by rapid social change and the resultant breakdown of traditional structures. It is currently becoming a national issue in many countries, including Kenya, as research has shown that the casualties are rising at an alarming rate.

It is impossible to accurately determine the number of students actively involved in experimental, intermittent and regular drug use in Nairobi secondary schools and any available, published figures, therefore, tend to underestimate the extent of the problem. Surveys by Mueke (1980), Studies have revealed that the various drug use indicators continue to show an upward trend year after year.

Unlike other forms of social deviance, drug use among scholars seems to be promoted by external factors like the ease of availability of drugs and poor interpersonal relations. This implies that the problem can no longer be contained within the schools' disciplinary structures.

This paper is based on the result of a 1987/88 psychological research whose objective was to explore the context in which drug use arose among scholars in specified urban schools, and to investigate the dynamic relationship between drug users, their peers and parents.

Samples were drawn randomly from 20 private, Government maintained (Assisted) and unmaintained secondary schools in Nairobi province. The subjects were selected from

these school strata using the stratified random sampling technique. The two categories of subjects were:

Students (N=800) and teachers (N=120), with the former acting as the 'prima facie' source of information.

The factors responsible for the subjects' indulgence in drug use were postulated as follows:

i.   insufficient influence of the family over the individual's actions and lack of parental guidance. Related to this was a lack of problem discussion between the subjects and their parents;

ii.   the effects of family disruptions, including the problem of single parents, separation and divorce;

iii.   personal factors like a low level of success at school;

iv.   poor interpersonal relationship between the subjects and other individuals, especially peer group members;

v.   ease of availability of legal and illegal drugs. These included medicine that should have been obtained under prescription by qualified doctors;

vi.   the subjects' attitudes towards the use and effects of drugs; and the presence of models and social reinforcers, particularly those of peers and friends.

After careful examination of this study's results, it was concluded that the school system was on the onset of serious drug problems. The specific results were as follows:

●   Both male and female subjects in the sample were found to be extremely susceptible to drug use: 37 percent of the subjects had used drugs at least once, while 10 percent used psycho-active substances on a regular basis. The pattern of drug use among male and female subjects was found to be similar since the numbers involved in experimental, intermittent and regular use were equally distributed among the sexes.

●   Alcohol was the most widely used legal drug; while Cannabis Sativa was rated the most popular illegal substance. Socially acceptable drugs (alcohol and tobacco) ranked as the principal drugs of abuse.

- an investigation of the relative roles played by parents and friends as models in drug use revealed that the latter played a more prominent role. The subjects were found to be particularly dependent on their peer group members for guidance and were, therefore, susceptible to drugs if this was a peer group activity.

- on the strength of the research data, it was observed that the types of drugs used by male and female subjects were not significantly different. This implied that both sexes were equally liable to use different types of psycho-active substances.

- the majority of female drug users in the sample tended to be in the lower age range (14-16 years) instead of 17-19. This was attributed to the stresses and crises normally associated with the onset of adolescence.

- drug use in the sample was not typical of any group of students but cut across various school categories. However, day scholars were found to have relatively more access to drugs than their boarding counterparts. Moreover, the relatively high incidence of drug use among subjects in privately maintained schools was attributed to the lax disciplinary systems prevailing in such institutions.

- it was generalized that the subjects were equally prone to drug use irrespective of the disciplinary system prevailing at home, be it autocratic, laissez faire, or democratic.

- an inverse relationship was found between the subjects and their parents in drug use, which was contrary to results of studies by Mckennel and Thomas (1967) and Baumann (1973). A positive relationship was found between the subjects and their friends in drug use, a result which was supported by Mckennel (1967) and Marin (1974).

- in the study of the relationship between sex and age in drug use, male prevalence was noted between the age 14-19, which implied that subjects on the onset of adolescence and those tending towards adulthood were equally prone to drug use. This result supported studies by Curlee (1969) and Ndiaye (1976).

- multiple drug use was also observed, where an individual used two or more drugs for the desired effect.

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17. THE CONTRIBUTION OF EDUCATION COMPUTING TO INTELLECTUAL DEVELOPMENT AMONG ZIMBABWEAN PRIMARY SCHOOL CHILDREN

D. Wilson, A. Mundy-Castle and P. Sibanda

Introduction

Logo is a graphics-orientated, educational computer language and a philosophy of education that emphasizes learning by exploration and discovery. In its graphics mode, which is especially popular among primary school children, Logo uses either a robot on wheels called a 'floor turtle', which moves around the floor, or a triangle on the computer screen, called a 'screen turtle', which moves around the screen. The turtle contains a pen which leaves a trail and which may be used to create shapes and figures. The turtle's movements are controlled by primitives, which may be used to construct procedures, which in turn may be incorporated in more elaborate procedures.

Papert (1980), the originator of Logo, presented an exciting vision of education in the computer age. Specifically, he argued that Logo stimulates mathematical attainment by reducing the tedium of traditional numerical curricula; by linking advanced mathematical principles to immediate, clearly observable consequences; and by promoting widely transferable reasoning and problem solving skills.

Papert and his colleagues offer some support for these claims (Papert, Watt, Dissessa and Weir, 1971, Papert and Weir, 1978; Weir, 1981). However, this evidence rests in descriptive data and lacks experimental rigour (Hughes, Macleod and Potts, 1985; Mitterer and Rose-Krasnor, 1986; Pea and Kurland, 1984, Siann and Macleod, 1986).

Recent reviews of the intellectual benefits of Logo have confined themselves to studies employing adequate experimental or quasi-experimental controls. These reviews suggest that, 'Logo had a positive effect on problem solving skills, metacognitive skills, reasoning skills and learning of geometry' (p.220). In contrast, Robinson, Feldman and Uhlig (1987) reviewed 18 North American dissertations on the effects of Logo and concluded that, 'Logo is usually no more effective in modifying the dependent variable, whatever it may be, than non-Logo computer-based instruction, or in many cases, non-computer, instruction' (1987, p.434). Other studies have concluded that Logo studies have yielded mixed results.

Aspects of Logo may be appropriate among African children and other aspects may be less appropriate. Logo is a socially mediated educational activity which encourages

interaction and co-operation among children. This may be especially fitting in Africa, in view of evidence that the African cultural tradition ascribes greater weight to social than technological facets of intelligence, views child-rearing goals primarily in terms of social skills and regards interactions with people as inherently more important than objects, thus fostering a more socially orientated set of cognitive skills (Agiobu-Kammer, 1982, Berry, 1984, Dasen, 1984, Irvine, 1969, 1970, Kingsley, 1977, 1983, Mundy-Castle, 1970, Serpell, 1974, 1977, Super, 1983; Wober, 1972, 1974).

However, while the social character of Logo may be fitting, it is admittedly an unfamiliar and perhaps alien educational approach in Africa. Its appropriateness in Africa is thus uncertain. Zimbabwe, whose population comprises black children raised in the African cultural milieu and white children reared in a Western milieu provides a suitable setting to address this issue. The studies described here examined the cognitive effects of Logo in a cross-cultural context.

STUDY I

Method

Subjects

The experimental group comprised 52 Grade 7 (11 to 12 year old) children (27 girls, 25 boys: 30 white, 22 black) from four classes at an urban middle-class primary school in Harare. No pupil in this group had received any formal Logo tuition before the study began. As all Grade 7 children at this school learned Logo, a control group had to be selected from another school. Therefore, this group comprised 41 Grade 7 (also 11 to 12 year old) children from two classes at an adjacent, urban, middle-class, primary school in Harare. No pupil in this group received any computer instruction in school either before or during this study.

Equipment

BBC microcomputers, each equipped with an EPROM-based Logo programme by Acornsoft (1984), were used.

Measure

The following four subscales of the Wechsler Intelligence Scale for Children (revised 1974) were used:

Arithmetic: Children are required to perform numerical calculations.

Vocabulary: Children are asked to define the meaning of words.

Block design: Children are required to produce various designs with patterned blocks, which provides a measure of spatial reasoning.

Picture arrangement: Children are asked to organize a set of pictures in logical sequence, which provides a measure of problem solving.

Procedure

Experimental condition children received about 45 minutes tuition each week in Logo. There were usually two pupils per micro-computer. Pre-tests were held at the beginning and post-tests at the end of the academic year.

Results

The use of a quasi-experimental, non-equivalent control group design necessitated the use of multiviate analysis of covariance, with pre-test scores as the covariate. Performance on the four measures of cognitive ability served as the dependent variable. A 2 x 2 x 2 factorial design was employed, with experimental condition (experimental, control), sex (girl, boy) and race (black, white) as the factors. Main effects and all possible interactions between these factors were examined. The MANOVA main effect for experimental condition was significant, $F(4,78) = 3.25$, $p < .05$. Univariate ANOVAs were computed to establish where the differences lay. Experimental group children achieved significantly higher convariate adjusted post-test scores on the arithmetic measure, $F(1,81) = 6.73$, $p < 01$.

One of all possible higher order interactions was significant. The experimental condition x sex x race MANOVA was significant, $F(4,78) = 3.88$, $p < 01$. Univariate ANOVAs indicated that this significant result was accounted for by the large covariate adjusted gains on the spatial reasoning measure made, relative to other groups, by black girls in the experimental condition, $F(1,81) = p < .01$.

The results suggested that Logo may promote numeracy. Interestingly, black girls exposed to Logo achieved particular gains in spatial reasoning. Technologically orientated cognitive skills may be less emphasized among black girls than among other groups of children. Logo's emphasis on spatial reasoning may thus be of special relevance to black girls. This suggestion, albeit very tentative, raises interesting questions about the possible contribution of Logo to compensatory education.

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An important limitation of this study was the absence of a control group comprising children exposed to another form of education computing. The design used does not enable one to differentiate the effects of Logo from those of computer exposure in general. The gains observed may have been due to computer exposure, not to Logo itself. It is even possible that an equal amount of appropriate non-computer instruction or practice in numerical or spatial concepts might have had equal or greater effects.

Another major reservation concerns the measure of cognitive ability used, the Wechsler Intelligence Scale for Children-Revised, which, like other standardized tests of intellectual abilities, tends to be culturally-biased and of limited sensitivity. To redress the absence of a control group exposed to another form of educational computing, another study, including such a control group, was undertaken.

STUDY II

Method

Subjects

The experimental group comprised 49 (23 black, 26 white) girls from both Grade 4 (8 to 9 years old) classes at a middle-class urban primary school for girls. As all girls in Grade 4 at this school did Logo, the central group, which consisted of 58 (29 black, 29 white) girls, was drawn from both Grade 4 (8 to 9 years old) classes at another urban middle-class, primary school for girls. Neither group had received any exposure to computers at the outset of the project.

Measures

The SRA Primary Mental Abilities test for Grades 2-4 was used. It is a group test comprising the following subscales:

Number facility: Children are examined on numerical concepts, mechanical arithmetic, arithmetical problems and numerical reasoning.

Verbal meaning: Children are given a noun and must select from four choices the picture depicting the noun and are given a short narrative and must identify from four choices the picture that completes the narrative.

Spatial relations: Children are shown an incomplete square and are required to select from four choices the segment that completes the square.

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Perceptual speed: Children are given a figure and must select from four choices the figure corresponding to that given.

Equipment: Both schools were equipped with BBC microcomputers.

Procedure: Children in the experimental group received about 40 minutes tuition each week in a Logo programme by Acornsoft (1984). There were generally two children per microcomputer. Class teachers taught them Logo, having in turn been taught by the authors. Several workshops were held for the teachers and they also received tuition manuals prepared by the authors.

Control group children received roughly 40 minutes exposure to Computer Aided-Instruction each week. Commercial Computer-Aided-Instruction packages written for the BBC microcomputer were used. Most packages taught English or Mathematics. There were usually two children to each computer. Lessons were taken by the class teachers, who were taught to use the microcomputers by the schools computing master. Post-tests were held approximately 10 months after the pre-tests.

Results

Data were again analyzed with multivariate analysis of covariance, using pre-test scores as the covariate. The dependent variable was performance on the Primary Mental Abilities Scales. A 2 x 2 factorial design was employed with experimental condition (experimental, control) and race (black, white) as the factors. The school, $F (4,90) = 2.00$, $p > .05$, and race, $F (4,90) = 0,88$, $p > .05$, MANOVAs were non-significant, as was the school x race MANOVA interaction, $F (4,90) = 1.22$, $p > .05$.

Discussion

Conclusions about the effectiveness of Logo must be tempered by several concerns. Although skilled teachers taught Logo, they had no previous exposure to computer education, which may have limited the effectiveness of the Logo treatment. Some researchers emphasize that cognitive benefits are not inherent in Logo, but depend on how it is used. They criticize the Logo literature for failing to specify how educators may use Logo to stimulate intellectual development.

Classroom observation revealed that many children were unfamiliar with the keyboard, which inhibited Logo learning. Pre-Logo keyboard familiarization activities would thus be desirable (Robinson, Feldman and Uhlig, 1987).

Other researchers emphasize that typical Logo curricula offer too limited an exposure for students to master integral programming concepts and without such mastery, a wide transfer of thinking skills is unlikely to occur.

There were difficulties integrating Logo into the curriculum. The pupils had not learned about angles in Logo and this concept had to be introduced during Logo classes. Concerns about the sensitivity of the dependent measures merit reiteration.

Conclusion

Because Study II did not include comparison groups who received non-computer based Logo instruction or no supplementary instruction, it was not possible to compare the effects of Logo or Computer-Aided-Instruction with non-computer instruction or a standard curriculum. It is, therefore, uncertain whether both these forms of educational computing are equally effective or equally ineffective. This question is important, for if evidence were to suggest either or both had some benefits, it would be desirable to examine whether their key elements could be simulated without computers, with, for example, tasks involving distance and angles substituting for Logo and programmed instruction manuals replacing Computer-Aided-Instruction. If the educational benefits of computing could be realized without computers, this would be of obvious value in developing countries, where the widespread installation of computers is unaffordable.

The scope of this research must be expanded, both within and beyond the domain of Logo. Concerning the former, LOGO is a highly modular language, which is premised to reduce computer anxiety and foster good programming habits. Research must examine whether Logo does help to reduce computer anxiety and whether students in secondary and tertiary institutions exposed to programming through Logo do indeed demonstrate better programming habits. Concerning the latter, does exposure to programming at primary level produce significant gains in programming ability at secondary, tertiary or vocational levels? Does exposure to computing applications in primary school yield discernable gains later? These questions have important implications for policy, because negative results would suggest it would be more appropriate to focus computer resources at secondary, tertiary or vocational levels.

In conclusion, some developing countries are introducing computers into education in haste in the hope that this may provide a shortcut to development. These and other data suggest that the benefits of educational computing may be more modest and that, if they are to have even this level of impact, the way in which they are to be introduced must be determined by the accumulating findings of ongoing empirical studies. Above all, educators in developing countries must weigh the benefits of computers against those of funding other, often mundane educational priorities.

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18. SPATIAL ABILITY AND PERFORMANCE IN

TECHNICAL EDUCATION COURSES

Jokshan K. Katigo

Objective

The main objective of this paper is to demonstrate the need to create and, where necessary, adopt spatial ability aptitude tests for purposes of selecting students to pursue technical courses. It is quite apparent that psychology departments in this region have not given sufficient consideration to the development and usage of these tests, particularly in technical courses.

In Kenya, a lot of emphasis has been put on the provision of technical education for the young. This is demonstrated by actions such as:

- The building and expansion of technical institutes;

- The building and expansion of national polytechnics in Mombasa, Nairobi and Eldoret;

- Inclusion of technological programmes in university education;

- Increased expenditure on technical education for curriculum development, teaching personnel and expensive equipment.

This emphasis on technical education in Kenya is not new. It dates back to the Phelps Stokes Commission Recommendations (1925) which emphasized technical education for rural development and agriculture. Some educationists saw this as a means of solving unemployment problems since it would give its recipients practical skills, and so enable them either to be self-reliant or to get employment. In 1981, the Mackay Report (p.19) summed up the objectives of technical education to be those of facilitating direct employment, self employment and work in the informal sector.

Missing Link

While these recommendations have in many ways been implemented by the Kenya Government, the educationists have overlooked the issue of efficient selection for technical courses. The requirements for admission into various institutions have been quite general

and so may not be valid for technical courses. The emphasis has been on general sciences. Students who are unable to proceed with general school education have usually been delegated to technical courses.

Who Should Be Selected for Technical Courses?

This is a question which has disturbed many educators in various developed countries for many years. In developed countries, elaborate methods have been used to identify the basic mental abilities necessary for better performance in technical programmes. Such methods have emphasized the usage of correlational studies whose main objectives have been: (i) to identify the required basic mental abilities for technical education; and (ii) to maximize the prediction of success in technical courses.

Primary Mental Abilities

Psychologists agree that mental ability is not one unitary factor but may be subdivided into several components (Spearman, 1927; Thurnstone, 1947; Vernon, 1960; and Guilford, 1967). Basing their studies on the way humans perform on various mental tests, researchers have come up with a list of primary mental abilities which are distributed among individual human beings in varying quantities.

Kline (1979) has the following list of primary mental abilities.

Primary Ability Factors

V   *Verbal ability*: Understanding words and ideas, loading on synonyms, meaning of proverbs and analogies.

N   *Numerical factor*: A facility in manipulating numbers which is factorially distinct from arithmetic reasoning.

S   *Spatial factor*: Ability to visualize two or three dimensional figures when their orientation is altered.

P   *Perceptual speed and accuracy factory*: Assessing whether pairs of stimuli are similar or different.

Cs   *Speed of closure factor*: Ability to complete a gestalt when parts of the stimulus are missing.

I   *Inductive reasoning*: Reasoning from the specific to the general.

Ma   *Associative or rote memory*: Memory for pairs for which no mediating link exists.

Mk   *Mechanical ability*: Putting parts into meaningful configurations.

Cf   *Flexibility of closure*: Disregarding irrelevant stimuli in a field to find stimulus figures.

Ms   *Span memory*: Short term memory of digits or letters.

Sp   *Spelling*: recognition of misspelt words.

E   *Aesthetic judgement*: Ability to detect the basic principles of good art.

Mm   *Meaningful memory*: This involves the learning of links between pairs in which there is a meaningful link.

Ol   *Originality or ideational flexibility*: Divergent production of semantic classes cells.

Fl   *Ideational fluency*: The ability to reproduce ideas rapidly on a given topic.

W   *Word fluency*: The rapid production of words, conforming to a letter requirement, but without meaning.

02   *Originality 2*: Ability to combine two or more objects into a functional object.

A   *Aiming*: Involving hand-eye coordination at a speed.

Rd   *Representational drawing ability*: Drawings of stimulus objects scored for precision of lines and curves.

The nineteen primary abilities so far outlined can be regarded as covering much of the ability variance (Kline, 1979 p.80). However, after a second consideration of the Guilford (1967) factors, Kline added another eight, but warned that this was not meant to create a taxonomy of ability factors. These were:

D   *Deductive reasoning*.

Mc   *General motor coordination*.

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Amu   *Musical pitch and total sensitivity.*

Fe   *Expressional fluency*: Verbal expression for assigned ideas.

ams   *Motor speed.*

asd   *Speed of symbol discrimination.*

___   *Musical rhythm and timing.*

J   *Judgement ability*: to solve problems where judgement and estimation play a part.

The 27 primary abilities have been revealed by factor analysis methods of research which are always preceded by correlational studies.

Predicting Success in Technical Courses

Efforts to predict performance in technical courses using various tests have been made for several decades in the Western world. In Britain, J.W. Cox (1928, 1934) reported correlations of .40 and .51 between his mechanical tests and marks obtained by trained Royal Air Force Mechanics in technical tests of trade knowledge and practical skill. The corresponding correlations with a verbal intelligence test were only .21 and .42. In 1937, Rodger (1937) stated that, the Cube Construction Performance Test gave the best results of any in the mechanical trades such as fitters, plumbers and woodworkers in Britain.

Holliday (1940) cited in Katigo (1988) administered a battery of eight spatial and mechanical tests to groups of trade apprentices, engineer apprentices and shop boys. The battery gave a correlation of .659 with technical drawing, whereas a verbal test meant for the same level gave only .067. On the other hand, the test battery gave a correlation of .258 with mathematics, while the verbal test gave a corresponding correlation of .553.

Likewise, Holliday (1943) again in Katigo (1988) administered a number of spatial and mechanical tests as well as the earlier verbal test to six groups of apprentices (numbering 30 to 90). There were two groups each of engineering apprentices, trade apprentices (toolmakers) and mixed trade apprentices. He found that the verbal test was useful for predicting mathematical and theory work, whereas spatial and mechanical tests had better correlations with mechanical drawing and practical skills.

Shuttleworth (1942) cited in Katigo (1988) found that spatial tests had higher validities than other tests for predicting marks obtained by 13-year old boys attending a

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junior technical school. The spatial tests; namely, the Space Perception Test, Memory for Designs Test and Form Relations Test had the following correlations: .46, .45 and .44 respectively.

Harrell (1940), again in Katigo (1988) administered 32 tests to 91 cotton-mill mechanics. Though all the tests showed insignificant correlations with the assessment of mechanical skill, the spatial tests gave higher correlations than others.

Consideration should now be given to the value of spatial tests for selecting industrial workers. The findings of Oxlade (1951) who obtained data on the validity of spatial tests for selecting power sewing-machine operators support the value of spatial against other tests. The findings are shown in Table 5.

Table 5 Correlations between tests and performances

TEST	Quality Rating of Work	for Combined Proficiency	Criterion
Minnesota Paper Form-Board (Spatial)	.55	.53	.77
Paper Folding Test (Spatial	.31	.31	.41
Otis Intelligence Test	.43	.23	.41

It is clear that the spatial Minnesota Paper Form-Board Test has a marked superiority over the other two tests, and that the spatial Paper-Folding Test gives a better index of proficiency than does the Otis Intelligence Test.

Smith (1960) quotes evidence from his longitudinal study which involved the administration of various tests to 52 technical high school students in Britain with a view to determining the most efficient tests in predicting success in technical courses. The tests administered were: (i) Intelligence Tests; (ii) English; (iii) Arithmetic; and (iv) Spatial Ability Tests. The technical courses included: (i) Engineering Drawing; (ii) Metalwork; (iii) Woodwork; and (iv) Geometrical Drawing.

After three years (1954), the 52 students were tested in the technical courses at the General Certificate of Education (G.C.E.) level. The predictive validity findings were reported and were in favour of spatial ability tests as follows:

i)   Engineering   +.62
ii)   Metalwork (Theory and Practice)   +.35
iii) Woodwork (Theory and Practice)   +.47
iv)   Geometrical Drawing   +.04

The quoted coefficients acquire greater significance when compared with the coefficients of the other tests. The Intelligence Tests had coefficients of +.03 for Engineering Drawing, -.05 for Metal Work and -.18 for Woodwork. However, both the Intelligence Tests and the Arithmetic Test had high predictive validities for Geometrical Drawing (+.55 and +.69 respectively). The English Test had very low correlations for all the technical courses.

The Differential Aptitude Test battery (DAT) manual (1966) quotes data for 111 students who took a watch repair course at the American Institute of Specialized Watch Repair. The DAT Space Relations Test and the final course grades had a very satisfactory correlation figure of .69. Since the teachers did not see the DAT test scores which obtained at the beginning of the course, the criterion data were not contaminated.

The DAT manual also gives predictive validity coefficients of above .40 for the Spatial Relations Test for the following courses: Geometry; Industrial Art; and Shipwork (Cronbach, 1970).

The DAT Mechanical Reasoning Test which measures the ability to perceive and understand the relationship of physical forces and mechanical elements in practical situations has been found to be important for a variety of jobs, including engineering, mechanical work and many trade school jobs (Cronbach, 1970; Minton and Scheneider, 1980).

While the DAT Abstract Reasoning Test had correlations of above .40 for course grades in Geometry and Industrial Arts, the DAT Spelling Test predicted success in stenography, whereas the Clerical Speed and Accuracy Test predicts well for jobs that require office record keeping, filing, addressing, proof-reading, and keeping track of equipment (Cronbach, 1970; Miller, 1968; and Jackson and Juniper, 1971).

Wood and Lebold (1968) carried out a research study where the objective was to determine how efficiently the DAT could supplement for overall differential prediction of success in engineering at Purdue University. The engineering courses considered were Chemistry, Mathematics, Graphics and other electives such as English. The subjects were 616 engineering freshmen (first years) in September, 1966. The following tests were administered in week one of the first semester: (i) DAT Clerical Speed and Accuracy (CSA); (ii) DAT Abstract Reasoning (AR); (iii) DAT Mechanical Reasoning (MR); and (iv) DAT Space Relations (SR).

At that time the subjects had already done and secured marks in the College Entrance Examination Board Scholastic Aptitude Test (SAT) in both the Verbal and Mathematics subtests (SAT-V and SAT-M. High School Rank (HSR) percentiles were also available. The first semester examination grades in engineering were used as criteria.

The data was presented in the form of (i) intercorrelation matrix (analysis); (ii) means; and (iii) standard deviations. This was done for both the independent variables (predictors) and the dependent variables (criteria).

The findings showed that the SAT-M and HSR were the best overall predictors for the composite grades (English and other electives included). However, the highest correlations were between DAT-SR and graphics grades and between DAR-MR and graphics grades in that order.

The DAT-CSA seemed to offer little prediction as no correlation with the criteria were significant at the .05 level. The DAT-AR had significant correlations with both Engineering Mathematics and Chemistry grades.

The Manifestations of the Spatial Factor

Prior to the second world war, technical abilities were conceived to be mainly practical or mechanical. Consequently, the earliest procedures for selecting pupils for technical education were designed to measure aptitudes for manipulating mechanics or other concrete materials (Smith, 1964).

Among the many tests of manual dexterity which were devised were those consisting of peg-boards and eye-boards, tests of tapping and aiming, of tweezer-dexterity, of wire bending, tests involving the manipulation of nuts and bolts.

In 1925, McFarlane devised a number of wooden constructional tests, like wheel-barrow test, in which the parts of a wheel-barrow had to be fitted together. She also used tests involving cube construction and puzzle boxes. Interestingly, she found some evidence of the presence of a group factor additional to g (general intelligence) with her sample of boys, but not with girls.

Referring to this additional factor, McFarlane wrote that the performance tests measured an ability whose uniqueness lies in the fact that those persons possessing it in high degree analyze and judge concrete *spatial* situations better than do other individuals who perhaps excel in dealing with more highly abstract terms.

Commenting on MacFarlane's finding, Spearman in his book, 'The Abilities of Man' (1927) stated that the large overlap over the g factor among the boys rather than the girls derived from acquired experience and not from innate abilities.

It was Alexander's (1935) investigation which established that some performance tests do measure a factor over and above g. Alexander developed and used a performance test made of g items which he called the *pessalong test*. In this, he included other performance tests in a large battery which he administered to several groups of subjects, who were:

      i.   primary school pupils;
      ii.   secondary and technical pupils; and
      iii.   adult women in a delinquent institution.

Alexander applied Thurstone's Centroid Method in his data analysis of ability factors, and so he showed that some of the performance tests involved a factor additional to g, which he designated to be the F-factor.

In 1935, El Koussy (in Katigo 1988) carried out research using 28 tests and covering a wide range of abilities. He administered the tests to 162 boys aged 11 to 13 years, attending a central school in Sidcup (Britain) and found that the following tests had spatial loadings of .4 or more, after using Spearman's tetra differential analysis:

- Visual Perception (by Spearman)
- Form Equations C (by El Koussy)
- Greys Analogy i.e. analogy of shades of grey (by El Koussy)
- Alphabet Series i.e. patterns in sequence of letters
- Mechanical Explanations (by Cox)
- Woodwork Marks

Form Equations B (by El Koussy)

El Koussy concluded that there was a group factor in the tests which required the ability to form and retain an exact impression of shape or pattern. He suggested that this factor be referred to as the K-factor. Research findings verified F to be identical with K (Vernon, 1949).

Smith (1964) has explained what is entitled in the spatial factor by suggesting that it involves the perception of relations between shapes, the perception of configurations and patterns of a general kind (analogies in shades of grey, patterns in sequences of letters). Imagery is important in this factor.

Referring to the DAT Space Relations test, Cronbach (1970) stated that it is a measure of the ability to deal with concrete materials through visualization. On the test's relevance, Cronbach said that there are many vocations in which one is required to image how a specified object would appear if rotated in a given way. This ability to manipulate things mentally, to create a structure in one's mind from a plan, is what the test is designed to evaluate. It is an ability needed in such fields as drafting, dress designing, architecture, art, dye-making and decorating, or whenever there is a need to visualize objects in three dimensions.

The U.S. Employment Service has made a very long list of the occupations which require top level spatial ability. They include: (1) Airplane Designer; (2) Architect; (3) Botanist; (4) Cartoonist; (5) Chemists (both Physical and Metallurgical); (6) Die Checkers and Die Designers; (7) Draughtsman; (8) Engineer - including Agricultural, Automotive, Electrical, Mining, Production, Radio, Petroleum, Sanitary Time-study, Traffic and Welding; (9) Industrial Designer; (10) Machinery and Tool Designer; (11) Mathematician; (12) Modeller; (13) Neurologist; (14) Surgeon - Oral and Orthopaedic; (15) Obstetrician; (16) Psychologist (Industrial); (17) Psychiatrist; (18) Veterinarian; (19) Tool Designer; and (20) Paediatrician. (Smith (1964), 154-155).

It is of interest to note that the list includes a high proportion of scientific and technical occupations. All classes of engineering are represented; so are those of draughtsmanship. It is unfortunate that empirical evidence is not provided. However, it is worth noting that the U.S. Employment Service regards high spatial ability as a prerequisite for success in the majority of technical and scientific occupations (Smith, 1964). A developing country like Kenya could, perhaps, examine the possibility of applying this information to its technical manpower development programme.

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APPENDICES

APPENDIX A: WRITTEN AND VERBAL* PRESENTATIONS NOT INCLUDED IN THE PROCEEDINGS

1. A.R. Anyango. *The Plight of Exceptional Persons in Kenya.*

2. K.S. Bali. *Supervision and Evaluation of Postgraduate Research Projects.*

3. B. Chilisa. *The Teaching and Role of Psychology in National Development: A Case for Botswana.*

4. H.N. Gatumu. *Causality and Predictive Validity of O-Level Examinations in Kenya.*

5. J.M. Igaga. *The Development of Psychology in Eastern Africa.*

6. D.W. Kabithe. *Psychology and Development: The Human Resource Factor.*

*7. L. Kimani. *Applications of Psychology in Everyday Life.*

8. D.M. Kiminyo. *The Current Status of the Teaching of Psychology and Psychological Research in Kenya.*

9. S. Nyandiya-Bundy. *Family Perceptions of Children in Especially Difficult Circumstances.*

10. O.J. Oketch. *The Teaching of Research Methods and Statistical Techniques: Makerere Experience.*

11. C.P.M. Oniang'a. *The Role of Philosophy in the Teaching of Psychology.*

12. E.O. Olela. *Review of Guidance and Counselling Services at Kenyatta University.*

13. M.K. Possi. *Current Status of Teaching Psychology and Psychological Research in Tanzania.*

14. L.W. Wahome. *The Counselling Centre: Kenyatta University.*

15. W.T. Wamani. *Assessment of Bias in Criterion-Referenced Test Items: Application of Latent Class Mental Testing Theory.*

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16. F. Zindi. *Pupil Assessment Techniques in Zimbabwe's Secondary Schools (1984-1987).*

APPENDIX B: RECOMMENDATIONS

I.   Future Activities

At the end of the Regional Conference on Psychology, the following future activities were agreed upon after detailed discussions:

1.   The formation of an information network for psychologists in the Eastern and Southern African region.

2.   Documentation of what is going on in psychology within the region.

3.   The use of a database in libraries so that materials in psychology could be put together and quickly used for reference.

4.   Establishment of computer links between the region and existing databanks in the U.K. and U.S.A.

5.   Sharing of dissertations presented in different universities to help in future research.

6.   Collaboration in all activities, especially on the question of ethics for practising psychologists.

7.   Formation of a group of coordinators comprising of representatives from the institutions in the region. This group is supposed to collect psychological literature (published or unpublished) in the form of a bibliography. This information is to be submitted to Chairman of the Organizing Committee by the end of 1990 for collation and dissemination to member institutions with assistance from the International Development Research Centre (IDRC). The following were selected as coordinators:

      Botswana   - Dr. D. Mkandawire (University of Botswana)
      Malawi - Dr. J.K. Mwale (University of Malawi)
      Tanzania   - Dr. A.S. Mbise (University of Dar es Salaam)
      Kenya   - Dr. B. Koech (Kenyatta University)
              - Dr. B. Balmer (University of Nairobi)
              - Mr. J. Katigo (Moi University)
              - Dr. W.T. Wamani (Egerton University)
      Uganda - Prof. J.C. Opolot (Makerere University)
      Zimbabwe   - Mr. D. Wilson (University of Zimbabwe)
      Zambia - Dr. P. Machungwa (University of Zambia)

II.   Psychological Associations

During the Conference, some concern was raised regarding the inadequacy and lack of communication between and among psychologists nationally and regionally. In this connection, some countries reported having registered psychological associations which were generally inactive.   The problems involved in the organization of meetings as well as the conflict between practitioners' and academics' interests were cited as examples of why the psychological associations were dormant.

The following psychological associations were reported to exist:

1.   Psychological Association of Kenya
P.O. Box 40242
Nairobi, Kenya

Contact: Mr. Sam Ochieng

2.   Psychological Association of Zambia
Department of Psychology
University of Zambia
P.O. Box 32379
Lusaka, Zambia

Contact: Dr. P. Machungwa

3.   Zimbabwe Psychological Association
Department of Psychology
University of Zimbabwe
P.O. Box M.P. 167
Mount Pleasant
Harare, Zimbabwe

Contact: Mr. Sam Mputhi

It was noted that Botswana, Malawi and Tanzania had no psychological associations, but were encouraged to start so that they could link up with the regional network.

The existing psychological associations were encouraged to be more active.

III.   Regional Association of Psychologists

There was a proposal that a continental association of psychologists known as the Pan African Psychological Association be formed. However, it was felt that such an association would not be feasible at this juncture. Consequently, it was agreed that a regional association of psychologists be set up.

The life of the Nairobi Conference Organizing Committee was extended to prepare a draft constitution for the formation of the regional association. This draft constitution will be discussed at the next regional conference in Harare in late 1991 when it is expected that this regional association will be launched.

The following are the members of the Organizing Committee:

Prof. F.M. Okatcha	- Chairman
Dr. P. Kariuki	- Secretary
Prof. D.M. Kiminyo	- Member
Prof. I.M. Omari	- Member

IV.   Regional Conferences

In order to maintain the momentum created by the Nairobi Conference, it was agreed that regional meetings should be held more regularly, at least once every year. The theme of the Conference would differ each year, depending on the new developments in the field.

The next conference was tentatively scheduled to take place in September 1990, and to be hosted by the Department of Psychology, University of Zimbabwe*.

*This conference is now scheduled for late 1992. The venue of the conference will now be Nairobi, Kenya.

APPENDIX C: LIST OF PARTICIPANTS

	NAME	DEGREE WHEN, WHERE & BRANCH	AREAS OF SPECIALIZATION	INSTITUTE OF AFFILIATION	CURRENT	BUSINESS
1.	Anyango, Rispa A.	M.A. 1984, Kenyatta University, Educational Psychology	Education Psychology	Moi University	Lecturer	Box 3900, Eldoret, Tel. 0321- 31660
2.	Bali, Shasi K.	Ph.D. 1985, University of Nairobi Psychometric	Ed. measurement and evaluation	Kenyatta University	Snr. Lecturer	Box 43844 Tel. 810901 Ext. 229, Nbi
3.	Balmer, Donald K.	Ph.D.- Guidance and Counselling	Guidance and Counselling	University of Nairobi	Lecturer in Psychology	University of Nairobi Box 30197, Tel: Karuri 32016 Ext. 54
4.	Bundy, Robert Philip	B.Sc. (Hons.) 1968 Bristol, School Educational Psychology	Developmental and social psychology	University of Lagos Psychological services, Ministry of Education, Zimbabwe	Consultant	SPS, Box 4180, Harare, Zimbabwe Tel: 708173/4
5.	Chilisa, Bagole Mrs.	M.A. Ed. 1968, University of Botswana, Ed. Psychology	Measurement and evaluation	University of Botswana	Lecturer	P/Bag 0022, Tel: 351151 Gaborone, Botswana
6.	Gatimu, Haniel N.	M. Ed. Kenyatta University, Ed. Statistics and measurement	Ed. Measurement	Kenyatta University	Lecturer	Box 43844 Tel: 810901 Ext. 258 Nairobi, Kenya
7.	Ginsberg, Pauline E. (Not mentioned)	Ph.D. 1982 Syracuse University Social Psychology	Developmental Psychology	University of Nairobi, Dept. of Psychiatry, Kenyatta National Hospital	Research Associate University of Nairobi, Kenya	University of Zambia, Box 32379, Zambia or Box 19676, Nairobi Tel. Nairobi, 721053
8.	Igaga, Joseph J.N.	Ph.D. (Ed) 1974 Alberta Educational Psychology	Developmental Psychology	Moi University Kenya	Associate Professor	Moi Univ. Box 4900 Tel. 31660, Eldoret
9.	Kabithe, D.W.	Ph.D. Social Psychology	Counselling Psychology	Psychological Services, Kimathi Street, Box 61342, Nairobi, Kenya		Box 61342, Nairobi

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10.	Kapila, Neera	M.A. 1976 University of Nairobi, Ed. Psychology	Human Dev elopment and Learning	University of Nairobi	Lecturer	Box 30197 Tel: Kikuyu 3021, Nairobi
11.	Kariuki, David G.	B.Ed. 1984 Kenyatta University, Ed. Psychology	Special education	Kenyatta University	Tutorial Fellow	Box 43844 810910, Ext.229 Nairobi
12.	Kariuki, Priscilla W.	Ph.D. 1980 University of Alberta. Social and Educational Psychology	Developmental Psychology	University of Nairobi	Senior Lecturer	Box 30197 Tel: 334244 Ext. 2167 Nairobi
13.	Karugu, Geoffrey K.	D.Ed. 1980 Northern Illinois University, Ed. Psychology	Special Education and social psychology	Kenyatta University	Senior Lecturer	Box 43844 Tel 810900 Ext. 229, Nairobi
14.	Katigo, J.K. Jokshen	M.Ed. 1983, Nairobi, Ed. Psychology	measurement and evaluation	Moi University, Eldoret, Kenya	Assistant Lecturer	Box 3900 Tel. 0321 -31660 Ext. 262 Eldoret
15.	Kebaya, Samuel O.	M.A.(Ed.) 1988, Kenyatta University Ed. Psychology	Guidance and Child Development	Kenyatta University	Assistant Lecturer	Box 43844 Tel: 810901 Ext. 229, Nairobi
16.	Kimani, L.		Counselling	Consultant		
17.	Kiminyo, Daniel M.	Ph.D. 1973 Alberta, Ed. Psychology	Human Development	Kenyatta University	Professor	Box 43844, Tel. 810901 Nairobi
18.	Kivilu, Joseph M.	M.A. 1983, Kenyatta University, Ed. Psychology	Educational evaluation and statistics	Kenyatta University	Tutorial Fellow	Box 43844, Tel. 810910 Ext. 215 Nairobi
19.	Koech, Barbara	D.Ed. 1983, University of Massachusetts Amherst Ed. Psychology	Developmental Psychology	Kenyatta University	Senior Lecturer	Box 43844, Tel: 810901 Nairobi
20.	Machungwa, Peter D.	Ph.D. 1981 Michigan State Univ. Industrial and Organizational Psychology	Organizational psychology	University of Zambia	Senior Lecturer	Box 32379, Tel: 213221 Zambia
21.	Maimbolwa - Sinyangwe, Irene N.	Ph.D. 1985, University of California, Ed. Psychology	Cognitive and Social development	Educational Research Bureau, University of Zambia	Researcher	Box 32379, 251593 Ext. 1159 Lusaka, Zambia,

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22.	Mkandawire, Donton S.J.	University of Pittsburg, Ed. Psychology	Measurement	Botswana		Tel: 351151 Ext. 2415 Gaborone Botswana
23.	Munavi, Kennedy M.	Ph.D. 1974 Dalhousie, Experimental Psychology	Learning, motivation, developmental	Kenyatta University	Senior Lecturer	Box 43844 Tel: 810901 Nairobi
24.	Mundy - Castle, Alistair	Ph.D. 1953, Developmental /Neuro-cognitive	Developmental theories	Ealing College of Higher Education, London	Professor	St. Mary's Road, Ealing, London, W5 5RF, U.K.
25.	Nyandiya - Bundy, Sally P.T.	Ph.D 1983, University of Edinburgh	developmental psychology	University of Zimbabwe	Lecturer	Box MP 167 Mt. Pleasant, Harare, Zimbabwe
26.	Ochieng, Samuel O.	M.A. 1982, Counselling Psychology	Counselling Psychology	Kenyatta University	Tutorial Fellow	Box 40242, Nairobi, Kenya
27.	Okatcha, Fredrick N.	Ph.D. 1968, Michigan State Univ. Ed. Psychology	Human learning	Kenyatta University	Associate Professor	Box 43844, Nairobi, Kenya
28.	Oketch - Oboth, J.W.S	M.Sc. 1984 University of Western Australia, Experimental Psychology	Research methods and statistics,	Makerere University	Lecturer	Box 7062, Kampala, Uganda
29.	Olela, Edward O.	M.A. 1982 Antioch University, Ohio, Experimental Psychology	Guidance and Counselling	Kenyatta University	Guidance Counsellor	Box 43844 Nairobi, Kenya
30.	Olowu, Sola A.	Ph.D. 1982 Bradford, Counselling Psychology	Personality (self-concept)	University of Nairobi	Associate Professor	Box 30197, Nairobi, Kenya
31.	Omari, Issa M.	Ph.D. 1972 Colombia University, N.Y., Ed. Psychology	Child development and learning processes	International Development Research Centre	Professor	IDRC, Box 62084 Tel: 330850, Nairobi
32.	Oniango, Clement M.P.	Ph.D. (Phil) 1974, Makerere University		University of Nairobi	Professor	Box 30197, Tel: 0154 32021, Nairobi
33.	Opolot, Jethro A	Ph.D. 1970, University of Birmingham, Experimental Psychology	Psychometric and Learning Psychology	Makerere University	Professor	Box 7062, Kampala Uganda

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34.	Possi, Mwajabu K.	M.A. (Ed.) 1986, University of Dar es Salaam, Ed. Psychology	Special education, child psychology	University of Dar es Salaam	Assistant Lecturer	Box 35048, Dar es Salaam, Tel: 49196 Ext. 2503
35.	Sadhu, Jaspal S.	M.A. Diploma in Clinical psychology, Punjab University	Abnormal and Differential psychology	Dept. of Psychology, Makerere University	Senior Lecturer	Box 7062, Kampala, Uganda
36.	Shivutse, E.	Ph.D. (Germany) Clinical Psychology	Child Development	University of Nairobi, Kikuyu Campus	Senior Lecturer	Box 30197, Tel. 334244 Nairobi
37.	Sindabi, A.M.	M.A., Guidance and Counselling	Counselling	Egerton University		Box 536, Njoro, Kenya
38.	Wahome, L.W.	Ph.D. Guidance and Counselling	Counselling	Kenyatta University	Lecturer	Box 43844 Tel. 810901 Nairobi, Kenya
39.	Wamani, Wilson T.	Ph.D. 1985 London University (L.S.E.)Ed. Psychometrics	Educational statistics, measurements and evaluation.	Egerton University	Senior Lecturer	Box 536, Njoro
40.	Wilson, David J.	M.A. 1984, Canada Behavioral Psychology	Statistics, Research methods.	University of Zimbabwe	Lecturer	Box 167, Tel 303211, Ext.1454 M.P. Harare, Zimbabwe
41.	Zimba, Roderick F.	Ph.D. 1987 Purdue University U.S.A. Ed. Psychology	Educational, Developmental Psychology	University of Zimbabwe	Lecturer	Box 32379, Tel: 213221, Ext. 1511 Lusaka, Zambia