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**THE DEVELOPMENT AND PROMOTION OF A SKILLS -
ORIENTED LIFE-STYLE PROGRAMME FOR A GROUP
OF APPRENTICES IN THE MINING INDUSTRY**

BY

RENATE RIJAVEC

**SUBMITTED IN PARTIAL FULFILLMENT
OF THE REQUIREMENTS FOR THE DEGREE
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IN**

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FACULTY OF ARTS

AT THE

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JOHANNESBURG

MAY 1990

***The Development and Promotion of a Skills -
Oriented Life-style Programme for a Group
of Apprentices in the Mining Industry***



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Renate Rijavec

DECLARATION

I declare that "Development and Promotion of a Skills Orientated Lifestyle Programme for a Group of Apprentices in the Mining Industry" is my own work and that all the sources that I have used or quoted have been indicated and acknowledged by means of complete references. Figures that appear in the text of this dissertation have been duly checked and are accurate.

RENATE RIJAVEC

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Never have I felt the need to thank so many people with such heart felt gratitude. This final product in its' doctoral format is a culmination of years of growth, development, sharing and enriching which encompassed many, many people.

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THE AGE OF LIFESTYLE


IS UPON US

**PREVENTION IS AN IDEA WHOSE TIME HAS COME
WE HAVE THE SCIENTIFIC KNOWLEDGE TO FORMULATE
RECOMMENDATIONS FOR IMPROVED HEALTH**

(DONALD IVERSON - WELLNESS, 1987;60)

"It has been said that the lack of effective communication skills has caused many more people to lose their jobs than the lack of technical skills necessary for those jobs."

(Anthony W A and Carkhuff R R 1976:1)

The logo of the University of Johannesburg is centered in the background. It features a stylized bird with its wings spread, perched atop an open book. To the right of the bird, the words "UNIVERSITY OF JOHANNESBURG" are written in a serif font, with "UNIVERSITY" on the top line, "OF" in the middle, and "JOHANNESBURG" on the bottom line.

"This is one of the greatest, most exciting periods in man's history. We are the first generation with the resources to make almost any kind of world we want, including no world. Consequently, the question of what to make and what human values to honour are probably more important than at any previous time in history."

(Jerome B Wiesner in Heller 1965:185)

SUMMARY

This study was conducted within the context of the Mining Industry. The empirical investigation involved 80 apprentices and three Lifestyle trainers based at the Goldfields Training Centre in Luipaardsvlei.

The aim of this research was to:

- (i) Assess the applicability of R R Carkhuff's measurable model of human processing as a basis for a South African based Lifestyle programme.
- (ii) Research available material in respect of motivating the implementation of Wellness strategies within South African Corporations.
- (iii) Validate a Lifestyle programme and trainer material for the mining industry which is designed to positively impact apprentice productivity in respect of their living, learning and working life spheres.

It was found that:

- (i) R R Carkhuff's human processing model of programme development and trainer training provided a solid foundation for an effective Lifestyle programme in the South African mining industry.
- (ii) The literature and research studies indicate that a preventative orientation in respect of employee development and pro-active measures are good financial investments.

- (iii) The Lifestyle programme positively impacts apprentice working, learning and living life spheres as assessed by the Learning Achievement, Work Performance and Heimler Scale of Social Functioning.
- (iv) The trainer is the most significant variable with regard to the effectiveness of the programme. Trainer selection, monitoring, consultation and development are the most crucial components in ensuring and maintaining the successfulness of the Lifestyle programme. ✓



OPSOMMING

Hierdie studie is onderneem binne die raamwerk van die Mynindustrie. Die empiriese navorsing was gerig op 80 vakleerlinge en drie opleidingsbeampes in die "Lifestyle" - program te Goldfieldsopleidingsentrum, Luipaardsvlei.

Die doel van die navorsing is soos volg bedink:

- (i) Bepaling van die toepaslikheid van R R Carkhuff's se meetbare model vir menslike ontwikkeling as 'n basis vir 'n Suid Afrikaanse gebaseerde "Lifestyle"-program.
- (ii) Om beskikbare materiaal na te vors ten einde die implementering van werknemerswelstand-strategie. in Suid-Afrikaanse korporasies te motiveer.
- (iii) Om voorsiening te maak vir 'n "Lifestyle"-program en verskaffing van wetenskaplik gefundeerde opleidingsmateriaal vir die mynindustrie waardeur die produktiwiteit van vakleerlinge met betrekking tot hul leef-, leer- en werkdimensies positief beïnvloed word.

Die bevindings van die navorsingstudie was soos volg:

- (i) R R Carkhuff se menslike prosesseringsmodel vir program ontwikkeling en opleiding van opleidingsbeampes verskaf stewige basis vir 'n gepaste Suid Afrikaanse "Lifestyle" - program in die Suid Afrikaanse Mynindustrie.

- (ii) Die literatuur en navorsingstudies dui daarop dat 'n voorkomende benadering tot werknemer-ontwikkeling asook pro-aktiewe maatreëls 'n finansiele belegging is.
- (iii) Die werk-, leer-, en leefdimensies van vakleerlinge is positief deur die "Lifestyle" - program beïnvloed soos bepaal deur die "Learning Achievement, Work Performance, en Heimler Skaal van Sosiale Funksionering.
- (iv) Die opleidingsbeampte is die mees bepalende veranderlike met betrekking tot die effektiwiteit van die program. Om hierdie rede is die keuring, monitering, konsultering en ontwikkeling van die opleidingsbeampte, kritiese komponente in die sukses van die "Lifestyle"-program.



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CHAPTER I

INTRODUCTION AND ORIENTATION

1.1 Introduction

The Social Services Department of the Chamber of Mines has been striving since 1944 to provide a high quality of professional services to employees of member mines who have personal problems for which they need help, and who, with assistance and/or therapy can maintain a level of productivity which will ensure their security as employees and resultant job satisfaction. It is this pursuit of quality which led to the Social Services Department continually evaluating the standards and relevance of its services to employees.

Consequently a feasibility study was carried out by the Social Services Department in October 1985 culminating in a more comprehensive and decentralized Human Development Strategy being implemented in 1986. This Human Development Strategy is comprised of two main facets namely an Employee Assistance Programme (EAP) and a Lifestyle Development Programme (LDP).

The focus of the Employee Assistance Programme is on the rendering of assistance on a secondary and a tertiary level of intervention to those employees and their dependants who have, or are in the process of developing personal, mental, emotional and social (psycho-social) problems which impair or threaten the job performance and overall productivity of these employees.

The Lifestyle Development Programme addresses the problem of primary prevention. Here educational and life skills training programmes are made available to employees with a view to

improving their human skills in order to equip them to prevent and to manage personal problems they may experience in their daily living, learning or working life dimensions.

Prevention is a pro-active measure which ensures that a specific undesired condition does not occur. Three phases can be differentiated within this process:

- 1) Primary Prevention - there is no indication that a problem will occur, but no reason exists why it should not occur
- 2) Secondary Prevention - there are indicators that the problem is developing
- 3) Tertiary Prevention - here the problem has reached fruition.

The ancient Chinese paid their personal physicians to keep them healthy. The really good doctors were believed to be not those who treat the sick, but rather those who instruct people on how not to get ill. (Rene Dubos in Germain 1979; 326)

Looking at the issue of prevention within a broader South African perspective it is common knowledge that education per se has been subject to intensive investigation in the form of the de Lange report 1981.

This report looks to practical guidelines for the future education of South Africans with a view to:

- 1) Promoting the actualization of its inhabitants potential

- 2) Promoting the economic growth of the Republic of South Africa
- 3) Improving the quality of life of all its inhabitants (de Lange 1981; 15).

Martin Bloom categorically states that in contemporary America, their health care system is floundering because of the emphasis on treating the sick, at greater and greater cost with less proportionate benefit, while little attention is given to keeping well. He goes on to say that in his opinion really good social workers are those who not only help people already having problems in living, but who also work to prevent such problems and release potentialities. (Martin Bloom in Germain 1979; 327)

1.1.1 Salutogenesis as a Point of Departure

At a Health Psychology Seminar in Pretoria in November 1989, Professor D J W Strumpfer looked at how people stay healthy. He took Salutogenesis as his point of departure and stated that traditionally social scientists are inclined to think along pathological lines. Along with physicians, we accept the pathogenic paradigm which assumes that diseases are caused by physical, biochemical and microbiological agents. Physicians have also become aware of psychosocial causation but, since this is our home base, we are better at teasing out such links than they are. Owing to our awareness of systems, we are also very comfortable with the idea of multifactorial determination or co-contribution.

The first assumption of the pathogenic paradigm is that disease is the exception; but then follows an assumption that there is a certain inevitability to the process which leads from pathogens and/or stressors to consequences. There is also a strong inclination to search for, and emphasize, conditioning variables which favour pathological processes. When we are forced to consider contrary evidence and when we have to consider conditioning variables which retard pathological consequences, these come as something of a surprise; they are absorbed against some resistance, and are readily relegated to a category of "exceptions", to be remembered when all else fails.

In contrast, Antonovsky (1979) has argued strongly that, whether clinically or epidemiologically defined, deviance from normality is not the exception but the norm. He substantiated his view with morbidity statistics on a wide range of conditions. Neither is contact with pathogens or stressors the exception. In the present context, stress in particular, does not occur only in unusual or extreme circumstances. Pearlin and Schooler (1978;3) observed that "many of the difficult problems with which people cope are not unusual problems impinging on exceptional people in rare situations, but are persistent hardships experienced by those engaged in mainstream activities within major institutions". Antonovsky (1979), too, expressed the opinion that even people in comfortable, benign, sheltered environments are fairly continuously exposed to fairly serious stressors; infinitely worse, however, is the "unbelievable hell on earth of so large a part of the world's population". Consequently, he described the human condition, as such, as stressful. In a similar vein, Fried (1982) described "endemic stress" in contrast to "acute" stress.

If all of this is true, the exceptions to the rule, where people do not just succumb, achieve great theoretical and practical importance. It then becomes essential for social scientists to investigate potential conditioning variables which buffer or moderate the stressor-strain link and which could provide an understanding of "how people manage stress and stay well". Furthermore, it is also essential that we investigate ways of coping which:

- (1) modify the actual conditions that produce stressors, which
- (2) modify the meaning of a stressor in order to reduce or increase its' threat, or which
- (3) investigate ways of dealing with an experience of stress (after it has been identified as such) so that strains are either prevented or precipitated

In order to indicate thinking like the above, Antonovsky (1979) coined the term "salutogenesis", from the Latin salus = health and the Greek genesis = origins, in contradistinction to "pathogenesis" (Greek pathos = suffer).

Three important implications of the salutogenic paradigm are described. These provide a restructuring of one's perception and ways of thinking about people, as well as new practical approaches to people in context and to studying them.

Thinking salutogenically, we have, firstly, to do away with the dichotomy of people being either diseased or healthy, in favour of what Antonovsky has come to call the "health ease/disease continuum" (1987; 3), with all of us falling somewhere between the two theoretical poles of total terminal illness and total wellness.

Two consequences of this shift are that questions are asked about the whole continuum and that the total population becomes the subject of study, rather than small samples of people who show particular forms of disease. The focus of study also changes, in the case of individuals, to a person's position, at any point in time, on this continuum, or in the case of groups, to their distribution along the continuum with clinical contributions directed at moving people toward the wellness pole.

Secondly, the salutogenic model rejects the commonly held assumption that stressors are inherently bad. Although stressors are endemic and all of us have a high stressor load, some maintain their position on the above continuum and some even move to the wellness pole. However, that implies that stressors, as such, must be neutral with respect to their health consequences. These consequences depend on a person's response to the stressor: the stressor arouses a condition of tension in the person; if the tension is managed poorly, stress results and the way for disease is open but, if it is managed well, the stressor may remain neutral or even health-enhancing. In contrast to the pathogenic question: "How can we eradicate this or that stressor?" the salutogenic question is: "How can we learn to live, and live well, with stressors, and possibly even turn their existence to our advantage".

A third implication of the salutogenic orientation, alluded to above, is that we ought to study the "deviant case". When an hypothesis about the relationship between a pathogen or a stressor and a given condition (e.g. smoking and lung cancer, or the Type-A behaviour pattern and coronary heart disease) has been confirmed, even at a very high level of probability, still only part of the variance is accounted for.

"The pathogenecist is content with hypothesis confirmation; the salutogenecist, without disdaining the importance of what has been learned, looks at the deviant case'. Who are the smokers who do not get lung cancer or the Type A's who do not develop heart disease? In general "the deviants are those who make it against the high odds that human existence poses". In an illuminating article Antonovsky and Bernstein (1986; 53) analysed, criticised and commented on a sample of 31 research papers to highlight the differences between a pathogenic and a salutogenic approach. Salutogenic studies are designed to test hypotheses that:

- (i) explain successful (healthy) outcomes,
- (ii) give attention to the deviant case in both data analysis and discussion, and
- (iii) accept the possibility that stressors may have salutary consequences.

Acceptance of the salutogenic view does not mean rejection or abandonment of the pathogenic view. The benefits of the latter approach are visible in all clinical fields and it is exceedingly important that research directed at the discovery of pathogens and the effects of stressors should continue. However the pathogenic and salutogenic paradigms do different things and in many respects complement one another. The two ought to enrich and stimulate growth in each other.

One is not pleading for a too peaceful co-existence either, since the pathogenic paradigm is preponderant and commanding. The salutogenic paradigm is vitally important to new insights and new growth in the social sciences; it holds promise for integration of knowledge at a new, higher level. In propagating salutogenesis, as opposed to pathogenesis, one may quote Evelyn Waugh (although in a very different context):

It is not enough to say: 'this is the spirit of the age' and to deplore it, for the spirit of the age is the spirits of those who compose it and the stronger the expressions of dissent from prevailing fashion, the higher the possibility of diverting it from its ruinous course.
(Waugh, 1962)

1.1.1.1 Generalized Resistance Resources

Antonovsky (1972) introduced the concept of generalized resistance resources (GRRs) that can facilitate effective tension management in any situation of demand. The idea does not deny the importance of specific resistance resources that are helpful only in particular situations, like a particular drug or the telephone lifelines of suicide prevention organizations. He described a range of such GRRs, including:

- physical and biochemical GRRs, like immunosuppressors and potentiators;
- artefactual-material GRRs, particularly wealth, that can buy food and clothing, a safe abortion for an unwanted pregnancy, but also power, status and services;
- cognitive GRRs, particularly knowledge-intelligence, contingent on education, which includes skills but also knowledge about for example avoiding AIDS or of one's legal rights;
- the emotional GRR of ego identity;
- coping strategies, as overall plans of action for overcoming stressors;
- interpersonal-relational GRRs, like social support and commitment;
- and, lastly, the macrosociocultural GRRs of "ready answer provided by one's culture and its social structure" which includes religion.

What all GRRs have in common is that they facilitate "making sense out of the countless stressors with which we are constantly bombarded". However, through repeated experience of such sense-making, a person develops, a strong SOC, the central construct of his salutogenic model. The SOC is defined as follows:

The sense of coherence is a global orientation that expresses the extent to which one has a pervasive, enduring though dynamic feeling of confidence that:

- (1) the stimuli deriving from one's internal and external environments in the course of living are structured, predictable, and explicable;
- (2) the resources are available to one to meet the demands posed by these stimuli; and
- (3) these demands are challenges, worthy of investment and engagement.

The three numbered portions of the definition describe the three core components which Antonovsky (1987) identified on the basis of qualitative data. These were obtained from 51 persons who had experienced major trauma but were thought to be coping remarkably well. The components are comprehensibility, manageability and meaningfulness.

- 1) Comprehensibility refers to the extent to which the person perceives the stimuli from both within and without as clear, ordered, structured and consistent information, and on the basis of which (s)he can expect that these stimuli will in future also be orderable, explicable and even predictable. Basically, it means that the perceptions make cognitive sense.
- 2) Manageability refers to the extent to which the person perceives the events of her/his life as experiences that

are, at least, bearable or, better still, that can be coped with or even better challenges that can be met. The "available resources" of the definition may be under the person's own control but also may be under the control of legitimate others who have the power to resolve matters in her/his interest, for instance a spouse, relatives, friends, a physician, leaders, formal authorities, the party or God.

- 3) Meaningfulness refers to the extent to which the person feels that life makes sense emotionally, rather than cognitively. At least some of the problems and demands of living are welcome challenges, motivating one to invest energy.

In terms of these components, a person with a low SOC would perceive the internal and external stimuli as noise, not information, as inexplicable in future; (s)he would experience the events of life as unfortunate things that happen to her/him and victimize her/him unfairly; and (s)he would feel that nothing in life mattered much or, worse, are unwelcome demands and wearisome burdens. Antonovsky's basic argument runs that, in terms of the three components of the SOC mentioned above, someone with a strong SOC is more likely than someone with a weak SOC:

- to comprehend the nature and dimensions of an acute or a chronic stressor and to define or redefine it as one to which (s)he need not succumb to; consequently (s)he is, on the one hand, more likely to avoid threat or health-endangering activities and on the other hand, also more likely to engage in activities that are health-promoting, since (s)he can comprehend more accurately that such efforts will pay off;
- to perceive stressors as manageable and therefore to select appropriate resources from those under her/his own control

or available from others, rather than to react with weak SOC helplessness;

- to be motivated to approach stressors as challenges worthy of engagement and investment of energy and as promising meaningful rewards, rather than as paralysing threats and then react with negative behaviour based on self-fulfilling prophecies.

1.1.1.2 Learned Resourcefulness

The second construct namely learned resourcefulness began in the behaviour therapies in particular the application of self-control or self-management techniques in problem areas like smoking, alcoholism, drug addiction and obesity. In this context, self-management training attempts to assist people to change their behaviour, notwithstanding ongoing stimulation that favours the undesirable habits, so that they become less dependent on the environment.

Rosenbaum (1988) gave credit to Meichenbaum (1977) for first using the term "learned resourcefulness" to describe the belief of people who have been trained in stress inoculation that they can deal effectively with manageable levels of stress. However Rosenbaum extended the construct to include not only beliefs, but also skills and self-control behaviours which all people learn in different degrees through informal training from the moment of birth. He has suggested "that individuals may differ in the extent to which they are able and willing to self-regulate internal responses (such as emotions, pain, and cognitions) that interfere with the smooth execution of target behaviour".

To Rosenbaum (1988), learned resourcefulness is not a personality trait, but a "personality repertoire", which is a set of complex behaviours, cognitions and affects that are in constant

interaction with the person's physical and social environment and are evoked by many situations, but which also provide the basis for further learning.

In Rosenbaum's (1988) model, all coping with stressful events calls for attempts at self-regulation or self-control. He conceptualized the process of self-regulation in three phases:

- 1) representation during which the individual experiences, without any conscious effort, a cognitive and/or emotional reaction to changes within him/herself or the environment;
- 2) evaluation of the changes, first, as desirable or threatening, then if a threat is appraised and evaluated as to whether anything can be done about it;
- 3) action to minimize negative effects of the internal or external changes.

In his thinking, learned resourcefulness has its main impact on the action phase; there may be some effect on the evaluation phase too but none on the representation phase.

By way of example: assume one is involved in a goal-directed task, using acts and thoughts that habitually go with it; assume too that this flow is interrupted by a threatening event, say breakdown of equipment. This is experienced as distress. One cannot help but see what is happening and one realizes the implications; there is also autonomic arousal and probably anxiety (or anger). One's learned resourcefulness comes into play at this point, when one decides to pursue the initial goal, despite the breakdown and the anxiety. A resourceful individual will employ various skills, not only with respect to the broken-down equipment, but particularly to minimize the effects of his/her anxiety on performance. In the process one uses self-statements about self-control (e.g. "It's no good just getting anxious!") and about orientation towards the task (e.g. "I'd better fix this thingamajig before the thingummybob also burns out").

A less resourceful person may be overwhelmed by anxiety and only continue with ineffectual fits and starts.

With passage of time, people who succeeded in the past in self-regulating their internal responses acquire skill in doing so; hence, in the future they expect also to be able to do so. The learned resourcefulness thus provides a basis for further learning: it is a source of information for judgements of self efficacy in coping. Based on experimental evidence it is suggested that low resourceful persons judge themselves inefficacious in coping with emotional strains and difficult tasks; as a consequence, they tend to dwell more on their deficiencies than on the task. High resourceful persons, on the other hand, judge themselves more efficacious in dealing with emotional and task demands and are, as a result, more likely to continue with self-regulation.

The Self-Control Schedule has been used in a number of studies to differentiate between high and low resourceful participants. An impressive amount of empirical evidence (referred to by Rosenbaum, 1988) indicates that two high resourceful persons, compared to the low resourceful ones, in various investigations:

- tolerated laboratory-induced pain longer and used self-control methods more frequently and more effectively in doing so (Rosenbaum, 1989);
- as migraine sufferers, reported lower pain intensity, focused less on the sensory aspects of their pain, and used prophylactic medication more (Courey, Feuerstein & Bush, 1982);
- as hemodialysis patients, complied more with their fluid-intake restrictions, measured in terms of weight gain between dialysis sessions (Rosenbaum 1989);

- as smokers, were more successful in giving up cigarette smoking on their own (Katz & Singh, 1986);
- used self-control methods more effectively to cope with seasickness on missile boats in a stormy sea and showed fewer performance deficits, notwithstanding seasickness (Rosenbaum & Rolnick, 1983).

In general, it can be concluded that individuals high in learned resourcefulness "use more self-control methods during a stressful encounter than low resourceful individuals" (Rosenbaum, 1988; 3).

While the construct clearly has pathogenic origins, it deserves attention in a salutogenic context. Rosenbaum concluded a recent article "The focus of our research should shift from studying the pathological parts of the human beings toward studying the 'healthy' aspects of human behaviour to further our understanding on how most individuals remain well adjusted despite their exposure to the stresses and strains of modern life" (1988, 19-20).

In terms of value orientation, the salutogenic paradigm appeals to the researcher because it has clear implications of empowerment. The pathogenic paradigm views the individual as a "patient", which literally means "being in a state of suffering" (Latin pati = suffer). There is an implication of having to submit passively to one's lot in life, as a pawn shifted around by a will beyond oneself. The salutogenic paradigm has an implication of flexibility and a range of alternatives but also the strong implication that the individual potentially has the strength, the power to choose among alternatives and to meet the challenges of his/her life. The role of the social worker is

also, by implication, not that of a powerful fixer-up of weak, dependent patients, but of an empowering resource who can facilitate and assist people in resolving difficult and challenging situations in their lives. In addition there are strong implications of ongoing development and learning which increase the person's resources but which also increase the ability to learn more. (This section draws heavily on Strumpfer 1989)

1.1.2 Ecology: The Reciprocal Relationship

Human ecology which is the science which seeks to understand the reciprocal relationships between man and all the elements or systems in his environment. As Rosen states: "no person is an island, life is an interaction between individuals and their society and environment," (Rosen, cited in Luterman, 1986). An individual's actions affect his environment; conversely, changes in a person's habitat or ecosystem influence his self-perception, his situation and his behaviour (Thomas & Marshall, in Argyle in 1984). For social work, ecology appears to provide a more useful metaphor than the older medical-disease approach that tended to view human beings and environments as separate entities. In contrast, Germain (1979) maintains that the "ecological perspective provides an adaptive, evolutionary view of human beings in constant interchange with all aspects of their environment". This approach is concerned with the growth and potential of human beings and properties of their environments that support or fail to support them in the accomplishment of life tasks. Within the discipline of ecology emphasis is placed on social planning to make the environment comfortable for living organisms, to safeguard resources, and to assure adaptive balance. It follows that when an ecological perspective is applied to social work, then we take on the challenge to promote adaptive interchanges between people and environments, not limiting our function to entering situations after the damage has been done. This requires the incorporation of a preventative point of view into even a residual or rehabilitative service.

Present pertinent research questions in relation to the concept prevention are posed by Snyman (1987; 247). One of the most urgent research questions deals with the cost of prevention of a problem over a wide spectrum, in comparison with the cost of dealing with it in those specific groups and in individuals in whom it has already been identified. Prevention is usually directed at a universal target group and there is danger that unnecessary cost may be incurred by including those segments of the target group which would never have experienced the problem in the first place. Snyman queries what it is that supports and strengthens people to such an extent that they can cope with stress and high demands without developing problem symptoms. A further core question remaining is how can people be socialized to deal with problems more effectively.

1.1.1.3 Health Promotion Programmes - A Comprehensive Approach

Martin Shain presented a paper to the North America Congress in Michigan 1984 on Employee Assistance (EAP) and Health Promotion Programmes (H.P.P.).

In the broadest sense, H.P.P.s refer to a wide gamut of interventions having as their common denominator the intention to mobilize the self-regulatory drive of individuals and groups to govern their own health and wellbeing. Their variety is enormous in kind, degree and quality. They range from highly specific education campaigns with low budgets to heroically funded multi-risk factor interventions aimed at changing the world. They deal with cardiovascular health, nutrition and weight loss, smoking cessation, hypertension control, stress management, fitness, lifestyle appraisal and reformulation as well as a variety of other health related matters. They vary, too, in their

availability to the workforce as a whole and in the degree to which they receive organizational support (Parkinson and Associates, 1982). Generally speaking, they are directed toward the prevention of loss and at the maximization of wellness.

Given the variety of these programmes, a corresponding diversity of evaluative criteria and associated cost benefit considerations have emerged in relation to Health Promotion on the Workplace. However, as with Employee Assistance Programmes there are still two general dimensions of programme performance from which this diversity of specific applications stems. These are, Coverage and Effectiveness.

In H.P.P.s, coverage is usually discussed in terms of Participation Rates and Programme Adherence Rates while effectiveness is considered in terms of Success Rates which in turn have both economic and public health aspects. Expectations for programme success - whether it be smoking cessation, weight reduction or stress management - include:

- increased productivity
- reduced turnover of staff and longer worklife
- lower authorized and unauthorized absences
- higher morale and job satisfaction
- higher employee predictability
- better corporate image for recruitment
- less sick benefits
- fewer accidents
- lower health insurance premiums.

Few precise studies have been done in which gains on even the harder cost lines just mentioned have been quantified in relation to H.P.P.s. The best evidence seems to be in the field of smoking cessation and hypertension control (Fielding 1982) and here again success depends upon a wide variety of factors associated with programme design, characteristics of the host

organization and its surrounding community and the employees themselves. Fitness and Exercise programmes have shown gains in cost recovery terms in one study (Cox et al., 1981) but this research needs replication in other settings before firm conclusions can be drawn. The efficiency of this programme (the Canada Life Project) was a function of very high participating group decreased significantly in comparison with a control group. Productivity was not measured, but it has been argued that very small increases in production quality or quantity would be required to offset programme costs (Faust and Vilnius, 1982).

In so far as H.P.P.s are aimed at the control risk factors such as smoking, high blood pressure, cholesterol levels, obesity, high stress, excessive alcohol use, poor dietary and exercise habits and so on. It is as yet unclear whether it is necessary to successfully achieve this control in order for reductions to be had in absenteeism and turnover. It has been suggested that the fellowship of shared activities and learning about health may be just as important as control of the risk factors themselves. (i.e. improvements in morale)

Stress management programmes, themselves representing a huge class of interventions, have succeeded in showing some promise in spite of their variety. Currently, it cannot be demonstrated that they prevent premature morbidity or mortality but it can be demonstrated that some of them reduce the physiological and psychological manifestations of stress. (Faust and Vilnius, 1983) In terms of benefit to the employer, this effect is of value in itself given that superfluous stress is associated with poor performance.

Generally speaking, Health Promotion in the Workplace is currently bedevilled with a number of shortcomings among

which are:

- 1) Low average coverage rates (participation/adherence).
- 2) A tendency not to differentiate audience needs and to adopt a "one size fits all" attitude when designing programmes (Merwin and Northrop, 1982).
- 3) A tendency to approach risk factors such as smoking, drinking to excess, drug use, lack of exercise and so on as though they were isolated from one another rather than interdependent parts of an integrated lifestyle "system" of beliefs, attitudes and behaviours. (The "Single Issue" Approach).
- 4) A tendency to be faddish.
- 5) A tendency to expect too much too soon for too little (15 lbs in 3 days).
- 6) A tendency to ignore the mental health aspects of wellness.

This state of affairs will improve as consumers of these services not only recognize their value but become critical of how and by whom they are delivered.

1.1.3.1 Cost Benefit Rationale for a Comprehensive Approach

Let's for a moment refer to such a comprehensive approach to the mental and physical health of workers as an Employee Health and Assistance Programme (EHAP). What might be the characteristics of such a programme and why it would offer a superior cost benefit ratio than an Employee Assistance Programme or Health Preventative Programme alone or even than the two programmes together but not co-ordinated?

An E.H.A.P. would have both economic and public health goals which would translate into objectives at primary, secondary and tertiary intervention levels. Within such levels, specific target groups would be identified through need assessment and appropriate interventions would be implemented to meet these needs (Shain and Boyle, 1984).

For example:

One. Economic Goal: to minimize the costs associated with deficits in the physical, mental and social health and wellbeing of the workforce.

Two. Public Health Goal: to increase the physical, mental and social health and wellbeing of the workforce.

Translated into objectives at primary, secondary and tertiary levels of intervention, some examples might be:

- a) Primary Level: to reinforce the intent and will of people in basically sound health to remain so through examination, reappraisal, modification and improvement of lifestyle factors which influence wellness, vigour and productivity.
- b) Secondary Level: to facilitate the recovery of people with developed health problems by providing formal and informal pathways to remedial services aimed at full or partial restoration of health, vigour and productivity.

The particular form that such comprehensive programmes would take, however, would vary a great deal depending on a number of factors. The actual shape of the approach taken in specific sites should depend upon careful needs analysis by management, employee representatives and relevant programme staff from all levels. Success, however defined, will depend on a "fit" between the needs of workers, organizational characteristics and programme characteristics. In that sense, the solution must creatively fit the culture of the work organization.

The core of the cost benefit rationale for an E.H.A.P. is that potentially at least, the health needs of the whole workforce are covered or considered. The typical problem to date with both E.A.P.s and H.P.P.s has been that they each deal with extremes: As Table 1.1 suggests, the typical target group (or at least the

group which is in fact reached) in E.A.P.s is the "walking wounded". Members of this group have typically well-advanced problems which affect job performance. The employer's response is largely orientated toward individual treatment by trained professionals. H.P.P.s, on the other hand, tend to focus on the "conspicuously well" either through education or involvement in physical activity. Exceptions to this state of affairs exist in both types of programmes, as indicated in Table 1.1 .

The moderate risk group, however, is typically untouched. Nonetheless, it contains:

- (a) People who are experiencing physical and mental health problems which, if not resolved, will probably get worse thus making them potential candidates for E.A.P.s.
- (b) People who are suffering acute situational difficulties which depress their wellbeing and productivity.
- (c) People in states of chronically mediocre health who could be feeling and performing much better. The condition of this group is associated in some important ways with personal lifestyle practices which put them at higher risk for a variety of illnesses and diseases. These practices involve eating, sleeping, working, travelling, smoking, exercising, drinking and obtaining respite from everyday troubles and worries.

There is an accumulating body of evidence which says that the groups just described are a significant source of loss to employers because of the net impact of relatively low-level problems on daily productivity, annual sickness and absenteeism rates and general employee morale. (McQueen and Siegrist 1982) Even accident rates are affected by the existence of a large group of people in the workplace who are functioning below par.

So, one of the great potential advantages of the E.H.A.P. approach is that it deals with the organizational losses attributable to the moderate risk group.

A second potential advantage is that you get optimal use of available resources. This is explained by means of a diagram (Table 1.2). Both E.A.P.s and H.P.P.s are shown as penetrating the moderate risk group but at considerably different costs. This is a hypothetical projection, of course, and the cost projections will vary enormously depending on the characteristics of the programmes and on the characteristics of the workforce in question.

One point to stress in relation to the diagram is that H.P.P. costs tend to escalate less rapidly than E.A.P. costs when addressing the needs of the moderate risk group. However, this projection assumes 1) that the same people would seek help through a H.P.P. as would attend an E.A.P. and, 2) that the two types of programmes would be equally beneficial to participants. Neither assumption is probably true. However, the possible additional effectiveness of E.A.P. based clinical interventions with moderate risk people is offset by additional costs with probably little chance of recovering them, while the lower effectiveness of usually group oriented skill-building H.P.P. approaches is offset by proportionately lower costs. The escalation of costs in E.A.P. as it progresses towards, in its terminology, "earlier identification" is due to the added resources required for supervisor training, employee education and casefinding as the candidates become less obviously troubled. Some of these costs may be in turn offset by the increased voluntary use of programmes and by the provision of less intensive forms of treatment for problems. e.g. outpatient care, day treatment, weekend programmes etc. Thus, the cost benefit ratio is really a sliding scale which can be roughly captured by the diagram but which in practice has to be used by concerned parties on the basis of trade-offs between desired outcomes and available resources.

To return to the diagram, you will see that on a strictly cost basis, E.A.P.s and H.P.P.s appear to work most efficiently at the extremes of the health continuum: that is, with the "walking wounded" and the "conspicuously well". However, in terms of benefit to the organization, the gains are not distributed the same way. In E.A.P., the "critical few", who roughly correspond to the "walking wounded" are a small subgroup of very costly problem employees who tend to get identified and referred at an early stage of programme development. Since the cost line for E.A.P. is also roughly a time line, one can see that the greatest efficiency for E.A.P. tends to be in the start-up period when the critical few are being identified, although it is also true that start-up costs tend to be high and are amortized over successive years. In H.P.P. the situation is different. The gains which accrue from reaching the conspicuously well in early stage programme development are less than those which start to accrue once there is penetration of the moderate risk group. So, if the cost line is also the time line with H.P.P., you can see that greater gains accrue later in programme development although it is not clear yet whether these benefits offset costs in strict recovery terms.

However, all this needs to be considered in the context of two other benefits of the comprehensive approach. The first is that there will probably be a tendency for cross-referral to develop between E.A.P. and H.P.P. particularly where there is cross-fertilization of programme staff. e.g. an E.A.P. publicity component can be built into H.P.P.s at the basic educational level. H.P.P.s at the training and skill building level can offer pathways into more intensive E.A.P. interventions, while clients of E.A.P.s can be referred for auxiliary care into H.P.P.s and vice versa. This will tend to optimize the use of scarce resources by allocating them to the neediest groups.

The final advantage of the E.H.A.P. is that it requires comprehensive planning. For this to occur, there has to be a process within organizations whereby all concerned parties -

management, staff representatives, health professionals and the like - come together to discuss the health needs of the total workforce. Such a process in and of itself is part of a change in corporate culture and represents a shift toward the ecological model of Cost Benefit. E.H.A.P.s can potentially provide a barometer of organizational functioning via the feedback received by programme staff from participants and clients. This feedback, delivered to managers at the most senior levels, can serve as a measure of the health of the organization.

In spite of its theoretical appeal, the move toward E.H.A.P.s will not be easy. We can expect in the short run a great deal of debate and acrimony between programmers who currently ply their trades at opposite ends of the health continuum - namely E.A.P. and H.P.P. Philosophical and practical differences will have to be identified and where possible ironed out. Competition for scarce resources will have to be minimized. However, the potential benefits of a comprehensive approach are enormous. An E.H.A.P. is more than the sum of an E.A.P. and a H.P.P. . It represents a move toward a greater and more proactive concern about the value of human life and about working people as not only producers of goods and services but as active, more robust members of society. The benefit of such approaches, then, will accrue not only to the workplace but to society as a whole (Shain, 1984).

Below Table 1.1 illustrates the continuum of employee care covered by Employee Assistance Health Programmes whereas Table 1.2 graphically elucidates the cost relevant factors in relation to Employee Assistance Health Programmes.

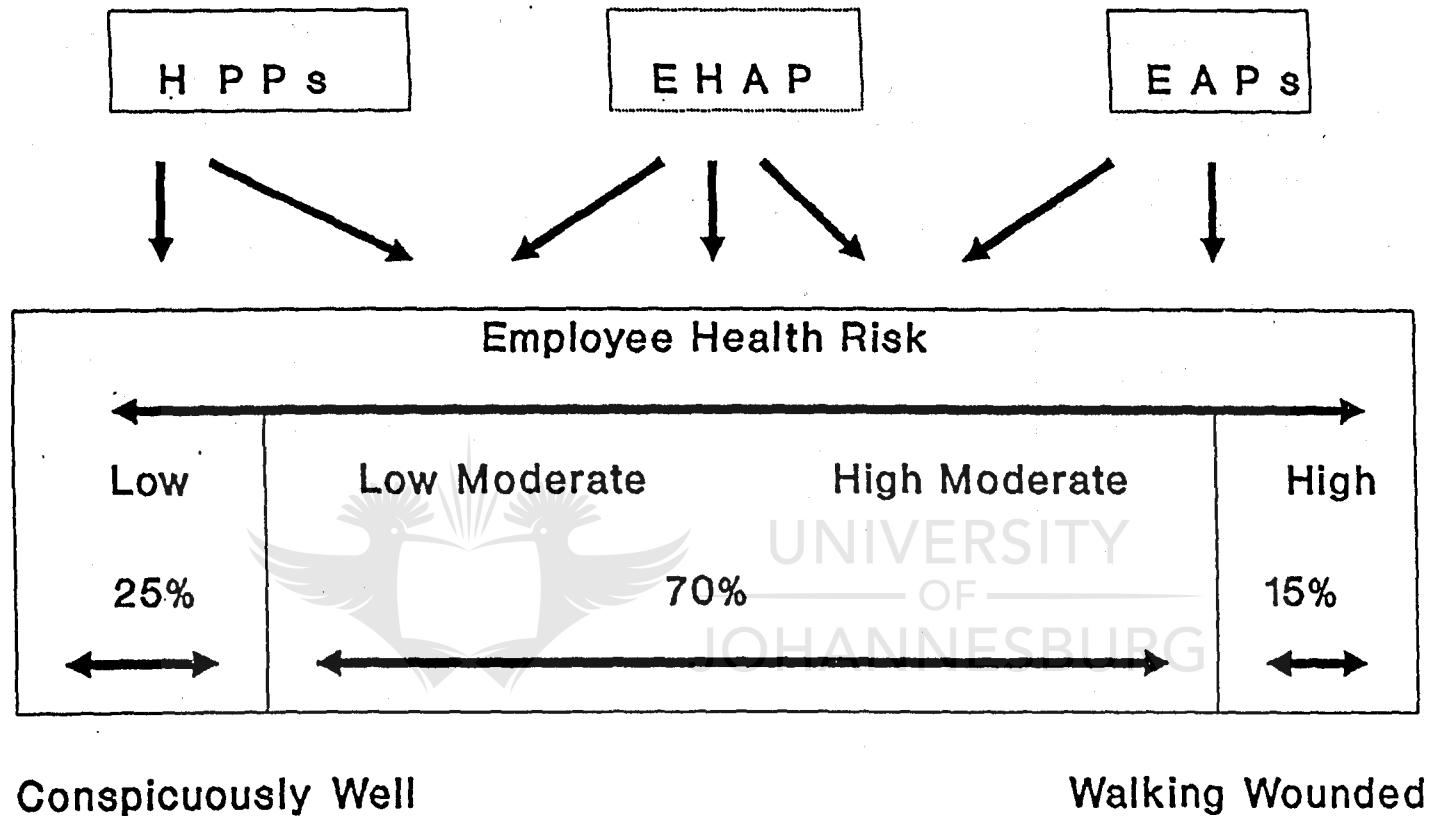


Table 1.1 Employee Assistance Health Programme

Prevention



Remediation

EAHP Awareness / Education	EAP Publicity
EAHP Training/ Skill Building	EAP Referral
EAHP Referral	EAP Counselling Treatment

Low risk

Low cost

High coverage

Medium risk

Medium cost

Selective coverage

High risk

High cost

Low coverage

Table 1.2 Employee Assistance Health Programme

To speak of accomplishing change in peoples lives raises two immediate questions. Firstly whether it is desirable to adapt individuals to meet the needs of society, rather than to change society, in accordance with the individuals needs and secondly, how the objectives and methods of change are to be selected and by whom (Collins 1981).

Experienced social workers can often intervene effectively in defective situations and bring about in a relatively short time social improvements which would have required several decades if they had occurred through spontaneous adaptive processes and which indeed might not have occurred at all (Germain 1979; xiii). The professional purpose of social work arises from a dual, simultaneous concern for the adaptive potential of people and the nutritive qualities of their environments. In an ecological view, practice is directed toward improving the transactions between people and environments in order to enhance adaptive capacities and improve environments for all who function within them.

Knowledge required to understand the complexities of people, environments and the nature of their transactions draws upon evolutionary biology, environmental psychology, ethology, and organizational theory as well as disciplines more familiar to social workers. The value base of the practice refers the kinds of transaction social workers "prefer" for people and environments, those that express peoples adaptive potential and environmental responsiveness and diversity. Both knowledge and values support the professional objectives of:

- 1) releasing, developing and strengthening people's innate capacity for growth and creative adaptation
- 2) removing environmental blocks and obstacles to growth and adaptation and
- 3) positively increasing the nutritive properties of the environment.

Those transactions between people and environments are sought that will nourish both parts of the interdependent system Germain (1979:17).

Whenever services have failed to meet need as it is experienced by users of the services, social work has sometimes responded by providing more of the same kinds of services. This kind of change has usually not resulted in resolution of problems and has sometimes created additional ones. Totally new solutions are required, that go beyond present assumptions and practices to find creative adaptations and novel arrangements for providing services.

Social work practice has been undergoing scrutiny and change, stimulated from within the profession and from society itself. Within the profession, new knowledge has become available to conceptualize practice. From without comes the challenge of ongoing rapid change. The ecological approach to practice establishes the person as an adapting and coping creature, striving for growth, mastery and interaction with his environment.

All organisms "seek" effective interaction with the environment for survival. Human beings strive towards competence, or the capacity to have an effect on the environment in spheres of life important to the individual and the cultural group. Competence here refers to a wide range of abilities and skills with respect to the "inner life" of feeling, impulse, wish and thought and the "outer life" of interaction with the environment.

Maluccio (in Germain 1979; 286) states that competence is most effectively achieved when intervention is directed toward an ecological unit, consisting of a person and his immediate social environment. The outcome of the human beings efforts to cope successfully with life tasks depends not only on his or her qualities and needs but also on the availability and purposeful

use of varied environmental resources and social supports. Consequently, a major function of social work intervention is to provide opportunities for enhancing the mutual fit between people and their environments.

We have all met people who possess, intuitively the skill of effectively and productively communicating with other people. However, they are rare individuals and not the average ones.

Indeed, if one were to ask these same people how they attained their skills they probably would be unable to say, nor could they teach these skills to another person. They are the few privileged people who have that "something special" (Anthony and Carkhuff 1976). When one considers that Anthony and Carkhuff state that "the lack of effective communication skills has caused many more people to lose their jobs than the lack of technical skills necessary for those jobs," it no longer becomes a feasible excuse to hide behind the idea that one is either born with that something special or one is not.

What vehicle then did the Lifestyle Developmental Programme utilize in an effort to break through the mystery of that "something special." A vehicle which is not a strategy restricted to the psychologists armoury alone. A vehicle which can be situated in the life space of people when and where stress is experienced. A service structured in ways that are congruent with life styles, interests, and tempos of the group, family and organizational levels. A service directed at helping people before the stress generated by problems in living become intractable, recognizing that rapid social change results in the rapid obsolescence of peoples usual adaptive patterns.

Social skills training, has proved effective with teaching dating skills, assertiveness training, helping individuals overcome shyness and social anxiety, helping adolescents

acquire conversation skills, friendship making and other social skills. The training has been successfully applied not only to the promotion of socially valuable behaviour, but also to the skilled control of socially undesirable behaviour, such as aggressiveness and excessive drinking (Priestly, McGuire, Flegg, Hemsley, Welham, Barnit, 1984).

Thus there seems to be a broad spectrum of socially skilled behaviour which can be developed and improved through skills training.

Social skills training may be properly described as behaviouristic, first with regard to its stance as admissible evidence and second in respect if its emphasis on practice by trainers (Ellis and Whittington 1983).

The social skills training approach rests on the assumption that many people experience difficulty in interacting socially and in carrying out social roles because of deficiencies in their earlier opportunities for learning, the disabling effect of which is intensified by an unrewarding and unhesitatingly present environment. Skills training programmes aim to provide new learning opportunities in an atmosphere of security and to develop the use and application of what is learned (Collins, 1981).

Social skills training programmes have been adapted and applied across a very wide spectrum of trainers, trainees, settings and circumstances and its use continues to spread. Social skills training may be criticized as relatively artificial as it occurs in controlled environments, and there is almost certain to be some element of role-playing required from the trainee.

Nonetheless the face validity of the exercise is high (Ellis & Whittington 1983, 78). Social skills are not a disposition but a response capability.

Interpersonal exchanges, verbal and non-verbal occur within boundaries set by physical circumstances, psychological expectations and social norms. Social skills training has always involved the reduction of the complex to the simple, from the conglomerate to the element.

Programmes of social skills training should reflect local needs. In particular negotiation between interested parties to arrive at an appropriate set of skills and procedures. If the training programme is to meet local needs the intending trainer must establish what those are. There is almost no agreement either empirically or conceptually as to what constitutes a lifestyle (Sobel 1981:2).

There is not much explicit disagreement either. Rather the literature is idiosyncratic. As a result, it is not clear whether lifestyle belongs to an individual or to some aggregate. The causes and consequences of lifestyle are not separate analytically from the phenomena itself.

Furthermore, virtually no discussion of lifestyle as a phenomena in its own right are to be found. By analogy lifestyle is defined as "any distinctive and therefore recognizable mode of living." Lifestyle consists of "expressive" behaviours that are directly observable or deducible from observation. (Gambrich in Sobel 1968;352) states that a reasonable way to choose appropriate behaviours is to select those that are most salient within a given time and space. He further argues that sources of lifestyle differentiation are rooted in different reference sets that individuals maintain. These reference sets are engendered by the positions that individuals occupy and the different demands placed upon incumbents of various positions. Thus lifestyle variation stems from differentiation within social structure. Researchers have demonstrated that social position is related to a variety of

attitudes and values, behavioural orientations and behaviours that are viewed as indicative of lifestyle.

Social workers when intervening in lifestyles are often criticized for not evaluating what they do. It is partly because of wooliness of objectives and probably due to the fear that nothing has been achieved. It is better to admit that a given intervention has failed and to try and see why than to assume that although we do our best failures may occur. Nor should we fear loss of professional status - doctors are often faced with conditions they can do nothing or little to cure, yet they do not necessarily feel incompetent on that account. There is no doubt that the achilles heel of social skills training is the issue of generalization. There is a sizeable and largely depressing literature on the lack of generalizability of social skills training (Furnham in Ellis 1982;286).

All generalization procedures link the artificiality of training to the uncontrolled circumstances of real life. No matter how carefully skills are identified or how important they are for the individual trainee before and after training, they have suffered a change and may no longer be perceived by the trainee as significant (Ellis and Whittington 1983). Evidence for short-term behaviour change in development is encouraging. Much more research however, is needed on both outcome and procedures.

Man and his potential is the central concern. Our expanding knowledge of human development in relationship to environments that nurture or damage mans capacity to actualize himself has implications for the way we organize our service interventions. In the words of Romanyshyn (in Heller 1965;187) it appears to us that a community which organizes its activity so that it maximizes the number of

healthy, intelligent, self-directing citizens capable of viewing situations from perspectives other than their own, of weighing alternatives and making decisions, of defining new goals and inventing new ways of achieving them is in fact a democratic community and is producing members who can sustain it against all more pessimistic theories of human nature and social order.

The above introduction is an orientation to the Development and promotion of a Skills Oriented Lifestyle Programme for a group of apprentices in the mining industry. It is followed by attention to:

- stimuli for the study
- aims and objectives of the research
- research domain
- research questions
- methodology
- limitations of the study
- clarifications of concepts.

1.2 Stimuli For The Study

The researcher became intimately familiar with the concept of social skills training during 1983. Due to the nature of her work as a trainer she became a specialist in the development and training of skills for personal development programmes.

The Chamber of Mines in 1986 as a result of a feasibility study having been conducted on the efficiency of services rendered by the Social Services Department to employees of member mines committed itself to a more preventatively orientated Human Development Strategy. This strategy covered the continuum of service rendering namely:

- tertiary, in terms of hospitalization for patients requiring intensive psychiatric care
- secondary, in relation to early identification, referral and treatment of psycho-social problems under the banner of the Employee Assistance Programme
- primary, as related to the education and development of employees.

Goldfields of South Africa in the form of their personnel department had approached the Social Services Department (now EAP Services) by this time with a written request motivating the necessity of having a preventative Life Skills training programme directed at the apprentice population entering the mining world. It was at this point that the researcher was employed by the Social Services Department with the primary task of developing and implementing a Lifestyle Development Programme which would be piloted at the Goldfields Training Services in Glenharvie.

The challenge of developing in written form a Lifestyle Developmental Programme for the mining industry was a formidable task, but the very pressure, belief in the viability of the project and the desire to prove herself as a functional staff member motivated her to produce the pilot package. This was presented over a period of six consecutive weeks, one day a week to 15 graduate personnel trainees who were the target group selected by Goldfields Training Services Management to attend and report on the viability of the newly developed programme.

Judging from the overwhelmingly positive reception of the philosophy, content and presentation of the programme by the recipients, Management unstintingly supported the integration of the Lifestyle Development Programme into the induction and orientation of apprentices, learner officials, and graduates from Goldfields Training Services.

This move entailed the employment of a Lifestyle co-ordinator who would be responsible for the implementation of the Lifestyle Programme at Goldfields Training Services. Future implementation of the programme involved the selection, training, monitoring, and evaluation of trainers. Much attention was focused on validating the applicability of the content to the target population.

The development of the project ran its course and snowballed to the extent where it received a profile which drew the attention of other mines, mining houses and training centres. Requests were made, at first informally and subsequently formally, to develop a similar Lifestyle Programme appropriate to the remainder of the Goldfields Training Services employee population.

As such the successful implementation of this phase culminated in a powerful, well-accepted, high profile programme. The researcher was throughout the whole process committed to a practitioner-researcher approach, thereby continually evaluating all inputs made. These extended from content applicability, to presenter adequacy, to programme enjoyment.

A point was reached when a question being asked repeatedly could no longer be ignored! "Lifestyle is obviously great fun, enjoyed and appreciated by all, the informal payoffs are obvious. Participants perceive the programme to have positively impacted their lives - but can you prove it?" It became obvious therefore that this fast growing and influential programme needed to be submitted to stringent evaluation, prior to further promoting the efficacy thereof.

A further current motivation is the fact that at the Health Psychology Conference held in Pretoria in October 1989, M J Visser stated that based on current research to date, psycho-education programmes with life skills training included were the highest research priority indicated.

1.3 Aims and Objectives of the Research

The cornerstone fundamental to the essence of this research project and generally programmes preparing people for life is the fact that it is pragmatically centred. The researcher believes that there are mountains of knowledge and information available. However, this goldmine of facts, principles and concepts remains largely impotent in terms of the practical impact it has on peoples lives. As such the aims and objectives of the study were as follows:

- to peruse available and applicable literature central to the study.
- to provide programme material extending from trainer selection scales, to trainer training material, to an actual lifestyle programme, to scales and questionnaires utilized to evaluate the impact of such a programme.
- to test the impact of the programme on apprentices within the Goldfields Training Services context in terms of the effect of the programme on their learning, working and living dimensions in the short term, and on their living dimension in the long term.
- to research the viability of the programme in terms of its enhancing participants level of potential life satisfaction by means of skills integration into their behavioural repertoire thereby promoting its continued use in the mining industry.
- to make a case for prevention and corporate wellness in South Africa.
- to give recognition to the works and models of Robert R Carkhuff who empowered the researcher to achieve the above objectives.

1.4 Research Domain

In so far as it is known, there is no other private enterprise organization anywhere in the world to compare with the Chamber of Mines of South Africa. Its uniqueness arises from the fact that while it does not itself conduct mining operations the Chamber undertakes a large variety of advisory and service functions on behalf of the whole mining industry which can most effectively be handled on a co-operative basis with the particular aim of improving profitability. The development of the functions of the Chamber has been closely linked to the history of gold and coal mining in South Africa and the growth in importance of precious and base minerals in the country's economy.

The primary object of the Chamber of Mines is to promote and protect the interests of the South African mining industry. To this end the Chamber's principle committees meet on a regular basis to consider matters of policy affecting the industry as a whole and to issue policy directives. These principle committees are representative of the major mining finance houses which collectively conduct more than 85% of all mining activity in South Africa. (Chamber of Mines of South Africa 1986 Review). One of the Service Departments of the Chamber is the Social Services Department now Employee Assistance Programme Services whose mission it is to provide employees from member mines who have or are in the process of developing personal problems with the necessary assistance in a cost effective manner so that their level of work productivity may be satisfactorily maintained.

Goldfields of South Africa has a training centre based in Glenharvie between Westonaria and Carletonville, where apprentices, learner officials and graduates come to be trained prior to and during their employment on the Goldfields mines.

A second training centre is situated in Luipaardsvlei, Krugersdorp - this is utilised predominantly for the training of apprentices.

Both of these training centres perceive themselves to have the responsibility of introducing to the mining industry apprentices who have been well trained not only in terms of their technical functions but also in terms of their ability to relate well interpersonally. As such, part of the training involved is directed towards enhancing their developmental potential as people and subsequently contributing to a more adequate, productive and satisfied workforce as a whole.

In a broader perspective what is being indicated here is the concept of social accountability, which can be defined as a commitment to be co-responsible for the quality of life within the community from which the company draws its resources and gets its support (IPM, 5; 10 February 1987 - Francis Uys).

In the words of Sir Ernest Oppenheimer and Dr. Anton Rupert who underline the commitment to society in their business philosophy " A company has a three-fold responsibility: to it's shareholders, to it's personnel and to the community in which it exists and from which it draws it's success." To understand the implications of social accountability and to integrate it into a business philosophy plan requires a new breed of executive. Someone who can make something valuable out of what is inevitable. Because there is an inevitability about the need to adapt to a new role for both the executive and his firm in the South Africa we are entering, if we are going to survive as a civilized society.

1.5 Research Questions

Questions arising from the aims and objectives of this study are:

- Does a preventative, skills orientated Lifestyle Programme presented to apprentices during orientation impact their living, learning and work dimensions.

That is, does it not impact (null hypothesis)
does it negatively impact (hypothesis one) or
does it positively impact (hypothesis two)
their work performance, learning achievement and life
satisfaction

- if hypothesis two is proven, then is the positive impact of the programme short lived, or is there evidence indicative of the life skills having permanently flavoured the individuals behavioural repertoire, thereby rendering his life satisfaction (as related to personal competency) higher?
- can a case be made for corporate wellness with a lifestyle course being a major component thereof?

1.6 Methodology

1.6.1 The Research Method

The research method is the plan or design for the process of finding a solution to the research problem posed by the investigator (Grinnel 1981).

In weighing the advantages and disadvantages of research methods the researcher focused on certain practical issues influencing her choice. The size and scope of the proposed study, the co-operation needed to implement the method, the extent to which the study would intrude on the participants in the project, the financial and physical resources required and the time needed to implement and conclude the project were taken into consideration.

It was decided that the methodological approach chosen would place emphasis both on descriptive and experimental characteristics and a quantitative approach would be stressed. With the purpose of the research being to determine how successful a social programme is in fulfilling its mission, what effects the programme is having and whether it is performing as expected, the research method may be considered to be program evaluation (Grinnell 1981; 420).

Programme evaluation is applied research and is distinguishable from pure research which has as its main objective the accumulation and analysis of data in order to formulate hypothesis and theories for the sake of knowledge itself.

Programme evaluation is concerned with measurement of the degree to which a social programme succeeds in reaching its predetermined objectives. The reasons why a particular social programme fails to achieve success in meeting programme objectives are also relevant, since they provide agency administrators and planners with information they can use to restructure programmes and make them more effective.

Although this type of research is given to experiencing difficulties in respect of determining programme objectives and establishing outcome measures to assess the extent to which objectives have been achieved, research of this type can be of significant benefit to human service organizations by providing a means to enhance accountability. Programme evaluation can help social programme planners to reach more rational decisions to improve their capacity to develop and implement social programmes which will effectively and efficiently meet human needs (Grinnell 1981;428).

In order to orient the development of the researcher's skills and the progression of the research project a time sequenced description of the process follows:

May 1984 - the researcher was employed by the South African Association for Health Promotion as a Senior Community Organization Social Worker. Her main job function was the creation of a personal development programme. During this time the researcher was privileged to work with Dr W C Mostert who is hailed as an expert in the development of skills oriented programmes as per the Robert R Carkhuff methodology. His expertise was generously imparted to the researcher enabling her with his assistance to produce by March 1985 a book entitled "A Skills Approach to Personal Development The Carkhuff Way". The book covered a broad spectrum of personal development which was appropriate to both lay and professional persons alike. This programme was marketed and a structure was implemented according to which such courses were run for the dual purpose of personal and professional development, such as train the trainer courses. Fees were charged for the attendance of said courses and by December 1985 the programme was considered to be financially self supporting.

January 1986 - The researcher consulted from home for a period of six months. Her programme development skills were broadened in terms of the wide spectrum of persons utilizing her expertise, ranging from the industry, to the mental health and medical profession.

June 1986 - the researcher was employed by the Chamber of Mines with the express purpose of designing and implementing a preventative human development programme for the apprentices in the mining industry, at that time to be piloted by Goldfields Training Services.

The purpose of the Lifestyle Development Programme was to equip employees with personal skills that constitute a healthy lifestyle. The programme should enable employees not only to prevent personal problems from occurring but to cope constructively when encountering them.

The objectives for the participants were to:

- gain a clear perspective of what it means to be human
 - engage constructively in social relations
 - communicate appropriately, comfortably and constructively
 - negotiate social interactions diplomatically and to assert themselves when necessary
 - tackle personal problems in a goal directed manner
 - be in control of their personal lives and to relate realistically to their environment
 - reduce the level of their personal stress
 - adopt a constructive and responsible attitude towards alcohol and drugs, and
 - enhance the meaningfulness of their personal lives
- (Human Development Strategy, Goldfields Training Services 1986).

1.6.2 Pilot Programme

July 1986 - The Lifestyle programme was written and completed within a period of six weeks whereafter it was presented to a selected graduate group of 15 employees at Goldfields Training Services. The programme was approved of in that presenter effectiveness scored 98% average and content satisfaction was 95-97%. Subsequently the training of presenters ensued.

August to December 1986 - A group of three from the personnel department and the Lifestyle co-ordinator were proposed by management as presenters, that is there was no selection procedure in which the researcher was involved.

This group of 4 persons was exposed to training consisting of:

- a 6 day Lifestyle course as participants
- a 3 day Counselling Skills course, with a view to broadening their interpersonal repertoire as presenters

- a 4 day Effective Presentation course.
- a day's personal preparation and consultation
- and a 6 day monitored presentation of the Lifestyle course to selected groups of trainees.

Of the above people, the three persons from the personnel department had had little choice in whether they wished to present Lifestyle or not. Difficulties were experienced in terms of their workload, level of commitment to the project and personal ability. Arrestingly only two of the four persons were finally selected by the presenter as trainers, one of whom was the said Lifestyle co-ordinator. The one member of personnel remaining, presented a single most adequate course and was then transferred leaving Lifestyle with one trainer, namely the Lifestyle co-ordinator.

June 1987 - by this time 21 Lifestyle courses had been run with a total of 231 participants attending. A summary of the evaluations reflected that the course was well received both in respect of presenter effectiveness (96% satisfaction) and course content (84-100% satisfaction). Upon consultation it became evident that the Lifestyle development co-ordinator was at risk of presenter burn out. As such the researcher negotiated with the management of Goldfields Training Services with a view to making the Lifestyle Programme a permanent and integral part of their organization in a effective and efficient manner. Prior to this an opinion poll had been done at the training centre which proved highly positive in respect of Lifestyle and as such the course of action decided upon was to select new trainers in an objective and stringently evaluative manner. This selection procedure intimately linked the researcher, the Lifestyle co-ordinator, management and the future trainer with a view to appropriate trainer selection (See Appendix 1 - Trainer Selection Scale developed by the researcher).

July 87 - The researcher attended a Heimler Scale of Social Functioning training course in order to become adept at using the scale. The course was presented by Dr M A Van Zyl in Bloemfontein.

December 1987 - Goldfields Training Services had 5 dynamic, motivated, self-reliant and committed Lifestyle presenters headed by Gavin Leverton the Lifestyle co-ordinator who consulted regularly with the researcher.

The Lifestyle team at the Goldfields Training Services became known as the Human Development Project. That is Goldfields Training Services allocated a specific role and status to Lifestyle presenters who were continuously monitored, trained and challenged to develop new content specific to the needs of their system.

The implementation model utilized is summarized on the following page in Table 1.3 (Rijavec: 1989).

1.6.3 Main Research

October 1987 to August 1988 - The main research began.

Goldfields Training Services Engineering received an intake of approximately 120 apprentices during January 1988. These apprentices arrived on 11 January and remained within the Goldfields Training Services Engineering set up until 15 April 1988. As such they were there for a period of 14 weeks.

Each individual was given the opportunity of attending a 6 day Lifestyle course during this period of training. The impact of the preventative skills orientated programme on the apprentice population group was assessed in the following manner.

The first two groups of 12 apprentices each were allowed to settle into the system for a period of 4 weeks.

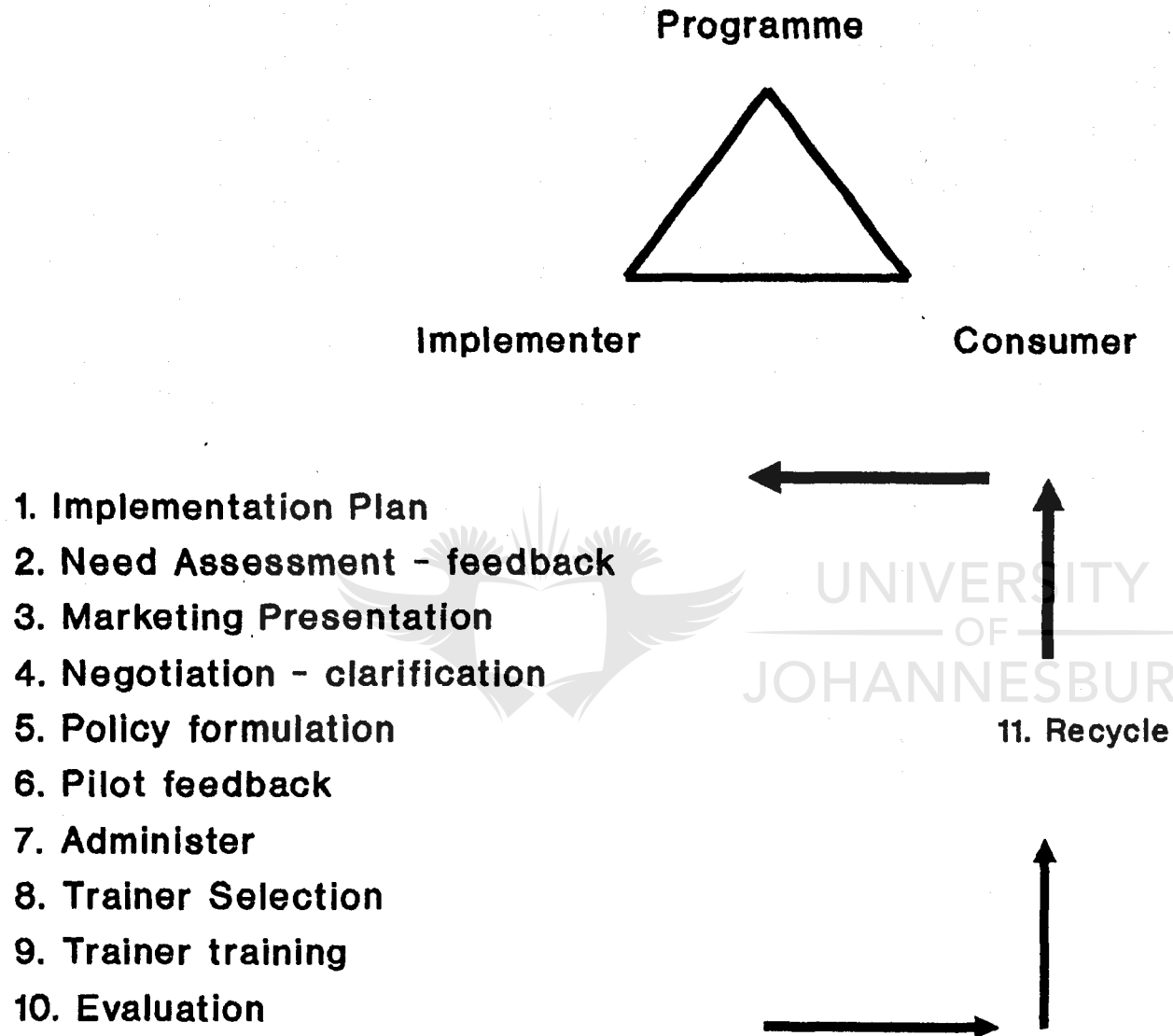


Table 1.3 The Implementation Model

A baseline level of functioning was then established by means of three measuring instruments:

One - The Heimler Scale - Evaluating their
general social
functioning

*Scale developed by Eugene Heimler

Two - The Apprentice Work - Whereby instructors
Performance Scale evaluated the
apprentice's work
performance

* Scale used at GFTS training centre

Three - The Apprentice - Whereby instructors
Learning Achievement evaluated their
Performance Scale learning achievements

* Scale developed by the researcher

(Appendix 2, 3, 4)

For purposes of clarity, on the next page is a graphic parallel of the Heimler Scale in relation to the Lifestyle course content. The applicability of the measuring instrument used is hereby illustrated. (Table 1.4)

The 2 groups of 12 apprentices each then attended a 6 day Lifestyle Programme run by approved Lifestyle trainers. After completion of the course their level of functioning was again evaluated 3 weeks later by means of the above mentioned instruments.

As two groups presented by two trainers ended another two began, until all 120 apprentices had attended the programme. This took from 8 February 1988 until 18 March 1988. Each groups baseline level of functioning and post intervention functioning was assessed by all three instruments.

Once having left Goldfields Training Services Engineering the apprentices moved on to either a mining environment or a training college. A six month follow up evaluation with respect to long term impact on social functioning was then done (see Table 1.5: Diagrammatic Representation of Research Methodology).

August 1988 - present. The researcher busied herself with a literature survey and analysis of the research data.

September 1989 - A trip to Washington DC was arranged where the researcher spent time with Robert and Chris Carkhuff and Don Benoit, Director of the Carkhuff Institute. In discussion a renewed present day orientation was gained with respect to wellness, development and prevention as viewed by the creator's of the model themselves. The latest literature was integrated and overall the researcher experienced a renewed enthusiasm in terms of reassurance that her directive approach implementation and ideology, idealistic though it is, is far from impractical.

Lifestyle	Heimler Scale
Energy	Energy
Body Talk	
Observing	Personal influence/friends
Listening	
Interpersonal	
Initiating	
coping with conflict	
My time is yours	
Defences	Synthesis
Problem solving	
Planning	
Budgeting	Finance
Stress	
Alcohol and Drugs	Health/habits
Meaning in Life	Moods/overall view of life

Impacts persons self-concept and value system

Table 1.4 Heimler Scale parallel to Lifestyle

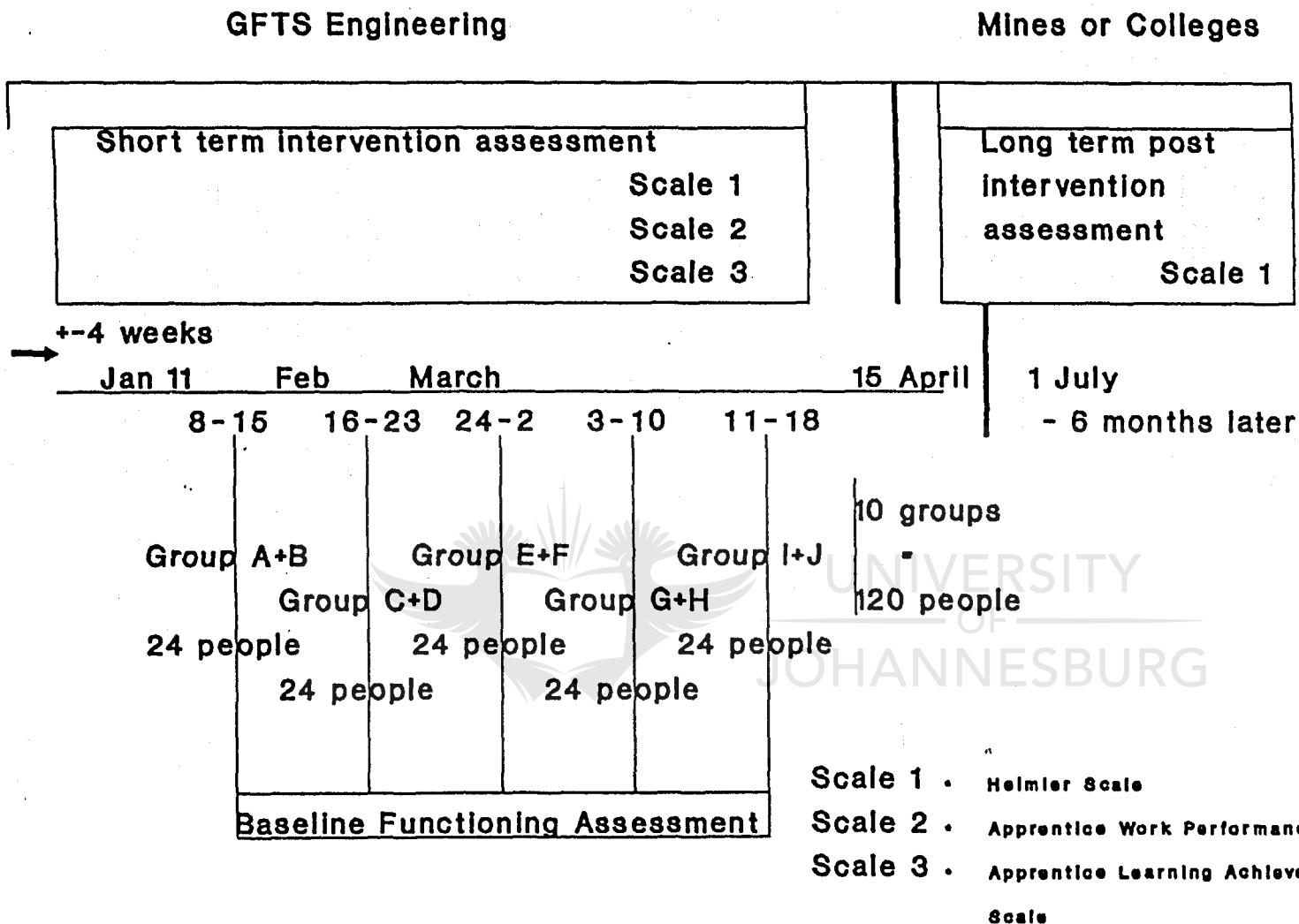


Table 1.5 Diagramatic representation of research methodology

In general it may be summed up holistically to say that in the USA companies not investing in a wholesome human development strategy are the exception.

1.6.4 The Sample

(1) Preliminary Research

231 participants were asked to determine the applicability of the Lifestyle content to their lives as well as indicate their perception of presenter effectiveness.

(2) Main Research

120 participants attended a Lifestyle programme of which 80 finally became a viable sample.

(3) Currently

Of interest is the fact that +35 trainers exist and over 1750 employees have been through the programme up to date.

Currently it is running at Goldfields Training Services (Westonaria), Luipaardsvlei (Krugersdorp), James Park, Collieries Training College (Witbank) and upon request from the 7 Chamber of Mines EAP Centres for Human Development (Johannesburg, Westonaria, Carletonville, Klerksdorp, Welkom, Witbank-Evander, Rustenburg).

1.7 Limitations of the Study

During the process of this research project certain inherent limitations became apparent.

These are mentioned and discussed below.

- Inconsistent presenter impact: The person presenting the Lifestyle course is simultaneously the strongest and weakest link in the programme. The content as it stands alone is only effective to a point, thereafter the presenter him/herself depending on his/her personality profile, sensitivity, training efficiency can limit or enhance programme effectiveness.
- Learning and working impact has not been evaluated in the long term. It was not feasible within the time and practical limitations of this research project to monitor these two areas for the apprentices concerned. As such the impact long term on these life areas remains unknown.
- Limited S A literature is available. The researcher was literally at times unable to find pertinent literature which referred directly to her field of interest. As such there is much reliance on the Carkhuff literature and American based research.
- The assessment done is limited to apprentices in the mining industry. Through experience the researcher is aware that the applicability of the programme extends to many groups of persons. Within the present parameters of the study generalizations are limited.
- The scales were administered by the three trainers; as such subjective variables may have affected the final research result. Only one out of three scales i.e. the Heimler scale has been validated. The Learning Achievement and Work Performance scales are used as a matter of routine by instructors in apprentice training.

- The promotion of the researcher out of the position of direct Lifestyle co-ordinator for the Chamber of Mines indirectly is a limitation. The researcher in the latter phase of the research had to rely on second hand information as her new job repertoire placed her beyond direct contact with the Lifestyle programme.
- The programme evaluation study methodology utilised requires continued and in depth research to validate the indicated findings of the present study.
- No control group was used thereby limiting the spectrum of conclusions which may be drawn from the research.
- A case can be made generally in respect of the cost-effectiveness of wellness programmes however a simplistic and accepted accounting formula remains elusive.

1.8 Clarification of Concepts

For the sake of clarity a number of concepts used throughout the dissertation will be clarified.

Lifestyle

An educational and life skills training programme made available to employees to improve their human skills and equip them to prevent and to manage directly personal problems they may experience in their daily living, learning and working life dimensions. In the remainder of this thesis, the Lifestyle programme will also be referred to as Lifestyle!

Life Skills Training

A programme designed for apprentices - learner officials and

graduates of all races to be presented experientially over a period of 6 days. Areas covered are a person's physical emotional, interpersonal, intellectual dimensions and indirectly the self concept, value system and spiritual conceptualization.

Presenter

A professional or non-professional person selected and trained in counselling skills, presentation techniques and lifestyle content with a view to effectively presenting the Lifestyle programme.

GFTS

Goldfields Training Services based in Glenharvie.

James Park

Goldfields Training Centre at Luipaardsvlei Krugersdorp.

COM

Chamber of Mines.

EAP

Employee Assistance Programme

Living

A person's social sphere covering predominantly interpersonal relationships.

Learning

A persons ability to assimilate, conceptualize and implement knowledge and skills in a comprehensive manner.

Working

That life dimension where people perform jobs productively with a view to being compensated therefore.

Effective Presentation

A 3 day course enabling presenters to transform knowledge into skills thereby making the knowledge transferable. Planning and presenting lessons in a comprehensive stimulating manner is an integral component of the course content.

Counselling

A programme designed to sensitize presenters to the interpersonal communication processes of attending to, responding, personalizing and initiating action with others.

Prevention

Equipping people with a broad spectrum of life skills thereby empowering them to respond positively when stimulated to do so. A pro-active measure which ensures that a specific undesired condition does not occur.

Development

Intervening timeously with a view to broadening peoples' response repertoires.

Skills

Practical step by step procedures, when if followed will lead to the accomplishment of a set objective.

Carkhuff Model

People, data and things stimulate people to respond continuously. Depending on their ability to process these stimuli, and the depth of their response repertoire, their ability to choose to respond positively, more often, will be profound.

Salutogenesis

A term coined by Antonovsky (1979) meaning; "Originating from a health orientated perspective." The salutogenesis paradigm provides a restructuring of one's perception and ways of thinking about people, as well as new practical approaches to people in context and to studying them.

Programme

A course where life content or knowledge has been transformed into transferable, teachable skill objectives and skills.

SOC

Sense of coherence.

GRR

Generalised resistance resources.

1.9 Summary

The orientation and introductory chapter to this research project, covers the origins of the field of interest both practically and from the theoretical perspectives of salutogenesis, ecology, health promotion programmes and skills training. The parameters of the study are explored in respect of its aims, research domain, research questions, methodology and clarification of concepts.

1.10 Presentation

In order to follow both the personal and professional development, and operationalized implementation of the programme, the flow of the thesis has been dictated in accordance with the following structure.

First R R Carkhuff and his mission is explained.

Secondly his comprehensive model and format of systematic thinking needs elucidation. Resounding investigations have been done on the latter and an exposé of these is given.

Promoting wellness in a corporate S A environment precedes the implementation and evaluation of the research.

The confirmation of the applicability of Carkhuffs model for human processing in a S A corporate context becomes unquestioningly evident.

The study material is thus systematically presented in the following manner:

Chapter 1 Introduction and Orientation

Chapter 2 R R Carkhuff The Man and His Mission

Chapter 3 Carkhuff's Measurable Model for Human Processing

Chapter 4 Promoting Wellness

Chapter 5 Corporate Wellness

Chapter 6 Presentation and Analysis of Empirical Data

Chapter 7 Conclusions and Recommendations

CHAPTER II

R R CARKHUFF - THE MAN AND HIS MISSION

2.1 Introduction

Robert Carkhuff's models influenced the researcher's thinking over a period of years. His concepts, programme development and teaching skills equipped and inspired the researcher. The integration of his works were the catalyst which transformed her from a degreed person who knew a lot to one who was able to create and impart to others skills enabling them to more purposefully manage and enrich their lives. His phases of development are elucidated in Table 2.1. Each of these phases are then detailed. The relevance hereof is most pertinent in that the cornerstones upon which the Lifestyle programme are based are detailed sequentially. Namely, the phases of processing, interpersonal skills, teaching and helping skills, culminating in his vision of a productive community. This is a vision which the researcher shares.

Carkhuff has left an indelible mark on the helping professions in shifting them to a skills honed helping and psychoeducational approach. Moreover, his works are accounted for in numerous research studies, some of which are briefly alluded to in this chapter.

Dr Berenson, Director, Centre for Human Resource Development, American International College has done a comprehensive elucidation of Robert R Carkhuff - Helper. Andrew H Griffen Jnr D Ed., Executive Director, Georgia Association of educators reviewed six stages of Robert R Carkhuff's Development.

These two works Berenson (1990) and Griffin (1990) are used as a comprehensive base for the exposé on this man's life.

Carkhuff is one of the most-referenced counselling psychologists

Heppner and Rogers, 1982 in Berenson 1990). According to the Institute for Scientific Information, he ranked among the most-cited social scientists of our time, a list which includes many historical figures such as Dewey, Freud, Marx, Piaget, Rogers and Skinner (Garfield, 1978 in Berenson 1990).

Carkhuff is also author of three of the most referenced social science texts according to the Institute for Scientific Information (Garfield, 1978). He has received many honours and international recognition. Recently, an entire issue of the journal, "Education," was devoted to Carkhuff as a "Leader in Human Resource Development" (Aspy and Aspy, 1986).

Carkhuff is fond of telling the story of his entering Rogers' projects at the Wisconsin Psychiatric Institute. As a new Ph.D., he took four groups in the group therapy project, two with chronic Schizophrenics and two with adolescent delinquents. When he discovered from the research that his cases were the highest-rated on process and outcome among all counsellors and therapists in the design, including some of the most famous leaders of the time, he concluded the following: "if I'm rated so highly - and I'm just a beginner who knows very little - then I'd better look to myself to learn a lot about how to help people."

This anecdote characterizes Carkhuff and the way he lives his life, as a helper and learner, as humanist and scientist (Berenson, 1972). To be sure, Carkhuff has been the most-referenced counselling psychologist over the past two decades. However, while his impact has been extraordinary in numerous areas, he has not received the recognition of contributors who have offered far less. Perhaps this is because he left the ranks of traditional academia to enter the

community in 1968, thus producing fewer Ph.D.'s to promote his work in the usual academic style. The people who have worked with him, Ph.D.'s and community citizens alike - have instead become embedded in the very fabric of American society. In any event, his contributions since leaving academic psychology and the helping professions are little known outside of the areas in which he has had impact: education, the community, government and business.

To make these contributions available to counselling and psychology, Berenson has organized Carkhuff's major contributions in a developmental manner. "I personally believe these contributions can and will change the course of civilization." (Berenson, 1990).

2.2 Lasting Contributions

Carkhuff's contributions to helping, community development, education, government and business are extraordinary. Berenson has summarized ten which he believes to be of greatest lasting and heuristic value.

Griffin, on the other hand, divides his cumulative development into six distinct stages, each of about five years emphasis. Carkhuff has lived his life developmentally and cumulatively, with each stage incorporating the contributions of the previous stages.

The two perceptions have been interwoven for purposes of clarity they have been elucidated in Table 2.1.

Table 2.1: Stages of Carkhuff's Development

BERENSON	STAGES	GRIFFIN	GOALS	MAJOR LASTING CONTRIBUTIONS
1) First systematic Thinking Technology	I	<u>HELPING</u> (1963 - Present)	Helping Effectiveness and Human Development	<u>TECHNOLOGIES</u> - Helping Skills <u>SYSTEMS</u> - Psychoeducational Systems <u>MODELS</u> - HRD Models
2) First systematic Interpersonal Skills Technology	II	<u>COMMUNITY</u> (1968 - Present)	Human & Community Resource Development	<u>TECHNOLOGIES</u> - Living, Learning & Working Skills <u>SYSTEMS</u> - HRD Training Systems <u>MODELS</u> - Community Development Models
3) First systematic Teaching Skills	III	<u>EDUCATION</u> (1973 - Present)	Human & Information Capital Development	<u>TECHNOLOGIES</u> - Teaching & Learning Skills <u>SYSTEMS</u> - Instructional Systems Design <u>MODELS</u> - Educational Development Models
4) First systematic Career Development Skills Technologies				
5) Individual Human Resource Development				
6) Information Resource Development				

BERENSON	STAGES	GRIFFIN	GOALS	MAJOR LASTING CONTRIBUTIONS
7) Human Processing	IV	<u>GOVERNMENT</u> (1978 - Present)	Human & Organizational Productivity	<u>TECHNOLOGIES</u> - Management and Delivery Skills
8) Organizational Productivity				<u>SYSTEMS</u> - Intervention Systems Design
				<u>MODELS</u> - Organizational Productivity Models
9) The New Capitalism	V	<u>BUSINESS & INDUSTRY</u> (1983 - Present)	Producer & Consumer Productivity & Profitability	<u>TECHNOLOGIES</u> - Thinking & Interpersonal Processing Skills
				<u>SYSTEMS</u> - Corporate Change Systems
				<u>MODELS</u> - Economic Models
10) Productive World Community	VI	<u>WORLD DEVELOPMENT & PEACE</u>	Creation & Distribution of Wealth	<u>PROJECTED CONTRIBUTIONS</u> - The Advancement of Civilization

2.2.1 The First Systematic Thinking Skills Technologies (Helping)

Carkhuff's enduring focus since receiving his Ph.D. in 1963 has been human processing, or how people think individually and process interpersonally. The cornerstone of all of his programmes has been these thinking skills technologies. For communication purposes, Carkhuff summarizes these processing skills in terms of exploring, understanding and acting (See Table 2.2). Commonly known as the E-U-A model, human processing, or thinking, drives all of Carkhuff's systems. He has now developed systematic thinking skills models for transforming the raw data of human experience into productive information which people can act upon (Carkhuff, 1986). Carkhuff has also differentiated thinking skills from learning and learning-to-learn skills which prepare people for thinking. Carkhuff characterizes these processing skills models as S-P-R, with a human processor systematically transforming stimulus input into response output. For Carkhuff, the S-P-R model is not simply another S-O-R model in which the human organism selects from a repertoire of conditioned S-R responses those responses most appropriate to the discriminated stimuli. S-P-R is instead a **creative processing** model in which the processor creates new responses that the stimuli were not calculated to elicit.

2.2.2 The First Systematic Interpersonal Skills Technology - (Community)

Carkhuff discovered and developed the first systematic interpersonal skills technologies shortly after working with Rogers and Traux. He saw the conditions of therapeutic change as constituting the core of all helping and human relationships rather than simply proving the efficacy of non-directive therapy.

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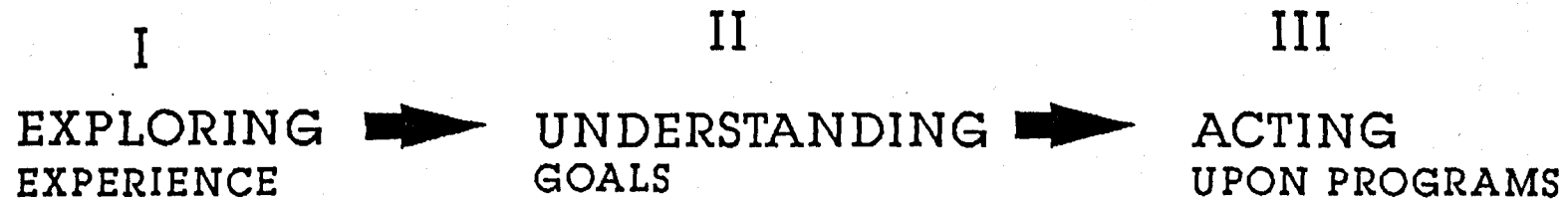


TABLE 2.2 PHASES OF PROCESSING

Always an eclectic - "all scientists are systematically eclectic," he would say - Carkhuff and his associates went on to define, research, and then factor analyze the core conditions of helping and human relationships; (Berenson and Carkhuff, 1967). He summarized these in what has been popularly termed "the helping model," commonly known as A-R-P-I: attending, responding, personalizing, initiating (Carkhuff, 1972) (See Table 2.3). There have been many attempts to commercially imitate this technology, but it remains the most productive, the most comprehensive and the most elegant of models. As may be noted, the interpersonal skills model is driven by the basic E-U-A processing skills. This means that the function of the interpersonal skills are guided by the helpee's processing movement through exploring, understanding and acting, and vice versa in a truly interdependent relationship. In other words, the helper is a facilitator of processing - no more or less!

In his words, "All effective helpers are client-centred! Few are non-directive, except in the initial phases of helping."

In 1983, Carkhuff summarized the research conducted on interpersonal-based models (See Table 2.4). As may be noted, Carkhuff's mega-design of 164 studies of nearly 160 000 recipients includes researching real-life outcomes in living, learning and working areas for both the helpees of trained helpers and directly-trained helpees, themselves. Thus, his research has evolved fully through skills acquisition, application, and transfer, to observable and measurable outcomes (a process for which he has also developed a technology). Overall, the research indicates that systematic training in interpersonal skills (IPS) yields success rates in the 90% range.

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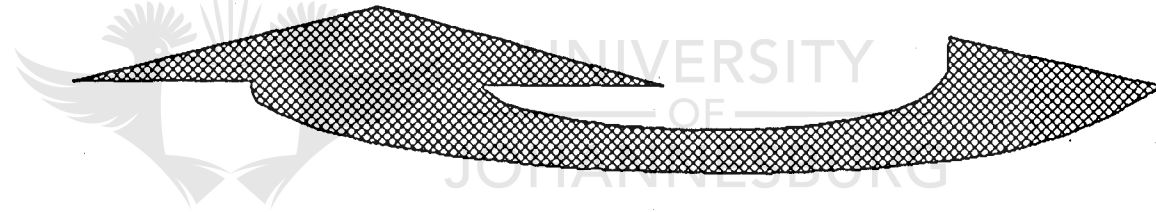
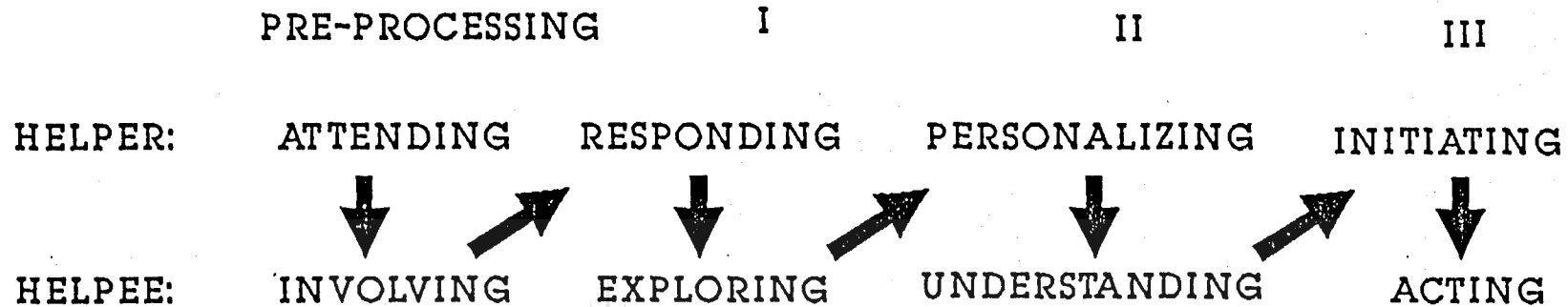


TABLE 2.3 PHASES OF INTERPERSONAL SKILLS

Table 2.4: Summary Index of Percentages of Predominantly Positive Results of IPS Studies and Indices of Helpee Living, Learning and Working Outcomes

OUTCOMES	HELPERS	HELPEES	OUTCOMES
LIVING (Table 2)			LIVING (Table 6)
Studies (N=22)	91% Positive	91% Positive	Studies (N=35)
Indices (N=117)	83% Positive	84% Positive	Indices (N=128)
LEARNING (Tables 3&4)			LEARNING (Table 7)
Studies (N=32)	97% Positive	100% Positive	Studies (N=26)
Indices (N=261)	92% Positive	99% Positive	Indices (N=78)
WORKING (Table 5)			WORKING (Table 8)
Studies (N=22)	100% Positive	100% Positive	Studies (N=27)
Indices (N=83)	96% Positive	98% Positive	Indices (N=117)
SUBTOTAL			SUBTOTAL
Studies (N=76)	96% Positive	96% Positive	Studies (N=88)
Indices (N=461)	92% Positive	92% Positive	Indices (N=323)
GRAND TOTAL			
Studies (N=164)	96% Positive		
Indices (N=784)	92% Positive		

This contrasts vividly with the lasting success rates of traditional rehabilitation of 20%: of the initial two-thirds who get "better," approximately three-fourths get "worse" (Anthony, 1979). Carkhuff explains Anthony's results with his "response replacements" theory.

Typically counselling and rehabilitation programmes replace one set of dysfunctional responses with another set of responses. Recidivism occurs with the inability of the new set of responses to accommodate the changing environmental conditions. In contrast, Carkhuff's "teaching as treatment" approach is to expand the helpees' responses and to teach the generic processing skills which enable them to create their own responses to the changing conditions of their environment (Carkhuff and Berenson, 1976). In short, Carkhuff has had extraordinary impact upon the direction of counselling psychology: influencing it from "response replacement" to "response expanding" and finally to "response generating" (Carkhuff's terms)."

Numerous demonstrations have replicated Carkhuff's helping, training and psychoeducational models on larger and grander scales. Anthony (1979) and his associates have positively impacted thousands of helpers and helpees in the research and Training Centre for Psychiatric Rehabilitation. Bierman and his associates (1976) have made path-finding demonstrations of a human service-oriented community involving hundreds of parents and their children. Major works which summarize the helping stage included the classics, *Toward Effective Counselling and Therapy* (1967 with C B Traux), *Beyond Counselling and Therapy* (1967 with B G Berenson), and the best-selling helping text of all time, *The Art of Helping*, (1974) now in its sixth edition.

Extensions with others included Perenson's Sources of Gain in Counselling and Psychotherapy (1967) and Confrontation in Counselling and Life (1971). Together, the original works and reviews indicate that Carkhuff has left an indelible mark on the helping professions in shifting them to skills-based helping and psychoeducational approaches. Carkhuff envisions the future of helping to be in the processing skills which empower both helpers and helpees: "Helpers as well as helpees need the processing skills to constantly generate new and more productive responses."

2.2.3 The First Systematic Teaching Skills Technologies - (Education)

Carkhuff views teaching as one of the most complex set of human activities. The teacher is first a helper, facilitating the learners' movement through processing by entering the learners' frames of reference. Simultaneously, the teacher is also an expert in processing from the external frame of reference of the content. Carkhuff and his associates have converged these highly interactive skills upon the learners' processing (1976, 1977, 1981, 1984) (See Table 2.5). As may be noted, content preparation and attending to the learners are pre-learning activities calculated to involve the learners. Content preparation is, itself, a complex set of processing tasks derived from the goals, tasks and objectives of instructional design. Content preparation emphasizes developing the content: facts, concepts, principles, objectives, programmes. Content preparation involves planning the delivery or lesson in phases: reviewing contingency skills, overviewing skill applications, presenting skill steps, exercising skill steps, summarizing skills performance.

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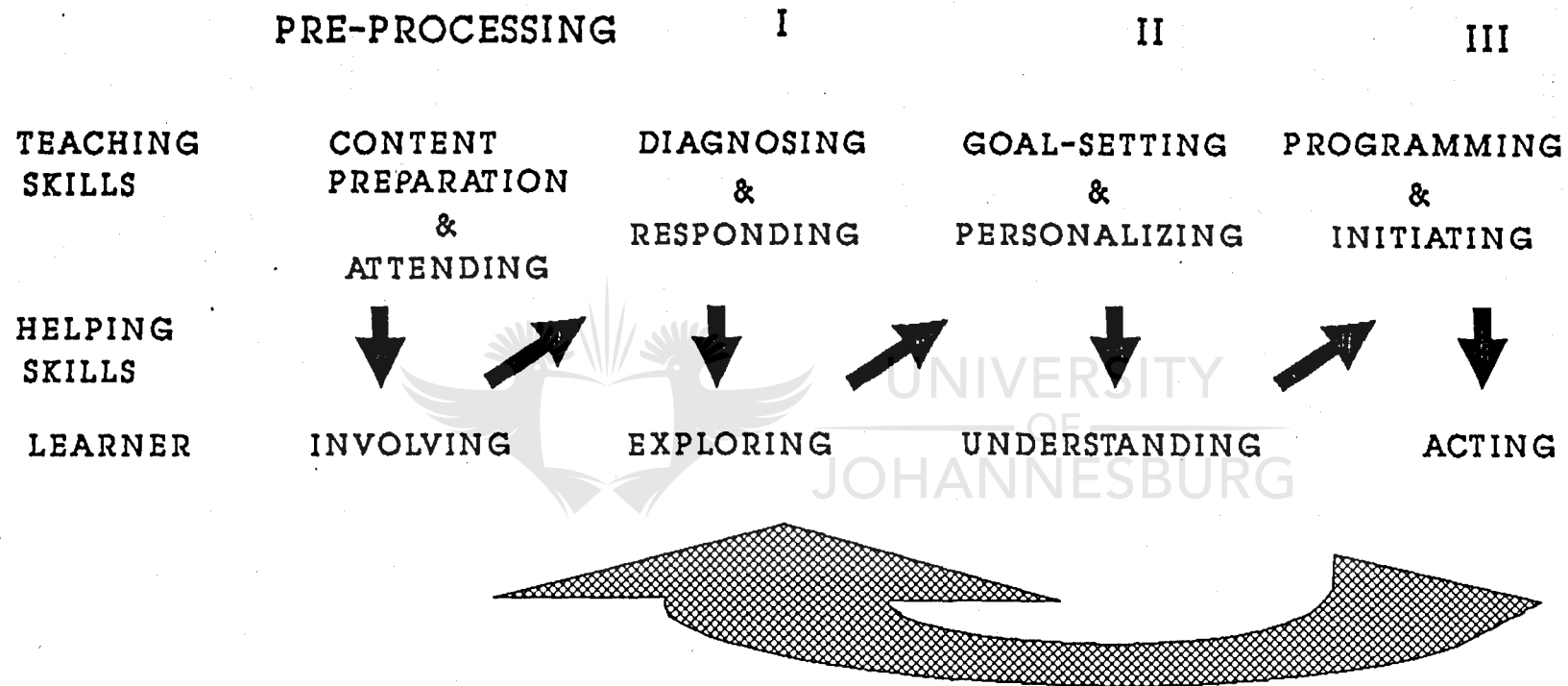


TABLE 2.5 TEACHING & HELPING SKILLS

Content preparation also includes the teaching methods which occur within each of these phases: didactic or telling methods, modelling or showing methods, experiential or doing methods, repetition, acquisition, application and transfer methods. After preparing the content, the teacher makes the delivery: simultaneously responding to the learners' frames of reference while diagnosing them from the external frame of reference of the content; simultaneously personalizing and objectifying their learning goals; simultaneously initiating and individualizing the learning programmes. Carkhuff views the productive teacher as a "learning manager" who spends 20% of teaching time "telling" and "showing" and 80% of the time managing the learners' "doing, repeating, and applying." (Carkhuff 1983) Ultimately, with thinking skills training, Carkhuff views teaching and learning as an interdependent process in which content is merely a series of changing templates to be processed jointly by teacher and learners.

Carkhuff's greatest commitment has always been to education. He is fond of saying: "Education is the answer! What is the question?"

Over time, these human relation skills, teaching skills and course development skills evolved as described in Carkhuff's summary research on Interpersonal Skills and Human Productivity (1983). Basically, the human relations model has evolved from attending, responding, personalizing and initiating to "Get, Give, Merge and Co." In turn, the teaching model evolved from content preparation, diagnosing, goal-setting and programming to instructional systems design: where driven by goals, the contextual tasks are analyzed, the skills objectives specified, the content developed, the delivery planned, and the delivery made.

The career development model evolved from career curriculum integration, expanding, narrowing and planning to career productivity, including placement, promotion and performance. All of this work was based upon Carkhuff's basic learning model: exploring where we are in relation to our experience; understanding our goals for where we want or need to be; acting to get from where we are to our goals. Research in the teaching and learning area yielded a success rate in the 95% range over 58 studies of nearly 85 000 learners (Carkhuff 1983). Many other studies of the Carkhuff educational models in action abound. For example, Aspy and his associates (1977, 1984, 1986) demonstrated positive results in ten major studies of the effects of interpersonal-based teaching skills upon the following indices of learner achievement: student absenteeism, grade point average (GPA), intelligence quotient (IQ), achievement, self-concept. In one of the largest demonstrations of its kind, Rocha (Aspy and Aspy, 1984) trained several thousand members of the school staff and community and found positive effects upon 50 000 Brazilian students on a variety of indices: student enrolment, drop-outs, absenteeism, involvement, GPA, clinical referrals, involvement, culturalization, socialization, talent utilization, recreation, malnourishment, staff integration, decision-making and teacher transfers; parent participation, and community relations, school crises and school achievement. Major works by Carkhuff during this education stage include "The Skills of Teaching" (1977-1979) series, "The Skilled Teacher" (1981) and the two-volume "The Productive Teacher" (1984). Major extensions by others include Aspy's "Kids Don't Learn From People They Don't Like" (1978), "The Third Century in American Education" (1984), "This is School" (1986), and "Carkhuff - Leader in Human Resource Development" (1986), along with Becker's "Toward Excellence in Education" (1978) and Boman's "Education - A Human Technology" (1980) a product of Phi Delta Kappa's 75th Anniversary Celebration.

Together, these reviews point toward Carkhuff's learning and thinking skills as the core of the educational experience. Carkhuff envisions the future of education beyond the "bricks and mortar" of the schools: community-based experiences in which the constantly changing content of our information environment is processed by learners and teachers alike.

Carkhuff is given to say, "There is no lasting content - only processing for increasingly productive purposes."

2.2.4 The First Systematic Career Development Skills Technologies - (Education)

Perhaps the least known contribution of Carkhuff is his career development and working skills technologies. Beginning in 1968, Carkhuff worked with IPM to rehabilitate their path-finding, computer-based career development programme called "Educational and Career Exploration System" or ECES. Following IPM's failure to accomplish any results as an information dissemination system, Carkhuff "put the person in the programme" by incorporating the user's operationally defined values in making career decisions in interaction with job and other requirements. This produced the first truly interactive software programme, then dubbed by Super as "the programme of the 80's." This comment has been validated many times over by the incorporation of the ECES' interactional strategies into all productive computer-based programmes in the 1980's.

Carkhuff and his associates went on to develop other human-based career development programmes such as the award-winning "Career Achievement Skills Training" or CAST programme of Pontiac, Michigan (See Table 2.6).

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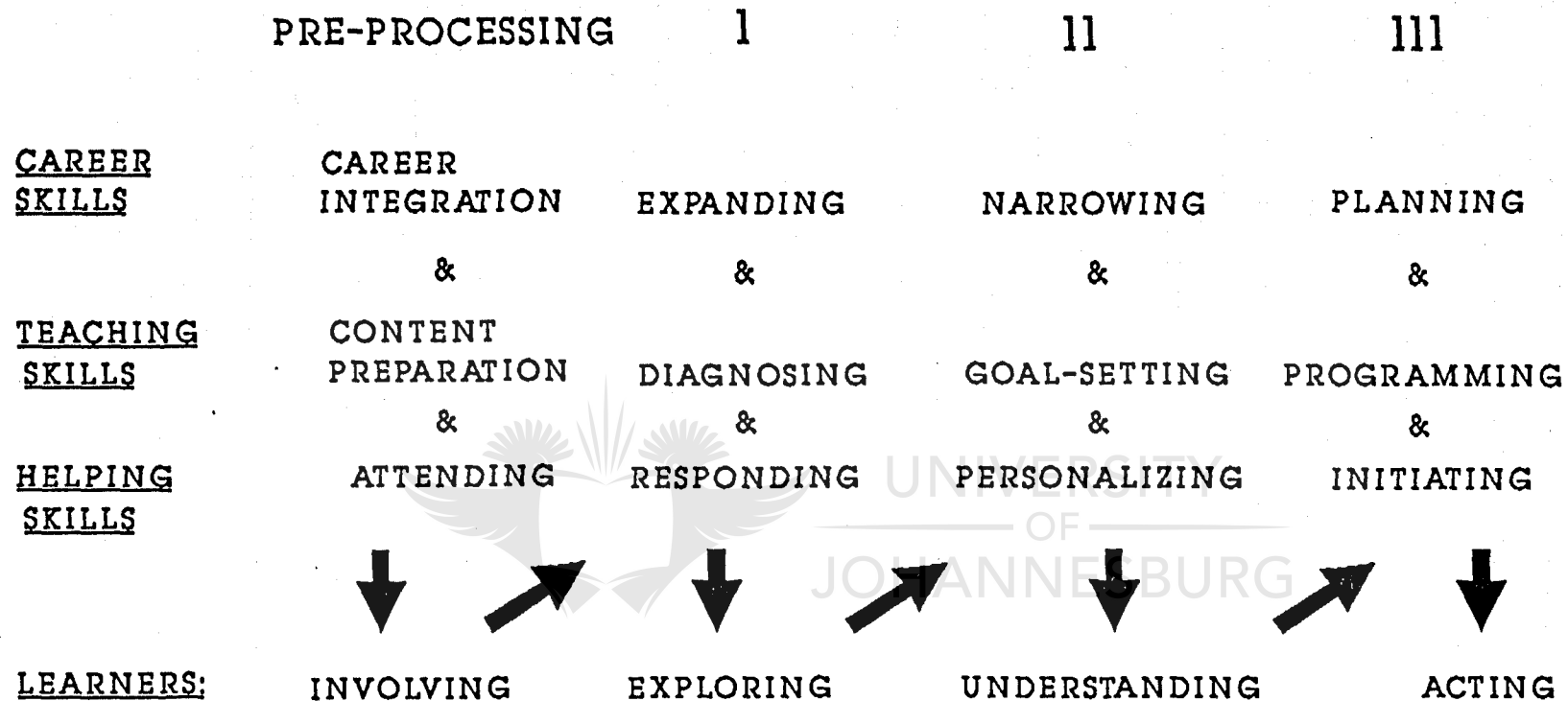


TABLE 2.6 CAREER, TEACHING & HELPING SKILLS

Basically, the career skills technology followed the model of teaching: along with content preparation, the teacher or counsellor integrated career transfers to and from the curriculum and the environment; along with responding and diagnosing, the teacher worked with the learners to expand the helpees awareness of the different areas and levels of career opportunities; along with personalizing and goal-setting, the teacher worked with the learners to narrow the career options based upon learner values and job requirements; along with initiating and programming, the teacher worked with the learners to develop their career plans (Carkhuff and Friel, 1974; Carkhuff, Pierce and Friel, 1978). Carkhuff sees the career and working skills as developmentally and cumulatively incorporating the living and learning skills and this is reflected in his model. In short, for Carkhuff, productive career development and work reflect a higher level of human values and, thus, maturity.

It is to the writer's regret that she was not familiar with the systematic career development skills at the time of her research and no elucidation in this respect is evident in this dissertation.

2.2.5 The First Multidimensional Models For Individual Human Resource Development - (Education)

Carkhuff's work in developing processing skills and living, learning and working skills technologies culminated in his models for Human Resource Development (HRD). Using his own processing models, Carkhuff developed the components, functions and processes of HRD (Carkhuff, 1981) (See Table 2.7). The basic components of the model are physical, emotional and intellectual resources. The basic functions are living, learning and working. The basic processes are incorporated from processing: exploring, understanding, acting.

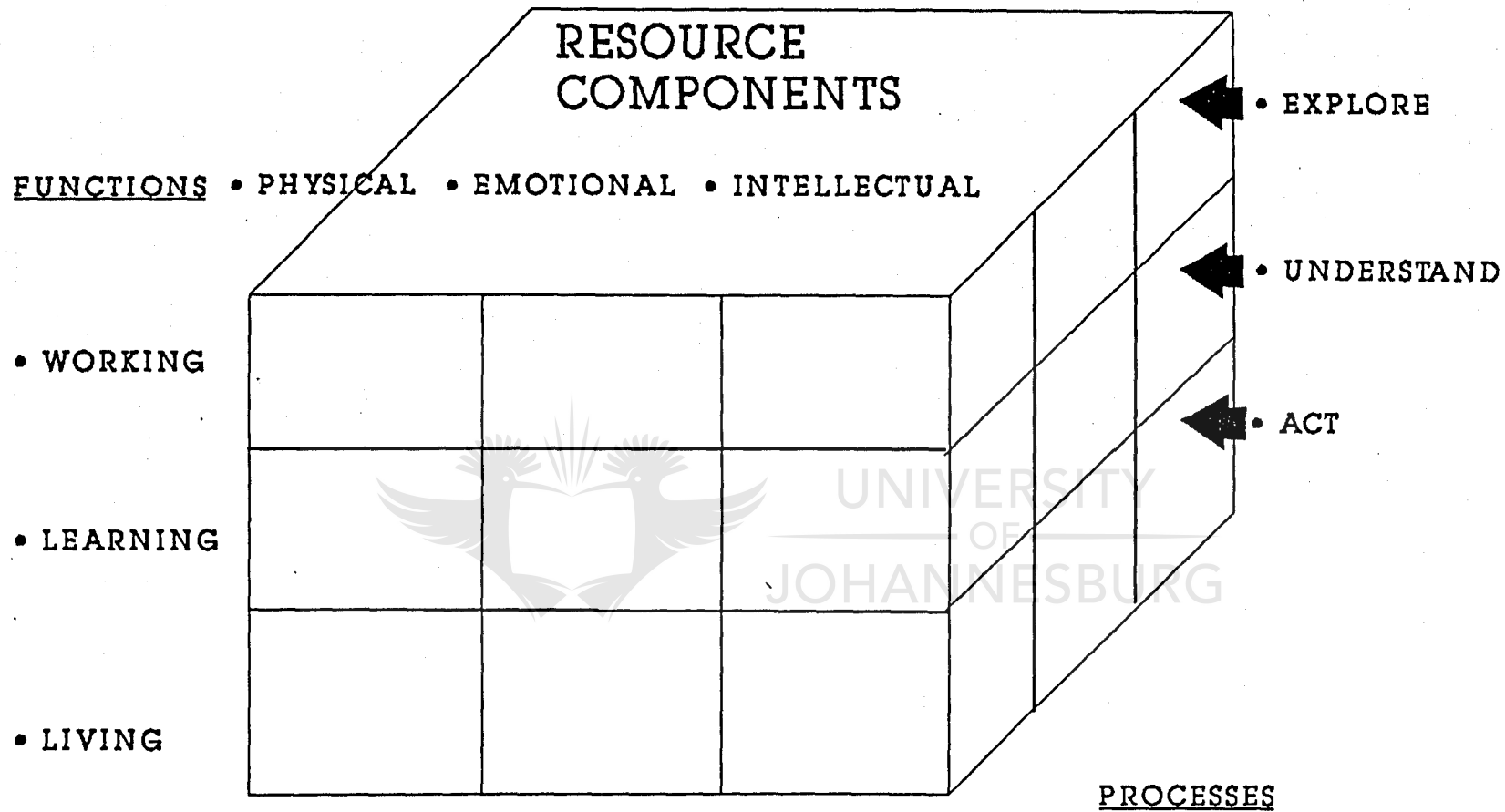


TABLE 2.7 DIMENSIONS OF HUMAN RESOURCE DEVELOPMENT

This model is the first operational model for individual human development. Carkhuff offers scales for measuring the levels of the following dimensions: physical energy, emotional motivation, social-interpersonal skills, intellectual substance, intellectual processing, intellectual teaching and communication. He concludes with a formula for HRD: $HRD = P^2 I^3$. Clearly, Carkhuff sees the power in HRD as intellectual. In his terms, **"The physical is energizing; the emotional, catalyzing; and the intellectual, actualizing."**

Just as the basic processing skills establish the base for the living, learning and working skills technologies, so does the HRD model provide the basic building block for enabling humans in their various contexts to become productive: "To actualize the human condition - especially our intellects - is to realize our true humanity" (Carkhuff, 1994).

2.2.6 The First Multidimensional Models For Information Resource Development - (Education)

The next basic model was a model for the information resources which the human resources were processing. Carkhuff's information resource development or IRD models included the basic components, functions and processes of information resource development (Carkhuff, 1983, 1984) (See Table 2.8). The components of IRD were drawn from the basic dimensions of content: knowledge, including facts, concepts and principles; objectives, emphasizing operations; and programmes, emphasizing tasks.

The functions of IRD were drawn from science: describing or providing a data base; **predicting or projecting; impacting or influencing**, rather than simply controlling. The processes were again drawn from the processing skills: analyzing phenomena; synthesizing new phenomena; operationalizing the achievement of new phenomena.

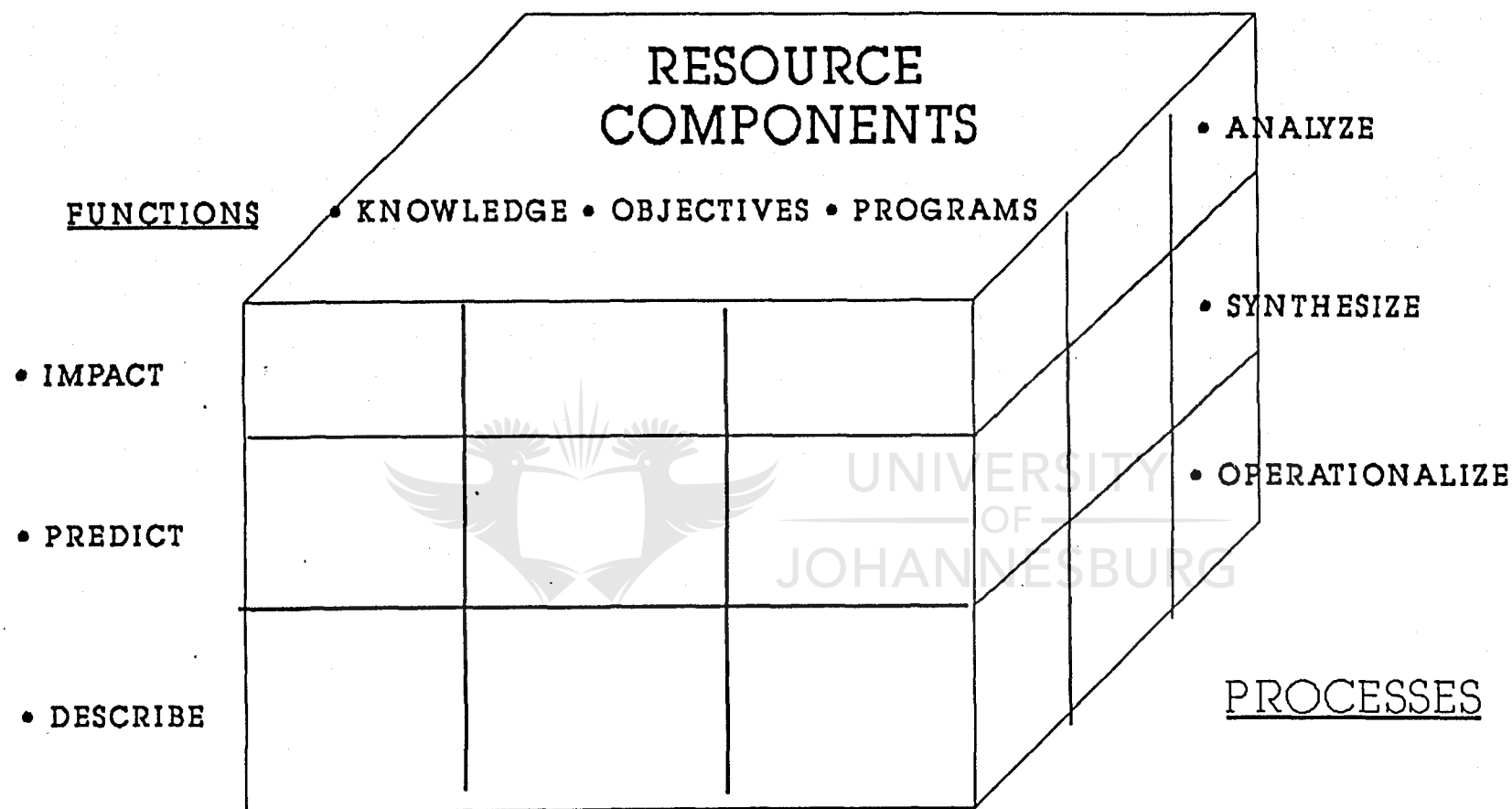


TABLE 2.8 DIMENSIONS OF INFORMATION RESOURCE DEVELOPMENT

Like the HRD models, the IRD models emphasize the processing which enables the ideational components to discharge the interactional functions. In Carkhuff's view, IRD is equal in importance to HRD in the Age of Information. Indeed, he sees them in a synergistic relationship where each contributes to the other's growth. This component will briefly be touched on in the chapter on Corporate Wellness as the writer perceives it to be the methodology of the future in terms of marketing the concept wellness in South Africa.

2.2.7 The First Multidimensional Models For Human Processing - (Education And Implementing)

It is this synergy between HRD and IRD that is the basis of Carkhuff's models of human processing (Carkhuff, 1983, 1984, 1986). For Carkhuff, the HRD, IRD interaction transforms human information resources into human and information capital (See Table 2.9). Defining capital as "most important," Carkhuff defines human capital in terms of creating new ideas. In turn he views information capital in terms of operational or productive information. When human and information capital interact synergistically, each "capitalizes" upon the other and becomes still "more important." For Carkhuff, human processing is the most important model of all. It is a product of human and information resource development and creator of new human and information capital. It yields the processing skills directly, and the living, learning and working skills indirectly. It provides the enabling mechanism for organizational, economic and community productivity. In short, human processing is both the means and ends of the human condition. Elevated, it yields a superior condition. Degenerated, it yields an inferior condition.

HRD

IRD

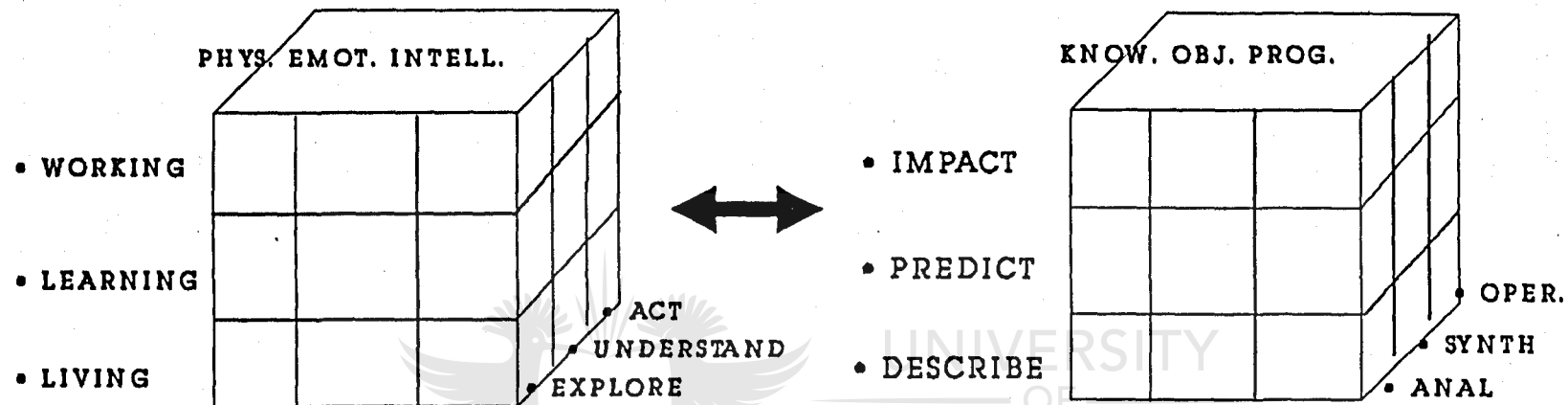


TABLE 2.9 THE SYNERGISTIC INTERACTION OF HUMAN & INFORMATION RESOURCE DEVELOPMENT (HRD, IRD) IN HUMAN PROCESSING

In Carkhuff's terms, "Human processing is an index of our level of maturity and, thus, our humanity" (Carkhuff, 1984).

The latter model is considered to be a futuristic and idealistic component of Lifestyle development - a preventative, developmental or pro-active commitment to human capital in South Africa. As such, a theoretical exposé will be found in the chapter on Corporate Wellness in this dissertation.

2.2.8 The First Operational Models of Organizational Productivity (Government)

Carkhuff addresses organizational productivity as one of mankind's functions. He views human processing as the vehicle for all human performance and productivity (Carkhuff, 1983, 1984, 1986). Thus, he sees the sources of organizational productivity in terms of human processing (See Table 2.10). Within each component, the sources of productivity are individual, unit and organizational. Within each of these sub-components, the sources of performance are human processing: individual, interpersonal, organizational processing skills. We can see these areas and levels of processing most vividly at the various levels within the organization (See Table 2.11). Thus, the executive processes values and data into missions and strategies. In turn, the manager processes missions and strategies and relevant data into goals and systems. Likewise, the supervisor transforms goals and systems and relevant data into objectives and programmes. Finally, the delivery personnel process objectives, programmes and data to perform the tasks, produce the products, and deliver the services. Carkhuff elaborates in operational detail how this processing is made productive. For Carkhuff, human processing is the source of organizational productivity and beyond, of marketing productivity and profitability.

ORGANIZATIONAL COMPONENTS

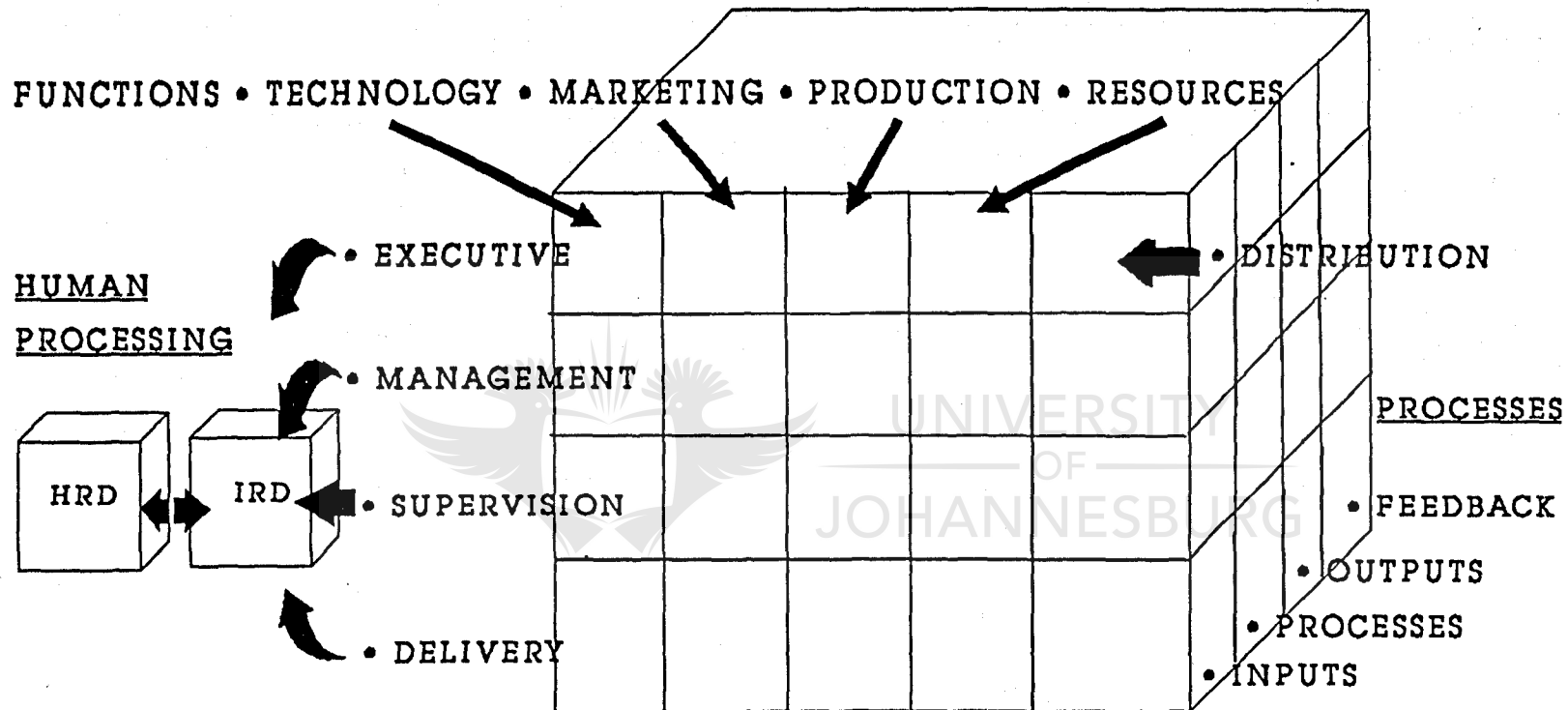


TABLE 2.10 THE HUMAN PROCESSING SOURCES OF ORGANIZATIONAL PRODUCTIVITY

AREAS OF PROCESSING OPERATIONS

LEVELS OF FUNCTIONING:

	• INDIVIDUAL	• INTERPERSONAL	• ORGANIZATIONAL
• EXECUTIVE	• CREATIVE THINKING	• INCLUSIVE LEADERSHIP	• POLICY MAKING
• MANAGEMENT	• SYSTEMS THINKING	• INTERPERSONAL MANAGEMENT	• SYSTEMS PLANNING
• SUPERVISION	• OPERATIONS THINKING	• INTERPERSONAL FACILITATING	• OPERATIONS PLANNING
• DELIVERY	• TECHNICAL THINKING	• INTERPERSONAL RELATING	• TASK PERFORMANCE

TABLE 2.11 AREAS AND LEVELS OF HUMAN PROCESSING

The above models provide a systematic and comprehensive profile for social scientists entering into organizations and as such form the basis for corporate marketing strategies.

Carkhuff's evolution to government was a natural extension to his community and educational commitment. In fact, it began with his move to Washington, D C to study with Jim Becker, Margaret Jones and Shirley McCune in the National Foundation for the Improvement of Education, the National Education Association's Research Foundation. During this stage, Carkhuff further refined his interpersonal processing skills models and developed his intervention systems designs for improving organizational productivity: consulting, training, installing, follow-up, supporting. For Carkhuff, productivity means improving effectiveness simultaneously with efficiency. Drawing upon an organizational productivity goal, then, Carkhuff designed the executive, management, supervisory and delivery skills programmes needed to become productive in any organization. In this context, Carkhuff and his associates made extensive demonstrations, with dramatic improvements in productivity (Carkhuff, 1983 and 1984).

For example, Pierce (Carkhuff, 1984) conducted interpersonal skills-based supervisory training programmes for an entire government agency and found significant cost-avoidance measures.

Banks and his associates (Carkhuff, 1983) trained another entire government department in Carkhuff skills and found significant improvement in individual task performance and agency work quantity and quality. These demonstrations and their products enabled his corporation, Human Technology, Inc. to be the top-rated government consulting agency by the Office of Training and Development, Office of Personnel Management.

Cumulatively, in 49 studies over 45 000 employees, over 95% of the employees demonstrated significant improvement in performance (Carkhuff, 1983). Numerous other studies based upon Carkhuff's models and technologies appear in the literature. Carkhuff's most important works of this phase are "The Sources of Human Productivity" (1983), "The Exemplar - The Exemplary Performer in the Age of Productivity" (1984), and "Human Processing and Human Productivity" (1986). Extensions with others include the "Psychology of Transition" by Berenson (1986), "Instructional Systems Design" by Fischer (1984), and "Training Delivery Skills" by Pierce (1984). Together, these reviews indicate that organizational productivity is a function of the productive thinking of the personnel.

Carkhuff envisions the future mission of government as empowering an enlightened citizenship through human information resource development: "The government should serve to define and empower the community mission of developing and sharing human and information capital."

2.2.9 New Economic Models For "The New Capitalism" - (Business And Industry)

Carkhuff's comprehensiveness in operationalizing human processing has led directly to his vision of new economic models. For Carkhuff, "The New Capitalism" is defined by human processing. Recognizing that human and information capital account for 85% of economic growth, Carkhuff (1988, 1988) has developed a vision of "The New Capitalism." In the old finance-based capitalizing system, financial, human and information resources were invested to produce products and services for the marketplace.

In Carkhuff's vision, financial capital is merely a catalyst: human and information capital outputs as well as upgraded products and services: the prime human and information capital are further invested in a marketing relationship with consumers which upgrades current and future products and services; prime human and information capital are also reinvested in the corporation to insure the future processing, productivity and profitability of the corporation. The critical component of "The New Capitalism" is the thinking skills centre which is embedded in the corporation and serves to produce human and information capital; the productive thinking environment which takes advantage of the human and information capital as sources of economic productivity growth, the thinking marketing relationship predicated upon the thinking environment of both producer and consumer (See Table 2.12). In Carkhuff's vision of "The New Capitalism", human and information capital in their processing relationship become both the means and ends of corporate productivity and profitability.

These models, systems and technologies have now been demonstrated in eleven private sector sites involving over 25 000 personnel. Numerous studies are assessing the effects of Carkhuff models and technologies on the business front. For example, the General Dynamics' studies of over 20 000 employees (Carkhuff, 1983, 1984) have demonstrated ROI's in the range of 30:1 over three year periods. In evaluating these studies, Carkhuff noted that with time the investments in processing yielded incrementally greater returns-on-investment. In other words, Carkhuff has demonstrated that if we educate and free people to think they will exceed our most optimistic expectations. These successes enabled Carkhuff's firm, Human Technology, Inc., to average nearly 100% growth per year during the 1980's.

THINKING
SKILLS
CENTRE



PRODUCTIVE
THINKING
ENVIRONMENT



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TABLE 2.12 THE MISSION IS TO CREATE A PRODUCTIVE THINKING
ENVIRONMENT AND
A THINKING MARKETING RELATIONSHIP

Carkhuff's major works during this era are "The Age of the New Capitalism" (1988) and "Empowering - The Creative Leader in the Age of the New Capitalism" (1988). The most important reviews of Carkhuff's work are by Berenson and they appear in the forewords of Carkhuff's books. These reviews indicate that developing human and information capital is the key to economic growth. Carkhuff envisions the future of business as a capitalizing process which produces increasingly higher levels of prime human and information capital along with the products and services which yield increasingly higher levels of financial capital.

Carkhuff has been quoted as saying, "The human and information capital by-products may be worth many times over the market value of the products and services they are dedicated to producing".

2.2.10 The First Inclusive Model For The Productive World Community - (World Development And Peace)

Lastly, Carkhuff's model for a productive world community may be his most lasting contribution. Building upon "The New Capitalism," Carkhuff (1990) has developed an operational vision of a productive world community. For Carkhuff, communities are brought together through commerce and communication between alternating producers and consumers (See Table 2.13). In this vision, the mission of the home is to prepare children to learn or to learn-how-to learn. In turn, the mission of education is learning-to-think. Science is an application of creative thinking while technology yields the operational and useful products of that thinking. Education, science and technology fuel the economic mission of business - productive thinking - which yields the products and services which enable commerce, communication and, finally community.

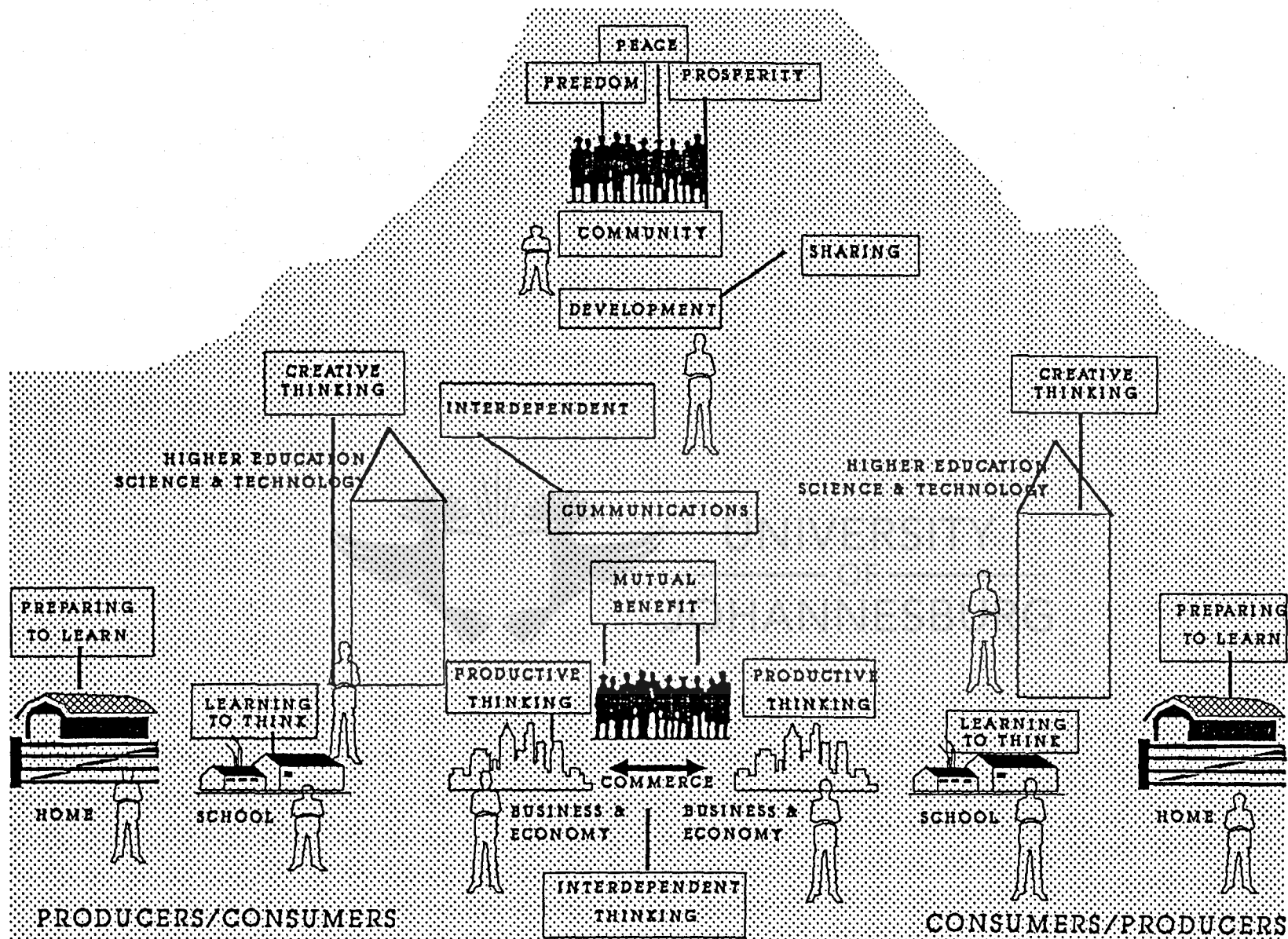


TABLE 2.13

THE PRODUCTIVE COMMUNITY

Spurred on by his concern for the disenfranchised and the success of pilot HRD programmes, Carkhuff moved into the community in 1968. Along with Dr Bernard G Berenson and Dr Andrew H Griffin, Carkhuff "treated" the entire community in dozens of initiatives involving thousands of people in the home, school and private and public sectors. The research from the community stage has been summarized in two of the most referenced social science texts, "Helping and Human Relations", Volumes I and II (1969), as well as the "Development of the Human Resources" (1971), and "Toward Actualizing Human Potential" (1981). Like the research in helping, it indicates an 80% - 90% success rate against an expected success rate of 10% - 20%. For example, Berenson, Carkhuff and Griffin are currently assessing the long term outcomes of the community programmes installed 20 years ago. Evidence of gainful employment is in the range of 85% versus expected rates of 15% for hundreds of unemployed persons. Numerous successful demonstrations based upon Carkhuff's community models and technologies have been made. Carkhuff, (1983) demonstrated constructive outcomes on a variety of indices at home, school and work: improvement in human relations and the resulting human development; improvements as in educational achievement and continuation: improvements in working placement and retention: reductions in home, school and community crises.

Moreover, it is the quality of the outcomes that is most noteworthy. Numbered in the ranks of the previously unemployed are graduates of schools like Harvard and MIT, community and business leaders of all kinds, including a member of the Board of Directors of a Fortune 500 firm, and a State Senator. In other community extensions, Collingwood and his associates (1978) demonstrated a 20% rate of recidivism for a youth diversion programme based upon Carkhuff's models versus a base rate of 70% for more than 10 000 juvenile delinquents over a six year period.

Major extensions with others include Berenson's book on "The Militant Humanism of Robert Carkhuff" (1972), and Devine's "Cry Twice" (1972). These reviews suggest that Carkhuff's work provides a skills-based model for human resource development. Carkhuff envisions the future of the productive community in a symbiotic and synergistic relationship between community and business. **For Carkhuff, the critical ingredients remain transforming humans and information into resources which are invested in the activities leading to a productive community.** Berenson believes that this model - with the systems and technologies which undergird it - promise the possibility of the evolution of a productive, free and peaceful world community.

2.3 Transition

"Summary and Transition" is an expression which Carkhuff likes to use instead of "Summary and Conclusions." Perhaps this expression - more than anything else - characterizes the man: he lives his life in transition. To be sure, he characterizes himself as a "tentative hypothesis - to be tested in daily experience - and improved in its formulation." For most people, this would be enough to know him. However, many people want, indeed, need to know more. They need to have some basic questions answered. They need to separate the man from the myth.

First of all, the most asked-question which Griffin answers is "Is he a humanist?", that is, "Is he concerned with the welfare of his fellow human beings?" Griffin's experience tells us that no one whom he has ever known, heard or read about has empowered more people with skills to take charge of their own lives and destinies. Griffin has had the privilege of co-directing with him the projects transforming unemployed and disenfranchised people and their children into gainfully employed, potent and growing community citizens.

In this context, Carkhuff's commitment to the cause of empowering the unempowered - the poor, the needy, and the disenfranchised - is noteworthy. When Griffin worked with Carkhuff more than two decades ago, he brought with him a helping skills technology for rehabilitating people. They quickly extended their helping efforts to educating people by teaching them living, learning and working skills. In so doing, they emphasized the citizenship skills which encouraged full participation in America's democratic way of life. Now Carkhuff is developing path-finding models in the entrepreneurship and entrepreneurship which enable people to enter the capitalistic way of life. When disenfranchised minorities participate productively as both citizens and capitalists - human capitalists in Carkhuff's terms - then they are no longer disenfranchised. They are empowered.

A related question which cuts different ways depending upon the questioner is this: Is he a secular humanist? Griffin thinks, rather, to characterize him as a "spiritual humanist" because in the tradition of Martin Luther King, Carkhuff ignites the flickering spirit of the people with his own blazing spirit and empowers them with skills to do something about their condition.

Carkhuff's commitment to the next generation is captured in the chorus of his poem, "The Noise":

They do not hear the babies cry,
They do not hear the joys.
They do not hear the sounds of life,
They only hear the noise.

Secondly, the most-asked question is, "Is he a scientist?" Is a scientist a person who probes the unknown and makes it knowable? Is he a technologist? Is a technologist a person who delivers the knowledge in a useable form? If the answer is, "Yes!", then Carkhuff is the model for scientist and technologist. (Griffin 1990)

Indeed he has a technology of scientific thinking. To Griffin's knowledge, no one in the history of the social sciences has documented more impact upon more people over a longer period of time than Carkhuff. For this contribution, Carkhuff says that he owes a debt of gratitude to his study of **psychology** "which really has no enduring content and, thus, **teaches the necessary processing of data into useful information**". He feels particularly privileged in having studied under B R Bugelski, experimental psychologist and learning theorist, himself a student of Clark Hull. Here Carkhuff learned the philosophy and logic of science and its experimental method.

He feels "blessed" by his quarter-century relationship with Bernard G Berenson, also trained as a research psychologist, who is deeply committed to applying scientific method to human purpose and is engaged in an on-going and synergistic dialogue with Carkhuff. Berenson sees their relationship as focusing upon **"managing the truth:"** "If you understand that an opportunity to work with and manage the truth is the highest level of labour, and you can act upon it, you are empowered."

Perhaps the greatest testimonial is found in the empowering of the people around him. Each of the following people have become special because of their association with Carkhuff. The list includes the following doctoral level researchers: Drs Bill Anthony, Cheryl and Dave Aspy, George and Karen Banks, Jim Becker, Pick Bellingham, David and Sally Berenson,

Terry Bergeson, Ralph Bierman, Jack Blakeman, Johan Cannon, Barry and Mikal Cohen, Tom Collingwood, Jim Dragow, Ted Friel, Laurabeth Hicks, Todd Holder, Margaret Jones, Shirley McCune, Richard Pierce, Flora Rosebuck, Jack Schultz, Pete Smith, Jeanette Tamagini, Ray Vitalo, Hadley and Vicky Williams, and many hundreds of other credentialed professionals - all leaders in their own rights in the fields of helping, education, community development, government, and the private sector. All achieved the heights of their personal productivity due to empowering by Carkhuff. Perhaps it is best said by Berenson, Carkhuff's professional life-long colleague and collaborator: (Griffin 1990)

I WAS THERE



I was there
When Humanity was put together.

I was there
When time gave birth
to diversity.

I was there
When diversity endowed change
With nourishment,
And awareness to know,
The grand of the individual.

I was there
When values embraced the mind
And time welcomed us

I was there.

This poem aptly describes the process that occurred within and around the researcher when she found within herself the

capacity to create programmes to implement them, to train trainees and trainers and to make them an enduring part of a system, knowing that a difference was being made to peoples lives, for the better.

In transition, then, Carkhuff is in transition.

In the sixth stage of development which he is currently entering, Carkhuff (1990) is focused upon the creation and distribution of wealth as the vehicle to world development and peace. His ultimate contribution is the sum total of all of his helping efforts - in the home and family, the school and education, business and economics, higher education, science and technology, government, commerce and community. Fortunately, for us, the man is a developer of human resources, a quintessential helper who makes a difference by elevating the condition of humanity a notch - or two or more! Berenson summarizes his understanding of Carkhuff's "management of truth":

Who adopts superior values is, indeed, superior!

Who concedes to inferior values is, indeed, inferior!

2.4 Summary

This chapter has given an overview of Robert R Carkhuff's developmental phases. That is, his models of human processing, interpersonal skills and teaching skills culminate in models appropriate to business industry and even the community at large.

In the next chapter entitled "Carkhuff's Measurable Model for Human Processing" a more detailed look will be taken at the inside workings of his infallible systematic models.

CHAPTER III

CARKHUFF'S MEASURABLE MODEL

FOR HUMAN PROCESSING

3.1 Introduction

The chapter on Carkhuff's measurable model for human processing dissects one for one the critical elements of Carkhuff's processing model; namely the living skills, learning skills, working skills, physical factors, emotional factors and intellectual factors. An understanding of these components from a theoretical perspective is essential, as it is this frame of reference that underlies all programmes created by the researcher. Lastly the chapter looks toward research measuring successful programmes implemented by Carkhuff. The findings are overwhelmingly positive and as such form a solid framework for the creation of a Lifestyle programme.

3.2 Interpersonal Models

There are a number of models of interpersonal skills. Most have failed to prove their effectiveness in terms of individual performance or organizational productivity. Experience-based encounter groups or sensitivity experiences are next to worthless. Behavioural social skills modelling and shaping programmes offer limited goals and sources of learning. (Carkhuff 1983) Didactic experiences teach facts and concepts but provide no kinaesthetic skills-based learning experiences that enable us to file and retrieve permanent images in our temporal lobes. Only when all sources of learning - didactic, experiential, modelling and shaping - are integrated and focused upon specific interpersonal skills, do we become productive individuals and organizations.

3.2.1 Processing Model

The basic model for interpersonal skills development is the Human Processing Skills (HPS) model 1 (Carkhuff, 1969, 1983). As can be seen in Table 3.1, the model is predicated upon phases of learning: the pre-learning phase in which the recipients are involved in the learning process: the initial phase (I) where the recipients explore where they are in relation to the learning experience; the transitional phase (II) where the recipients understand where they are in relation to where they want or need to be; and the final phase (III) where the recipients act to get from where they are to where they want or need to be. These phases are recycled by feedback from acting which stimulates more extensive exploring, more accurate understanding and more effective acting.

This human processing model may also be called the basic E-U-A model. All interpersonal facilitation skills models and technologies are built upon this basic model. These include helping models having to do with the living skills development and outcomes of different helpee populousness. They also include the teaching-learning models facilitating learner or student skills development and outcomes. Finally, they include the working models expediting worker skills development and outcomes.

3.2.1.1 Living Skills

The recipient's movement through the phases of learning is guided by the helpers interpersonal skills (IPS) (Carkhuff, 1969, 1983). As can be seen in Table 3.2, the helpers attend, observe and listen to the recipients in order to involve them in the learning process. The recipients give cues concerning their readiness to enter the exploration phase by attending to the experience without help.

PHASES OF LEARNING

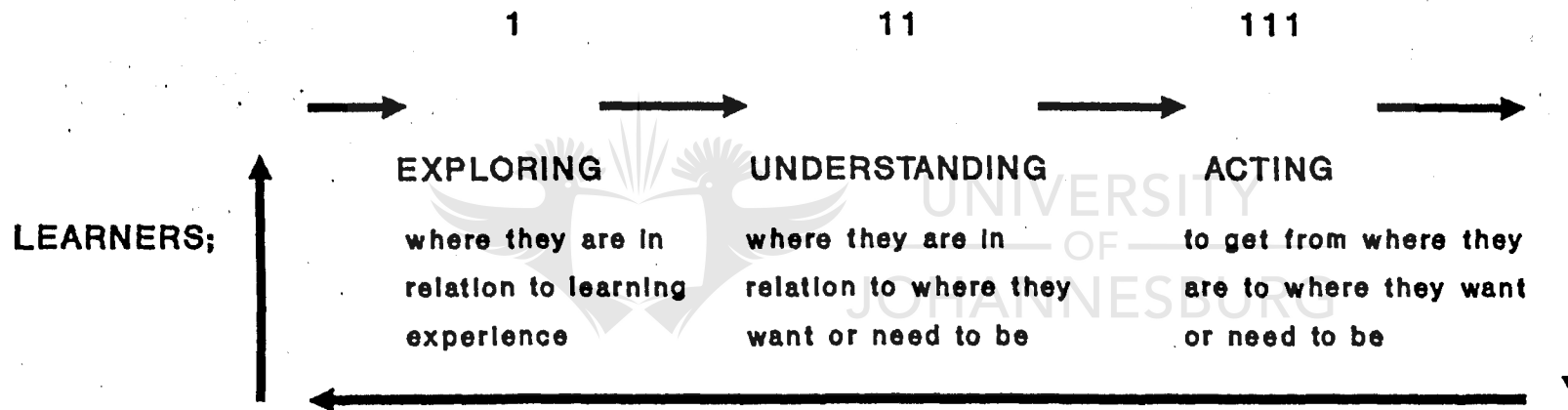


TABLE 3.1 A MODEL FOR HUMAN PROCESSING

PHASES OF LEARNING

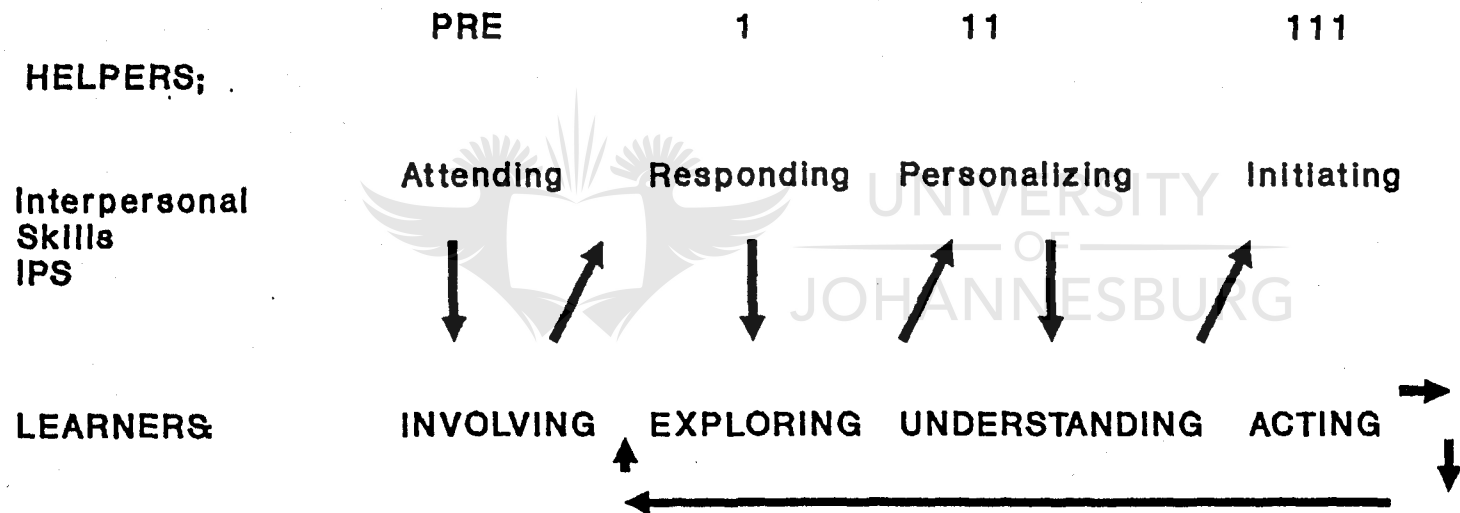


TABLE 3.2 A MODEL FOR LIVING SKILLS DEVELOPMENT

In turn, the helpers respond to the recipients by reflecting accurately the content, feeling and meaning of the recipients' experience in order to facilitate their exploring where they are in relation to the experience. When the recipients emit cues concerning their ability to respond to their own experience, the helpers move forward to personalize the recipients experience. The helpers personalize the meaning, problems and goals of the recipients' experience in order to facilitate their understanding of their goals.

Finally when the recipients understand their own goals the helpers initiate to help them act to achieve the goals. This is accomplished by defining the goals and developing the programmes to achieve them. The IPS model may be seen as a basic helping model which facilitates living skills development. It applies to all instances of helping and human relationships, including especially child rearing, teaching and training, counselling and working relations.

3.2.1.2 Learning Skills

The recipients movement through learning is also facilitated by "Teaching Delivery Skills" (TDS) (Carkhuff and Berenson, 1981). As can be seen in Table 3.3, the teaching model is cumulative and developmental. The teachers or trainers employ teaching delivery skills to teach the content from the external frame of reference of the content and interpersonal skills to teach the learners from the learners' internal frame of reference. Thus, the teachers or trainers develop the skills content externally while attending to the learners internally in order to facilitate learner involvement during the pre-learning phase. During the initial phase of learning, the teachers diagnose the learners in terms of the external content while responding to the learners frame of reference in order to facilitate learner exploration of experience.

PHASES OF LEARNING

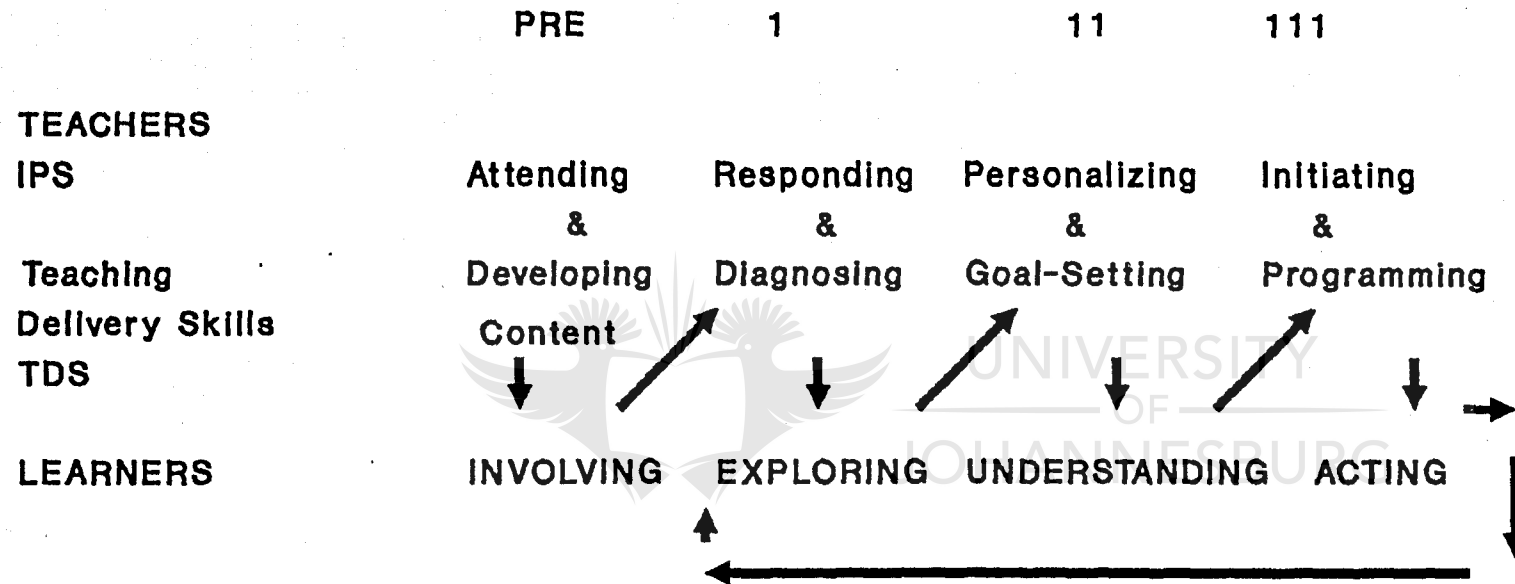


TABLE 3.3 A MODEL FOR LEARNING SKILLS DEVELOPMENT

Transitionally, the teachers get goals in terms of the external diagnosis while personalizing the goals internally in order to facilitate learner understanding of goals. Finally, the teachers develop external programmes to achieve the goals while initiating to individualize those programmes internally in order to facilitate the learners acting to achieve goals. This IPS-based teaching model may be seen as the basic learning model which facilitates learning skills development. It applies to all instances of helping and human relations emphasizing teaching and training.

3.2.1.3 Working Skills

For purposes of completion the WDS as elucidated by Carkhuff are elucidated here. However, in terms of the Lifestyle programme to be evaluated the only work related intervention assessment was measured by means of a productivity impact after the programme interventions. Therefore, the learners were not directly involved with the information other than to be aware of the changes of their performance as reflected in percentage awards.

The recipients' movement through learning is further facilitated by Working Delivery Skills (WDS) (Carkhuff and Friel, 1974). As can be seen in Table 3.4, the working model is also cumulative and developmental. The employers or supervisors use working delivery skills to further complement the recipients' external efforts while addressing their internal experience. Thus, in the pre-learning phase, the employers integrate the work experience with the recipients' experience prior to engaging the recipients in task performance activities. During the initial phase of learning, the employers help to expand the alternative courses of action available to the recipients while responding to their experience of the alternatives.

PHASES OF LEARNING

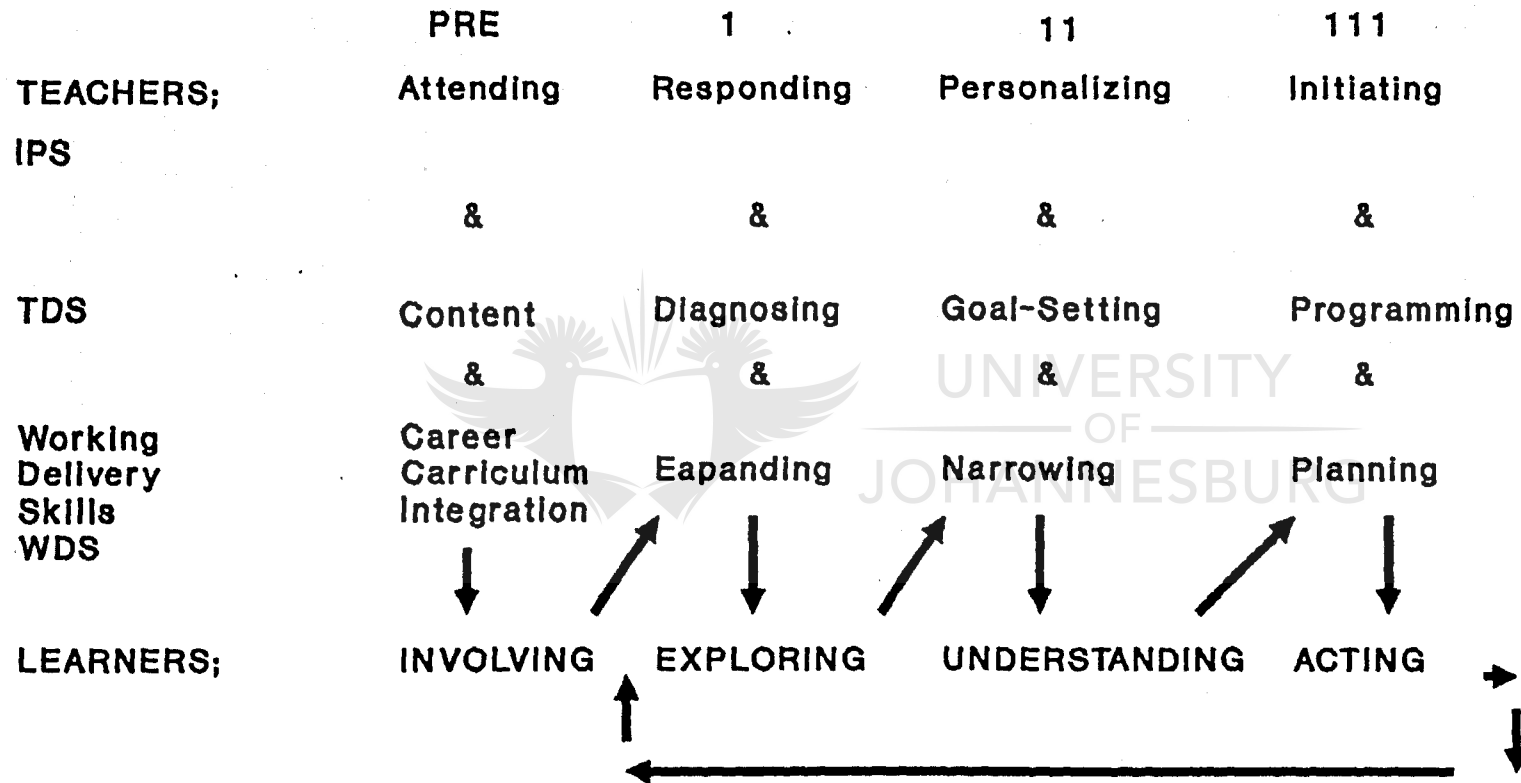


TABLE 3.4 A MODEL FOR WORKING SKILLS DEVELOPMENT

During the transitional phase, the employers help to narrow the recipients' courses to a preferred course of action while personalizing the recipients' experience of that course of action.

During the final phase of learning, the employers help to plan the tasks needed to implement the preferred course while individualizing those tasks. This IPS-based model may be seen as the basic working model which facilitates working skills development. It applies to all instances of human relations emphasizing task performance, problem solving and goal achievement. (Carkhuff 1983).

3.2.2 The IPS Model Variations

There are many variations of the IPS-based models. Some have demonstrated a relationship with outcome. Others have not. These models also fall into the living, learning and working categories.

3.2.2.1 Living Skills

The IPS-based models falling into this area are basically imitative of the original IPS model (Carkhuff, 1969, 1983). Carkhuff states that the words of Gazda (1973) and Egan (1975) are direct restatements of their earlier work emphasizing empathic responsiveness as the critical ingredient in facilitating client or helpee exploration Kagan (1975), Ivey and Authier (1978), Authier and Gustafson (1973) and Danish and Hauer (1973) simply employ video feedback methods emphasizing attending and responding skills that facilitate recipient involvement and exploration. In turn, Goldstein (1973) and his followers attempt to shape specific

social-interpersonal action skills by structured learning therapy. All of these approaches, while presenting some evidence for effectively utilizing shaping methods, lack comprehensive and integrated E-U-A models of living effectiveness.

3.2.2.2 Learning Skills

Aspy and Roebuck (1977) have done the most work in the teaching-learning area. They have complemented the basic IPS teaching model with cognitive functioning categories.

Carkhuff (1969, 1983) elaborates on the fact that the cognitive categories emphasize a taxonomy of knowledge (Bloom, Englehart, Furst, Hill and Krathwohl, 1956) and interaction analysis models focusing upon analysis of the classroom interaction between teachers and learners (Flanders, 1970). Thus, in cognitive functioning, both teachers and learners may learn and demonstrate memory of facts or thinking to analyze a situation or solve a problem. Similarly, in interaction analyses, teacher expressions may serve to indirectly (accepting, praising, using, asking) or directly (lecturing, directing, criticizing) influence learner behaviour while student talk may be analyzed as responsive to teacher initiations or initiated by the students. While these complementary cognitive and interaction analysis were helpful activities, Aspy and Roebuck (1977) found that their relationship to learner outcomes were dwarfed by those of the basic IPS-based teaching model. Today, Aspy and his associates emphasize the basic IPS model in all teacher and student training programmes (Carkhuff 1983).

3.2.2.3 Working Skills

Pierce and others (1982); (Carkhuff, 1983) have developed the most distinctive work variation, the performance

management system (PMS), based directly upon the IPS model. Here the communication skills model emphasizes four distinctive steps:

1. Get the other person's input, perspective or point of view concerning the task to be performed
2. Give your perspective of the task in a way the other person can hear and see
3. Merge similar and dissimilar perspectives into a preferred solution
4. Go through the steps required to reach the mutually-agreed-upon goal.

The "Get-Give-Merge-Go" (GGMG) model guides the supervisor through a three-step Problem-Reason-Direction (PRD) process that is designed to encourage employee participation in the identification and solution of specific performance problems:

1. Problems - identify performance problems in daily work settings
2. Reasons - determine whether the reasons for the performance problems are under the influence of the environment or the employee
3. Directions - develop a direction that will eliminate each reason and solve the performance problem.

The GGMG-PRD models have demonstrated extensive evidence for supervisor effectiveness in all phases of performance involvement and management. They offer vehicles to be integrated with other task-related functions, including performance appraisal, employee development and merit compensation.

Table 3.5: Stages of Problem Analysis

	GET	GIVE	MERGE	GO
PROBLEM	Get E's image	Give S's image	Merge images	Go on to reason
REASON	Get E's image	Give S's image	Merge images	Go on to direction
DIRECTION	Get E's image	Give E's image	Merge images	Go on to plan and implement

In summary, the IPS-based models have dominated the literature of interpersonal productivity for two decades. While there are variations to the IPS theme, all models emphasize responding to facilitate recipient exploring of the learning experience. All comprehensive IPS models emphasize personalizing to facilitate understanding and initiating individualized programmes to facilitate acting. In this context, these interpersonal skills appear to be the necessary but not sufficient conditions for all human endeavours (Carkhuff 1983, Interpersonal Skills and Human Productivity Chapter 3).

3.3 Toward Measuring Actualization

Measuring, quantifying, validating, is to some degree the purpose of most dissertation. In effect this document proposes measurement both from within and without.

From within, as regards the programme content, all skills are operationalized to the point where progress in the form of learning is measurable for individual participants during the various stages of exposure to the course.

From without, as assessing in a broader context the impact and interaction the individual has with, and on his environment prior to, and post the Lifestyle intervention.

Accountability is the order of the day and the writer believes that the Carkhuff methodology has facilitated reliable measurement in a manner which is not overwhelming. A methodology broadly applicable, reliable and valid has been utilised. An exposure in this regard follows and it can be recognised through out the programme content.

It is one thing to postulate a model for actualizing human potential. It is quite another to measure it. Yet, measurement is precisely what we must be able to do. We must measure not simply because it is dictated by

the use of logic and the scientific method that we describe, predict, and control our worlds with. If we cannot measure human potential, we cannot operationalize our goals for actualizing it; therefore, we cannot develop programmes to achieve it (Carkhuff 1981).

In the following measurement efforts the dimensions of human potential are summarised as physical, emotional, and intellectual factors. The emotional includes personal motivational and interpersonal dimensions. The intellectual includes substantive, learning, and teaching dimensions.

3.3.1 Physical Factors

The first of the factors of human potential is a physical factor. The physical factor includes the dimensions of cardiorespiratory functioning, endurance, strength, and flexibility as well as the rest and nutrition needed to support fitness (see Table 3.6). There are a number of ways that we can measure fitness for our purposes. One way is to observe behaviour over a continuous period of time to determine the level at which a person functions. The other is to set up criteria based upon fitness levels. In either event, the fitness level based upon exercise will ultimately influence the fitness level of application. In other words, whatever a person's reservoir of energy initially, over an extended period of time, his or her level of fitness must relate to his or her level of energy (Collingwood and Carkhuff, 1974).

The levels of functioning have been characterized at five levels: sickness, survival, adaptability, intensity, and stamina. The scales are cumulative, with each level incorporating the previous level. Below minimally effective levels (Levels 3.0), characterized by adaptability, people do not have the energy to discharge their responsibilities. They cannot mobilize to meet daily crisis and therefore, are dependent on variables manipulated by forces beyond their control. Above all, they can

never be trusted to be available when they are needed because they never have the energy. Above minimally effective levels, people have the fitness necessary to go on the initiative in tackling their responsibilities and their daily crisis. However professional they may appear during calm times, low-functioning people are characterized by an inability to mobilize to produce when it is necessary. However calm they may appear during calm times, high-functioning people are characterized by the ability to mobilize to produce when it is necessary.

Thus, at a high level (Level 5.0) of functioning stamina, individuals are able to function with stamina in terms of cardiorespiratory, endurance, strength, and flexible indices. Such individuals can do this in all areas of functioning - at home, in education, at work and in the community. This level of functioning incorporates the intensity of the next level.

Table 3.6: Levels of Physical Fitness

<u>PHYSICAL FUNCTIONING</u>				
<u>AREAS</u>	C A R D I O R E S P I R A T O R Y	E N D U R A N C E	S T R E N G T H	F L E X I B I L I T Y
				Levels of Functioning
				1) Stamina
				2) Intensity
				3) Adaptability
				4) Survival
				5) Sickness

At the next highest level (Level 4.0), intensity, individuals are able to function selectively with intensity in terms of the dimensions of fitness in the different areas of functioning.

At a minimally effective level (Level 3.0), adaptability, individuals have energy sufficient to adapt to the daily requirements in the various areas of functioning. They meet the needs of all situations in which they find themselves although they may not have much left over for themselves.

At a less-than-fully functioning level (Level 2.0), survival, individuals are always tired and listless and unable to function effectively in any area of endeavour.

At the lowest level (Level 1.0), sickness, individuals are literally and physically sick; overpowered by even the most minimal requirements of daily existence.

The scales offered are based upon norms for males and females. They may also be modified for age and other limiting conditions. (Before checking yourself out, you should consult a physician about your overall health). A sample of scale levels is provided in Table 3.7.

One way of checking your level of cardiorespiratory functioning is to take the step test as follows: (1) Step up onto a chair once every five seconds, for a total of twelve times within a minute; (2) Take your pulse rate for two minutes thereafter; (3) Using the appropriate norm group in Table 3.7 obtain your level of cardiorespiratory functioning. You may want some help in stepping up on the chair so that you do not fall down. You may also want someone else to take your pulse rate.

You can do the same thing for the indices: (1) Do the tests of endurance. How far can you walk/run in twelve minutes), strength (number of sit-ups in two minutes), and flexibility (how far you can bend down without bending your knees. (2) Look up your levels of endurance, strength, and flexibility in Table 3.7. These ratings are meant to give you a quick index of your physical functioning. A more complete picture may be developed

using other sources (Collingwood and Carkhuff, 1974). Most people do relatively the best on the flexibility test and the poorest on the endurance and cardiorespiratory tests.

The modal level of functioning, or the level at which the person appears most often (use the mean or average by dividing the sum total by four if this does not occur) across the fitness dimensions constitutes an index of the person's degree of actualization of the physical dimension of human potential. Again, as for all of the following scales, this modal level may be applied in absolute terms as indicated by the norms of the scales in Table 3.7 or in relative terms related to one's own level of the development and/or satisfaction.

Perhaps most important, the physical realm gives us a prototype for assessing ourselves in all other realms. While the normative data with which to compare ourselves may not be so clear in other areas of functioning, the physical realm pushes us very hard with clear-cut criteria. Either we can run a mile in six or seven minutes or we cannot. We cannot delude ourselves from day-to-day and year-to-year. Although we may feel "good" temporarily, there are long-term implications to a deteriorating physical condition for other dimensions of human potential. In the long run, we cannot actualize our human potential without the continuous support of our physical fitness and the physical energy that it serves to facilitate.

3.3.2 Emotional Factors

The emotional factors attempt to account for the push and pull of motivation. There are at least two dominating emotional factors. We may regard the first as personal or intrapersonal motivation and the second as interpersonal relations, which in turn translates to motivation.

Table 3.7: Normative data on levels of physical fitness

P H Y S I C A L F I T N E S S							
LEVELS OF FUNCTIONING	CARDIORESPIRATORY (PULSE RATE FOR 2 MIN)		ENDURANCE (MILES IN 2 MIN)		STRENGTH (SITUPS IN 2 MIN)		FLEXIBILITY (TOE TOUCH)
	MALE	FEMALE	MALE	FEMALE	MALE	FEMALE	MALE AND FEMALE
5.0 STAMINA	71	86	2.3	2.1	100	50	Palms on floor
4.5	89	95	2.0	1.9	97	35	Fists on floor
4.0 INTENSITY	115	120	1.8	1.7	61	27	2nd joint on floor
3.5	132	137	1.6	1.5	52	24	Fingertips on floor
3.0 ADAPTABILITY	158	163	1.5	1.4	47	20	Fingertips to toes
2.5	184	189	1.4	1.3	38	16	Fingertips to ankles
2.0 SURVIVAL	201	206	1.2	1.1	34	14	Fingertips 10" below knee
1.5	227	232	1.1	1.0	26	9	Fingertips to knees
1.0 SICKNESS	245	250	1.0	9	0	0	Fingertips above knees

3.3.2.1 Intrapersonal Motivation

Intrapersonal motivation is the motivation that occurs within the individual. It incorporates a variety of forces that converge to affect an individual's motivation in life. It deals with the conditions that get people mobilized to invest themselves in efforts. In a very real sense, it describes what makes them tick.

The best way to assess personal motivation is to study an individual's motivation in the various roles in which he or she functions. We can infer from the choices that an individual makes in these roles what the values were that dictated these choices. If we define a career broadly as the way people live their lives (whether in home, school, work, or community associations), we can study a career pattern over time to determine the values that dominate it. Although interviewing and inventorying people, we must exercise care in the respect that stated values are often unrelated to the hard choices an individual must make over a lifetime.

What we can infer is shown in Table 3.8. As can be seen, there are several areas of functioning where we can observe an individual - at home, in continuing education; at work; in the community or the community-at-large, including any local, state, regional, national, or international circumstances. Below minimally effective levels (Level 3.0), we can infer choices that were guided by external reinforcement schedules (i.e., outside incentives dictate the person's choices). For example, in our experience, most people choose jobs for such simple reinforcers as money, geography, and sex. Above minimal levels, we can infer choices that were governed by an internalized value system, a sense of self-fulfillment or even a mission outside oneself (Maslow, 1970; McLelland, 1961; Corporate Wellness Sourcebook).

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Thus at the highest level (Level 5.0), people have reasons to live - missions outside of themselves that give meaning to their lives. They are guided by these missions in all aspects of their lives. This motivation may be translated into a personal commitment to abstractions such as social justice. These reasons can be concretized in activities such as serving children or disenfranchized peoples throughout the world or may involve a commitment to an institutionalized mission such as an agency or a community dedicated to the welfare of its members and/or the population it is servicing. Reduced, the commitment involves nurturing life wherever and whenever it is encountered. Clearly, this level of intrapersonal motivation derives from a commitment beyond one's assigned tasks.

At the next highest level (Level 4.0), people are concerned with fulfilling themselves. Their mission is rather inside than outside themselves. In all situations, they are oriented to learning in order to grow.

At a minimally effective level (Level 3.0), people function to fulfill their need for achievement, including attributes of pride in performance and the work ethics that were instilled in them. They are productive people who follow the initiatives of others, taking great pride in their products, doing what they do very well but seldom doing more than they were asked to do. In this context, they are very attuned to their colleagues and co-workers, are responsive to the latest vogues and "hot-buttons," and are great imitators of the creative thrusts of others.

At the incentive level (Level 2.0), people are controlled by the reinforcement schedules determined by others. They work only to receive rewards such as money, promotions, increased leisure time, country club memberships, and the like. They always do only what is necessary to receive the rewards and are concerned only with marketing themselves to the manipulators of the reinforcement system rather than producing the products for which they are responsible.

At the nonincentive level (Level 1.0), people are not part of the incentive system as we know it. They may have operated within the system and rejected it. Or they may be hooking onto a system to which we are not attuned; for example, the criminal-incentive and career ladder system that exists in every lower-class community throughout the world. (Crime is a class, not a cultural phenomenon, and the differences between classes are much greater than the differences between cultures).

One way of checking your own intrapersonal motivation is to plot yourselves in terms of your daily living. To qualify at any one of these levels of functioning, you must have engaged in at least one act or behaviour daily within each of the areas of functioning - home, school, work, community. Thus, to qualify for the incentive level, you must have fulfilled one or more daily objectives that are consistent with being rewarded or avoiding punishment. To qualify at the achievement level, you must have accomplished one or more daily objectives that yield your pride in accomplishment. To qualify at the level of fulfilling yourself, you must have initiated one or more times beyond your daily objectives to find fulfillment in your life. To qualify for actualizing yourself with a mission outside of yourself, you must have completed one or more objectives daily to serve the mission. While the daily requirements are stringent, they emphasize the "way of life" involved in actualizing oneself. If you are not involved in these behaviours on a daily basis, then you are not functioning at any levels of actualization.

Again for rating this dimension - which we call emotivation (the personal motivation dimension of the emotional factors) we obtain a modal level of functioning or the level at which the person functions most frequently. Included are modal levels both within and between the different areas of functioning, depending upon the purposes of the assessment. These areas include his or her functioning at home, in continuing education, at work, or in the community. In our experience, some people slide up and down this

scale, at different points being committed to different motives. Just a fact that a mix of motivations determines different decisions implies a person functioning subliminally at the lowest of these motivation levels. Again, we may most effectively assess the level of motivation by determining an individual's modal level of functioning. It is human to want to use high principled and unselfish motives when the decision does not matter and to get down to the "nitty-gritty" incentives when it does. On the other hand, survival must be assured before growth can take place. In the end, however, those who do not get outside of themselves in their motivation for living do not actualize their human potential.

Table 3.8: Levels of Intrapersonal motivation

<u>INTRAPERSONAL MOTIVATION</u>				
	|	E	|	C
	|	D	|	O
H	|	U	|	M
O	|	C	|	M
M	|	A	|	U
E	|	T	|	N
	|	I	|	I
	|	O	|	T
	|	N	|	Y
				Levels of
				Functioning:
				5) Missions
				4) Self-fulfill-
				ment
				3) Achievement
				2) Incentives
				1) Nonincentive

3.3.2.2 Interpersonal Relations

Interpersonal relations is really a social factor. This factor entails the motivation that derives from becoming involved with someone else. In effect, it involves helping others to develop their own motives in life. In so doing, we expand our own

boundaries to incorporate their missions as part of our own missions. We see this type of motivation most clearly in terms of helpers' contributions to those most weak and vulnerable members of our society. However, we also see this motivation in the commitments of workers and party members to such causes as nationalism, individual political parties, or corporations.

The best way to assess interpersonal relations is by studying an individual's human relationships in the different areas of his or her life functioning. Thus, we can infer from the individual's overt behaviour the level of skills that is offered and the depth of human relations that these skills stimulate. For many people, this determination is quite simple, because they are not even attentive to other people. Therefore, no higher level of human relationship is possible. This level includes most human relations in our society - relationships that begin at the highest level of attentiveness and gradually fade into oblivion.

What we can observe in interpersonal relations can be seen in Table 3.9. Again, we can make these observations in a variety of areas where the person functions interpersonally - at home, in continuing education, at work, or in the community. Below minimally effective levels (Levels 3.0), people are simply attentive in varying degrees to other people. They do not get "inside" others. In some respects they really do not even stand outside in relation to them. Typically the most difficult skill to teach people in human relations training is to attend to other people. Resistance is encountered in the form of statements such as, "I'm just not comfortable that way." Whether or not being attentive helps them to look and "see" and listen and "hear" others, they really do not want to do it. They are caught up in themselves and unable to relate continuously to others even physically. Above minimal levels, we observe individuals responding accurately to the people around them (Carkhuff, 1969, 1980).

At the highest level (Level 5.0), initiating, we find individuals not only responding to where people are and personalizing where

they want or need to be but also initiating individualized action programmes to help them get there. Such individuals help others to achieve their goals.

At level 4.0, personalizing, individuals are responding to facilitate the self-exploration of people and personalizing to facilitate their self-understanding of where they want or need to be. Such individuals help others conceptualize their goals.

At a minimally effective level (Level 3.), responding, individuals are responding accurately to the feeling and meaning about where people are in their life's experience as it is expressed by other people. They have, at least, "heard" the other people and communicated their understanding of the others' expressions and, thus, facilitated their exploration.

At level 2.0, attending, we find the individuals being attentive to other people, which means that they are at least involving themselves with others by attending physically, observing, and listening to them.

Level 1.0 is the non-attending level. Here the individuals are inattentive to other people. They do not get involved in any way with others.

One way of checking your own level of interpersonal relations is to plot yourself in terms of your daily living. Again, to qualify at any one of these levels of functioning, you must have engaged in at least one act daily within each area of functioning - home, school, work, community. Thus, to qualify at the attending level, you must have given your full and undivided attention to the appropriate people one or more times on a daily basis. For responding, you must have responded accurately to the expressions of significant others at least once each day. Personalizing requires responding to personalize the goal for each significant person at least once each day. Initiating demands that you initiate to help to develop an action course for

each significant person at least once each day. Again, if you do not live it on a daily basis, you do not have it.

The same approach to rating is appropriate: Rate the individual at those levels at which he or she functions most of the time. Thus, the individual is rated at the modal level of functioning either within or between his or her functioning at home, education, work, or in the community. It is noteworthy that individuals who achieve the highest or deepest levels of human relations are always monitoring their levels of understanding by responding interchangeably with other people's experience. People who do not have deepening human relations in any arena are never responding accurately to the experience of others.

And all human relations are in the process of deepening or deteriorating. Those whose relationships are deteriorating cannot actualize their human potential. Those whose relationships are deepening can expand their humanity and ultimately, actualize their human potential.

Table 3.9: Levels of Interpersonal Relations

<u>INTERPERSONAL RELATIONS</u>					
<u>AREAS</u>	H O M E	E D U C A T I O N	W O R K	C O M M U N I T Y	Levels of Functioning:
					5) Initiating
					4) Personalizing
					3) Responding
					2) Attending
					1) Nonattending

3.3.3 Intellectual Factors

Intellectual factors attempt to account for the substance,

processing, and communication of one's intellectual contribution. There are three dimensions that merge here: The first has to do with the level of development of the person's substantive specialty; the second with the individual's learning skills and process; the third with the individual's teaching or communication skills.

3.3.3.1 Substantive Specialty

The substantive specialty represents the level of expertise that an individual has achieved in his or her specialty area. It reflects the degree to which he or she has acquired the skills and knowledge necessary to discharge responsibilities. One's substantive specialty may be a vocational responsibility or it may be an avocational interest. Reduced, substantive specialty is what a person's life is about. Substantive specialty encompasses the content that he or she has mastered and applied in a continuing cycle of learning. The test is whether an individual has the skills and knowledge sufficient to achieve the goals of oneself and others in the area. In other words, the test is whether a person can be creative and productive in his or her area of substance.

The support factors in this test involve whether one has the knowledge necessary to be creative and productive. The heart of the test of creativity is whether an individual can operationalize any goal in his or her substantive specialty. The heart of the test of productivity is whether one can develop the systems and technology to achieve any goal. What makes a person truly a professional in any area of endeavour is the ability to operationalize and technologize the achievement of a goal. Few people ever achieve this status because they will not pay the price of hard work and discipline necessary to be true professionals. They operate only in the realm of facts and concepts, the language of which many become quick studies in acquiring.

As can be seen in Table 3.10 minimally effective levels (Level 3.0), people have only the factual and conceptual knowledge about any phenomena in their specialty areas. In reality, they have only an idea of what is to happen in any given circumstance.

Typically, this vague comprehension is enough to get them by in most areas - to say the "right" words and behave the "right" way is sufficient to confuse others who are themselves only imitating some localized language and behaviour. Above minimal levels, people incorporate knowledge as supportive of the skills they employ in designing and implementing the achievement of their goal (Berenson, Berenson and Carkhuff, 1979; Carkhuff, 1980). Again, these applications can occur in a variety of areas of functioning, including home, education, work, and the community.

At the highest level (Level 5.0), technology development, people develop and implement the technologies and systems needed to achieve their goals. This level represents an operational definition of productivity and usually requires permutations and combinations of all of the skills and skill steps available to an individual in his or her arsenal of responses in the substantive specialty.

At the next highest level (Level 4.0), goal operationalizing people are capable of operationalizing any goals; that is, developing the operations needed to achieve the goals. These operations include the design of the systems and technologies required to answer the fundamental questions of goal operationalization: (1) Who is doing what (to whom); (2) at what level; and (3) under what conditions, including where and when. The design of the systems needed to answer these questions is, itself, an operational definition of goal operationalization.

At a minimally effective level (Level 3.0), the application of principles, we find people answering the question, "Why?"

Individuals functioning at this level know why a given phenomenon does what it does. Although they have not yet made the applications, they know how the different components and processes interact and how to translate these principles to applications.

At a less-than-minimally effective level (Level 2.0), conceptual knowledge, persons have only an awareness of the concepts of a given phenomenon. That is to say, they can only conceptualize what it does and not why and how.

Level 1.0 involves factual knowledge. Here people have an awareness only of what the phenomenon is and not what it does or why and how it does it.

Both of the latter two less-than-minimally facilitative levels place a lid on an individual's ability to apply what he or she has learned, and yet they are the levels that are emphasized in most educational programmes.

To check your own level of development in your substantive specialty, you may plot your daily functioning in your different areas of application - home, school, work, community. To qualify at the factual level, you must have engaged each day in gathering one or more of the facts you need to discharge your specialty responsibilities in at least one of the application areas. For the conceptual level, you must have engaged each day in developing one or more of the concepts involved in your specialty. For the principle level, you must have interrelated the facts and concepts and developed at least one new principle in your specialty each day. At the goal operationalization level, you must operationalize at least one new goal in your specialty each day. Finally, at the technology development level, you must outline at least one programme to achieve your operational goal each day. While the requirements for rating are

stringent, they reflect the level of your involvement in self actualization activities.

Again, we rate individuals according to their modal levels of functioning. Thus, the individual is rated at the level that dominates either within or between his or her functioning at home, in continuing education, at work, or in the community. It is noteworthy that individuals functioning modally above minimally effective levels are always operationalizing and technologist applications in their substantive specialty and learning from these applications. People functioning below minimally effective levels are never making applications simply because they do not know why or how to do so. And if we cannot operationalize and technologize goals, we cannot achieve them. Thus, we cannot be actualized in our substantive specialty area. We cannot actualize if we do not operationalize.

Table 3.10: Levels of Substantive Specialty

<u>SUBSTANTIVE SPECIALTY</u>					Levels of Functioning:	
<u>AREAS</u>	H O M E	E D U C A T I O N	W O R K	C O M M U N I T Y		
					5) Technology Development	
					4) Goal Operationalization	
					3) Principles Application	
					2) Conceptual Knowledge	
					1) Factual Knowledge	

3.3.3.2 Learning Skills

Learning skills represent the level of expertise an individual has achieved in generic learning ability. That is to say,

generic learning ability is the capacity to approach any learning situation - new or old - with an effective system for processing. To do so requires an involvement in the learning process through an open reception to the input data. It involves the effective processing of the data by breaking it down into its components, processes and functions and analyzing one's relationship to that data. It means funneling that data toward a goal and focusing one's efforts upon output.

In short, learning skills represent the process by which the individual transforms selected input into focused output.

The test of learning skills is whether an individual can discern where he or she is in relation to given phenomenon; can determine where he or she is in relation to where he or she wants or needs to be with that phenomenon; and can develop a means to get there. Involved is a kind of self diagnosis that we may call exploration, a goal-setting that we can call understanding, and an initiative programme that we may call action. While many people involve themselves in learning to the degree that they receive the input, few ever explore themselves effectively; fewer still understand their relationships to a goal; and the fewest act to achieve the goal. Less than one person in one hundred has developed an effective learning system that recycles the feedback from acting to stimulate more extensive exploration, more accurate understanding, more effective action.

As can be seen in Table 3.11, people below minimally effective levels (Level 3.0) become involved at most in receiving the input concerning any phenomena. At this stage they are at their all-time best. Indeed, they have cultivated all of their characteristics to look attentive, appear concerned and ask apparently astute questions. Carkhuff is reminded of the thousands of tapes he has heard and seen of initial interactions of helping and teaching. The image that comes to mind is one of the social worker conducting an intake interview: After hearing

a despairing story of overwhelming crisis, he or she asks: "How old did you say you were?" A main factor emerging from an analysis of intake interviews is the "stupid question factor." on the other hand, above minimal levels, people explore, understand, and act effectively upon the different areas of their environments (Carkhuff and Berenson, 1976, 1982).

At the highest level (Level 5.0), action skills, people develop action programmes to get from where they are to where they want or need to be. Obviously, action is a cumulative skill that incorporates exploring where individuals are and understanding where they want or need to be.

At the next highest level (Level 4.0), understanding skills, people develop an understanding of where they are going, of where they want or need to be in relation to the particular learning experience involved. Clearly, an accurate grasp of one's goals implies an extensive exploration of one's circumstances.

At a minimally effective level (Level 3.0), exploring skills, people explore where they are in relation to the learning experience. In effect they analyze the components, process and functions of the experience and of themselves in relation to the experience to determine where they are.

At a less-than-minimally effective level (Level 2.0), people engage only in the apparently attentive behaviours that receive the input data concerning the learning experience. They do not go on to process the data.

Finally, at the lowest level (Level 1.0), people do not become involved in learning. They do not receive input, let alone process it.

To check out your own level of learning activities, you may plot your daily functioning in your different areas of application -

home, school, work, community. To qualify, you must have engaged in at least one learning activity in your substantive specialty in at least one application area each day - becoming involved in one or more learning activities for the involvement levels; exploring where you are one or more times for the exploration level; understanding where you want to be for the understanding level; acting to get to your goals for the action level. Again, the stringent learning requirements reflect learning as a way of life.

Here too we rate individuals modally, both within and between their areas of functioning - at home, in continuing education, at work, or in the community. It is to be emphasized that people functioning modally above minimally effective levels are always processing data; that is they are always learning. People functioning below minimally effective levels are never processing data and thus are never learning. We are fully alive only if we are fully learning. We can only actualize our human potential with an effective learning system.

Table 3.11: Levels of Learning Skills

LEARNING SKILLS AREAS

AREAS	H O M E	E D U C A T I O N	W O R K	C O M M U N I T Y	Levels of Functioning:
					5) Acting
					4) Understanding
					3) Exploring
					2) Involving
					1) Noninvolving

3.3.3.3 Teaching Skills

Teaching skills represent the level of expertise that an individual has in teaching his or her substantive learnings.

Teaching involves the ability to communicate skills and knowledge.

The process involved is the other side of learning. Whereas learning involves one's own development of a course of action based upon the understanding the insight, teaching involves helping others to develop courses of action based upon their understanding or insights. In short, teaching facilitates someone else's learning.

The test of teaching, then, is whether one person can help others to explore where they are in relation to a given phenomenon, help them to understand where they want or need to be; and help them to develop action programmes to get there. That individual is diagnosing, setting goals, and individualizing learning programmes with and for others. These skills facilitate the exploration, understanding, and action learning process of others. While many people develop at least the conceptual content of their substantive specialty, few ever reach the stage of being able to diagnose accurately someone else's functioning in terms of that content; setting goals in terms of the results of the diagnosis; and individualizing learning programmes in terms of the goals.

As can be seen in Table 3.12, people below minimally effective levels (Level 3.0) at most develop their content. At that, they tend to develop it only at a conceptual level. In other words, they know what it is they want to teach, but they do not communicate it. We all remember the dominant experiences of our education: The teacher lectures didactically about factual and conceptual knowledge. There is no effort made to meet the conditions of learning by facilitating the learning process of exploration, understanding and action. Consequently, beyond third grade (until which teachers actually engage in teaching) learning is decrements. Above minimally effective levels,

people not only know their content but have developed the means of communicating it to other people in the different areas of their environment - at home, in continuing education, at work, and in the community (Berenson, Berenson, and Carkhuff, 1978, 1979; Carkhuff, 1981; Carkhuff and Berenson, 1976).

At the highest level (Level 5.0), individualizing programmes, people develop and individualize learning programmes for others. These individualized learning programmes facilitate the action learning of others. They insure that others receive and learn the substance that they are delivering. Obviously, individualizing programmes incorporate goal-setting and diagnosis in terms of the content being communicated.

At the next level (Level 4.0), goal-setting, people develop goals for and with other people. Goal-setting skills enable the other people to understand where they are going. These skills, in turn, incorporate diagnostic and content development skills.

At a minimally effective level (Level 3.0), diagnosing people, can diagnose others in terms of their levels of functioning on the content involved. This diagnosis facilitates the learner's exploration of where they are in relation to the content and implies the development of the content.

At a less-than-minimally effective level (Level 2.0), the people only develop their content at the level that they have conquered their substantive speciality. In other words, even if they have the content to teach, they do not know how to communicate it.

Finally, at the lowest level (Level 1.0), people do not even develop their content in a manner that others could receive it. They do not develop their own contributions, let alone to communicate them.

To check out your own level of teaching activities, you may plot your daily functioning in your different areas of application -

home, school, work, community. To qualify for any level of functioning, you must have engaged in at least one teaching activity to deliver your substantive specialty in at least one application area each day. Thus, for the developmental level you must have developed some content each day; for the diagnostic level, you must have diagnosed at least one learner's level of functioning in your speciality area each day; for the goal-setting level, you must have set at least one learner's goal in your specialty area each day; for the individualizing level, you must have developed at least one individualized programme for at least one learner in your specialty area each day. The stringent teaching requirements reflect the necessity for communication as part of your intellectual development.

Again, we rate the individuals modally, both within and between their areas of functioning. It is noteworthy that people above minimally effective levels are always communicating their content effectively: They are accurately sensing where others are; effectively determining goals for where they want or need to be; and initiatively developing individualized action programmes to get them there. They are always teaching. People functioning below minimally effective levels are never communicating their ideas and skills.

They are never teaching. Teachers are learners because of the feedback they receive from teaching. Thus, only people who teach what it is they are about can actualize their potential in what it is they are about. Only teachers can be actualizers.

In summary, each rating scale can be used to measure an individual's performance on the dimension involved. In addition, each dimension can be seen in relation to the other dimension. Thus, the physical dimensions serve to provide the energy for the other functions. The intrapersonal motivation dimension serves as a catalyst to the other dimensions. The interpersonal relations dimensions functions to expand the base of motivation to incorporate the frames of reference of other people.

The substantive specialty represents the individual's intellectual creativity and productivity. The learning skills operate to guide the individuals' processing of all input and focusing of all output. And the teaching skills function to communicate the substantive learnings and, in interaction with the recipients, to generate the individual's involvement in a life-long learning process.

Again, the stringent requirements reflect the demands of functioning effectively at any level. At the highest levels, they reflect the rigorous demands that define a fully functioning person. Indeed, they define such a person as a human being. The fact that very few people function effectively at even the most minimal levels of functioning is testimony to the fact that many people function at less than human levels.

In the end, the power of actualizing human potential lies in the actualizing of the intellectual factors that the physical factors serve to energize and the emotional factor serve to catalyze. The heart of the contribution of the intellectual factors lies in the ability to learn and teach how to operationalize and technologize goals in a substantive area. Those who can help human beings to achieve human goals can help themselves to achieve their human potential (Carkhuff 1981, *Toward Actualizing Human Potential* Chapter Six).

Table 3.12: Levels of Teaching Skills

TEACHING SKILLS					
<u>AREAS</u>	H O M E	E D U C A T I O N	W O R K	C O M M U N I T Y	Levels of Functioning:
					5) Individualizing Programmes
					4) Goal-setting
					3) Diagnosing
					2) Developing Content
					1) No content

3.4 Research Studies Proving The Human Processing Models

Effectiveness

There is a great deal of confusion surrounding the issues of process and outcome in all types of human resource development (HRD) activities.

The confusion is in part a result of the disregard of both systematic intervention designs and their effects. In this context, it may be a function of the inability of many professionals to see HRD in the larger perspective of human productivity. The issues of human productivity revolve around whether the HRD activities make a difference in the real-life functioning of the recipients. (Can they meet the requirements of their real-life contexts?) and the cost and benefits to the organizational or society system in which they function. (How can we minimize resource input and maximize results output?).

The confusion has culminated in challenges to the promulgators of HRD programmes to this effect: the promulgators must demonstrate the lasting effects of their HRD programmes upon observable and measurable outcomes illustrating recipient benefits.

In his book Interpersonal Skills and Human Productivity Robert R Carkhuff has taken on the challenge of determining and verifying the viability and effectiveness of his human processing model as transferred to people through the medium of interpersonal skills.

An overview of the extent, of these studies is what follows in Table 3.13 .

Table 3.13 An Index of Tables for the Studies of Recipient Living, Learning and Working Outcomes

OUTCOMES	<u>SOURCES OF EFFECT</u>	
	INTERVENERS (Indirect Effects of Helpers Upon Recipients)	RECIPIENTS (Direct Effects of Training Helpees)
LIVING	(22 Studies) 25,682 Helpees	(35 Studies) 2,279 Helpees
LEARNING	(32 Studies) 81,298 Learners	(26 Studies) 3,610 Learners
WORKING	(22 Studies) 33,836 Employees	(27 Studies) 12,235 Employees
SUBTOTAL	(76 Studies) 140,816 Recipients	(88 Studies) 18,124 Recipients
GRAND TOTAL	(164 Studies) 158,940 Recipients	

The outcome studies presented here follow a mega-research design. Basically, that design involves summarizing the findings from all studies of interpersonal productivity. The intervention

designs range from simple applications to complex, replicated Latin Square designs.

The statistical analysis ranges from simple frequency tabulations or non-parametric analysis to complex response-surface analysis. The power in the mega-research comes from the variability of the intervention designs and analysis. If the trends are so powerful that they emerge under a variety of conditions, then they are statistically significant trends with significant human implications.

Conversely, if the trends are so fragile that they emerge only under carefully controlled circumstances, then they are statistically significant trends with insignificant human implications or meaning.

The outcome studies, then, include large-scale demonstrations as well as experimental studies. They are organized in a 2 x 3 matrix (see Table 3.14). The component areas of the matrix are two-fold: 1) the effects of intervenes or helpers upon recipient outcome indices; and 2) the effects of the direct training of recipients upon recipient outcome indices. The three functional outcome levels include the following: 1) living outcomes, 2) learning outcomes, and 3) working outcomes.

The studies of the effects of intervenes upon recipients total 76 studies of 140,816 recipients. The studies of the direct training of recipients total 88 studies of 18,124 recipients. The grand total is 164 studies of 158,940 recipients.

The studies presented by their nature, authors and date of publication, the number of the population, the outcome measures, the time the measures were taken, and the treatment and control conditions are spelt out in detail in Carkhuff's "Interpersonal Skills and Human Productivity" book.

3.4.1 Overview

The reported effects of the interpersonal functioning of helpers and the direct IPS-based training of helpees may be seen most clearly in Table 3.14 which summarizes the results for the studies and indices of helpee living, learning and working outcomes. As can be seen, there are a total of 164 studies assessing a total of 784 indices. One hundred and thirty-one (131) of the studies has exclusively positive results while 28 more had predominantly positive results. Seven hundred and eighteen of the 784 indices assessed yielded positive results.

These effects are summarized in a more succinct form in Table 3.5. As can be seen, by far the great majority of studies and indices assessed yielded positive results. Overall, 96% of the studies are exclusively or predominantly positive; 92% of the indices are positive.

There are several sets of summary propositions that we may draw from these results:

- 1) **The effects of helper interpersonal functioning upon recipient outcomes are positive and significant.**

A summary of the effects of helpers upon helpee outcome indices suggests that interpersonal skills are a core ingredient in any HRD effort. 96% of the studies and 92% of the indices yield positive outcomes. Clearly, these helper effects hold across living, learning and working outcomes.

- 2) **IPS training is the source of high levels of helper interpersonal functioning.**

In all but ten instances, systematic IPS training was the source of helper interpersonal functioning. Thus, in 86% of the studies IPS training was directly related to the effects of helping. This is to say, alone or in combination with

other skills, IPS training is a significant source of effect in helping efforts.

- 3) **The effects of direct IPS training of recipients upon helpee outcomes are positive and significant.**

The direct IPS training of recipients is a significant source of recipient outcome benefits. In 96% of the studies and 92% of the indices, the reported results were positive. Thus, alone or in combination with other skills, direct IPS training of recipients is a potential preferred mode of treatment.

- 4) **Positive results are describable and predictable while negative results are statistical exceptions.**

96% of the studies and 92% of the indices had positive outcomes. Thus, putting the issues of water level functioning (Cannon and Carkhuff, 1969 in Carkhuff 1983) and minimal level of helper functioning (Berenson and Mitchell, 1974; Carkhuff, 1969; Carkhuff and Berenson, 1976 in Carkhuff 1983) aside, it may be concluded that negative result studies and indices tend toward being statistical or random exceptions (i.e., alpha at the .05 to .10 levels).

- 5) **Positive IPS outcomes are a consequence of systematic efforts while negative results are design exceptions.**

Systematically derived results involve systematic design: systematic training design, systematic treatment design, systematic follow-up and systematic environmental support. When present, these ingredients of systematic designs will yield systematic outcomes. When any of these ingredients is absent, there is an increasing prospect for non-significant or even negative results. Thus, for example, without systematic training, variability in interpersonal

functioning will be restricted and the relationships with various outcome indices become problematic.

3.4.2 Processing Skills

In this context, it is extremely important to emphasize IPS as processing skills, alone or in combination with other processing skills. In many of the studies IPS are employed as the single intervention: the intervenes are trained in IPS to intervene with the recipients, or the recipients are trained directly in IPS. In other studies, IPS are employed in conjunction with other processing skills such as problem-solving or cognitive processing skills.

Where IPS are employed as the sole intervention, they are nevertheless processing skills. Because of the nature of the skills, the stimuli are processed into responses rather than conditioned to responses. In other typical interpersonal programmes, helpers are conditioned to make specific responses to specific stimuli.

In some studies, IPS are employed in conjunction with problem-solving skills and programme-development skills (Carkhuff, 1969, 1973, 1974, 1975 in Carkhuff 1983). In these instances, the helpers and recipients had the additional processing benefits of being able to programmatically select preferred courses of action to solve their problems or achieve their goals.

In the learning areas, Aspy and his associates employ cognitive functioning strategies in conjunction with the IPS. Thus, Aspy's teachers were trained in the skills of analyzing situations and solving problems as well as in memorizing facts, concepts and principles. In the direct training of learners, Berenson and his

associates taught the learners specific learning-to-learn processing skills in conjunction with IPS-processing.

Thus, the learners were taught specific learning strategies with which to process reading and myth content: exploring where they are in relation to the learning experience; understanding where they want or need to be; and acting to get from where they are to where they want or need to be.

Table 3.14: A Summary Index of Results of IPS Studies and Indices of Helpee Living, Learning and Working Outcomes, Sources of Effect

HELPERS

	EXCLUSIVELY POSITIVE RESULTS (+ +)	PREDOMINANTLY POSITIVE RESULTS (+ + / -)	NON-SIGNIFICANT OR MIXED RESULTS (+ / -)	PREDOMINANTLY NEGATIVE RESULTS (- - / +)	EXCLUSIVELY NEGATIVE RESULTS (- -)
OUTCOMES					
LIVING					
Studies (N = 22)	14	6	2		
Indices (N = 117)	97		17		3
LEARNING					
Studies (N = 32)	22	9	1		
Indices (N = 261)	241		19		1
WORKING					
Studies (N = 22)	19	3			
Indices (N = 86)	83		3		
SUBTOTAL					
Studies (N = 76)	55	18	3		
Indices (N = 464)	421		39		4

HELPEES

	EXCLUSIVELY POSITIVE RESULTS (+ +)	PREDOMINANTLY POSITIVE RESULTS (+ + / -)	NON-SIGNIFICANT OR MIXED RESULTS (+ / -)	PREDOMINANTLY NEGATIVE RESULTS (- - / +)	EXCLUSIVELY NEGATIVE RESULTS (- -)
OUTCOMES					
LIVING					
Studies (N = 35)	25	7	2	1	
Indices (N = 128)	108		16		4
LEARNING					
Studies (N = 26)	25	1			
Indices (N = 79)	78		1		
WORKING					
Studies (N = 27)	25	2			
Indices (N = 117)	115		2		
SUBTOTAL					
Studies (N = 88)	75	10	2	1	
Indices (N = 324)	301		19		4

	EXCLUSIVELY POSITIVE RESULTS (+ +)	PREDOMINANTLY POSITIVE RESULTS (+ + / -)	NON-SIGNIFICANT OR MIXED RESULTS (+ / -)	PREDOMINANTLY NEGATIVE RESULTS (- - / +)	EXCLUSIVELY NEGATIVE RESULTS (- -)
GRAND TOTAL					
Studies (N = 164)	131	28	5	1	
Indices (N = 784)	718		58		8

Table 3.15: A Summary Index of Percentages of Predominantly Positive Results of IPS Studies and Indices of Helpee Living, Learning and Working Outcomes

OUTCOMES	HELPERS	HELPEES	OUTCOMES
LIVING			LIVING
Studies (N = 22)	91% Positive	91% Positive	Studies (N = 35)
Indices (N = 117)	83% Positive	84% Positive	Indices (N = 128)
LEARNING			LEARNING
Studies (N = 32)	97% Positive	100% Positive	Studies (N = 26)
Indices (N = 261)	92% Positive	99% Positive	Indices (N = 78)
WORKING			WORKING
Studies (N = 22)	100% Positive	100% Positive	Studies (N = 27)
Indices (N = 83)	96% Positive	98% Positive	Indices (N = 117)
SUBTOTAL			SUBTOTAL
Studies (N = 76)	96% Positive	96% Positive	Studies (N = 88)
Indices (N = 461)	92% Positive	92% Positive	Indices (N = 323)
GRAND TOTAL			
Studies (N = 164)	96% Positive		
Indices (N = 784)	92% Positive		

Carkhuff (1983) sees productive individuals as possessing three critical ingredients: 1) productivity values to which they dedicate their other ingredients; 2) processing skills which transform the stimuli into productive responses; and 3) interpersonal skills which serve to relate individuals with individuals and organizations, and to disseminate new learnings concerning improving performance.

Similarly, Carkhuff (1983) sees productive organizations as possessing four critical sets of ingredients: 1) maximum responsiveness to information input; 2) maximum human and mechanical processing of the input; 3) maximum initiation of new services and products as outputs, with information by-products; and 4) maximum and constant monitoring of individual performance and organizational productivity.

Clearly, the key ingredients to productive individuals and organizations are productivity processing and interpersonal processing (Carkhuff, 1983). The productivity processing serves to analyze, operationalize and technologize the components, functions and processes of the content, materials or experience. The interpersonal processing serves to share interdependently as teachers and learners reap the benefits of that processing. The more programmatically the productivity processing and interpersonal processing skills are taught and implemented, the more incremental will be our performances as individuals and our productivity as organization.

3.5 Summary

In summary, the most important issue is the critical nature of interpersonal skills. They serve to enable people to assume the frames of reference of others. They facilitate: the exploration of where others are in relation to a particular experience; and understanding of where others want or need to be; and the action behaviour to get from where they are to where they want to be.

In this regard, IPS are critical ingredients in the implementation of any programmes involving human beings, whether individual, small-group or large-group treatment or training. They may be used in conjunction with any other skills to accomplish any intervention goals involving humans in living, learning and working performance (Carkhuff 1983).



CHAPTER IV

PROMOTING WELLNESS

4.1 Introduction

Acting upon evidence is a term appropriate to the current economic pressures experienced by the corporate world at large in South Africa. Social scientists employed to investigate and develop the human capital of companies inevitably find themselves in the position of having to prove their case in monetary terms, "the bottom line". Retrenchments and rationalisation are a reality in the mining world daily and the first costs to be cut are those linked to human resources, welfare or personnel services.

This need not necessarily be the case however, because people are the primary productive unit and morale, a stable and motivated workforce go a long way to enhancing productivity. This chapter makes a case for promoting health promotion in the workplace by looking at it from a return on investment point of view.

4.2 Health Promotion Programmes in the Workplace

Work consumes more of an individual's life for the most important years of a lifetime and is usually second only to sleep in the sheer number of occupied hours. Virtually all adults devote at least half of their waking time to work. There is a renewed interest in the meaning of work by professionals and the public as a whole as reflected in a recent editorial by psychiatrist Francis J Braceland, "While no one can satisfactorily define work, all can agree that it is a purposeful activity that has been expected ... down through the ages; we can also agree that

work exerts a compelling influence upon a person's social behaviour and relationships" (Braceland, 1981 in Corporate Wellness Sourcebook). Most reflections upon the nature of work have been written in professional journals, but there is a far more profound and pervasive change taking place in the meaning of work. Author and philosopher Sam Keen noted a radical shift in personal, workplace, and cultural values (Keen, 1981 in Corporate Wellness Sourcebook).

"Our changing valuation of work is a symptom of our changing view of all reality. The new iconoclasm is directed against the idolatry of economics, the myth of money, the assumptions that more is better, work makes free (the motto that was emblazoned on the gate over Auschwitz), technology can make us all healthy, wealthy, and wise. Many ... have reached the top of the success ladder but are beginning to suspect it may be leaning against the wrong wall".

Although the actual numbers of disenchanted workers are difficult to estimate, they represent the roots of a significant cultural trend, particularly during a decade marked by an unprecedented increase in employee dissatisfaction with virtually every aspect of work.

Historically, the involvement of large organizations in the health care of (their) employees has been minimal and consisted largely of their investment in "health" insurance, which was estimated to be \$42 billion in 1978 by the United States Commerce Department. There are a few instances of more direct, corporate involvement in medical care, but these have been considered to be anomalies. Following World War II, industrialist Henry J Kaiser began to develop the first Health Maintenance Organization (HMO), a prepaid group practice, and this has emerged as the largest private, non-profit direct service programme in the world by providing care to over 4 million people.

Similarly, the Gillette Company began a health care programme for its employees 30 years ago. With these few exceptions, most organizations have limited their involvement of treating work related accidents and created these programmes in response to the labour union movement. This situation is changing rapidly. Clearly, the change in consciousness regarding health promotion in the workplace is not the dominant mode at present, but is the trend of the future. During a 1981 speech to the National Industry Council for HMO Development, Robert Burnett, the Chief Executive Officer of the \$400 million per annum Meredith Publishing Company, stated, "What's the average CEO's information quotient on the subject of health care costs? Somewhere in the area of 0 to 5 on a scale of 100." This is echoed in a somewhat more optimistic tone by David A Winston, Chairman of a Health and Human Services task force, when he stated, "On a scale of 1 to 100, I would rank corporate interest in healthy policy issues 25, but moving up rapidly" (Iglehart, 1982 in Corporate Wellness Sourcebook).

There are two driving forces behind this encouraging trajectory. Most evident is the economic imperative, as described by Willis Goldbeck (Iglehart, 1982), who was quoted as stating that:

"It is very important to recognize that you can purchase any other product ... tough policy and value decisions need to be made, and where economic leverage must be brought to bear ... remember that you are using your stockholder's money, and your profits to pay for health care that is not really needed. That's what it really comes down to, and in this era of limited resources none of us can afford that kind of waste."

Later in the same article, Robert Burnett reflected on his involvement in launching an HMO in Des Moines for his company. That effort failed largely because of resistance of the medical community, but it is clear that Burnett and other top executives recognize the necessity of such reforms and intend to remain involved in this transition. According to Burnett, "the tragedy

is that I can make more money for the corporation and its stockholders in the next three or four or five years ... by doing something effective in the way of cost control than I can by selling ... every dollar of health care cost that's saved goes straight to the bottom line" (Iglehart, 1982). If this holds true, and there is some indication that it will, then it is increasingly likely that there will be an incentive for more organizations to take a serious role in health promotion for their own economic interests.

For some communities, the organizations and corporations that employ large numbers of men and women in those areas could emerge as the most potent providers of health resources in the future.

Before proceeding, it is essential to examine the various ways in which the toll of overall disease has been related to specific effects on employees and employers. Even beyond the appalling statistics themselves, the issue of greater significance is that each instance is an example of the inextricable interaction between life-style, workplace, environmental, and economic determinants of an individual's health and longevity. Furthermore, there is already clear evidence that each of these instances can be reduced significantly by preventive and health promotion programmes.

Equitable Life Assurance estimated that the cost of one person with chronic headaches was \$3 394,50 per year.* Consistent with their business, the costs were presented in a manner similar to an insurance premium:

a)	Visits to employee health centre	\$ 473,14
b)	Time away from work	56,61
c)	Work interference due to symptoms	2 206,95
	Work interference affecting superiors	72,80
	Work interference affecting co-workers	542,88
	Work interference affecting subordinates	42,12
	(Manuso, 1978 in Corporate Wellness Sourcebook)	

There is one often cited instance from a recent study by the National Institute on Occupational Safety and Health that estimated the cost of "executive stress" alone at \$10-\$20 billion in the United States. (Kristein et al. 1977) That figure included only such clearly measurable items as work days lost, hospitalization, outpatient care, and mortality to executives and was calculated as follows:

	CONSERVATIVE ESTIMATE, \$	ULTRA- CONSERVATIVE ESTIMATE, \$
Cost of executive work loss days (salary)	2,261,775,800	1,430,887,850
Cost of executive hospitalization	248,316,864	124,158,432
Cost of executive outpatient care	131,058,235	65,529,117
Cost of executive mortality	<u>16,470,977,439</u>	<u>8,235,488,720</u>
	<u>19,712,128,338</u>	<u>9,856,064,119</u>

Moving from a general statement of policy to suggest specific measures Marvin M Kristein, Chief Health Economist at the American Health Foundation, and his colleagues wrote: "It can be said unequivocally that a significant reduction in sedentary living and over nutrition, alcoholism, hypertension, and excessive cigarette smoking would save more lives in the age range 40 to 64 than the best current medical practices." (Kristein et al., 1977 in Corporate Wellness Sourcebook).

Most recently Richard S Schweiker in the USA, Secretary of the Department of Health and Human Services, stated:

We are going to stress ... preventive health care. Another word for preventive health care is "wellness." For example, many companies are finding out that there is a big advantage to keeping their employees healthy We hope to encourage such programmes by providing incentives to stay well rather than get sick ... to find out more about what people can do to live longer.

Dr C Ellis, Medical Officer, in the Mine Safety Division Vol 7 No 1 February 1982 (24-25) proposed the novel idea of rewarding workers for avoiding or reducing factors harmful to their health. In his paper "Rewarding the Well Worker" he claimed that a "total wellness programme" based on incentives to reduce factors such as smoking, alcohol consumption and obesity would improve the image of the mining industry and save it millions of rands.

The concept is to reward the worker with a bonus for each factor he has removed or does not have. This would act as an incentive to improve health, and would thereby improve health, and would thereby improve productivity and efficiency, reduce accidents and lessen the demands on management and medical facilities.

Curative medicine consumes over 90 per cent of the Government and industrial health budget. The proposition here is that the equation be turned around and that the well and productive are rewarded for being so and that prevention receives more of the budget.

The well worker subsidised medical aid schemes and medical facilities because he paid his contributions but did not use the scheme or facilities. There is no reward for him in all this, in fact it would appear that the well worker is penalized for his good health and Lifestyle.

He said a patient could not be faulted for having arthritis or appendicitis but there were certain causative factors which he called "owner controlled risk factors" which could only be changed by the worker himself. Doctors can advise but the patient must supervise. The four which are identified are: alcoholism, smoking, obesity and physical inactivity.

All these factors were in the hands of the patient and caused loss of life, illness and accidents. It would be logical, therefore to reward workers who did not have these risk factors.

Obesity, a disease of affluence and fast easy foods, causes high blood pressure, heart disease and many other problems. Fifty percent of deaths in South Africa are due to coronary heart disease, higher than any other country in the world.

Dr Ellis said there were 353 000 alcoholics in South Africa who cost R530 million in lost production each year and a further R640 million in alcohol related illnesses and accidents.

Tobacco kills one in four of its users and is the largest cause of premature death in developed countries. There are five million smokers in South Africa smoking some 63 million cigarettes a day. It is a major cause of heart, lung and vascular disease.

How can one promote and sell health and reduce the risk factors involved? These habits and attitudes are ingrained in society and their social acceptability is reinforced by the advertising of vested interests. Prevention of the diseases of modern society requires a change in individual behaviour and attitude. The motivation for this is generated by a desire to be healthier, more attractive or to feel better.

The solution is therefore to instill this desire by promoting wellness as a concept in a structured programme centred around incentives.

A wellness programme can be promoted as a multi-pronged campaign using incentives and concomitant rationalisation of the benefit and medical aid societies and reduction of the availability of factors harmful to health.

(1) Incentive bonuses

These can be varied including prizes or points leading to prizes, extra leave, money, and blazers, ties or carry bags with wellness emblems. The lower the wage earner (the target group) the more the incentive will work. A monetary award is the ideal, universal incentive and can be set as a percentage of salary.

(2) Rationalisation of the benefit and medical aid societies

This can include no claim bonuses for non-users, loading for excessive risk factors present or reduced premiums for absence of these risk factors.

(3) Availability of and sale of alcohol and cigarettes

It is a universal law of nature that availability governs use. Prohibition does not work to stop a habit completely but promotion and advertising increase its use. Concurrent strategies that can be used are decreased licensing hours, increased prices, reduced advertising, declaration of dry areas and decreased number of outlets.

(4) Health education and promotion

Much of present day preventative medicine and its organisations can be co-ordinated through a wellness programme. Heart week, cancer prevention and many other specialised preventative campaigns can be routed through wellness."

To sell health one has to use the techniques of the market place - exposure, advertisement and visual impact. These are to get the customers into the health store and out of the bottle store. As in most markets once they are in our store the battle is nearly won. The opposition, the alcohol, tobacco, food and disease industries, have entrenched financial interests and are formidable opponents.

Dr Ellis, therefore, proposed the idea of a "wellness office" which should be easily accessible and have a bright attractive appearance.

It could be controlled by community services, social services or the medical department. The staff should be pleasant people with nursing or paramedical backgrounds.

The theme may revolve around the ideal weight because this is easily measurable, verifiable and understood. Incentives for being of ideal weight, a non-smoker or for being physically active will draw clients into a Wellness Store.

Clients will come monthly and data including client's weight and blood pressure can be recorded. At this visit they can be counselled or rewarded for the absent risk factors. Screening and referral to the medical department can take place if necessary.

He said the system should be simple and cost effective.

The effectiveness of the incentive will be in proportion to the size of the reward. It follows that if the reward is too high it will be too expensive to run and if too low it won't work.

The initiation and documentation of this reward system will provide administrative problems. Verification of non-smoking, non-drinking and exercise will be difficult to obtain but various methods are a partial safe-guard against abuse of the system.

Dr Ellis concluded: "Incentive systems catered and tailored appropriately for each industry so that the workers have a tangible reward to attract them away from harmful habits can work and be cost effective. It is a "now" reward for an invisible product. It will be a fair balance providing encouragement for the healthy in addition to the support already given to the sick. It will provide a reason for the ill worker and will have a powerful psychological effect for the long term improvement of health in the industry."

The consequences will be fewer accidents, fewer days lost from work, greater productivity and efficiency and reduced demands on sick funds, but the main and the most important will be the improvement of that invaluable asset, the health of our workers.

There is a fundamental need to restore both individual involvement, as well as the economic and health benefits for that participation, to any one person or group of people who voluntarily undertake health promotion efforts. Until such positive incentives are created to at least offset the innumerable negative incentives that are already present, any health promotion efforts will not have sufficient inherent or immediate reward to sustain them over time and they will fail.

Physician Lorenz K Y Ng of the National Institute on Drug Abuse stated the situation concerning sickness incentives quite succinctly:

"The health care system provides economic incentives for sickness rather than health, in that people receive financial rewards from most health care plans only when they are ill. Physicians are paid only for treating illnesses, and there is no incentive to focus on methods for promoting health. These negative incentives extend into other realms as well Such practices not only fail to reward those who are healthy or who make an effort to stay healthy, but also implicitly penalize them."

With the exception of the public school system, there is no other place where sickness incentives are more prominent than in the workplace, sick days can translate into time off, disability claims can be tantamount to a paid vacation, and sickness care is seen as free or at least paid by a remote third party. To compound these tendencies there are strong peer pressures toward alcohol abuse, macho media images promote cigarette smoking and high speed driving, as well as the basic incentive of time off from work. None of this implies deliberate manipulation or deception on the part of the vast majority of working people. This is simply to point out that the incentives of the present system are conducive to certain behaviours and to sickness. At present the scenario is one of infinitely escalating costs, diminishing returns, and negligible effects on the health of the population, within a system where supply and demand are controlled by the same organizations.

By contrast, health promotion programmes have found a positive response to health incentives such as courses in stress management, discounts on goods and services, membership in recreational facilities and fitness clubs, economic incentives in the form of salary increases, and even the creation of planned "well days" in place of unused sick leave.

Health incentives are a controversial realm with potential for manipulation and abuse. There is a fine line between an appropriate incentive or encouragement and an undue inducement or coercion in matters related to employee health. On the basis of his extensive work with over 200 companies for the Fortune 500, Willis Goldbeck, President of the Washington Business Group on Health, has analyzed the need to be aware of multiple incentives and motivations in any health promotion programme by stating that one should never approach a potential corporate supporter with "exaggerated claims of future savings," that savings "are a very legitimate reason for employees to be interested, but that reason alone is not sufficient," and that "community groups need to work with employers along the whole spectrum of logical, health, financial, environmental and ethical motivations for developing a wellness agenda in every community" (Goldbeck, 1982 in Corporate Wellness Sourcebook). In view of this background, it is clear that any attempt to formulate a true health care system, that is, one designed to elicit and sustain optimum health and longevity for the population as a whole, must meet certain basic criteria. In a memorandum to Governor Jerry Brown, Lawyer, Rick J Carlson (1982), Chairman of the California Governor's Council on Wellness and Physical Fitness, stated three constraints upon the development of effective health promotion programmes:

"First, the lack of disincentives to deter people from using unnecessary and inappropriate curative medical services and as a result, contain stampeding medical care costs. Second, the lack of sufficiently powerful incentives to encourage people to assume more responsibility for their health and therefore utilize less medical care also resulting in cost containment. And third, the availability of money to develop realistic health promotion options to aid them in assuming that responsibility."

These prerequisites apply to both individuals and organizations. Despite these restrictions, the involvement to create the healthy

workplace as an adjunct to and extension of individual life-style practices is becoming a reality in some innovative and prominent government agencies, school districts, major corporations, small business, several major universities, and numerous health promotion facilities.

The question of why health promotion programmes should take place at a workplace, must be considered. There are many demonstrable advantages that have been enumerated by physician Jonathan F Fielding (1981), co-director of the Centre for Health Enhancement (CHEER) at the UCLA School of Medicine: "(1) access to people and time; (2) stability of the working population; (3) lower costs; (4) existence of management and organizational structure; (5) ability to conduct several interventions simultaneously; (6) strong social support networks; and (7) willingness of the working population to participate in occupationally sponsored programmes." Overall, this point is emphasized in former Governor of California Jerry Brown's mandate to the Governor's Council on Wellness and Physical Fitness for the state of California that, "More intensive, high cost treatment will do little to prevent chronic, debilitating and costly disease and that the health care setting and the workplace are the ideal places to initiate health promotion programmes".

It would be foolhardy for individuals or organizations to overlook the powerful implications of creating workplace environments that enhance individuals responsibilities and participation. Every major poll of all levels of workers is consistent with a 1979 Gallup poll conducted for the United States Chamber of Commerce that found that "the overwhelming majority believe that if they are more involved in making decisions that effect their job, they would work harder and do better ... nearly two thirds would be happy to have their salaries linked to higher productivity", and this has recently been extended to other benefits as well.

There are undeniable indications of a profound shift in individual and cultural values regarding work. Values are not abstract or intellectual constructs, they represent fundamental changes in attitudes and behaviour that are challenging every aspect of work, the workplace, and life itself (Kenneth R Pelletier 1979 in Corporate Wellness Sourcebook).

4.3 Disease Prevention at the Worksite

Many employers in America have developed programmes to improve the health of their employees. Sometimes the programmes also extend to dependants and even retirees. While medical services provided by employers are not new, many recent programmes are motivated by a broader definition of health and of employer responsibility. These health promotion programmes are quite separate and have a motivation different from the traditional occupational health concerns and mandated environmental monitoring and examination requirements based on exposures.

Today most of the serious health problems are those that develop slowly over time. As mature conditions, they contribute significantly to disability and to diminution in quality of life. In many cases by the time these diseases make themselves known, their course cannot be altered. For example lung cancer has a five year survival rate of about 5%, and this has not improved appreciably over the last 20 years. A stroke occurs suddenly, often without clear warnings that could lead to treatment that would forestall it. A stroke frequently compromises quality of life and in many cases permanently precludes normal functioning. Heart disease often first shows itself as a heart attack, and many first heart attacks are fatal. One fourth of all fatalities from heart attacks occur without prior evidence of heart problems. Victims of heart disease are frequently forced to reduce both work and leisure time activities. While these and other major health problems may appear with devastating suddenness, they share a long progressive

phase that is without symptoms. They are all chronic diseases even though they appear as if from the blue.

Employers see a pattern of health problems that is similar to the national statistics for the adult population. For example, a large consumer goods manufacturer's experience with employee deaths over a period of several years is shown in Table 4.1. Almost four-fifths of the total mortality is accounted for by the nine top rank order causes of death. The pattern is remarkably similar to that for the US population as a whole.

Table 4.1: Distribution of causes of death in a manufacturing company

CAUSES OF DEATH, 1981	NUMBER	PERCENTAGE OF TOTAL
Diseases of the heart and blood vessels	1 447	49
Cancer	390	13
Stroke	120	4
Pneumonia and influenza	103	3
Diseases of digestive tract (incl. some cancer)	89	3
Motor vehicle accidents (nonoccupational)	64	2
Other accidents	38	1
Suicide	45	1
Homicide	24	1
Subtotal	2 320	79
All other cases	632	21
Total	2 952	100

Includes retirees.

Source: (Jonathan E Fielding 1984 in Wellness Sourcebook)

Death is a frequent occurrence in employees, short and long-term illness related absences. Table 4.2 shows for one large company, the top causes of illness-related absences of at least ten days.

Table 4.2: Leading causes of illness related to absenteeism:
rank order by cause (total population)

RANK	CAUSE
1	Ischemic heart disease
2	Disorders of bones and joints
3	Delivery, complications of pregnancy
4	Accidents
5	Disorders of the nervous system
6	Mental disorders
7	Other musculoskeletal disorders
8	Pneumonias
9	Abdominal hernias
10	Diseases of the uterus, female organs

Source: Unpublished company data.

Ranked by days lost from 10-day absences.

4.3.1 Health Risks

From the standpoint of the employer, a salient feature of most of these major diseases is that they are preventable or postponable to a significant degree. Characteristics that increase our risk for each serious health problem are called health risks or health

indicators. Health risks associated with some major disease groups are summarized in Table 4.3.

4.3.2 Cost of Preventable Diseases

Hundreds of billions of dollars are spent annually in the USA on diseases and conditions that are largely preventable. Cost of illness include the "indirect" costs of lost productivity, i.e. absenteeism, turnover, reduced on-the-job performance, as well as the direct cost of medical treatment. Employers bear a major portion of illness costs. They also absorb the productivity losses including those resulting from premature retirement and death. According to estimates by the President's Council on Physical Fitness, premature deaths alone cost American industry more than \$25 billion and 132 million workdays of lost production each year (English, M M 1982 Business falls in step with fitness in Wellness Sourcebook).

Table 4.3: Prominent controlled risk factors

CAUSE OF DEATH (1977)	RISK INDICATORS
Heart disease	Smoking, high blood pressure, elevated serum cholesterol, diabetes, obesity, lack of exercise, Type A behaviour.
Cancer	Smoking, alcohol, solar radiation, ionizing radiation, worksite hazards, environmental pollution, medications, infectious agents, diet.
Stroke	High blood pressure, elevated cholesterol, smoking, stress.
Accidents, other than motor vehicle	Alcohol, smoking (fires), product design, home hazards, hand gun availability.
Influenza/pneumonia	Vaccination status, smoking, alcohol.
Motor vehicle accidents	Alcohol, nonuse of seat belts, speed, automobile design, roadway design.
Diabetes	Obesity (for adult/onset), diet.
Cirrhosis of liver	Alcohol.
Suicide	Hand gun availability, alcohol or drug misuse, stress.
Homicide	Hand gun availability, alcohol, stress

(English 1982 in Corporate Wellness Sourcebook)

Estimates of the direct and indirect costs of six of the leading causes of death and disability are presented in Table 4.4. These figures are very conservative in that they are many years old and only represent some of the costs of preventable problems.

Nonetheless, they serve to illustrate the magnitude of the dollars spent on preventable health risks and impairment, and the substantial portion of total costs made up by lost productivity -

on the order of two to three times the direct medical costs.
(Berry, Harturian, Luce, 1975 in Wellness Sourcebook).

Thus, there are strong financial, not to mention humanitarian, motivations for employers to prevent, or at least slow, the occurrence of these chronic afflictions among their employees. Many workplaces have specific health risks associated with producing certain products and providing their services. All employers and employees, however, regardless of the nature of their work, have problems associated with a number of prevalent health problems that are amenable to health promotion / disease prevention efforts. The nature of two risk factors, the degree to which they are controllable, and experience with employer or employee sponsored efforts to reduce this risk and related diseases are summarized below, viz. Hypertension and Exercise.

Table 4.4: Estimated costs of health risks/illness, 1975a

DISEASES/INJURY/HEALTH RISK	BILLIONS OF DOLLARS		
	DIRECT	INDIRECT	TOTAL
Alcohol abuse	12.75	30.00b	42.75
Smoking	8.22	19.14c	27.36
Cancer	6.41	16.74	23.15
Coronary heart disease	2.49	11.23	13.72
Motor vehicle injuries	4.77	9.66	14.43
Strokes	16.04	41.71	57.75
Totals	50.68	128.48	179.16

(Berry, Harturian, Luce 1975 in Corporate Wellness Sourcebook)

a) Costs of smoking calculated for 1976.

b) Indirect costs for alcohol abuse include costs of motor

vehicle accidents, violent crimes, social responses, and fire losses in addition to lost production.

- c) Indirect costs for smoking include fire losses as well as lost production.

4.3.3 Brief Review of Major Health Risks

4.3.3.1 Hypertension/High Blood Pressure

Elevated blood pressure is associated with higher rates of deaths and illness, primarily from stroke, heart disease, and excess pressure in, or narrowing of, major arteries in the body.

On the average, individuals with high blood pressure (usually defined as greater than 140/90 mm Hg) develop approximately three times as much coronary heart disease, six times as much congestive heart failure, and seven times as many strokes as individuals with controlled or normal blood pressure. Those in whom high blood pressure is detected can have it effectively controlled and, depending on their level of elevation, age, sex and race, can reduce their risks of acquiring the major hypertension-related disease by at least 20% to 50%.

Hypertension is a common condition in most worksite populations. Usually, high blood pressure (including both controlled and uncontrolled) occurs in 15-25% of employees. However, employers with a high proportion of older male workers, especially if a significant fraction is black, can have much higher rates. For example, rates of hypertension in white male workers ages 55-64 are, on the average, about 42%, compared with 59% for the same age black male workers.

A family history of hypertension increases an individual's risk. However, a number of other factors related to blood pressure are under individual control. Obesity is a prime contributor to

hypertension. High salt intake in at least a minority of individuals can increase blood pressure. Americans usually consume 10 to 20 times their daily requirements of salt, making it difficult to cut down to only what is necessary. However, salt is an acquired taste and reduced salt intake over a several week period will reset the palate to prefer reduced salt and make foods previously considered only slightly salty, very salty tasting. Stress raises blood pressure acutely and in some individuals probably contributes to a sustained blood pressure elevation, with relaxation techniques helpful in controlling blood pressure in some patient populations. Some experts feel that exercise can reduce blood pressure. However, the degree to which regular exercise, in addition to many benefits, can lead to sustained reduced high blood pressure is not known. Cigarette smoking causes an increase in blood pressure. Whether smoking leads to permanent elevations in blood pressure is not established (Fielding 1984 in Wellness Sourcebook).

In general, worksite based hypertension detection and control programmes have results that are superior to what is achieved in clinical practice, although the range of control rates in both settings suggests that the level achieved is dependent on the enthusiasm and level of follow-up effort of those running the programmes.

A voluntary onsite screening, referral, and follow-up programme conducted by Massachusetts Mutual Life Insurance Company led to an increase in the percentage under control from 36 to 82% after one year of operation. Although definitions of hypertension and of control may vary in different programmes, in general 80 to 90% control can be expected from diligent, well organized and well run programmes. Costs of programmes also vary greatly. The cost of outside medical care per year for hypertension treatment and follow-up under company-sponsored health insurance seems to average between \$175 and \$250 per hypertensive. However, if only onsite costs are considered, the cost is much less.

A carefully done demonstration project conducted at Ford Motor Company showed that the first year cost of blood pressure screening, referral, follow-up and monitoring was \$14.59 (1982 prices) per employee and \$3 - \$4 per hypertensive employee. In the same study, the annual cost per patient receiving onsite treatment for hypertension was \$96.19 (Fielding, Wellness Sourcebook).

In 1975, health care costs arising from hypertension were estimated to exceed \$3.5 billion. Unlike smoking and alcoholism programmes, whose effect on medical expenses is more immediate, hypertension programmes are effective in reducing long-term medical expenses. Among participants in a work site hypertension treatment programme offered to the United Storeworkers Union, for example, 81% had at least a 10% decline in blood pressure in the first year of the programme. Hospital use did not decline significantly, however, during the first two years of follow-up. But hospital use had declined significantly 8+ years after initiation of the programme, and this result was accompanied by a similar decline in deaths from coronary heart disease.

Hypertensive employees have more absences from work. In the study of union employees, hypertensive workers had 14% more days of disability than other employees in the year before the programme started (Table 4.5). In a Massachusetts Mutual study, absenteeism was 18% higher in the year preceding programme implementation. Excess absenteeism was not observed among workers who were unaware of their hypertension.

Table 4.5: Annual days of disability per 1 000 office workers,
ages 17-64, by cause, at the Metropolitan Life
Insurance Company 1977-1979

CAUSE	ANNUAL DAYS OF DISABILITY PER 1 000 OFFICE PERSONNEL		RISK FACTORS
	MALE	FEMALE	
Cardiovascular diseases	934(1)*	519(8)	Smoking, hypertension, hypercholesterolaemia, lack of exercise, diabetes mellitus, obesity, stress
Accidental injuries	882(2)	910(2)	Stress, alcohol, drug use
Musculoskeletal disease	650(3)	781(3)	Obesity, stress
Digestive disease	598(4)	642(5)	Smoking, alcohol, diet, obesity, stress
Neoplasms	319(5)	576(6)	Smoking, alcohol, diet, environmental carcinogens, obesity
Respiratory diseases	293(6)	524(7)	Smoking
Nervous system and sense organ diseases	289(7)	274(10)	Hypertension, smoking, hypercholesterolaemia, stress, diabetes mellitus

CAUSE	ANNUAL DAYS OF DISABILITY PER 1 000 OFFICE PERSONNEL		RISK FACTORS
	MALE	FEMALE	
Mental disorders	278(8)	409(9)	Stress, alcohol, drug use
Genito-urinary diseases	165(9)	725(4)	Hypertension, diabetes mellitus
Skin diseases	73(10)	67(12)	Obesity
Infectious diseases	56(11)	124(11)	Alcohol, stress
Childbirth and related conditions	-	2 065(1)	
Other	168	386	
A-causes	4 705	8 003	

* Numbers in parentheses = rank.

Source : Metropolitan Life Insurance Company, "Frequency and Duration
of Disability among Metropolitan Employees in 1977 - 1979,"
Statistical Bulletin of the Metropolitan Life Insurance Company,
January - March 1981, 4.

4.4 Lifestyle, Health Status and Longevity

There is a growing body of evidence which demonstrates that personal lifestyles affect both longevity and cause of death. While a single study is seldom sufficient to demonstrate the relationship between lifestyle and either longevity or cause of death, we are presently in a rather envious position - there are many well-conducted studies which demonstrate these relationships.

4.4.1 The Alameda County Study

This study followed 6,928 persons for a period of nine years. A self-report questionnaire was administered in 1965 and again in 1974. Death certificates were checked at 5, 9+ and 12+ years. Among the more significant findings from the study are:

- * Seven health practices were found to be related to physical health status and mortality - never smoking cigarettes, regular physical activity, moderate or no use of alcohol, 7-8 hours of sleep regularly, maintaining proper weight, eating breakfast and not eating between meals. Further statistical analyses revealed that two of these practices did not independently contribute to health status and mortality (eating breakfast and eating between meals).
- * Men who followed six or seven of the practices were as healthy as men who were 30 years younger but followed only one or two of the practices.
- * A 45 year-old man who followed six or seven of the practices could expect to live 11 years longer than the 45 year old man who followed only one or two of the practices. For women the difference in longevity was seven years.

- * Men with three or fewer of the health practices had a standard morality ratio of 1.93 compared to a ratio of .71 for men with six or seven of the practices. Women with three or fewer of the practices had a standard morality ratio of 1.60 compared to a ratio of .80 for women with six or seven of the practices.

4.4.2 The Framingham Study

This prospective study started in 1948, it was designed to examine associations of various genetic, psychological, and behavioural factors with the incidence of myocardial infarctions and sudden cardiac death. The Framingham study is one of the most important studies affecting health promotion and disease prevention as it was the first to demonstrate correlations between cardiovascular disease and behaviour-related factors such as cigarette smoking, obesity, and hypertension. Among the more important findings of the Framingham study are:

- * Cigarette smoking is the strongest observed risk factor for sudden cardiac death.
- * Hypertensives have twice the risk of developing coronary heart disease as do normotensive persons.
- * Weight gain is associated with an elevation in blood pressure.
- * The rate of coronary heart disease for men with sedentary lifestyles is about three times higher than that for active men.
- * Obesity is a significant independent predictor of coronary heart disease.

The Framingham study continues to provide much of the scientific justification for health promotion and disease prevention programmes. Since the risk factors identified in this study are primarily within the control of individuals (e.g. cigarette smoking, obesity, physical inactivity) there are numerous opportunities to help persons reduce their risk of premature death.

4.4.3 Lack of Exercise

Estimates on the number of American adults getting "regular exercise" vary widely. However, some of the best information on the frequency of exercise comes from a 1980 telephone survey of more than 1000 randomly selected adults in Massachusetts. Interviewers found that 56% claimed to exercise at least twice weekly and over one-quarter claimed daily exercise.

The exercise lasted for a median time of 47 minutes, and the most common exercises most recently engaged in were walking (14,0%), jogging (12,3%) and calisthenics (8,7%) (Fielding 1984 in Wellness Sourcebook).

Lack of exercise has been implicated in a number of health problems. Bone loss (osteoporosis), which leads to increased risk of fractures and is particularly common in older women, is increased by lack of exercise. Insufficient exercise to strengthen abdominal muscles increases the risk of low back problems. Lack of exercise to help maintain flexibility and balance is thought to increase the risk of serious falls in older adults.

Regular participation in exercise programmes, including those sponsored by employers, can lead to significant reductions in weight, improved measures of fitness (eg. faster pulse recovery rates after exercising and better performance on standardized fitness tests), decreases in systolic and diastolic blood

pressures, and also reduced skin fold thickness, a good measure of percentage of body fat. Changes in these indices toward reduced risk are (to the consternation of many part time, limited exercisers) directly proportional to the frequency and intensity of exercise.

Evidence of the benefits of vigorous sustained exercise has recently been expanded to include reducing risk for heart disease. Growing evidence supports the theory that more physically active individuals have a lower age specific rate of heart attacks and associated deaths than their sedentary confreres, even when all other health risks (blood pressure, smoking status, etc.) are held constant. For example, a study of Harvard alumni found that those expending fewer than 2 000 calories at work and play each week had a 64% higher risk of heart attack than the more active. Another study found that the risk of dying of a heart attack with no prior indication of heart disease was 55 to 65% lower in persons who engaged in at least some high-intensity leisure time activities during the prior year. This protective effect may be mediated by an exercise induced increase in an helpful kind of blood cholesterol, called HDL (high density lipoprotein), which appears to assist in removing fatty deposits from artery walls.

Accompanying a regular exercise programme, whether employer sponsored or not, are improvements in energy level, attitude toward job and employer, overall morale, and self-perceived work performance. Degree of participation is directly related to the level of benefit obtained. For example, men from a variety of occupations randomly assigned to an employer sponsored exercise programme reported improvements in work performance 60% of the time compared to only 3% for the nonparticipant group. Another benefit of the exercise, which any regular exerciser will volunteer, is a reduction in stress and in feelings of depression, both common concern problems among employees.

From the employer viewpoint, additional dividends of exercise programmes are reductions in absenteeism. For example, an unpublished study from the Metropolitan Life Insurance Company found that annual absenteeism rates in 100 participants in a voluntary exercise programme decreased from 6.3 to 4.9 days while the control group of 100 nonexercisers showed a net increase from 5.6 to 7.0 days.

In a Toronto insurance company, high adheres to an exercise programme at the company experienced a 42% decline in average monthly absenteeism compared to a 20% decline in both the test company overall and a control insurance company in the same city. Some studies suggest that lower levels of participation can reduce absenteeism, but the results are not conclusive.

Cost of operating an employer sponsored programme vary considerably and rules of thumb are difficult to find. An outside jogging track plus some showers and lockers is an investment of a lower order of magnitude than an indoor exercise facility, a swimming pool, or an indoor track. Operating costs also differ greatly, with the major cost being staffing. A full-staffed operation with a facility open 10-14 hours a day can incur costs of between \$500 to \$1 000 per participant per year. Much less intensive staffing is also possible, with commensurate reductions in cost and usually declines in participation. To date there is no good information on the cost-effectiveness or cost-benefit ratio of these programmes, though many corporations feel they provide a visible benefit that makes a major contribution to productivity and frequently aids in recruitment (Fielding 1984 in Wellness Sourcebook).

4.4.4 Risk Assessment

Risk assessment would be followed by a risk reduction programme comprising one or more of the following components depending on the individual and organizational level of commitment:

- 1) Accident and self-protective measures concerned with job safety and visible, environmental hazards of the work place with an emphasis on occupational medicine.
- 2) Medical self-care programmes including CPR training, basic first aid, blood pressure monitoring, and other aspects of lay medical care.
- 3) Smoking cessation programmes, which are potentially very effective because well-motivated participants can achieve initial abstinence rates of up to 70-100% and long term quit rates of up to 50%.
- 4) Alcohol and substance abuse programmes, which are amongst the most long-standing and effective programmes with success rates of 65-80% reported for long term reduction in excessive drinking.
- 5) Hypertension control, which would include early screening, detection, and follow-up since the majority of people with high blood pressure do not exhibit symptoms.
- 6) Weight reduction, an area in which business can assist employees by providing meeting times and places as well as provision of low-calorie, low-fat foods and education materials in the cafeteria.
- 7) Exercise and physical fitness programmes, which are the most currently pervasive health promotion programmes, are usually limited to certain employee levels and are among the most expensive to implement.
- 8) Stress management programmes which are inundated by "now to," prepackaged programmes of limited effectiveness but certainly better than nothing at all. Currently, the area of stress management is the most frequent and prominent area

of concern and has generated the greatest amount of activity.

- 9) Nutrition and healthy dietary practices, which are relatively uncommon but growing rapidly without a particular focus on weight control but an overall, healthy diet that goes beyond this basic consideration.
- 10) General health education approaches, which have focused on information dissemination with no programmes or incentives to actually encourage implementation. (Pelletier 1979 in Wellness Sourcebook)

In virtually every one of these programmes personal responsibility can be assured for a healthier lifestyle. One of the differences between personal and organizational health promotion is that the workplace also needs to change in order to continue and serve as an inducement for these practices, to generalize throughout a person's life.

Finally, health promotion programmes per se, address the remaining 85 - 90% of all employees who have no early indications of disease and are relatively healthy. Health promotion activities consist of those individual practices, organizational programmes, and workplace environments and policies that elicit and sustain health in the population as a whole. There is no mystery concerning the components of such programmes, which usually consist of a variety of mixes from the previous list of limited programmes. Although the actual components are virtually identical, the unique characteristic of a holistic programme is that it is not isolated and compartmentalized while business continues as usual. One example of a limited programme would be for an organization to have a stress management seminar rather than seeking the roots of the apparent stress in poor communications, disruptive noise levels, or lack of health incentives.

When all factors are considered, the one essential element remains - the individual worker. In 1981, Business Week published a cover story special report entitled "The New Industrial Relations," which reached some astounding but widespread conclusions such as, "the evidence is growing that rank-and-file workers for the most part want to be more deeply involved in their work" with the caution that they "have an unerring ability to spot exploitive schemes." In the same article was the observation that, "If a work improvement aims only at improving productivity, it quickly loses worker support. But a programme that has only a vague plan of making workers feel better about themselves is likely to collapse for lack of business perspective." What is a possible solution? A deceptively simple solution that echoes an underlying theme throughout this chapter was voiced by Michael Donduck of Digital Equipment, who noted, "Improved job satisfaction and improved productivity go hand in hand, and both are important to workers as they are to managers." This basic insight applies directly to the effective design and successful implementation of health promotion programmes.

The relative importance of lifestyle to prevention programmes was first described in a report issued by the Canadian government. The report identified four factors as contributing to mortality - human biology, the environment, the health care system (primarily access to care) and personal lifestyle. The report concluded that lifestyle was the factor contributing most to mortality. The Centres for Disease Control realizing that the contribution of lifestyle to mortality was not consistent across all causes of death attempted to formulate estimates of the contribution of lifestyle to the leading causes of death. Table 4.6 includes estimates for four of the leading causes of death. It is important to note that while experts may disagree on the accuracy of the percentage contributed by each factor there is virtually no serious disagreement on the relative contribution of each factor.

Table 4.6: Factors Contributing to Cause of Death

CAUSE OF DEATH	LIFESTYLE	ENVIRONMENT	HEALTH CARE DELIVERY	HEREDITY
Heart disease	54%	9%	12%	25%
Cancer	37%	24%	10%	29%
Motor vehicle	69%	18%	12%	1%
Cirrhosis	70%	9%	3%	18%

(Fielding 1984 in Corporate Wellness Sourcebook)

4.5 Growth of Health Promotion/Disease Prevention Programmes

"Wellness Epidemic Sweeps Companies" headlined a recent issue of Business Insurance. That American Business is bullish on wellness is increasingly clear.

A 1979 survey of corporate health promotion and risk reduction activities by the Washington Business Group on Health sent to its 160 member companies, almost without exception among the Fortune 500, yielded 59 responses (36,9%). Companies without programmes targeted at specific risks ranged from 41% offering stress management to 85% providing CPR classes.

A 1979 questionnaire about corporate fitness and other health promotion programmes was sent by Fitness Systems to major US companies listed in Fortune magazine: the 300 top industrials and top 50 of each of the Life Insurance, Commercial Banking, Utilities, Retailing, Diversified Financials, and Transportation business sectors. Of the 22% of companies from whom a return was obtained, about one-half had diet/nutrition counselling or smoking cessation programmes, slightly more had one-third stress management programmes, two-thirds had alcohol/drug programmes and

one-quarter had physical fitness programmes. The extent of employee fitness programmes in Canada was surveyed in early 1981 by the Canadian Public Health Association, with the financial support and consultation of Fitness and Amateur Sport Government of Canada.

Among the 26% of 800 companies responding, fitness programmes were reported in 25.4% (N = 52), primarily in companies with more than 500 employees.

A 1981 survey of 424 California employers chosen at random from all those with more than 100 employees at one or more sites in California found that 332 (78.3%) offered one or more health promotion activities. The most frequent activities were accident prevention, cardiovascularpulmonary resuscitation, and choke saver. Alcohol or drug abuse programmes and mental health/counselling were in place in about one-quarter of organizations offering any programme. Hypertension screening, smoking cessation, fitness and stress management were made available by 10-17% of these employers. Overall the 424 organizations surveyed offered a total of 938 health promotion activities and those with some programme averaged 2.8 activities.

The largest employers almost invariably had some programme activity, and averaging 3.9 activities. But one of the most striking results of the survey was that many small employers had some programme activity. Of those with 100-249 employees, 66% had at least some programmes with primarily one activity (31.2%) or two (25.0%) activities. Most interesting was the rate of acceleration of new programmes that the survey brought to light. Initiation of new activities grew from 11.3 per year during 1962-1971 to 111.5 per year for the 1978-1981 period (Fielding 1984 in Wellness Sourcebook).

Programmes vary from a few lectures on nutrition or how to exercise to extensive multicomponent programmes with considerable staffing and the construction of large physical plants to accommodate exercise programmes and other health promoting activities. Programmes established in the last five to ten years differ from their predecessors in that they tend to be more comprehensive, usually involve a number of target health problems, tend to involve full-time staff, and are more often continuous rather than periodic.

4.6 Evaluation

Does the programme work? What kind of return are we getting on our investment? These are the two basic questions that most employers want answered when they have sponsored health promotion programmes for their employees and sometimes for their families.

A number of companies believe they are saving substantial sums of money as a result of their health promotion/disease prevention programmes. For example, New York Telephone estimates that it gains \$2,7 million net of programme costs annually from nine health promotion programmes made available to 20 000 employees. Their programmes include: smoking cessation, cholesterol reduction, hypertension control, fitness training, stress management, screening for breast and colorectal cancers, alcohol abuse control, and training in preventing back injuries.

Campbell Soup estimated a savings of \$245 000 over a ten year period (1969-1979) for colorectal cancer screening consisting of sigmoidoscopy every four years after age 44. In addition, 90% of Campbell's hypertensive employees are on treatment, and the company believes that as a result, 75% of expected strokes per year in the 55-65 age group are prevented.

Whether or not the programme works can only be assessed in relation to the programme objectives. Many programmes have very broad objectives, such as "to improve the health of employees," and "to reduce health care costs." Translating these objectives into an evaluation strategy is often frustrating and expensive. For example, what does "improve the health of employees" mean? To one manager it may mean to decrease the number of heart attacks every year. To another it may mean reducing the known risks for important diseases in employees. For a third manager it may mean that employees have fewer sick days per year. And the fourth might feel that the best measure is what the employees respond when asked, "Do you feel that the company health promotion programme has contributed to improvements in your health?" or, "Do you feel more healthy than you did before the programme started?" Answering each of these questions requires a different method, and attempting to answer some of these questions requires very substantial resources. A programme evaluation might target changes occurring in the following areas:

- 1) Knowledge of health problems: e.g. employees better understand (a) the importance of controlling their blood pressure and (b) the relationship of high blood pressure to stroke and heart disease.
- 2) Attitudes: e.g. employees now consider regular aerobic exercise as important to their health.
- 3) Intentions: e.g. more smoking employees state that they intend to give up smoking.
- 4) Behaviours: e.g. more employees routinely wear seat belts than before.
- 5) Risk levels: e.g. the average total blood cholesterol is now lower in employees than before.

- 6) Illness: e.g. fewer illnesses per employee per year reported than before, or illness-related absenteeism has declined.
- 7) Disability: e.g. disability overall or for specific categories of preventable problems has been reduced.
- 8) Mortality: e.g. fewer employees are dying per year overall or from specific types of preventable health problems, such as automobile accidents or lung cancer.
- 9) Job satisfaction: e.g. employees report that they are happier in their jobs.
- 10) Satisfaction with employer: e.g. employees report a more positive feeling about their jobs.
- 11) Productivity: e.g. employees produce more output per hour, day, or week; or, if no objective measure is possible, employees state that they are more productive.
- 12) Health care costs: e.g. health costs have been reduced or have increased less rapidly.
- 13) Turnover: e.g. turnover and associated costs have been reduced.

A good strategy appears to be: (a) look at the cost of ill-health and attempt to estimate what portion of it can be reduced through participation in an employee health promotion programme and other related programmes; and (b) compare this amount with the cost of doing nothing. The difference suggests a range of investment that might be warranted in attempting to improve employee health. In addition, the positive effect generated by the programme may represent a major justification.

Another good approach is to concentrate on cost-effectiveness analysis directed to answering the question. "What is it costing me for a certain improvement in health?" For example, what is the cost per sustained quit in a smoking cessation programme? How much is the employer spending per year to achieve adequate control of a previously controlled hypertensive? What is the cost of getting a previously unfit person to a defined level of fitness and maintaining him/her at this level? This type of analysis helps to decide how efficient the programme is in achieving its objectives and permits comparisons of different programme options. It starts with the assumption that improved health of employees (and their families) is an important corporate goal. The key evaluation becomes how much improved health is derived from a particular type of programme with a particular level of expenditure.

One of the most difficult aspects of evaluation is attempting to establish cause and effect. Does the evaluation permit stating with some certainty that whatever improvement was found was attributable to the programme? This disarmingly simple question is the "bugaboo" of evaluators. A few of the major barriers to successful answering of that question are the following:

- 1) Changes in the habits of the entire population from which employees come: For example, from 1965 to 1980 the percentage of male smokers aged 20 and over declined 10,5% and the average cholesterol level went down approximately 10 points (milligrams per millilitre). An employer-sponsored programme targeted to these problems showed roughly equivalent changes. Without knowing what was happening in the rest of the population this programme might be considered a success. But taking these into account it may not have had any impact at all.

As workers become more aware of what they can do to improve their health and translate motivation into actions,

significant changes are occurring. In any worksite evaluation that covers more than a year or two, therefore, some attempt to control for these trends should be incorporated.

- 2) Programme participants are usually different from non-participants in many respects: For example, those entering exercise programmes sponsored by employers are more likely to be nonsmokers, to be very concerned about health in general, to be younger, and to be more knowledgeable about the benefits of exercise to health than non-participants. In addition, they may use fewer health care services, may tend to be more loyal employees with lower turnover, and may start by having a lower absentee rate. Unless a careful baseline assessment of all these factors is obtained, it is impossible to know in the future the degree to which differences in these important measures were due to (a) effects of the programme, or (b) continuation of preexisting differences.
- 3) Eliminating other reasons for the observed changes: For example, a programme to change eating habits of those with particularly high total cholesterol values in the blood was considered a success because in this high risk employee group the average cholesterol decreased by 10% over a three year period. However, no change has been observed from pre- to post-programme in the three day recalls of what was eaten. Further investigation showed that many of this group had enrolled in an exercise programme and had not only improved their fitness but also as a result, lost considerable weight. Losing weight reduces total cholesterol. The correct conclusion was that the observed change was secondary to the exercise and associated weight loss (Fielding 1984 in Wellness Sourcebook).

4.6.1 How Companies Tackle Health Care Costs

Various corporate health promotion programmes will be reviewed, survey data, how companies can fit these programmes into their overall health policies, the objectives of such programmes, and factors to consider in analyzing their impact will be discussed.

A recent study of large American corporations revealed that the total cost of health promotion programmes in 1983 amounted to only 11% of net profits, compared with the 24% of net profits expended on health insurance. Of those companies, 50% spent less than \$125 000 on health promotion activities. Although expenditures are small, companies offer a wide range of programmes, which differ by industry: oil, steel, finance, and insurance companies often have smoking control programmes, while alcohol and drug programmes are prevalent in the mining, chemical, oil, transportation, communications, entertainment, and utility industries. Physical examinations, the commonest kind of health promotion, are most popular in unionized businesses. Fitness programmes are more likely to be found in the communications, entertainment, finance, and insurance fields. Ironically, the hospital industry provides such programmes much less often than others.

High-level managers generally make the decisions about implementing these programmes. More than 20% of the decisions to begin a programme were made by presidents or higher officers.

4.6.2 Types of Programmes

The Wellness Works programme that the Massachusetts General Hospital offers to local employers typifies the well-balanced intervention programme. It offers risk factor assessment and medical evaluation, development of appropriate exercise,

nutrition, and lifestyle prescriptions, as well as medical treatment if needed. It promotes sessions on nutrition, coronary-prone behaviour, smoking control, and exercise classes, the programme assesses the progress of employees in these areas over a five year period. IBM, Xerox, Campbell Soup, General Foods, Johnson & Johnson, and Pepsi Co, among many other companies, also have excellent programmes. Some well established corporate health promotion programmes will be discussed here.

4.6.2.1 Control Data

Control Data Corporation's Staywell programme, begun in 1979, is available to its 22 000 employees in 14 US cities and in a number of other organizations as well. At CDC, the programme is free for all employees and spouses. It is usually offered on the employees' time.

The Staywell programme consists of orientations for employees and management, a confidential health screening and health hazard appraisal, and courses designed to promote healthy behaviour in a variety of areas. A primary focus is to create change by recruiting opinion leaders and action agents. CDC also has an individualized computer-based instruction programme that uses a person's name and tailors its response to the user's personal habits, personality, and compliance with programme regiments.

CDC initiated these activities because of the high correlation between certain risk factors and the health care cost experiences of its employees. Employee enrolment has ranged from 65% to 95%, and participants have said that the programme was highly beneficial in changing their behaviour. Objective data about changes in health care costs that resulted from the programme are not yet available (R E Herzlinger and D Carlkins 1986 in Wellness Sourcebook).

4.6.2.2 Kimberley-Clark

Kimberly-Clark's programme is aimed at controlling health care costs and at helping the company recruit and retain high-calibre employees. It is housed at its Neenah, Wisconsin headquarters in a \$2,5 million health services centre complex that includes an 8 000 square-foot multiphasic screening unit and a 37 000 square-foot exercise facility with an indoor running track, an olympic size pool, saunas, a whirlpool, locker facilities, and health education areas designed for large and small groups.

In 1982, 20% of the employees visited the centre two or more times a week, with an average of 6 551 visits a month.

The programme includes health screening and health risk appraisal, health education, supervised exercise programmes (for example, cardiac rehabilitation), an employee assistance programme (for example, for control of alcohol and drug abuse and for counselling), occupational health nursing services, and professional and career education.

The health screening programme produces data on disease risk. The health education programmes attempt to raise health awareness among employees, stimulate interest in seeking further information, and facilitate health-promoting behaviour. Printed materials, ranging from simple brochures to self-help manuals, a health education library, and extensive audio-visual materials are readily available.

A sample group of 24 employees participating in regular exercise programmes showed a significant reduction in weight, body fat, and blood pressure. The rehabilitation success rate for employees with drug problems is more than 70%. Absenteeism and accident data in a sample group of employees participating in the employee assistance programme showed a 43% reduction in absenteeism and a 7% reduction in accidents for one year after treatment compared with a one-year period before treatment.

While no impact on health care costs has been shown, screening has detected a number of employees at high risk for hypertension, heart attack, or cancer. In addition, the company has found the programme useful in recruiting and retaining high-calibre employees.

Table 4.7: Risk Factors Among a Fortune "500" Company's Salaried Employees

RISK FACTOR	PERCENTAGE OF EMPLOYEES		
	MALE	FEMALE	COMBINED
High blood pressure	9,6%	3,7%	
Smoking	18,0%	18,0%	
Serum cholesterol level greater than 240 mg/dl	45,0%	35,0%	
Serum cholesterol level greater than 300 mg/dl	12,8%	9,4%	
Weight greater than 125% of ideal			28,0%
Two heart disease risk factors	22,6%	14,4%	
Three heart disease risk factors	4,6%	1,2%	

Source:

Charles A Perry, "Good Health for Employees and Reduced Health Costs for Industry" (Health Insurance Association of America, 1981), p. 27.

4.6.2.3 New York Telephone

The New York Telephone Company has been a pioneer in corporate sponsorship of employee health promotion and disease prevention. Its goal is to focus on the individual's complete health status. To accomplish this aim, the company has designed three levels of involvement for its practitioners:

Level 1 consists of setting up, on a voluntary, confidential basis, a detailed health profile for employees and of monitoring departures from the norm. Community health care providers usually handle this level of care, but the company's professionals follow the case.

Level 2 consists of in-house actions to promote health. Employees' health profiles serve as the basis for specific long-term objectives such as weight reduction, and the company continually monitors progress in achieving these goals.

Level 3 consists of programmes for subpopulations of employees at high risk for expensive but treatable conditions like hypertension or back problems.

Dr G H Collings, corporate medical director, explained the evolution of these efforts: "We were forced into this integrated approach because of the proliferation of the individual programmes that we were offering. We had six shotguns and what we needed were six rifles so that we could target the interventions to the unique problems of each individual."

New York Telephone's programme includes fitness, smoking cessation, blood pressure control, and alcoholism programmes for high risk employees, and colorectal and breast cancer screening. Company health professionals manage hypertension control with a 79% success rate. Perhaps the greatest success has been 85% rehabilitation rate achieved on the alcoholism programme.

New York Telephone estimated that in 1980 these programmes saved at least \$6 million - a saving achieved at a cost of \$10 million for the 235 medical department employees, including 40 physicians, 40 nurses, and 7 counsellors, who serve 80 000 employees (R E Herzlinger and D Carlkins 1986 in Wellness Sourcebook)

4.7 Summary

What then do we know about the effect of risk factors on morbidity and mortality. First some risk factors are directly related to the development of disease (e.g. smoking and lung cancer). Second, for some risk factors there is an increasing risk of premature death with increasing magnitudes of the risk factor (e.g. blood pressure and stroke). Third, the presence of multiple factors increases risk of premature death in a synergistic fashion. Fourth, it is possible to design interventions that motivate and assist persons to reduce the number or magnitude of risk factors through behaviour change. Finally, if changes in behaviour occur the risk of premature death decreases and in some instances mortality rates are themselves decreased.

All the evidence is not yet in and in all likelihood it never will be. That is the nature of clinical and population-based research. But the available evidence provides us with clear direction on what can be done to reduce premature morbidity and mortality. There is also a growing body of evidence on the techniques that are most effective in eliciting and sustaining behaviour change. What is often lacking is the systematic analysis of existing data and the development of theoretically-sound programmes intended to facilitate lifestyle changes. Implementation of well-designed health promotion and disease prevention programmes combined with the lifestyle changes already made by the American population should have the effect on continuing the downward trend in mortality rates while concurrently increasing the quality of life.

CHAPTER V

CORPORATE WELLNESS

5.1 Introduction

The human mind when tapped appropriately is a bottomless pit of creativity. The theme of this chapter is that it takes people to make money. The corporate world is challenged to explore its' principles of leadership and management style with a view to introducing health promotion programmes. Ultimately to the benefit of all concerned.

5.2 The Age Of The Old Capitalism

The old visions of capitalism have carried us as far as they can. Executives are intensely aware that the economizing benefits of restructuring and downsizing are drawing to an end. They are searching desperately for new sources of growth (John T Kelly, in Carkhuff 1988). Carkhuff's vision of "The Age of New Capitalism" offers the alternative of investing in people and ideas as the source of potentially infinite productivity.

The central theme of the old capitalism is: "It takes money to make money!" (John T Kelly, in Carkhuff 1988). The central theme of the New Capitalism is "It takes people to make money." People create the ideas that are transformed into the operation of information upon which products and services are based. In short, human and information capital are productive ingredients in the new economic equation. To support this conclusion, Carkhuff provides an economic data base that indicates that human and information capital now account for 85% of economic

productivity growth. What is needed is a technology to produce these potentially invaluable ingredients. Carkhuff has that - the first systematic thinking skills technologies. He has the thinking technologies that are the sources of human and information capital development.

He applies these thinking technologies to transform business and industry into "productive thinking environments" by empowering all personnel at levels of all areas to think productively. He secures the human resource inputs by embedding in the thinking environment "thinking centres" that develop producers rather than consumers of information. He extends the results outputs into "thinking markets" in which sustaining relationships are based upon mutual productivity and profitability.

In this regard, it would be more proper to interpret the central theme of "The New Capitalism" as follows: "It takes people to create wealth!" For Carkhuff, wealth may be measured in terms of human and information capital by-products as well as products and services. Indeed, Carkhuff suggests thinking people and operational ideas may become more valuable than the very goods and services that they generate!

Viewing the human mind as the rarest of all materials, the New Capitalism enables each person to become the source of new and heretofore untold wealth. To be sure, Carkhuff's vision of The New Capitalism is accompanied by a new Bill of Rights:

- * the rights of all citizens to contribute their creative ideas to the new economy
- * the rights of all citizens to process information and make decisions for productive economic purposes

- * the rights of all citizens to think themselves out of their jobs, trusting that new roles and challenges will be available to them.

There is also a new Bill of Rights for Corporations:

- * the right to capitalize upon thinking as the source of economic value
- * the right to benefit from new information breakthroughs by employees
- * the right to trust that investments in human and information capital will be dedicated to economic benefits.

The new revolution will begin with the inspiration, commitment and creative thinking of a few executives who will transform the vision into a mission. Soon the armies of thinkers from the homes and communities, schools and industries, governments and marketplaces, will provide the motivation,, perspiration, and above all, productive thinking to accomplish the mission.

The New Capitalism is revolutionary, it requires a Declaration of Interdependence, that every person is interdependent with every other person (production and delivery personnel along with executives and managers) that every organization is interdependent with every other organization (home, school and business) that every community is interdependent with every other community (producers and consumers alike in the commerce towns, cities, regions, states and nations).

We are at war to free ourselves of the restrictive burdens of the old capitalism. Our weapons are our thinking skills. Our destiny is in our minds (John T Kelly, in Carkhuff 1988).

Many producers converge upon the marketplace to compete with their goods and services. Assuming an economy of scarcity, then the market is governed by the laws of supply and demand: those producers who offer the highest quality products at the lowest prices make the most sales.

In defining the corporate mission, the executives usually target specific consumer populations to whom the corporation will market products and services. The corporation's goals are to be profitable in the business of selling and delivering the products and though most nature corporations are market driven, historically many companies were driven by product resources such as energy or production such as particular product lines. In any event, together these strategies dictate the accomplishment of the corporate mission. In the capitalistic system strategic components or processing operations are derived from strategies. The different levels of processing operations have responsibilities for different outputs. Ultimately, the resource inputs are transformed into results outputs by processing.

In this context the basic fuel of capitalism is capital as we have traditionally defined it. In turn, the results of the processing are the products and services that are offered for sale in the marketplace. The goal of the production of products and the delivery of services, is to sell them in the marketplace.

The capitalistic system is culminated by transforming the products and services into capital, which is dispersed to owners and shareholders or reinvested in capital resource inputs. However the laws of supply and demand do not operate in the same way in an economy of abundance as in an economy of scarcity. An economy of abundance means that the consumer can pick and choose from producers - even more, can demand products and services that do not now exist. The issue confronting the old capitalism is this: How do you co-operate with the consumer in order to compete in the market. Seeing that the producer profitability ethic no longer dominates the New Capitalism must be consumer driven.

How this is accomplished is the challenge of the New Capitalism.

5.3 The New Capital Systems

5.3.1 The Performance Source of Productivity

The goal of improving performance is to create a productive environment. A productive environment is one in which people think productively, as individuals at their work stations, as groups within their working units, as organizations or corporations. Where people think and work together in the common cause of a mission. The essential ingredient to achieving this is the development of thinking people.

5.3.2 The Thinking Source of Performance

Thinking relating and planning account for the performance of individuals, units and organization at every level of every processing operation. This enables the processing operations to transform capital inputs into capital outputs.

Thinking individually and interpersonally adds a value, and planning organizationally ensures the achievement of that value. Human capital is the source of ideas, but learning to think systematically empowers people to produce valuable information capital. The essence here is teaching people to think. The real goal of thinking is to create a productive thinking environment. It is a productive and thinking environment dedicated to productive purposes. People are there to find a better way of doing things. To think themselves out of their jobs and to move onto the next level or area.

5.3.3 The Educational Source of Thinking

The functions of education and training are priming the capitalizing system. Priming emphasizes human and information capital to invest in the capitalizing system. Human and information resource inputs are transformed into human and information resource development. The instructional system serves to prime the processing operations. The operations must be analyzed at all levels in order to facilitate the processing, the strategic processes that accomplish missions; the management systems that accomplish goals, the supervisory programmes that achieve objectives and the delivery steps that perform the tasks.

Specifically, the instructional system serves to prime the performance systems, individual performance, unit production, and organizational productivity. Instruction in processing skills is the source of improvement in performance and, ultimately productivity growth.

5.3.4 The Marketing Source of Profitability

If the heart of marketing is the marketing relationship, then the goal of marketing is to create a thinking market. A thinking market is one in which all parties - producers and consumers - think productively about their own as well as others' goals, needs and resources.

5.3.5 The New Capitalizing System

The real differences between the old and new capitalism are the capital ingredients. The capital ingredients impact every aspect of the capitalizing system: the mission, strategic goals, resource inputs, processing operations, results outputs and marketing operations. The New Capitalism capitalizes upon the prepotent sources of economic impact - human and information capital - and accomplishes exponentially greater growth in productivity and profitability. The New Capitalism capitalizes upon the most powerful forces in the universe - people and the ideas.

The new capitalism begins with an expanded mission. The new capitalizing mission incorporates both producer and consumer targets and productivity as well as profitability benefit goals. The new mission is to impact consumer as well as producer productivity and profitability, producers need to become productive before they can help the consumers to become productive, which, in turn, leads to consumer profitability and thus producer profitability.

The new capital ingredients come into play in the form of strategic goals, that is consumers and the producing organization must be helped to develop human processing ingredients.

Concern for consumer as well as producer benefits dictates that strategies begin with marketing. Customers needs and resources are to be known in order to impact: 1) the consumers productivity and profitability and 2) develop the organizations own productivity and profitability. One needs to strategize about things like distribution or fulfilling and servicing consumer needs before producing the products.

The real sources of performance are the individual, unit and organizational performances that occur within the processing operations. The source of their power is processing. Each of the sources of performance has individual, interpersonal and organizational sources of processing. Whether the individual work station is part of a unit or even the entire organization the source of the performance is thinking, relating and planning. Processing is the source of performance that yields productivity and profitability. Processing is the source of everything and the new capital ingredients are the source of processing.

Since human and information capital account for most of the economic productivity growth the new capital inputs must emphasize these ingredients. This means recruiting and training for thinking. Financial resource inputs must also be invested as catalytic agents for the processing. The new capital outputs emphasize new human and information capital along with improved products and services. The new capital outputs may be more valuable in the long run than the products and services. Whereas the products and services are a source of current benefits the new capital ingredients are the source of future benefits.

The marketing relationship is the means and the ends of the New Capitalism. Instead of manipulating people to buy goods one must relate to them to meet both the needs of the consumers and producers. The new capitalizing system is reinvigorated with

new doses of capital ingredients. The people are smarter. The ideas are better. The business is richer because of success in the marketplace. The new capital ingredients need only to be invested in the next cycle of capitalizing to become even more smart, operational and rich. For short term profits the financial strategies precipitate long term losses based upon their elimination of the new capital ingredients. In a healthy system the talent is empowered by thinking skills to become the source of future growth. Short term investments in human and information capital have long term payoffs in financial benefits. The fundamental assumption of the New Capitalism is trust. The employees must trust the corporation if they think themselves out of their jobs and the corporation must trust the employees to invest their efforts in the corporation which has invested in teaching them to think.

The Age of the New Capitalism really has three critical processes in which human and information capital inputs are formed and related. The first one is the lifelong and continuous education and training process. The second one is the constantly improving processing operations that produce the products and services along with improved human and information capital. The third one is the continuously growing marketing relationship between producer and consumer that yields for both of them not only financial capital but prime human and information capital.

Education should empower people to engineer their own human condition, but as currently practised it merely regurgitates useless facts and concepts, the mission of education is to teach thinking skills. Education should yield thinking and thinking will then yield productivity growth. When human performance is measured not only the responses performed should be measured but also the products and services produced. This is more or less the bureaucratic level of feedback that tells us what we did

and how well we did it. We can offer this feedback to the personnel themselves to manage the improvement in their own performance. So measuring human performance is really a form of information capital that can be used to improve performance by self supervision.

Ultimately the ideal mission is to approach infinite outputs by investing infinitesimal inputs. When we maximize human and information capital inputs, we minimize all other resource inputs, we don't always have to reinvent the wheel but we do have to process its system productively. In reality people and information are not treated like multimillion dollar properties, this is the problem of their managers and not of the people and information for their value is huge.

Perhaps most important we can define the operations of the thinking processes involved in the thinking universe: the human and information resource development processes (HRP-IRD) which produce capital value; the human and information capitalizing processes (HC-IC) which produce new capital value. It is this technology that enables real human change. Refining the processing operations means that we can achieve them. Human goals are limited only by our thinking skills and, in their processing, define our humanity.

Teaching and learning and respecting and loving - those are the sources of the human spirit. Capitalism is really a theory of change. It adapts to and causes the changing eras of humanity. All that capital means is "what is most important" (The Age of the New Capitalism, R R Carkhuff 1988).

If you accept the New Capitalism principle of human and information capital accounting for 85% of economic productivity growth then the challenge is to see how it works in corporations.

5.4 The Principles of Creative Leadership

Carkhuff operationalizes 10 working principles which accomplish this growth. The first 4 issues will be briefly mentioned as the main focus on the human processing component ensues from number 5 onwards.

1) Guide a Corporation by Marketing Information

Respect consumers and use this information to determine an organized mission.

2) Organizations Must Have a Central Mission

This mission must be responsible to consumer needs and drive the operations of marketing, production and distribution of resources.

3) Decentralize by Operations

That is, the goal of the mission becomes the mission of each decentralized unit.

4) Modify and Invert Operations

That is people who deliver service, guide management decisions. Thus centralized by mission and decentralized by operations, the information organization maximizes information flow and processing. In short, it gives the processing responsibilities to the personnel at the point of greatest flow.

In order to discharge these responsibilities, the functioning of both delivery and management personnel must be empowered by human processing.

5) Emphasize Human Processing

During the different eras the emphasis varied widely namely:-

Industrial era - mechanization was the order of the day

Electronic era - computers were most important

Information era - human and information processing now dominates.

Human resource development stimulates information resource development and vice versa. Personnel are empowered, by skilling them and then authorizing them to use the skills. The corporate environment supports human processing by 3 programmes:

- a) education
- b) information and
- c) incentives.

Human processing is productive thinking - individually, interpersonally, organizationally. First to get human processing going people must be taught a first skill, namely to think better.

6) Think Better

All power is derived from thinking, human capital is the source of the "next idea." Information capital is the operations that implement the last idea. Together, human and information capital account for 85% of the variance in economic productivity growth. Developing human resources primarily through thinking skills training - is

the source of human capital, and, indirectly, information capital. The real power in the Age of Information is the ability to process that information - thinking!

In the Age of Information, empowering means skills. We empower people when we teach them to think for themselves. Productive thinking skills enable people to transform their current systems and operations into productive systems and operations by exploring, understanding and acting upon the systems. To accomplish our jobs we need to complement individual thinking with interpersonal processing.

Stimulus Response processing is limited, and must be replaced by Stimulus - Processing - Response modules. At the point of processing, individuals need to explore, understand and act with a view to creating new responses and even new stimuli.

7) Relate Fully

Along with thinking, interdependent relating is the cornerstone of the Age of Information. There are two great sources of human processing - individual and interpersonal processing. To discover the productive thinking that people can do it by themselves is a personal joy. To discover, the productive thinking that people can do with each other is a celebration of our humanity. Productive Interpersonal processing involves adding value to productive information produced by the following procedures:

- a) Getting the others images
- b) Getting one's own image
- c) Merging images.

Interpersonal processing in synergy with individual thinking accounts for most improvements in individual performances and organizational productivity. In short, the two together prepare us for working smarter.

8) Working Smarter

The ingredients of productive processing are individual, interpersonal and organizational processing. (Mission, Goals, Objectives, Tasks). These processing ingredients serve to transform the raw data of human experience into productive and usable information. These processing ingredients enable human productivity.

Working smarter implies thinking better and relating fully. The essential task of the executive is to learn to work smarter and then enable the personnel beginning with management to work smarter. The executive does this by incorporating individual thinking, interpersonal processing and organizational functioning skills programmes into the educational experience of the personnel.

Working smarter is defined by the products of individual thinking and interpersonal processing is ensured by planning to discharge organizational functions.

9) Free Initiative

You maximize organizational productivity by maximizing support for the exemplar and learning for the other person.

Initiative is directionality emerging from the best available knowledge base by responding to what is missing.

10) Recycle Feedback

Productivity feedback involves a simple evaluation and comparison of results outputs and resource inputs.

Ultimately, the goal of human processing is to produce infinite results outputs. Effectiveness relates to results outputs. Efficiency relates to minimizing resource inputs.

The vehicle for empowering in the Age of the New Capitalism is interdependency. Empowering is interdependency. The creative leader empowers people by enabling them to learn, perform, produce and relate. The creative leader empowers others that he/she may be empowered by them. Historically, leadership was defined in terms of power. The leader ruled by controlling information. This was functional as long as that information was changing slowly. Today, the leader is besieged by information that is changing constantly and growing exponentially. Leaders are empowered to the degree that they empower organizations and people to process information.

Summarizing the principles of creative leadership: These principles constitute a processing system for human productivity. The system is guided by marketing information. The information is processed by a creative organization designed to maximize human processing. The productivity of the organization is actualized by personnel empowered to process and initiate. Productivity is evaluated and fed back to be processed as information input in the system. The system is a growing and

spiraling system which frees both organizations and individuals to process and create productive information (Empowering, R R Carkhuff 1988).

INFORMATION	ORGANIZATION	INDIVIDUALS
1. Guide by Marketing Information	2. Centralize by Mission	6. Skill Personnel
	3. Decentralize by Operations	7. Relate Interdependently
	4. Modify & Invert Operations	8. "Work Smarter"
	5. Emphasize Human Processing	9. Free Initiative
	10. Recycle Productivity Feedback	

The Principles of Creative Leadership

5.5 Managing For Wellness

The Pennsylvania Supreme Court ruled that a worker's beneficiaries are eligible for death benefits even though the employee's heart attack occurred off the job, while he was at home writing a speech. His heart condition was deemed the result of accumulated job stress.

A businessman's widow sued his former employer, claiming that his suicide was a direct result of stress caused by his superior at work. The businessman had repeatedly asked that his workload be lightened, but his superior had failed to ease up on him.

In Oregon, a deputy sheriff filed a worker's compensation claim for psychiatric disability due to harassment by a superior. His boss, he claimed, had passed him over for a promotion, transferred him to a job he disliked, and frequently criticized him in front of others.

The stories above are more than interesting case histories. They are part of an American trend, a new wrinkle in the growing realization that job-caused stress can be harmful to a workers' health. Growing numbers of lawsuits and workers' compensation claims attest to the fact that employees hold their companies liable for excessive stress. Two of the cases above take the argument a step further: The employee's individual manager, not just the organization, is blamed for stress-caused disability and death.



5.5.1 The Manager's Powerful Influence

Managers are increasingly being held accountable in state courts in America or workers' compensation actions for the hazards of employee over-exposure to ongoing stress. Stress symptoms such as poor performance, missed work, or emotional outbursts that were once cause for discipline are now recognized as signs of a potentially dangerous situation that requires management sensitivity and aid.

The authors of Harvard Business Review article, "Who's liable for stress on the job?" warn: "Companies must identify stress problems before these lead to substantial legal liability Just because someone shows symptoms of stress doesn't indicate that there is a problem.

However, as an employee shows symptoms that grow in frequency and intensity, there may be a need for intervention.

What sort of intervention? What is causing the stress? Many sources of stress, such as an approaching deadline or the "rush period" in a seasonal business, are temporary. But one potential source of ongoing stress has been largely overlooked - the manager/subordinate relationship. The way people are managed has a powerful effect on their mental, physical, emotional, and professional well-being. A "good boss" can help employees grow and perform at maximum capability, while a "bad boss" can literally make them sick.

5.5.2 Work - Stress Connection

The connection between work and stress has been well documented in a number of excellent studies. Among them:

Swedish white-collar workers who were under mental stress were often reluctant to go to work and too tired after work to participate in hobbies or social events. They had difficulty getting their minds off work during leisure hours, and many of them seriously considered changing jobs. Excessive stress was also linked to use of drugs and cigarettes.

Highly intelligent military officers in high-stress jobs performed more poorly than their less-intelligent peers in one study of 350 officers. In lower-stress jobs, however, the intelligent officers outperformed their peers. In other words, stress on the job kept them from fully using their talents.

5.5.3 What Makes People Sick

On a more anecdotal level, Mark Tager (1987) in 'Wellness Sourcebook' confirmed the connection between the manager/subordinate relationship and excessive stress through an exercise conducted with employees across America. Employees were asked the following questions:

- * First, think of the worst boss you have ever worked for.
- * What did he or she do that made him or her the "bad boss?"
- * How did your boss' behaviour make you feel?
- * How did it affect your motivation, your commitment to your job, your desire to go to work?
- * What were the mental and physical effects of your boss' behaviour?

Although the answers of these questions varied, four management behaviours that make people sick kept surfacing like a recurring theme:

- * Being unpredictable
- * Whittling away at employee self-esteem
- * Creating win/lose situations
- * Providing too much or too little stimulation.

5.5.3.1 Being Unpredictable

Even the most change-oriented employees like predictability from their managers. By this, they mean not stagnation or boredom, but the knowledge that a certain action will produce a certain outcome: Good work will merit praise, mistakes will earn a reprimand.

An unpredictable manager can cause a great deal of stress. Employees spend more time wondering about their boss' mood than they do working. In some offices, elaborate employee networks warn others that the manager is coming. Although the situation may seem humorous, the long-term health effects for working for an unpredictable boss can be disastrous. The physical consequences of unpredictable punishment have been proven in the laboratory, where rats who were given unpredictable electric shocks developed ulcers and immune system deficiencies.

5.5.3.2 Whittling Away at Self-Esteem

A sense of self-esteem is a vital component of a creative, healthy, and productive employee. Extremely low self-esteem has been linked to illness, premature aging, even death:

- * Those who are chronically anxious, depressed, and emotionally maladjusted show more physical deterioration than those who are better adjusted, according to one four-decade study of 204 men.
- * Four main contributors to sudden fatal stress are "extreme sense of failure, defeat, disappointment, humiliation or loss of self-esteem," according to a study of sudden deaths.

Managers whittle away at their subordinates' self-esteem for a number of reasons, both conscious and unconscious: to force the employee to quit or because of jealousy or competition, the manager's own low self-esteem, or personality conflict. Whatever the reasons, managers can destroy someone's self-esteem in a number of ways:

- * Humiliating the employee in front of colleagues
- * Doling out unwarranted criticism
- * Denying the employee recognition, promotions, or awards
- * Taking credit for work the employee has done
- * Ridiculing or disparaging the employee.

5.5.3.3 Creating Win/Lose Situations

One unfortunate by-product of the sports mentality common throughout American business is the "win/lose" concept: If one side "wins," the other side, by definition, must "lose." When a manager wins a round at the expense of employees, those employees begin to feel like prisoners of war - defeated and subject to punishment. This feeling can lead to "learned helplessness," a condition reproduced in laboratory experiments. Dogs treated with inescapable electric shocks become so passive that even when they were unleashed, they sat and endured further shocks rather than walking away.

At the workplace, win/lose situations can lead to a number of undesirable results:

- * Employees become distrustful and hostile.

- * Sensitivity and empathy are stifled.
- * Authority conflicts become frequent and bitter.
- * New ideas and creativity are discouraged.
- * Deadlocks are created and decisions delayed.

5.5.3.4 Providing Too Much Or Too Little Stimulation

Finding the right level of stimulation for each employee is an important judgement call. The right level for a "racehorse" employee would quickly exhaust a "turtle." Whatever the employee's optimal level, providing the right amount of stimulation is essential to health and good performance. After that point, however, increasing stress causes performance to drop sharply.

Too little stimulation can also be very stressful. Research shows that boredom on the job is even more uncomfortable than long hours, heavy workloads, and pressing responsibilities. In this case, "stress" is not synonymous with pressure, but with an imbalance of stimulation.

Therefore a positive relationship with a manager can greatly increase work satisfaction which has been linked to increased longevity. In one 24-year study, 268 older people were examined every four years to find out what the eldest ones had in common. Out of 788 medical, social, and psychological factors considered, "work satisfaction" was the second most important, ranked immediately behind "good physical functioning."

5.6 What Every Manager Can Do

How can managers stress-proof workers to enable them not only to survive, but to thrive in stressful work environments? One study of 259 business executives found the usual correlation between high levels of stress and increased frequency and severity of illness for most of the executives. However, for a small portion of the executives, more stress did not translate into poor health or performance. Some actually seemed to thrive on stress. The study authors identified three mental characteristics that accounted for this group's "psychological hardiness":

- * A sense of control over the events in their lives
- * A feeling that change presented a new challenge
- * A deep underlying commitment to what they were doing.

If employees can somehow acquire these characteristics, they may be able to thrive under pressure that normally would cause illness, disability, or death.

Getting great performance from employees depends on how we translate what we know about the connection between stress, health, and productivity into management systems that not only keep people from getting sick, but help them stay well and work well. One such management system is called PERKS, an acronym created from a set of five skills and support tools that both managers and employees can use to minimize unnecessary manager/subordinate stress and maximize performance (H. Tager in Wellness Sourcebook).

Participation. People do better when they participate in the decisions that affect them.

- Environment. People do better when the environment offers them opportunity and choices to perform well.
- Recognition. People do better when performance and progress are recognized.
- Knowledge. People do better when they know that what they do is important.
- Style. People do better when the management style fits their level of skill and commitment.

5.6.1 Participation: A Feeling of Belonging

Participation on the job leads to a feeling of belonging, which is essential for creativity, innovation, and stress buffering. Participation helps erase feelings of isolation or alienation. Employees whose managers encourage participation in substantive areas of their jobs are more likely to feel a greater sense of commitment and put more of themselves into their work.

The following managerial skills help foster employee participation:

- * Pushing decision-making as low as possible
- * Listening actively
- * Involving employees in the shared process of setting "stretching" goals.

5.6.2 Environment: Building Trust

A healthy work environment is one in which employees feel safe to take calculated risks and are encouraged to learn and grow. A manager can help to create a good environment by fostering a sense of trust and mutual respect:

- * Start meetings on time.
- * Discipline with tact.
- * Emphasize problem-solving, not blame-placing.
- * Promote from within, whenever possible.

A health-enhancing environment is also one in which each employee's unique competencies are appreciated. A balanced team may require many different talents and temperaments - not necessarily a homogeneous group. Another important aspect of any work environment are the norms of the group that both express and shape employee attitudes and actions with regard to health and productivity. In a healthy work environment, managers acknowledge and reinforce positive norms and identify possible barriers to health and productivity.

5.6.3 Recognition: Enhancing Self-Esteem

Recognition for their efforts boosts employees' self-esteem, a powerful determinant of both mental and physical well-being. The core of recognition is feedback - simply letting employees know, on a regular basis, how they're doing. Unfortunately, in the rush of business, most managers neglect to give feedback, assuming that employees "know" how they're doing.

These managers give feedback only when they see a problem; then they rush in with criticism or punishment. The result for employees is the "leave alone - zap" effect. Ask most employees how they're doing, and they will reply, "Okay, I guess." Ask them how they know, and they will say, "My boss hasn't yelled at me."

Managers who deliver more positive than negative feedback get the best results, research with a large Canadian firm has found. The optimal positive-negative ratio is 4:1. In addition, all feedback, whether positive or negative, is most effective when it is:

- * Specific
- * Immediate
- * About something the employee can change
- * Delivered for the benefit of the employee, not the manager.

5.6.4 Knowledge: Antidote For Uncertainty

When employees know what their job priorities are and how they fit into the larger goals of the organization, their focus of perceived control shifts. They no longer feel controlled by outside forces, but take more responsibilities for their own actions. Managers can provide the knowledge their people need by showing them the "big picture" - the organization's goals, its mission, and how their department, job, and specific tasks are important to the overall mission.

In addition, employees need to know:

- * What is expected of them
- * What their goals are
- * What a good job looks like
- * How performance will be evaluated.

5.6.5 Style: Regulating Stimulation

Management style is a powerful determinant of employee health and productivity. Many common work-related stress problems occur when an employee is given too much or too little supervision for a given task. An enthusiastic but not-yet-competent employee isn't likely to do a good job if under-supervised. That failure will not only set back the group's progress, but damage the employee's enthusiasm and self-esteem as well. On the other hand, supervising a proven winner too closely will cause resentment and decreased job performance.

The key to choosing the right management style is flexibility. Each employee is different, and the same employee's confidence and ability may differ according to the task. A flexible manager will be able to "fine-tune" the amount of direction and support to keep employees performing well. Even employees with high degrees of intelligence and experience may perform poorly when their supervisors use an inappropriate management style. Using the right management style means being able to assess the competence and confidence the employee brings to each task and provide the appropriate amount of support and direction.

5.7 Health Promotion

The traditional worksite health promotion programme does not address the issues of leadership and management. Thus, the best health promotion programme is only as good as the manager of the target group. A programme is powerless in the face of a manager whose style creates excessive and potentially harmful stress. Some managers, for various reasons, may even prevent their people from attending health promotion sessions. When assessing and developing a health promotion programme, the health of management practices is a critical issue.

Thousands of managers use their Interpersonal (IPS) skills in implementing performance appraisal, employee development, work incentive or any of the other quality assurance programmes calculated to improve productivity. There is a growing recognition in business and industry of the need for interpersonal processing between employees. Also there is a strong movement toward interdependent organizations in which each employee, at whatever level, processes and shares products based upon his or her own unique data bases.

Systematically-organized worker training programmes are less likely in industry than in other areas. Perhaps this is because of lingering management attitudes concerning humans as "replaceable machines" rather than as the sources of productivity. For example, often "quality circles" fail to produce desired results because management uses "reduction-in-force" indices of their success. In other words, the workers are supposed to participate in designing their own demise. Yet IPS-based human processing programmes loom as the most potent source of improving productivity (Carkhuff, 1983).

Perhaps the most significant models for the private sector come out of the public sector. Bergeson and her associates in the Women's Caucus of the National Education Association (NEA) have overseen the design and implementation of the IPS-based Women's Leader Training Programme. There tens of thousands of women teachers learned decision-making skills to take control of their own lives before learning group facilitation and processing skills leading to improved performance (Carkhuff, 1983). In the other instance, in her capacity as Vice President of the Washington Education Association, Bergeson has trained the entire state educational leadership in IPS, thus establishing a model for facilitative rather than adversarial negotiation. While these innovations pose potential political problems for private organizations just as they do for the NEA, they are models for interdependent relations within and between individuals, units and industries as well as between management and labour forces.

We are all confronted by the productivity challenges of the Information Age - teachers as well as school boards and citizens, labour as well as management and customers. Achieving productivity goals requires human processing and human relating to produce more while expending less.

In summary, IPS are critical human ingredients because they facilitate the accomplishment of human goals. IPS help people to explore each others' frames of reference. IPS help people to understand the objectives for the tasks at hand. Finally, IPS help people to act upon their shared objectives. In short, IPS facilitate the focusing of human efforts.

IPS help us to live more effectively with our families at home and to help more effectively our counselees in our counselling centres. IPS help us to teach and learn more effectively in

our schools and training centres. IPS help us to work more effectively at our individual stations and in our organizations at work. In short, IPS facilitate our human productivity.

Overall, we stand about a 95% chance of accomplishing any human purposes when we have introduced interpersonal skills at high levels. Whether we train helpers or teachers or employers or their recipients in IPS, we accomplish our objectives far beyond the probabilities of chance. Conversely, when we do not introduce IPS at high levels, we stand a random chance of succeeding in any human endeavour. In conclusion, human productivity is in part a function of people's abilities to process interpersonally. Interpersonally skilled people, understanding each other accurately, can succeed at any reasonable human endeavour.



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5.8 A Corporation In South Africa

All too frequently the vision of investing in Wellness is seen by corporations as being idealistic and as demanding huge investments financing the establishment of departments and facilities.

As such the effort of change and the cost thereof becomes overwhelming and is pushed aside as a lesser priority when faced with short term survival.

In the current economic climate of South Africa where short term financial budgeting decisions predominantly dictate as evidenced by rationalizations in particular in the mining industry, the writer challenges this dissatisfactory management style of short term focus on finance capital.

In the words of Carkhuff, the financial strategies of downsizing, restructuring, and the like are doomed to fail, the strategists eliminate the best talent because this talent finds irrational treatment intolerable. And they take with them the most valuable information capital - their ideas about the projects they have been working on. For short term profits the financial strategies precipitate long term losses based upon their elimination of the new capital ingredients (Carkhuff 1989).

In the Chamber of Mines there are a number of departments all simultaneously dealing with employee benefits and able to contribute to a greater, or lesser degree, theoretically, and/or practically to employee wellness through investment in corporate climate.

The departments being:

- Corporate Planning
- Research (COMPO)
- Personnel
- EAP
- Training
- Health

The Chamber of Mines is a private sector organization which provides services primarily to its members.



The mission of the Chamber is to provide cost-effective, quality services and guidance in those areas which members agree are best handled on a co-operative basis, with the objective of encouraging the prosperity of its members.

This is achieved by:

- 1) Maintaining close contact with the mining industry, and anticipating and identifying those areas where collaborative services would be beneficial.
- 2) The advancement, promotion and protection of the mutual interests and common requirements agreed by members.
- 3) The provision of leadership and representation in matters of industry concern, in both national and international affairs.
- 4) The maintenance of expertise and excellence in areas of importance to the industry.
- 5) The co-ordination of industry activities.
- 6) The promotion of activities which result in reduced costs to mines.

The present Chamber of Mines Mission should be consumer orientated to the point of operationalization and decentralization of its mission as per the 10 principles of creative leadership implemented within the processing system for human productivity.

Corporate wellness could become a reality requiring a central ingredient of a consumer shared value system, a commitment to empowering, people with thinking skills and a concerted,

conscientious effort at co-ordinating resources within a corporation for the first line consumers of the organization namely the employees.

Table 5.1 follows the process of an employee through the Chamber of Mine organization from employment, motivation, career planning, promotion, demotion, stagnation, mentorship, retirement planning, career planning, health, leave, retrenchment, resignation or early retirement.

It specifies services required during this period as falling into three categories: 1) Screening, 2) Selection, and Placement. 3) Training and treatment namely prevention, development, management and maintenance.

By utilizing the process of operationalizing a corporate philosophy through the department of corporate planning relying on exit interviews, feedback and research based information, appropriate adjustments are fed through the system to enhance job satisfaction, increase job responsibility and as such performance motivation and productivity.

The four levels of employees namely, top management, middle management, supervisors and employees' needs for development and access to resources should be prioritized and implemented accordingly.

These could cover such areas as Carkhuff's recommended thinking skills, and/or developmental programmes such as:

- 1) Interpersonal Skills Training
- 2) Stress
- 3) Cope "Care of Pressurized Employees"

- 4) Assertiveness
- 5) Lifestyle
- 6) Substance Abuse
- 7) Enabling
- 8) Planning
- 9) Problem Solving
- 10) Parenting, and so on

On the following page Table 5.1 provides an overview of the researchers conceptualization of a feasible strategy in respect of Corporate Wellness for the Chamber of Mines.

TABLE 5.1 : CHAMBER OF MINES CORPORATE WELLNESS

	Employment	Induction Career Planning Studies Bursaries	Promotion Demotion Mentorship	Retirement Planning Stagnation	Health Ill Health Maternity L Military L Study Leave	Retrenchment Resignation Early Retirement
Top Management	Personnel	EAP/Training	EAP/Training	EAP/T/Health	EAP	
Middle Management	Personnel	EAP/Training	EAP/Training	EAP/T/Health	EAP	
Supervisors	Personnel	EAP/Training	EAP/Training	EAP/T/Health	EAP	
Employees	Personnel	EAP/Training	EAP/Training	EAP/T/Health	EAP	
S E R V I C E S						
Screening Selection and Placement		Training and Treatment - development - prevention - management - maintenance			Treatment	
Job Satisfaction Motivation/ Responsibility = Productivity	R E S E A R C H	C O M M I S S I O N - consumers - human & information capital OOM Culture and Climate CORPORATE PLANNING - develop positive incentive scheme			Department and Organiza- tional Change - merge - abolish - create	Exit Interview and Feedback

Programmes: Cope
Lifestyle
- stress
- assertiveness
- interpersonal skills
- specific skills
- planning
- problem solving
Crisis Intervention
Parenting
Substance Abuse

- How:
1. identify common resources
 2. identify employee population
 3. prioritise feasible interventions
 4. plan comprehensive structure
 5. co-ordinate
 6. evaluate

Richard Bellingham (1987) in Corporate Wellness Sourcebook spells out a comprehensive health promotion programme. This inventory may be used to assess existing health promotion programmes or as a guideline to investing in one.

5.9 How To Recognise A Health Promotion Programme When You See One

Practically every major organization in America claims to have a health promotion programme these days, but the review of the health promotion literature indicates a wide variety of results. Some programmes report dramatic increases in health behaviour, productivity and morale; others report decreases in absenteeism, turnover and health care costs, and some cite positive cost/benefit ratios that are highly encouraging. Not surprisingly, still other programmes suggest much less optimistic potential and report much more conservative results. The difference in outcomes can probably be explained by two major factors. One, these programmes could be using different evaluation designs and applying more or less rigor in the analysis of the findings. Or two, these programmes may vary significantly in substance. In short, many of these programmes could be considered health promotion programmes in name only.

R Bellingham (1987) addresses the substantive side of the explanation. Twenty essential ingredients for successful health promotion programmes are listed below. Each ingredient is described in an ideal sense. While it is unrealistic to expect any organization to have ideal levels on all 20 ingredients, it is realistic to expect to find "acceptable" levels on most of these ingredients if an organization claims to have a promotion programme.

5.9.1 Leadership Commitment

Funding and space are available for a comprehensive programme. Leadership is committed to participate in and support the programme. Health promotion is seen as a first priority business need and managers are willing to be trained in how to manage for health. Leadership sees health promotion as a long term commitment.

5.9.2 Systematic Process

Implementation is broken down into manageable phases with realistic time limits. The first phase diagnosis determines where the organization is on a number of variables and prioritizes its goals based upon the diagnosis. The second phase develops the people and the programmes that are necessary to implement a successful programme (for example, staff training, leadership training, programme development, facility development, and promotional development). The third phase delivers the skills and support that people need to be successful in making health lifestyle changes. The fourth phase determines progress, renews motivation, and evaluates process, impact and outcome variables.

5.9.3 Assessment

Programme planners use reliable instruments to gain a thorough sense of individual needs and interests, organizational resources, and the culture of the organization.

5.9.4 Thorough Planning

A Corporate Policy statement on health is written, communicated

and supported by top management. The health promotion programme has a well-defined mission, achievable goals, specific objectives, tasks, and steps, based on a thorough diagnosis of individual and organizational needs. A monitoring system is established to review plans on a monthly basis to ensure that proposed activities contribute to goal achievement. Human resource allocation decisions are made on the basis of these plans.

5.9.5 Professional Leadership

Full-time, interdisciplinary (behavioural science, health, exercise), professional staff are selected on the basis of specific criteria for implementing a comprehensive health promotion programme. Staff goes through training programme for health promotion leaders (3 weeks of intensive training).

5.9.6 Employee Involvement

Volunteer leaders representing a cross section of levels and departments functions in a meaningful way on a leadership committee (for example, they participate in all phases of the implementation). This committee is systematically selected, trained and provided guidelines for operating as a group. The committee meets on company time, and participation on the committee is seen as a part of the members' jobs and as beneficial to their career. Management actively participates on the leadership committee.

5.9.7 Attention to Confidentiality

Health promotion records are treated with the same safeguards and protocols (respect) as medical records. All data on individuals

is coded, and only people with a specific need to know have access to the files. Progress data on individuals in all health lifestyle courses is treated with confidentiality during the process analysis. Confidentiality is a stated value of the programme; quality checks are regularly conducted.

5.9.8 Facilities

A fully equipped fitness centre is available plus classroom space and offices for staff and adequate showers and lockers for men and women.

5.9.9 Creative Promotions

Promotional campaigns/materials (posters, flyers, letters, newspaper articles) support all significant events. Invitations and announcements are personalized when possible. Materials are professional and attractive.

5.9.10 Comprehensiveness

The programme has specific strategies to educate employees, to provide them with opportunities to develop skills and support, and to make a positive impact on the environment. Participants have an opportunity to join a variety of health lifestyle modules designed to improve their physical, emotional, intellectual and spiritual well-being.

5.9.11 Integrated Approach

A health promotion delivery begins with an orientation,

computerized health risk appraisal, wellness assessment, biometric testing, feedback and planning session. Each course that follows actively supports the other courses and emphasizes the interrelationship of all health enhancement efforts.

5.9.12 Skills Focus Health Lifestyle Modules

Each course consists of well-defined skills that will enable participants to accomplish their individual goals. Content for each skill uses current educational technology. At a minimum, each member sets personalized goals and has opportunities to simulate real life applications of the skills to living, learning and working situations. Motivational exercises are responsive to the learner's frame of reference.

5.9.13 Environmental Modification

An analysis of cultural norms that may impact the success of the health promotion programme is conducted. Results are presented to management, and they agree to work on making the corporate culture more health enhancing. Management realizes that the job itself plays a major role in health and efforts are made to strengthen positive norms, eliminate negative norms and establish new, health enhancing norms. Programme leaders see their primary job as creating an environment which supports positive health practices. Good working relationships are established with internal resources (such as cafeteria employees) as well as community resources (such as YMCA's). Management understands that a healthy organization requires a healthy individual and vice versa.

5.9.14 Team Approach

All departments and all persons working throughout the organization work together to accomplish the mission of the health promotion programme. At a minimum, Health Services, Organizational Effectiveness, Training, Safety, and FAP should be actively and functionally contributing to the health promotion programme. All departments take responsibility for making the health promotion programme see themselves in a partnership relationship with the organization - both take responsibility for improved health.

5.9.15 Family Involvement

All aspects of the health promotion programme are available to family members. Family members are encouraged to take part in all health promotion programmes.

5.9.16 Continuing Communications

There is an ongoing commitment to keep employees informed of local health promotion efforts and results as well as to keep them aware of current research and national trends. Newsletters, calendars, magazines, etc., are sent to employees on a regular basis. Materials are professional and attractive. There is a communication model and system.

5.9.17 Wellness Orientation

The main theme in all courses, promotions and events is to optimize health and well-being. The emphasis of the programme is to add life to your years. The essential ideas behind the programme are to actualize human potential and to develop energy for service.

5.9.18 Quality Control

Vendors are carefully selected, trained and monitored. Attempts are made to watch vendors deliver their services before they are hired. All vendors go through a one day training programme so that they are familiar with the philosophy and approach of the programme. Vendors are evaluated at the end of each course by participants as well as by their degree of effectiveness at facilitating continued participation and progress in their courses.

5.9.19 Ongoing Motivation

Health promotion is seen as a well orchestrated process to establish a more supportive environment instead of a series of isolated events imploring individuals to take more responsibility for their health. Integrity is a key value in the organization, so tokenism and mixed messages are at a premium. There are ongoing remotivational workshops and motivational events for individuals to rekindle enthusiasm for wellness. The organization does not engage in arbitrary starts and stops in regard to its support for the health promotion programme.

5.9.20 Evaluation

The evaluation design is compatible with management's requirements for information. The evaluation design emphasizes a strong results focus. Evaluation objectives are clear, hypotheses are well stated, study design and methods for collection are appropriate, and analysis procedures are understood. Funds for evaluation are in the budget. With these ingredients in mind, you will be able to recognize a health promotion programme when you see one.

5.10 Summary

This chapter culminates in an assessment module for a corporate health strategy. It elucidates all the relevant criteria which must be taken cognizance of in the movement towards managing for health. What follows is the evaluation of the impact of such a programme on apprentices in the mining industry in South Africa.



CHAPTER VI

PRESENTATION AND ANALYSIS OF EMPIRICAL DATA

6.1 Introduction

Goldfields Training Services, based in Glenharvie and Luipaardsvlei, train learner officials, graduates and apprentices in the technical expertise needed for their various careers within the mining industry. These two training centres perceive themselves to have a responsibility to introduce to the mining industry employees who are not only well trained technically, but who are also able to relate constructively interpersonally.

As such part of the training is directed toward enhancing their developmental potential as people and subsequently contributing to a more adequate productive and satisfied workforce as a whole.

For the purposes of this research a group of apprentices in the fields of electricity, fitting, motor mechanics, rigging and plating were selected as subjects.

They were exposed to three tests by their trainers prior to attending the Lifestyle programme. Namely: a Work Performance test, a Learning Achievement test and a Heimler Scale of Social Functioning test. Shortly after attending the six day Lifestyle course the apprentices were once again tested on all three above mentioned tests. Six months later they repeated the Heimler Scale of Social Functioning test.

The empirical findings of this study are presented in this chapter. The findings fall under 5 main sections namely:

- * Work Performance before and after Lifestyle

- * Learning Achievement before and after Lifestyle
- * The Heimler Scale of Social Functioning
- * Stressors and their contamination of results
- * Military Attendance and it's implications

All percentages in the tables have been brought to the nearest whole number wherever possible. Percentages are based on the fact that 80 of the original sample could be compared across all the relevant criteria.

6.2 Course Presenter and Participant Details

Of the original sample of 120 apprentices trained by three presenters 80 became the final sample. The breakdown in terms of the number of apprentices trained by the three presenters is illustrated below:

Table 6.1: The Proportional Breakdown of Trainee to Trainers

Trainer	Trainees	%
1	25	31
2	32	40
3	23	29
	80	100

The apprentices were trained by 3 different trainers and as such were broken up into groups of between 29 and 40 apprentices. Calculations from here on have been weighted in order to convey a true representation of equivalent impact on the five areas being investigated.

6.3 The Influence on Work Performance Before and After the Lifestyle Course

Work performance was measured prior to and after the Lifestyle course.

Results are tabulated below:

Table 6.2: Effect on Work Performance Prior To and After Lifestyle in the Three Groups

Trainer	Work Performance Before	Work Performance After	Weighted Difference
1	65	67.7	0.9
2	66.8	66.2	-0.2
3	66	65.3	-0.2
	65.9	66.4	0.5

Overall work performance increased 0.5, that is trainees scored an average of 65.9% prior to Lifestyle and 66.4% after Lifestyle. Upon perusing the above table it will be noted that the margin of improvement or non-improvement is minimal. Vital to note however is the fact that the average improvement overall is carried by trainer group one.

That is, those apprentices in the trainer one group improved .9 compared to those in trainer group two and three lowering the average standard of work performance by .2 in these groups. This therefore resulted in an overall improvement of .5 .

6.3.1 Work Performance Criteria Evaluation

The criteria against which work performance was measured were co-operativeness, stability, attendance, initiative, interest, leadership, accuracy, speed, diligence, condition of tools,

job attitude, interdependence, interaction, organizing ability, and safety practice. These were measured on a .5 point scale, namely:

- 5 excellent
- 4 good
- 3 average
- 2 fair
- 1 poor

The results in respect of influence on these criteria after the Lifestyle course are tabulated below:

Table 6.3: Impact on Work Performance Criteria

Criteria	No Improvement	Maintenance	Improvement in order of priority after Lifestyle
Co-operativeness		●	
Reliability			3
Attendance	●		
Initiative			5
Interest	●		
Leadership			1
Accuracy		●	
Speed		●	
Diligence	●		
Condition of Tools		●	
Job Attitude			2
Independence			6
Interaction		●	
Organising Ability		●	
Safety Practice			4

As noted work performance overall improved .5% . Within this marginal improvement the following tendencies became evident.

Attendance, interest and diligence did not improve at all.

Co-operation, accuracy, speed, condition of tools, interaction, organising ability were maintained.

Marginal improvements were noted in order of priority as follows:

- leadership
- job attitude
- reliability
- safety practice
- initiative
- independence.

6.4 Learning Achievement Before and After Lifestyle

Over a set period of time, apprentices underwent 7 tests in respect of the following learning achievement criteria namely:

diligence
initiative
reliability
interest
leadership
learning rate
co-operation

A consistent improvement in respect of the areas mentioned occurred. An average of these results was calculated prior to the trainees undergoing Lifestyle training and shortly thereafter.

Table 6.4: Learning Achievement Prior To and After Lifestyle

Trainer	Learning Achievement Before	Learning Achievement After	Weighted Difference
1	53.1	60.4	2.3
2	56.7	61.8	2.0
3	52.3	58.3	1.7
	54.3	60.3	6.0

All three groups showed an improvement in the average results gained after the Lifestyle course. Trainer one's group improved 2.3%, Trainer two's group 2% and Trainer three's group 1.7% resulting in an overall improvement of 6% in learning achievement after the Lifestyle course.

6.5 Time Between Trainees Attendance of Course and Subsequent Calculation for Both Work Performance and Learning Achievement

Trainees were tested prior to and after Lifestyle. The lapse in testing time after Lifestyle differed between the 3 trainees.

Table 6.5: Time Lapse Between Tests

Trainer	Days
1	58
2	39
3	48
Average	48

There is therefore a 19 day difference in testing time between group one and two and a 10 day difference between groups one and three.

It is significant to note that Trainer one's group improvement in learning achievement and work performance then becomes even more significant when compared with groups two and three. That is, if one takes into consideration the hypothesis that skills or improvement become diffused over extended periods of time.

6.6 The Heimler Scale of Social Functioning

The positive mean score of trainees was measured three times: before Lifestyle, shortly after Lifestyle and 6 months later.

Table 6.6: The Difference in Life Satisfaction of Trainees Before Lifestyle, After Lifestyle and 6 Months Later

Trainer	Difference Before and After Lifestyle	Difference 6 Months Later	Total Difference
1	+ .4	- .1	+ 3
2	- .3	- 1.4	- 1.7
3	- .6	- .2	- .8
	- .5	- 1.7	- 2.2

Overall trainees life satisfaction dropped .5 after the Lifestyle course. Six months later it had dropped -1.7 points further. Together this results in a 2.2 drop in life satisfaction of apprentices 6 months after the Lifestyle course.

It is highly significant to note that trainee group one's life satisfaction increased by .4 immediately, dropped .1 six months later therefore still remained .3 higher than prior to the course.

There are two assumptions which can be made at this point:

- i. It is the trainer who impacts the trainees more than the content.

- ii. Being exposed to what life could be like, highlights for people the gaps in their own lives.

6.6.1 Shift in Significant Categories of Life Satisfaction

An average positive mean score is between 72 and 79. A score of 60 and above indicates a person who is able to function in society without the support of professionals. If the Positive Mean Score is between 36 and 60 the person is able to function with heavy reliance on family and friends or professionals to cope with his current situation. Where the Positive Mean Score is between 0 - 36 the individual is in need of concentrated supporting relationships, protection or assistance.

Table 6.7: Shift in Positive Mean Score Categories

Categories	Heimler1	%	Heimler2	%	Heimler3	%	Total	%
0 - 36			1	1.25	2	2.5	3	1.25
36 - 60	10	12.5	7	8.75	10	12.5	27	11.25
60 - 72	16	20	18	22.5	13	16.25	47	19.5
72 - 79	8	10	13	16.25	16	20	7	15.5
80 +	46	57.5	41	51.25	39	48.75	126	52.5
	80	100	80	100	80	100	240	100

The movement within and across positive mean scores is limited. It is however important to note that one person fell into the 0 - 36 category after Heimler 2 and another after Heimler 3. This could be when people become aware of their neediness in respect of other peoples' level of functioning as compared to their own. Secondly, there is a move towards the norm over time with 10% of trainees, slotting in between the 72 - 79 norm prior to Lifestyle and 16.25% after the course. The figure continues to rise with 20% of trainees falling into the normative slot after 6 months.

There is a noticeable drop from 57.5 to 51.25 to 48.75 over time in the 80+ category. This may be indicative of awareness of the totality of life dimensions, and the trainees realisation of their own relative limitedness in respect of this spectrum.

6.6.2 The Relationship Between the Positive Mean Score and the Negative Mean Score

The Negative Mean Score is expected to be 20% to 33.3% of the Positive Mean Score. If the Negative Mean Score is more than 33.3% of the Positive Mean Score the individual is seen to carry a more than average load of frustration. Likewise if the Negative Mean Score is less than 20% of the Positive Mean Score, the individual is seen to experience too little frustration.

Severe frustration overload may give rise to paralysis of functioning or breakdown in some areas of functioning. A low frustration score may be an indication of denial of frustration, or a lack of frustration that may lead to stagnation.

Table 6.8a: The Shift in Frustration/Satisfaction Ratio Before and After Lifestyle

Norm	Number 1	%	Number 2	%	Number 3	%	Total	%
10 - 2	24	30	15	18.75	30	37,5	69	29
2 - 3.3	32	40	30	37.5	26	32,5	88	37
3 - .9	22	27,5	32	40	19	23,75	73	30
1.	2	2,5	3	3.75	5	6,25	10	4
	80	100	80	100	80	100	240	100

30% Of trainees fell below the normative frustration level

prior to Lifestyle. Immediately after only 18.75% fell below this norm but 6 months later 37,5% trainees were below the norm.

Forty percent of trainees prior to Lifestyle fell within the norm of 2 - 3.3. After Lifestyle this dropped to 37.5 and six months later it dropped to 32.5%. Before Lifestyle 27,5% of trainees were experiencing high levels of frustration. After the course 40% were frustrated whereas 6 months later this percentage dropped to 23,75%. One may tentatively conclude that those trainees utilising the skills taught them during the Lifestyle course were able to use them to their advantage thereby reducing their level of frustration.

Those trainees experiencing immobilising levels of frustration were initially 2,5% and then 6.25% of the trainee population. This may indicate that those trainees close to immobilised and those already immobilised were too stressed to be able to integrate the skills being imparted. This is confirmed by an individual review of the relevant scores. It would appear that a .5 frustration level is the turning point for a return to the norm after a Lifestyle intervention. This is indicative of viewing Lifestyle as a pro-active strategy versus a therapeutic intervention.

6.6.3 An Overview of the Frustration/Satisfaction Ratios

A computer analysis of the overall average change in frustration/satisfaction ratios is set out below:

Table 6.8b: Specifics in Respect of Frustration/Satisfaction Ratios

Heimler 1	Difference Betw 1+1/1+2	Heimler 2	Difference Betw 1+2/1+3	Heimler 3	Difference Betw 1+1/1+2
.298	.40	.338	.29	.309	.11

The difference between Heimler 1 and 2 is therefore .40. Between Heimler 2 and 3 is .29 and between Heimler 1 and 3 is .11. This indicates an upswing in frustration after Lifestyle with a drop in frustration 6 months later. However, frustration levels overall still remain .11 higher than initially.

Further a trainer differentiation is elucidated below:

Table 6.9: Trainer Differentiation in Respect of Frustration/
Satisfaction Ratios

Trainer	Heimler 1	Heimler 2	Heimler 3
1	.3	.3	.2
2	.2	.4	.3
3	.4	.4	.4
	.3	.3	.3

In trainer group one over time life frustration decreases, in trainer group two it increases markedly (.2) and although lowered (.1) it remains higher than originally (.1). No change was noted in group three. Presenter differences once again became marked here with trainer group one having the healthiest profile over time.

6.6.4 Comparison Between the Gross Scores and the Base Scores

A difference of 6 to 9 points between the gross positive score (GPS) and the base positive score (BPS) and the base negative score (BNS) respectively, indicates optimal functioning within the set criteria. A difference of less than 6 points shows a tendency towards rigidity, and a difference of more than 9 points, indicates a degree of uncertainty and ambivalence, and even anxiety.

Table 6.10a: The Difference in Positive Swing of Trainees
Before Lifestyle, After Lifestyle and 6 Months
Later

Trainer	Difference Before and After Lifestyle	Difference 6 Months Later	Total Difference
1	.1	.1	.2
2	.4	.3	.7
3	.0	.4	.4
	.5	.8	1.3

The indication is that there is an increase in the positive swing of 1.3. In fact the swing increased in Heindler One from 7.1 to Heindler Two, 7.6 to Heindler Three, 8.4. That is there was a movement from within, the norm to the top end of the norm being indicative of increased uncertainty and ambivalence. This would make sense in respect of the continuous stimulation and challenge posed by the content of the Lifestyle course.

Table 6.10b: Trainer Differences Concerning the Positive Swing

Trainers	PS 1	PS 2	PS 3
1	7.9	8.1	8.2
2	6.3	7.3	8.1
3	7.5	7.6	8.9

Trainer one's group remains at the top end of the norm just creeping up by .2 overall. Trainer two's group moves from the lower end of the norm to just above the norm showing a marked increase in anxiety. Trainer three's group begins at the top end of the norm and moves .9 beyond the norm of 8 indicative of ambivalence. Although there is an increase in all groups,

trainer one and two's groups movement can be said to be the healthiest as movement occurs closely within the parameters of the set norm (6-8).

Table 6.10c: Movement Within Norms and Categories in Respect of Positive Swing Over Time

Norms	PS 1	%	PS 2	%	PS 3	%	Total	%
- 6	30	37,5	29	36,25	25	31,25	84	35
6 - 8	24	30	21	26,25	23	28,75	68	28.4
8 +	26	32,5	30	37,5	32	40	88	36.6
	80	100	80	100	80	100	240	100

The above tabulation indicates that over time the trainees became less rigid i.e. 37,5 initially fell below 6 and 6 months later 31,25 did.

Trainees also become more ambivalent and uncertain as demonstrated by 32,5% prior to Lifestyle slotting in over the norm of 8, and 6 months later 40% falling into this sector of the norm.

Table 6.10d: The Difference in Negative Swing of Trainees Before Lifestyle, After Lifestyle and 6 Months Later

Trainer	Difference before after Lifestyle	Difference 6 Months Later	Total Difference
1	.5	- .5	0
2	.5	.6	1.1
3	.1	- .1	0
	1.1	0	1.1

The above table indicates an overall increase in ambivalence immediately after Lifestyle which is maintained to same degree 6 months later.

When one looks at individual presenter impact however, trainer one and three's groups increased anxiety diminishes over time, trainer two's groups increases and is maintained, thereby influencing the overall total difference. It is indeed apparent at this point that individual presenter dynamics may well be the most influential criteria in respect of changed behaviour and the maintenance thereof.

Table 6.10e: Trainer Specifics Relevant to Negative Swing

Trainer	NS 1	NS 2	NS 3
1	7.8	9.4	7.8
2	6.9	8.1	9.6
3	9.6	9.9	9.7

Trainer one's group negative swing increases substantially but returns to within the norm to the original swing after 6 months.

The second groups negative swing increases over time substantially and the increase is maintained indicating increased anxiety. The movement within the third group is minimal.

Table 6.10f: Movement Within Norms and Categories in Respect of Negative Swing Over Time

Norms	NS 1	%	NS 2	%	NS 3	%	Total	%
- 6	31	38,75	29	36,25	24	30	84	35
6 - 8	23	28,75	14	17,5	23	28,75	60	25
8 +	26	32,5	37	46,25	33	41,25	96	40
	80	100	80	100	80	100	240	100

The above table similarly confirms the movement occurring in the positive swing. Thirty eight percent of trainees had a rigid tendency prior to Lifestyle whereas only 30% did 6 months later. 32,5% were anxious and ambivalent prior to Lifestyle whereas 41,25% were uncertain after the course. Once again such confrontation with content similar to and evoking emotions and thoughts about life spheres would quite possibly result in less rigidity and more ambivalence. That is, thought about responses would be the preferred order of the day in respect of both positive and negative life areas.

6.6.5 The Mood Variance of Apprentices Over Time

Functioning with most satisfaction and least frustration is seen by comparing the Base Positive Score to the Gross Negative Score. The variance in mood of an individual over a period of time is reflected by this comparison, which is also known as the "criss-cross". No figures have yet been established to indicate what a normative variance may be.

6.6.5.1 The Negative Criss-Cross

No significant changes occurred in respect of the negative criss-cross.

Table 6.11(i)a: Trainer Consistency in Respect of Negative Criss-Cross

Trainer	- CC1	- CC2	- CC3
1	0.4	0.3	0.3
2	0.3	0.4	0.4
3	0.4	0.4	0.4

All movement in respect of time lapse have remained constant namely 0.4 on average and presenter consistency is obvious.

Table 6.11(i)b: Movement Within Frustration, Satisfaction Normative Categories for the Negative Criss-Cross

Norm	- CC1	%	- CC 2	%	- CC 3	%	Total	%
- 2	19	23.75	14	17.5	15	18.75	48	20
2 - 3.3	25	31.25	24	30	32	40	81	33.75
3.3 +	36	45	42	52.5	33	41.25	111	46.25
	80	100	80	100	80	100	240	100

There was movement within categories if one links the norm variance to the norms of the frustration, satisfaction ratio as shown above. In general slightly less trainees fell into a too low level of

frustration that is 23.75% before and 18.75% after the course. The movement towards the norm is increased from 31.25% to 40% whereas high frustration indexes become slightly less namely 45% before and 41.25% after Lifestyle.

6.6.5.2 The Positive Criss-Cross

Table 6.11(ii)a Trainer Impact Concerning Positive Criss-Cross

Trainer	+ CC 1	+ CC 2	+ CC 3
1	.2	.2	.2
2	.2	.3	.2
3	.2	.2	.4
	.2	.2	.3

Trainer three's group energy in respect of the positive criss-cross increased .2 over the 6 month period. No other significant changes are noted.

Table 6.11(ii)b Movement Within Frustration, Satisfaction
Normative Categories for the Positive Criss-Cross

Norm	+ CC 1	%	+ CC 2	%	+ CC 3	%	Total	%
- 2	33	41,25	31	38,75	41	51,25	105	43,75
2 - 3.3	18	22,5	18	22,5	10	12,5	46	19,25
3.3+	29	36,25	31	38,75	29	36,25	89	37,0
	80	100	80	100	80	100	240	100

A movement below the norm is noted in that 41,25% of trainees were initially below the norm and after 6 months 51,25% were. Prior to the intervention 22,5% were within the norm and 6 months later only 12,5% were.

6.6.6 Comparison Between the Synthesis (SYN) and the Positive Mean Score (PIS)

A synthesis score within 8 points of the PIS indicates a global perception within expected limits of realism. A synthesis score above 8 points of the PIS indicates an optimistic global perception, and a synthesis score below 8 points indicates a pessimistic global perception.

Table 6.12a Trainees Movement between Optimism, Realism, and Pessimism in Respect of Life Views on Average

Life View	Before IS	After IS	6 Months Later	Total Difference
Optimism	2.8	5.2	4.6	1.8
Realism	-1.0	-0.3	-0.4	-0.6
Pessimism	-4.6	-5.1	-5.6	1.0

Trainees became more optimistic (1.8) i.e. the move was within but away from the central point of the norm. In respect of realism they become more realistic (-0.6) and concerning pessimism they moved 1.0 further towards pessimism away from the realistic view of life.

Table 6.12b: Trainer Difference in Respect of Life View

Life View	Trainer 1			Trainer 2			Trainer 3		
	1	2	3	1	2	3	1	2	3
Optimism	2.4	4.2	1.6	3.6	6.4	4.7	2.1	4.6	7.7
Realism	-0.8	-0.5	-0.9	-0.9	-0.2	-0.3	-1.3	-0.3	-0.7
Pessimism	-4.5	-3.8	-5.9	-3.5	-5.5	-3.5	-6.2	-5.9	-8.3

Trainer One

These trainees became less optimistic and moved slightly in towards the central point of the norm (2.4 - 1.6). Concerning realism 0.1 of a move was made further from the core of the norm (-0.8 - 0.9). A 1.4 movement occurred towards the central norm in respect of pessimism (-4.5 - 5.9).

Trainer Two

These trainees became slightly (1.1) more optimistic. They moved from a -0.9 negatively tinged realism to a slightly more positively tinged realism (-0.2) and the level of pessimism remained unchanged.

Trainer Three

A 5.6 move towards optimism was noted. (7.7 - 2.1) Realism became .6 stronger (-1.3 - 0.7) and pessimism increased by 2.1. (-2.3 - 6.2).

Table 6.12c Overall Totals in Respect of Optimism, Realism and Pessimism Over Time

Life View	Before LS	After LS	6 Months Later
Optimism	8.1	15.2	14
Realism	-3.1	-0.9	-1.3
Pessimism	-14.1	-15.1	-17.6

Overall an increase in optimism of 5.9 points was noted. (14 - 8.1) A 1.8 increase in realism was displayed (-1.3 - 3.1) and a 3.5 movement in the direction of pessimism occurred (-14.1 - 17.6).

Subtracting 3.5 (increase in pessimism over time) from 5.9 increase in optimism over time = 2.4. By adding a 1.2 increase in realism one is led to the conclusion that a Lifestyle intervention promotes a better attitude to life.

6.7 Do Stressors Impact or Contaminate the Social Functioning, Scores Elucidated in this Research ?

The Holmes Rae Stress Scale was completed by all trainees prior to doing the Heimler, each time, in an effort to highlight significant contamination of results by outside stressors.

The indicators completed were ranked and scored as follows:

Rank	Event	Value
1	Death of Spouse	100
2	Divorce	73
3	Marital Separation	65
4	Jail Term	63
5	Death of close family member	63
6	Personal injury or illness	53
7	Marriage	50
8	Fired from work	47

Stressors were experienced by trainees. From an individual perspective these stressors substantially impacted their life satisfaction, reducing it by an average of up to 1/3. Overall however, when the impact is evaluated per testing period the impact of the stressors average out and it can therefore be hypothesised that such individual events did not significantly influence the overall results.

6.8 Does the Completion of Military Service Prior to Entering a Career Significantly Influence Results ?

Some general comments in respect of the criteria measured as influenced perceivably by the completion of military service prior to an apprenticeship will follow.

a. Work Performance

Trainees having completed military service perform an average of 4.5% better than other trainees. Over time, however, their colleagues surpass them by .7% .

b. Life Satisfaction

Life satisfaction of trainees completing military service was maintained and in fact increased by 1% whereas their colleagues life satisfaction decreased comparatively by 4%.

c. Frustration/Satisfaction

A frustration increase was noted of (.2) in those not having completed military service.

d. Negative Swing

The negative swing that is ambivalence and uncertainty of non-military attendees increased by 1.2 points more.

e. Negative Criss-Cross

Those trainees not having completed military service indicate a .7 increase in mood swing compared to a .1 increase in those having completed military service.

f. Learning Achievement

Those trainees in the group of military completion performed 3% better than their colleagues and maintained this 3% lead over the total period they were observed.

6.9 Summary

1. Overall work performance increased 0.5 after Lifestyle, with marginal improvements, in order of priority, occurring in respect of leadership, job attitude, reliability, safety practice, initiative and independence.
2. An overall improvement in learning achievement of .6% occurred, distributed evenly over the three groups of trainees.
- 3a. In respect of life satisfaction a 2.2 drop occurred. There exists a marked difference between the three groups in that one improved markedly and two did not. The assumption can therefore be made that the personal trainer dynamics directly influence the results obtained.
- 3b. A 10% increase was indicated in terms of trainees slotting into the positive mean score norm of 72 - 79% after the Lifestyle intervention.
- 3c. Concerning the frustration/satisfaction ratio the most meaningful finding is that immediately after Lifestyle there is a substantial increase in frustration (27,5 - 40%) which diminishes over time to (23,75%). This may be indicative of trainees being able to implement the skills taught them, thereby reducing their level of life frustration. Further it is hypothesised from the small sample that a .5 frustration level out the norm is the turning point for a return to the norm after a Lifestyle intervention. This being indicative of using Lifestyle as a developmental rather than therapeutic strategy.
- 3d. Uncertainty, ambivalence and anxiety are increased as indicated by an increase in the positive swing of 1.3.

Rigidity decreases as shown by 37,5% of trainees becoming 31,25% of trainees scoring less than 6 six months later in respect of a positive swing norm.

- 3e. Looking at the elements of optimism, realism and pessimism the following becomes evident. Over a six months period there was a 3.5 increase in pessimism and a 5.9 increase in optimism. Concerning realism a 1.8 increase occurred. By weighing these increases up against one another the tentative conclusion may be made that attending a Lifestyle Course promoted a more realistic and positive attitude to life.
4. A stressful incidence influences apprentice performance for the worse. This drop in performance remains evident over a six months period. The findings of the study were not affected by stressors however in that an equal amount of stressors were experienced over the three testing periods.
5. Completion of military service by apprentices prior to attendance of a lifestyle course appears to impact performance. More consistency across criteria measured is apparent than for those apprentices not having completed military service.
6. Finally it must be noted that presenter differences feature as critical. Overall the trainer of group one displayed a healthier more positive impact on his trainees throughout. Particularly concerning improvements or moves towards the norm in respect of work performance, learning achievement, life satisfaction, life frustration, he too provoked only minimal levels of anxiety.

7. Overall the findings make a promising case for developmental programmes within the industry. However, one criteria rises above all the others in terms of significance. That is, the reality of presenter ability as the key criteria in terms of positive impact on trainees. The strongest and weakest link simultaneously in the presentation of developmental programmes is the presenter him/herself.



CHAPTER VII

CONCLUSIONS AND RECOMMENDATIONS

7.1 Introduction

The findings emanating from the literature and empirical research are discussed in this chapter. The main conclusions reached by the researcher, as well as relevant recommendations follow.

7.2 Conclusions

7.2.1 Achievement of Aims

To a large extent the aims of the investigation were thoroughly achieved. A programme applicable to apprentices within the mining industry has been introduced. This programme is available in English/Afrikaans, trainer and trainee format. It consists of 3 components, namely a Lifestyle manual with two presenter aids attached. These are firstly, 'Different But Effective Presentation' and secondly, 'Basic Counselling Skills One and Two'.

Trainer selection scales are enclosed in the appendix as are the scales and questionnaires used to evaluate both the programme content and impact on the relevant apprentice population.

The effect on the trainee apprentices of the Lifestyle programme was measured with respect to the impact on their learning achievement and work performance short term. Life satisfaction was evaluated over a six months period resulting in an overall positive picture.

Concerning the enhancement of participants' level of potential life satisfaction, by means of skills integration into their behaviour repertoire, there is evidence of a maintained behaviour and attitude change of trainees over this period.

The positive evidence of the research study, backed by the literature, cost effectiveness studies and a look at the possibility of a practical introduction of a health strategy into a corporation in South Africa make a strong case for prevention and corporate wellness in South Africa.

P R Carkhuff's works as evidenced in chapters two, three and five of this dissertation stand firm in respect of the appropriateness, simplicity and workability of his human and organizational systems and processing models.

7.2.2 The Literature Study

The literature study took the form of explaining each component of Carkhuff's human processing model. The ground work for a firm grasp of the theoretical foundations upon which this dissertation is based was thereby set.

P R Carkhuff in his book "Interpersonal Skills and Human Productivity" took on the challenge of determining and verifying the viability and effectiveness of his human processing model as transferred to people through the medium of interpersonal skills. The results of more than 164 studies with 152,940 recipients yield unfailingly positive results in that overall 96% of the studies are exclusively and predominantly positive and 92% of the indices are positive.

The feasibility of implementing wellness programmes in large scale organizations was investigated largely from a cost-beneficial point of view. In the words of Pelletier in the

Corporate Wellness Sourcebook "It would be foolhardy for individuals and organizations to overlook the powerful implications of creating workplace environments that enhance individuals in responsibilities and participation".

There is a growing body of evidence demonstrating that personal lifestyle affects both longevity and causes of death. The relative importance of personal lifestyle to prevention programmes is identifiable by four factors as contributing to mortality: .

1. human biology
2. the environment
3. the health care system (access to care)
4. personal lifestyle.

A number of companies believe they are saving substantial sums of money as a result of their health promotion/disease prevention programmes. The most notable being the New York Telephone company which estimates a \$2.7 million gain from nine health promotion programmes made available to 80 000 employees.

Implementation of well-designed health promotion and disease preventative programmes combined with the lifestyle changes should have the effect of continuing the downward trend in mortality rates while concurrently increasing the quality of life.

In America the wellness movement knows no bounds. Companies without a health strategy are the exception in America. In South Africa this situation is unfortunately the reverse, this status quo needs to be addressed.

7.2.3 The Empirical Data

Fifty apprentices in the fields of electricity, fitting, motor mechanics, rigging and plating were split up into groups of 25, 32 and 23 respectively. They underwent a six day Lifestyle course presented by 3 trainers.

The influence on work performance overall after Lifestyle increased 0.5 with marginal improvements occurring in order of priority, in respect of leadership, job attitude, reliability, safety practice, initiative and independence.

In respect of learning achievement there was a consistent improvement in respect of diligence, initiative, reliability, interest, leadership, learning rate and co-operation. Amounting overall to a 6% improvement across all three groups of trainees.

Concerning life satisfaction an overall drop of 2.2 was noted. There can be no direct correlation between Lifestyle and life satisfaction however because there exists a marked difference between the three groups in that one improved markedly and two did not. The drop in life satisfaction is therefore more directly linked to presenter dynamics rather than course content impact.

Ten percent more trainees experienced a normative level of life satisfaction after Lifestyle than before as evidenced by the Heinler test.

Immediately after Lifestyle trainees are more frustrated with life than before. Six months down the line however the frustration level is 4% lower than originally. The hypothesis is therefore made that trainees are able to integrate into their behaviour response repertoire the skills taught them, thereby

over time reducing their level of life frustration. A pertinent but tentative discovery is the fact that a .5 frustration level over the norm of .2 - 3.3 appears to be the turning point for a return to the norm after a lifestyle intervention. The point here is that lifestyle is to be regarded primarily as a preventative, developmental strategy rather than a therapeutic one.

Ambivalence in respect of life increased (1.3) and rigidity decreased (6.25).

Stress affects individuals personal performance negatively by up to 1/3.

Attendance of military service prior to embarking on an apprenticeship is indicative of more consistent performance than those apprentices not having completed military service.

The most meaningful, consistent and realistic finding is that the presenter of the programme is the variable with the greatest impact, for better or for worse. The conclusion is therefore that the programme is only as good as its presenter.

7.2.4 Deduction

F F Carkhuff's model for human processing is a sound theoretical and practically applicable foundation for programme development and presenter preparation.

Promoting human capital by development of capacities and pro-active intervention in respect of disease prevention are sound cost-effective intervention strategies for companies.

The weakest and strongest variable of such an intervention are the personal dynamics attached to the presenter of the programme.

Selection criteria support and consultation systems for trainers are therefore critical.

7.3 Recommendations

7.3.1 Recommendations Regarding Goldfields Training Services

Maintenance of the high profile of the Lifestyle because it is earned as proven by research.

The strictest trainer selection criteria possible, to be designed and continuously implemented.

Consultation, support and development to be made available to Lifestyle trainers on a consistent basis.

7.3.2 Recommendations for South African Business Corporations

"It takes people to make money". Human capital is the most sound long term corporate investment. It is creatively thinking people that spell the survival of a threatened economy.

Developmental and pro-active measures in respect of life threatening diseases are cost-effective. Comprehensive wellness programmes take careful planning and commitment but they make a sound financial investment.

7.3.3 Recommendations for Chamber of Mines

In the mining industry in particular rationalization procedures are a reality. This short-term financial saving endeavour brings with it numerous hidden costs as evidenced by the loss of morale in the workforce, resentment, strikes, union negotiations, industrial relations issues and go slow moves. The researcher is of the opinion that many of these negative side effects could be minimised by a truly participative management mode; alongside an investment in the people remaining. That is an investment in their personal development by the system for the system. It would enable them to act as buffers against hardship whilst simultaneously maintaining inside communication, a sharing team spirit and result in people prepared to face challenges on behalf of their company responsibly.

R R Carkhuft administers his thinking technologies broad spectrum for corporations in America, it would be interesting indeed if a corporation as large as the Chamber invested in a Human Development Strategy led by one of the leading social scientists of our times.

The reality of Lifestyle's positive impact at Goldfields Training Services has been proven and as such due consideration should be given to the broader implementation of Lifestyle at all Chamber of Mines training colleges without exception.

Chamber of Mines is sitting on a gold mine of human capital. It is further sitting on a gold mine of programme content and investment in respect of the final product Lifestyle. Presently it is a mining house that is reaping the benefit of a programme created within Chamber whilst Chamber personnel remain impoverished. It is recommended that Chamber of Mines investigate the feasibility of a Human Development Strategy for its first line consumers, namely its' staff. Chamber is typified as a service organization and one of the integral components to the success of such an organization is the marketing of its

services which is done by its very own staff (Presentation by Johan Botha, White Lodge, Johannesburg 1990).

7.3.4 Recommendations for the HSFC Health Psychology Movement

Literature and programme availability in respect of prevention and development in South Africa is poor. The momentum initiated by the HSFC Health Psychology Movement in 1989 in Pretoria should be maintained as it will bring isolated people with common interest in prevention together. In a broader sense the HSFC can be the catalyst to blurring the lines between academics, practitioners and the corporate world in an attempt to pursue the concept "quality of life".

7.3.5 Recommendations Regarding Research

It is vital that a salutogenic research profile be initiated in respect of which Lifestyle trainer personality characteristics are required to ensure that a positive impact on trainees productivity will be had.

7.4 Closure

The mining industry is a man's environment and as such attracts men's men to its ranks. It was the very foresight of such men whose determination initiated a Lifestyle developmental programme for the apprentices at the Goldfields training colleges.

There is one common characteristic that binds the people who supported the development, piloting, implementation and subsequent research on this project. They all have an unfailing faith in man's ability to learn, to create and take control of his environment with a view to contributing to a better world for himself and his fellow human beings.

A P P E N D I C E S



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APPENDIX 1

TRAINER SELECTION AND EVALUATION SCALE

TRAINER TRAINING: ESSENTIALLY A 6 PHASE PROCESS

PHASE ONE:

Lifestyle Course

The duration of this course will be 6 days.

Objective:

- To allow participants the opportunity of having experienced a course first hand.
- To familiarize participants with the content and presentation methodology of programme.

* Informal selection.

PHASE TWO:

Interpersonal Skills

The duration of this course will be 3 days.

Objective:

- To enhance future presenters sensitivity to course participants.
- To broaden their interpersonal repertoire.
- To familiarize them with a process which they may utilize to enhance or facilitate the personal growth process of participants.

* Informal selection.

PHASE THREE:

Presentation Skills Course

The duration for this course will be 4 days.

Objective:

- To provide facilitators with a framework for the effective presentation of the course.



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- To give facilitators the ability and skills relevant to teaching creatively.
 - To equip them not to be content bound but to teach in a flexible manner whereby they may appropriately assess the needs of course participants and direct their presentation accordingly, thereby enhancing the impact of the said course material on participants.
- * Informal selection.

PHASE FOUR

Final Presentation Preparation

The duration of this course will be 1 day.

Objectives:

- To expose presenters to a live presentation with the backing and support of a trained facilitator.
- To provide on the spot feedback with a view to establishing from the outset, a creative and productive presenter repertoire.

* Formal Selection

PHASE FIVE

Monitored Presentation

The duration of this course will be 6 days.

Objectives:

- To expose presenters to a live presentation with the backing and support of a trained facilitator.
- To provide on the spot feedback with a view to establishing from the outset, a creative and productive presenter repertoire.

* Formal selection.

PHASE SIX

After presenting at least 6 Lifestyle courses independently, the trainer is evaluated and assessed as to his/her capability for training and supervising other trainers to use the programme. The trainer may then independently train other trainers in the presentation of the relevant programme.

TRAINER COMPETENCY SCALE

NAME:

DATE:

SCORE:

5

PERCENTAGE:

100

NOTE:

- 1) When evaluating a prospective trainer on the attached scale it is vital to know that all criteria be analysed only with reference to the person's perceived ability to present the programme effectively.
- 2) The score achieved purely reflects the person concerned's ability to present and should not be considered to reflect on other aspects of his life.

THE PHYSICAL SCALE

1.1 Appearance

Impeccable really good to look at in all respects nothing detracts from appearance.

5:00

4:75

4:50

4:25

Pleasing tastefully clothed and adorned.

4:00

3:75

3:50

3:25

Presentable neatly and tidily clothed.

3:00

2:75

2:50

2:25

Scruffy looks uncared for.

2:00

1:75

1:50

1:25

Unkempt dirty hair, nails, shoes, etc.

1:00

0:75

0:50

0:25

0:00

Sub-total



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1.2 Energy

Endurance demonstrates endurance, dynamic strength and flexibility in the three life dimensions. (living, learning, working).

5:00
4:75
4:50
4:25

Intensity functions selectively in some life dimensions in regard to the physical components of fitness in an intense manner.

4:00
3:75
3:50
3:25

Adaptation has just enough energy to adapt to everyday requirements.

3:00
2:75
2:50
2:25

Survival tired and listless and has hardly enough energy to survive.

2:00
1:75
1:50
1:25

Illness is physically ill and has no energy.

1:00
0:75
0:50
0:25

0:00

Sub-total

EMOTIONAL INTERPERSONAL SCALE

2.1 Motivation

Determined displays tenacity in terms of ensuring involvement.

5:00

4:75

4:50

4:25

Keen desires to be involved for personal satisfaction.

4:00

3:75

3:50

3:25

Willing satisfied with participating.

3:00

2:75

2:50

2:25

Unsure may become co-operative with encouragement.

2:00

1:75

1:50

1:25

Pressurized will participate because feels forced to do so.

1:00

0:75

0:50

0:25

0:00

Sub-total



2.2 Intrapersonal Motivation

Calling has an internalized transcendental reason to live.

5:00
4:75
4:50
4:25

Self Actualization strives towards the actualization of personal potential.

4:00
3:75
3:50
3:25

Achievement achieves in terms of others and own expectations.

3:00
2:75
2:50
2:25

Incentives very limited intrapsychic motivation but is mainly guided by external reinforcing stimuli.

2:00
1:75
1:50
1:25

Anti-normative no intrapsychic motivation but can be guided by un-acceptable reinforcers.

1:00
0:75
0:50
0:25

0:00

Sub-total



2.3 Interpersonal

Initiate initiates purposeful behaviour in others.

5:00
4:75
4:50
4:25

Personalize furthers other peoples understanding of themselves by helping them to determine their contribution to their life problems.

4:00
3:75
3:50
3:25

Responding is sensitive and helps others to explore themselves.

3:00
2:75
2:50
2:25

Attending is sensitive to the needs of others.

2:00
1:75
1:50
1:25

Ignoring insensitive to the needs of others.

1:00
0:75
0:50
0:25

0:00

Sub-total

3.1 Intellectual Scale

Intellectual Creativity (Problem Solving)

Goal Implementation develops and implements a step-by-step action to achieve his goals.

5:00

4:75

4:50

4:25

Goal operation-ization sets measurable goals in terms of principles to achieve a solution.

4:00

3:75

3:50

3:25

Understands principles understands the cause and effect relationship of different phenomena related to his problem.

3:00

2:75

2:50

2:25

Conceptualized facts has knowledge with respect to the operation of relevant facts.

2:00

1:75

1:50

1:25

Distorted Knowledge has inadequate and/or distorted knowledge with respect to the operation of relevant facts.

1:00

0:75

0:50

0:25

0:00

Sub-total

3.2 Learning Ability

Action	implements steps to achieve set learning goals.
5:00	
4:75	
4:50	
4:25	
Understanding	understands the direction and end results of required action, that is where the person wants to be in terms of the learning situation.
4:00	
3:75	
3:50	
3:25	
Exploring	explores the connection between self and the learning situation, that is where he is in relation to the learning situation.
3:00	
2:75	
2:50	
2:25	
Involvement	becomes physically, emotionally and intellectually involved in the learning situation.
2:00	
1:75	
1:50	
1:25	
No involvement	is uninvolved in the learning situation.
1:00	
0:75	
0:50	
0:25	
0:00	_____
Sub-total	_____

3.3 Teaching Ability

Individualises develops and implements individualised learning for others.

5:00
4:75
4:50
4:25

Formulates Goals sets personal teaching goals for others.

4:00
3:75
3:50
3:25

Diagnosis evaluates the level of performance of other people in relation to the teaching content.

3:00
2:75
2:50
2:25

Develops content develops lesson content into a teachable format.

2:00
1:75
1:50
1:25

No teaching content does not succeed in developing teaching content.

1:00
0:75
0:50
0:25

0:00 -----

Sub-total -----

4. Self Concept

Developing improves upon abilities.

5:00
4:75
4:50
4:25

Eliminates eliminates weak areas.

4:00
3:75
3:50
3:25

Satisfied is happy with personal level of
functioning and therefore accepts and
projects self as is.

3:00
2:75
2:50
2:25

Dissatisfied feels inferior about self and projects
a false image. (eg. superiority
complex, provocative style).

2:00
1:75
1:50
1:25

Inadequate feels inadequate and shows anxiety
and/or stress as a result thereof.

1:00
0:75
0:50
0:25

0:00 _____

Sub-total _____

5. Values Scale

Transcends	behaves in accordance with dominant values with positive consequences for self and Lifestyle philosophy.
5:00	
4:75	
4:50	
4:25	
Internalises	behaves in accordance with dominant values with positive results for self.
4:00	
3:75	
3:50	
3:25	
Conforms	accepts dominant programme values.
3:00	
2:75	
2:50	
2:25	
Damaging	personal values have negative consequences for self but not for programme or vice versa.
2:00	
1:75	
1:50	
1:25	
Destructive	personal values are negative for self and the programme philosophy.
1:00	
0:75	
0:50	
0:25	
0:00	_____
Sub-total	_____

6. Spiritual Dimension Scale

Utilises uses transcendental norms as guidelines
for behaviour via the conscience.

5:00
4:75
4:50
4:25

Obeys transcendental norms are striven
towards and respected.

4:00
3:75
3:50
3:25

Acknowledges admits to a transcendental phenomena
which is greater than the self.

3:00
2:75
2:50
2:25

Seeks experiences a restlessness which
manifests in seeking something greater
than the self.

2:00
1:75
1:50
1:25

Denies no transcendental phenomena is
acknowledged and the person perceives
himself to be an absolute being.

1:00
0:75
0:50
0:25

0:00

Sub-total



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7. Life Dimensions Scale

7.1 Living

Inspiring living area is meaningful and a real
source of actualization.

5:00

4:75

4:50

4:25

Supportive living area stable and supportive.

4:00

3:75

3:50

3:25

Stable living area stable but does not provide
a supportive dimension.

3:00

2:75

2:50

2:25

Uncomfortable living area unstable, creates personal
discomfort and negatively influences
other areas.

2:00

1:75

1:50

1:25

Detrimental living area is disintegrating.

1:00

0:75

0:50

0:25

0:00

Sub-total



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7.2 Learning

Achieving	actualises maximum potential through ongoing learning and experiences personal growth.
5:00	
4:75	
4:50	
4:25	
Aspiring	above average achievement in field of learning but with limited personal actualization.
4:00	
3:75	
3:50	
3:25	
Functional	is involved in learning and achieves on an average level regarding field of learning.
3:00	
2:75	
2:50	
2:25	
Uninvolved	realize that personal development can take place through learning but does not get involved with the necessary learning.
2:00	
1:75	
1:50	
1:25	
Limited	does not realize that personal development can take place through learning and does not even learn from experience.
1:00	
0:75	
0:50	
0:25	
0:00	_____
Sub-total	_____

7.3 Working

Excellent work performance is above average as a result of experiencing his working as meaningful.

5:00

4:75

4:50

4:25

Good work performance is above average as a result of external incentives.

4:00

3:75

3:50

3:25

Satisfactory work performance is above average as a result of external incentives.

3:00

2:75

2:50

2:25

Fair work performance is average and satisfies both management and himself.

2:00

1:75

1:50

1:25

Poor finds no meaning in his work and is in trouble due to performance.

1:00

0:75

0:50

0:25

0:00

Sub-total



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8. Disposition Scale

8.1 Feelings

Manages	acts constructively on personal feelings.
5:00	
4:75	
4:50	
4:25	
Personalises	explores and understands personal contribution to own feelings.
4:00	
3:75	
3:50	
3:25	
Accepts	aware of personal feelings and accepts these.
3:00	
2:75	
2:50	
2:25	
Defends	experiences and acknowledges personal feelings but uses defense mechanisms.
2:00	
1:75	
1:50	
1:25	
Detached	detached from personal experiences and feelings and uses defense mechanisms excessively in a self-defeating way.
1:00	
0:75	
0:50	
0:25	
0:00	_____
Sub-total	_____



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8.2 Attitude

Confident

rephrases negative life events positively, enjoys life and finds meaning in unavoidable suffering.

5:00

4:75

4:50

4:25

Positive

experiences life as a challenge.

4:00

3:75

3:50

3:25

Hopeful

accepts current life events and displays hope for the future.

3:00

2:75

2:50

2:25

Resigned

fatalistic/deterministic - victim of circumstances.

2:00

1:75

1:50

1:25

Despair

no hope at all.

1:00

0:75

0:50

0:25

0:00

Sub-total



8.3 Behaviour

Pro-active prevention is better than problem solving.

5:00
4:75
4:50
4:25

Effective constructive and solves problems effectively.

4:00
3:75
3:50
3:25

Endeavours active but not always effective.

3:00
2:75
2:50
2:25

Passive watches the world go by.

2:00
1:75
1:50
1:25

Discouraging has a negative impact on self and surroundings.

1:00
0:75
0:50
0:25

0:00 _____

Sub-total _____

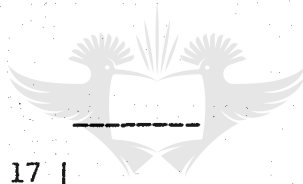


Total the scores up to this point and divide by 17. This will give you a score over 5.

Sub-totals 1.1 _____
1.2 _____
2.1 _____
2.2 _____
2.3 _____
3.1 _____
3.2 _____
3.3 _____
4.0 _____
5.0 _____
6.0 _____
7.1 _____
7.2 _____
7.3 _____
8.1 _____
8.2 _____
8.3 _____

Total
Score

$\div 17 \mid$ _____
= _____
5



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Fill in this score on the overall scale.

To give you a percentage, multiply this figure by $\frac{100}{1}$

_____ X $\frac{100}{1}$ = _____ %

9. OVERALL SCALE

Leader displays consistent leadership abilities.

5:00

4:75

4:50

4:25

Contributor makes constructive contributions in various ways
and in various areas.

4:00

3:75

3:50

3:25

Participator participates daily in physical,
emotional-interpersonal and
intellectual events.

3:00

2:75

2:50

2:25

Observer does not participate constructively on a daily
basis.

2:00

1:75

1:50

1:25

Detractor has a negative influence on people in his
environment.

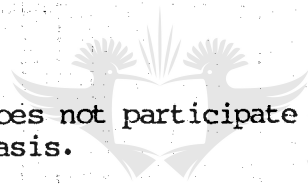
1:00

0:75

0:50

0:25

0:00



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•

APPENDIX 2

THE HEIMLER SCALE WITH

TRAUMATIC EVENT CHECK LIST ATTACHED

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TRAUMATIC EVENT CHECK LIST - ATTACHED TO HEIMLER SCALE

Have you experienced any of the following during the last three months:

1. Death of a spouse
2. Divorce
3. Marital separation
4. Jail term
5. Death of a close family member
6. Personal injury or illness
7. Marriage
8. Fired from work
9. Other traumatic events:

Please specify:

.....

.....

.....

.....

.....

ENERGY

- a) Do you feel overworked?
 b) Do you feel too tired to work?
 c) Do you find that your mind is under-active?
 d) Do you feel too tired to enjoy life?
 e) Do you feel frustrated because you are prevented from doing things properly?

No / Yes / Perhaps
 Yes / No / Perhaps
 Perhaps / Yes / No
 Perhaps / No / Yes
 Perhaps / Yes / No

HEALTH

- a) Do you have frequent headaches?
 b) Do you suffer from aches and pains?
 c) Is sex an unwelcome activity in your life?
 d) Are you concerned about your health?
 e) Is your imagination painful to you?

Yes / No / Perhaps
 No / Perhaps / Yes
 Yes / No / Perhaps
 No / Perhaps / Yes
 Perhaps / Yes / No

PERSONAL INFLUENCE

- a) Do you often feel disappointed by people you trust?
 b) Do you often find that people like being hurtful to you?
 c) Do you feel that circumstances are often against you?
 d) Do you find that people are often against you?
 e) Would you like to have more power and influence?

Yes / No / Perhaps
 No / Yes / Perhaps
 Yes / Perhaps / No
 Perhaps / No / Yes
 Yes / Perhaps / No

MOODS

- a) Are you at times very depressed?
 b) Do you often feel vaguely insecure?
 c) Do you feel unduly guilty at times?
 d) Do you ever wish you were dead?
 e) Do you find that people are often unappreciative of your efforts?

Perhaps / Yes / No
 Yes / Perhaps / No
 No / Yes / Perhaps
 Perhaps / Yes / No
 Yes / Perhaps / No

HABITS

- a) Are you inclined to drink too much?
 b) Do you take drugs or medicines to help you to relax?
 c) Do you tend to get over-active or over-excited?
 d) Do you tend to eat too much or too little?
 e) Are you driven to do things which cause trouble to yourself or others?

Perhaps / Yes / No
 Yes / Perhaps / No
 No / Yes / Perhaps
 Yes / Perhaps / No
 Perhaps / No / Yes

OVERALL VIEW OF LIFE

SYNTHESIS

Score each question out of 20 points

1. How far do you feel you have achieved your ambition in life?
 2. How far do you feel hopeful for your future?
 3. How far do you feel your life has meaning?
 4. How far has life given you enough scope for self-expression?
 5. When you look back how far do you feel that life was worth the struggle?

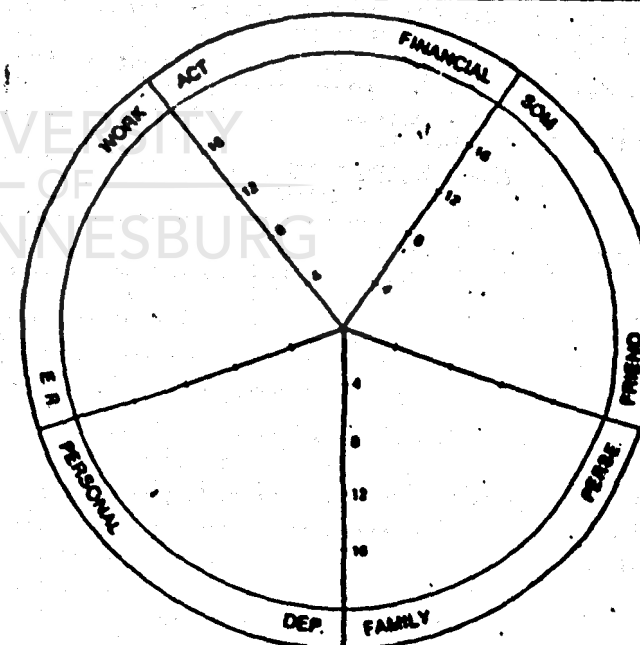
Points

.....) TOTAL
)
)
)
)

SCALE	TOTALS T(4s) / T(4+2s)	MEAN TOTAL
POSITIVE	/	
NEGATIVE	/	
SYNTHESIS	XXX	

agency's
client no

POSITIVE INDEX								NEGATIVE INDEX								SYN- THE- SIS
Area	T	1	2	3	4	5	Totals	Area	1	2	3	4	5	Totals		
Work							/	Act						/		1
Finance							/	Som						/		2
Friends							/	Per						/		3
Family	A						/	Dep						/		4
	B						/	ER						/		5
Personal							/							/		
(Add only 1 part per area) Totals: /								Totals: /								



Male	single married and separated divorced widowed	Age	No. of children:	I.Q. (estimated)	Occupation or Education	Self-admin. Direct question
Female		Age:				
		17:				
		18:				

APPENDIX 3

ASSESSMENT OF APPRENTICE WORK PERFORMANCE

APPRENTICE'S NAME:

INSTRUCTOR:

SECTION:

DATE:

TOTAL:

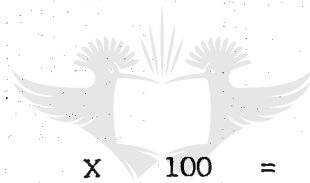
75

X

$\frac{100}{1}$

=

%



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INSTRUCTION:

- This form will take approximately 10 minutes to complete.
- 15 Characteristics are evaluated on a 5 point scale. Please read the specific criteria carefully and place your tick in the appropriate box.

Thank you for your co-operation.

LEVEL	5	4	3	2	1
CO-OPERATIVENESS	EXTREMELY HELPFUL AT ALL TIMES	HELPFUL AND OBLIGING	CO-OPERATIVE MOST OF THE TIMES	OFTEN DIFFICULT TO WORK WITH	SURLY, UNCO- OPERATIVE QUARRELSOME
RELIABILITY	ENTIRELY DEPENDABLE, REQUIRES NO SUPERVISION	REQUIRES LITTLE SUPERVISION	REQUIRES SUPERVISION, BUT DOES NOT HAVE TO BE WATCHED	SLACKS IF NOT SUPERVISED	DODGES WORK AS MUCH AS POSSIBLE
ATTENDANCE	NEVER LATE OR ABSENT WITHOUT GOOD REASON	USUALLY REGULAR AND PUNCTUAL	SELDOM LATE OR ABSENT	INCLINED TO BE IRREGULAR AND UNPUNCTUAL	UNPUNCTUAL AND STAYS AWAY WITHOUT REASON
INITIATIVE	RESOURCEFUL AND INGENIOUS	SHOWS INITIATIVE OR ORIGINALITY AT TIMES	REGULARLY THINKS OUT SOLUTIONS TO HIS PROBLEMS	SHOWS NO INITIATIVE OR ORIGINALITY	HAS TO BE SPOONFED
INTEREST AND CURIOSITY	EXTREMELY INTERESTED IN HIS WORK	SHOWS INTEREST IN HIS WORK	SHOWS INTEREST IN NEW WORK	SHOWS LITTLE INTEREST	BORED, SHOWS NO INTEREST IN HIS WORK
LEADERSHIP	DISPLAYS EXCEPTIONAL LEADERSHIP QUALITIES	FREQUENTLY LEADS THE GROUP	OCCASIONALLY LEADS THE GROUP	SELDOM LEADS THE GROUP	FOLLOWS THE GROUP NEVER DISAGREES
ACCURACY	WORK ALWAYS OF A HIGH STANDARD	WORK USUALLY OF A HIGH STANDARD	WORK IS SATISFACTORY	WORK IS BELOW STANDARD	WORK CRUDE, SLOPPY AND SLIPSHOD
SPEED OR OUTPUT	CONSISTENTLY PRODUCES MORE WORK THAN REQUIRED	USUALLY DOES MORE WORK THAN REQUIRED	DOES THE REQUIRED AMOUNT OF WORK	OUTPUT IS LESS THAN SATISFACTORY	NEVER DOES THE REQUIRED AMOUNT OF WORK
DILIGENCE	ALWAYS TACKLES THE WORK ENTHUSIASTICALLY	USUALLY WORKS STEADILY	MAKES AN ADEQUATE EFFORT	SHOWS LITTLE ENTHUSIASM	DODGES WORK WHENEVER POSSIBLE

LEVEL	5		4		3		2		1	
CONDITION OF TOOLS	TOOLS KEPT IN EXCELLENT CONDITION		TOOLS AND TOOL BOX KEPT TIDY		TOOLS WELL KEPT AND CLEAN		TOOLS KEPT UNTIDY		NEVER HAS ALL THE TOOLS AND TOOLS LOST	
JOB ATTITUDE	DETERMINED TO LEARN AND OPEN TO NEW IDEAS		ENTHUSIASTIC AND SHOWS PRIDE IN HIS WORK		KEEN TO LEARN, ASKS QUESTIONS, APPRECIATES HELP		WILLING TO LEARN		DISPLAYS LIMITED INTEREST, RESENTS AUTHORITY	
INDEPENDENCE	CONSISTENTLY COMPETENT		ONLY OCCASSIONALLY REQUIRES ASSISTANCE		CAPABLE OF WORKING RELATIVELY INDEPENDENTLY		RATHER DEPENDENT NEEDS REGULAR ASSISTANCE		EXTREMELY DEPENDENT - REQUIRES CONTINUOUS ASSISTANCE	
INTERACTION	RELATES WELL, CONSISTENTLY		RELATES WELL MOST OF THE TIME		SOCIALISES SATISFACTORILY		KEEPS TO HIMSELF		A LONER AND IS DISLIKED	
ORGANISING ABILITY	SUPERIOR PLANNING ABILITY		EFFECTIVE PLANNING		PLANS FAIRLY WELL		TRIES TO PLAN, BUT OFTEN FORGETS DETAILS		NO PLANNING; MAKES NO ATTEMPT TO ORGANISE	
SAFETY ATTITUDE SAFETY PRACTICE	ALWAYS FULLY AWARE OF HIS RESPONSIBILITIES		MOSTLY CAREFUL, SAFETY CONSCIOUS AND OBSERVANT		USUALLY CAREFUL SAFETY CONSCIOUS AND OBSERVANT		HE KNOWS THE REGULATIONS BUT SOMETIMES TAKES CHANCES		NO SENSE OF RESPONSIBILITY; RECKLESS	

REMARKS: _____

APPENDIX 4

THE APPRENTICE LEARNING ACHIEVEMENT SCALE

NAME:

GENERAL REMARKS (i.e. Time-off, Misconduct, etc.)

DATE	REMARKS / ACTION TAKEN	SIGNATURE	
		INSTRUCTOR	APPRENTICE

MERIT RATING

	DATE	DATE	L	DATE	DATE
DILIGENCE	I	.....	.....
INITIATIVE	F	.....	.....
RELIABILITY	E	.....	.....
INTEREST	S	.....	.....
LEADERSHIP	T	.....	.....
LEARNING RATE	Y	.....	.....
CO-OPERATION	L	.....	.....
	E	.....	.....
NO. ELEMENTS
GROUP AVERAGE

RATING: POOR = 10 -29 BELOW AVERAGE = 30 -49
 AVERAGE = 50 - 69 ABOVE AVERAGE = 70 - 89
 EXCELLENT = 90 -100

APPENDIX 5

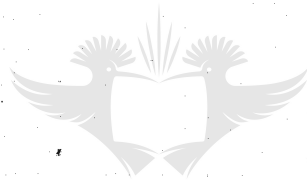
LIFESTYLE EVALUATION FORM

To maintain a high standard it is essential to evaluate courses regularly.

As such it would be greatly appreciated if you would take the time to complete the following evaluation.

Please use the five point scale where blocks are provided.

1. Terrible
2. Poor
3. Average
4. Good
5. Excellent



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EVALUATION OF PRESENTER

- a) The ability to train
- b) His/her attitude towards the group
- c) His/her knowledge of the course content
- d) Method of presentation

- b) Any suggestions with respect to alterations or further inclusions in the course?

.....

.....

.....

.....

.....

.....

- c) How do you think Lifestyle contributes to your organization?

.....

.....

.....

.....

.....

- d) Why do you think your employing organization should continue to implement Lifestyle?

.....

.....

.....

.....

.....

APPENDIX 6

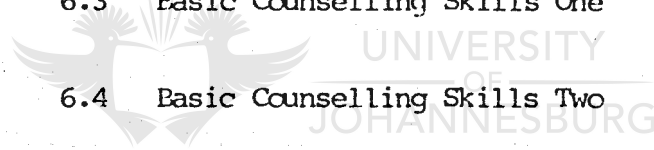
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BIBLIOGRAPHY

BOOKS CITED

- Anthony W A 1976 The Art of Health Care A Handbook on Psychological First Aid Skills. Amherst Massachusetts: Human Resource Development Press.
- Anthony W A 1979 The Principles of Psychiatric Rehabilitation. Baltimore: Park Press
- Antonovsky A 1977 Social Science and Medicine. San Francisco: Jossey Bass
- Antonovsky A 1978 Health, Stress and Coping. San Francisco: Jossey Bass
- Antonovsky A & Perenstien J 1986 Stress and Coping in Time of War. New York: Brunner/Mazel
- Antonovsky A 1984 Behavioural Health, A Handbook of Health Enhancement and Disease Prevention. New York: Wiley - Interscience
- Antonovsky A 1987 Unravelling the Mystery of Health How People Manage Stress and Stay Well. San Francisco: Jossey Bass

- Aspy D N 1984 The Best and the Brightest. Amherst
Massachusetts: Human Resource
Development Press
- Aspy N N & Roebuck 1977 Kids Don't Learn From People They Don't
Like. Amherst Massachusetts: Human
Resource Development Press
- Aspy David 1974 Toward a Technology for Humanizing
Education. Illinois: Research Press
Company
- Perenson B G 1990 Carkhuff Robert R - Helper. Centre for
Human Resource Development American
International College. Unpublished in
Press 1990
- Perenson B G 1972 Carkhuff R R - The Militant Humanist.
Amherst Massachusetts: Human Resource
Development Press
- Perenson A G & 1967 Sources of Gain in Counselling and
Carkhuff R R . Psychotherapy. New York: Holt, Rinehart
and Winston
- Perenson S R, 1979 The Skills of Teaching - Teaching
Perenson N H & Delivery Skills. Amherst Massachusetts:
Carkhuff R R Human Resource Development Press
- Perenson B G & 1979 Confrontation in Counselling and Life.
Carkhuff R R Amherst Massachusetts: Human Resources
Development Press

- Bellingham R & Cohen B 1987 The Corporate Wellness Sourcebook.
Amherst Massachusetts: Human Resource
Development Press
- Bierman R; Davison, Finkelman & Associates 1976 Toward Meeting Fundamental Human
Service Needs. Ontario: Human Services
Community Press
- Collins, John and Mary 1981 Achieving Change in Social Work.
London: Heinemann Educational Books
- Carkhuff R R 1981 Toward Actualizing Human Potential.
Amherst Massachusetts: Human Resource
Development Press
- Carkhuff R R 1984 The Productive Teacher. Amherst
Massachusetts: Human Resource
Development Press
- Carkhuff R R 1983 Interpersonal Skills and Human
Productivity. Amherst Massachusetts:
Human Resource Development Press
- Carkhuff R R 1983 Human Processing and Human
Productivity. Amherst Massachusetts:
Human Resource Development Press
- Carkhuff R R 1988 Empowering The Creative Leader In The
Age Of The New Capitalism. Amherst
Massachusetts: Human Resource
Development Press

- Carkhuff R R 1988 The Age Of The New Capitalism. Amherst
Massachusetts: Human Resource
Development Press
- Carkhuff R R 1976 Teaching as Treatment. Amherst
Berenson B G Massachusetts: Human Resource
Development Press
- Carkhuff R R & 1977 The Skills of Teaching - Interpersonal
Berenson D H & Skills. Amherst Massachusetts: Human
Pierce K M Resource Development Press
- Carkhuff R R 1972 The Art of Helping. Amherst
Massachusetts: Human Resource
Development Press
- Collingwood T R & 1974 Get Fit For Living. Amherst
Carkhuff R R Massachusetts: Human Resource
Development Press
- Carkhuff R R & 1972 Cry Twice. Amherst Massachusetts: Human
Devine J Resource Development Press
- Carkhuff R R & 1984 Instructional Systems Design. Amherst
Fisher S Massachusetts: Human Resource
Development Press
- Carkhuff R R & 1974 The Art of Developing a Career.
Friel T W Amherst Massachusetts: Human Resource
Development Press
- Egan Gerard 1982 The Skilled Helper. Monterey
California: Brooks Hyde Publishing
Company

- Ellis Roger & Whittington Dorothy 1983 New Directions in Social Skills Training. London and Canberra: US Methuen Inc
- Faust I T S & Vilnius 1983 The Go To Health Project. Ottawa: Proceedings of 18th Annual Meeting, Society of Preventive Medicine, Quebec City Canadian Public Health Association
- Germain C B 1979 Social Work Practice People and Environments An Ecological Perspective. New York: Columbia University Press
- Griffin H Jr 1990 Carkhuff Developer of Human Resources. Georgia: Association of Education. Unpublished in Press
- Grinnell R M 1982 Social Work Research and Evaluation USA: F.E. Peacock Publishers Inc. Library of Congress
- Heller Florence 1965 Education for Social Work with 'Unmotivated Clients' Waltham Massachusetts: Graduate School for Advanced Studies Brandeis University
- Mannello T A & Seaman F J 1979 Prevalence, Costs and Handling of Drinking Problems on Seven Railroads Washington D C: University Research Corporation
- Parkinson R S & Associates 1982 Managing Health Promotion in the Workplace. Pula Alto: Hayfield University

Priestly P, McGuire J, 1984 Social Skills in Prison and the
Flegg P, Hemsley V, Community Problem - Solving for
Welham D, Barnit R Offenders London, Boston, Melbourne and
Henley: Routledge and Kegan Paul

Sobel M E 1981 Lifestyle and Social Structure
Concepts, Definitions, Analysis. New
York, London, Toronto, Sydney, San
Francisco: Academic Press

ARTICLES CITED

Argyle M 1984 Some New Developments. SST Bulletin of
the British Psychological Society 1984
(December) Vol 37 405-410

Cox M, Shepherd R J, 1981 Influence of an Employee
Carey R Fitness Programme upon Fitness
Productivity and Absenteeism.
Ergonomics 24, 795-806

McQueen & Siegrist J 1982 Social Factors in the ethology of
chronic disease. Social Science and
Medicine 353-397

Pearlin L J & 1978 The Structure of Coping. Journal of
Schooler C Health and Social Behaviour
19, 2-21

Rosenbaum M 1988 Handbook of Life-stress Cognition and
Health. Pre-publication copy

- Uys Francis 1987 IPI. Social Accountability Vol 5 No 10
February 1987
- Waugh E 1962 The Private Man. New York: Commentary
in T.A. McInermy (vii - xiv) Ivan
Obolensky

JOURNALS CITED

- Courey L, 1982 Self-control and Chronic Headaches.
Feverstein M, Bush C Journal of Psychosomatic Research
26, 519-526
- Fielding J E 1982 Effectiveness of Employee Health
Improvement Programs. J Occupational
Medicine, 24,11, 907-916 November 1982
- Fried M 1982 Endemic Stress. America Journal of
Ortho Psychiatry 52, 4-19
- Katz & Singh 1986 A Comparison of Current Smokers and
Self-Cured Quitters on Rosenbaum's Self
Control Schedule. Addictive Behaviours
11, 63-65.
- Merwin D J & 1982 Health Action in the Workplace.
Northrop B A Health Education Quarterly, Vol 9,
Special Supplement
- Ross E 1988 An Ecological Approach. Social Work
Journal August 1988 Vol 24 No 3

Rosenbaum M & Rolnick A 1983 Self Control Behaviours and Coping with Cognitive Therapy and Research 1983
Vol 7, 93-98

Snyman Ina 1987 Gaps in Fields of Research. Social Work Journal October 1987 Vol 23 No 4,
247-257

PAPERS CITED

Botha Jchan 1990 Services Management - Chamber of Mines
Presentation at White Lodge
Johannesburg

Shain Martin 1984 Cost Benefit Considerations Along the Continuum from Employee Assistance to Health Promotion Programme. Michigan: A
paper presented to the North America
Congress in EAP

Strumpfer D J W 1989 Salutogenesis As a Point of Departure : How Do People Stay Healthy? Pretoria:
A paper presented by D J W Strumpfer at
the Health Psychology Seminar

CHAMBER OF MINES PUBLICATIONS CITED

1988 Mine Safety Division Loss Control Survey. A Chamber of Mines Publication
Vol 7 No 1 February (24-25)

- 1986 Chamber of Mines of South Africa 1986
Review
- 1987- Chamber of Mines of South Africa Review
1988

REPORT CITED

- de Lange Prof J P 1981 Report Of The Work Committee HSRC
Investigation Into Education Pretoria:
Human Sciences Research July

BOOKS CONSULTED

- Berenson D H & 1978 The Skills of Teaching - Content
Berenson S D & Development Skills. Amherst
Carkhuff R R Massachusetts: Human Resource
Development Press
- Berenson D H, 1978 Lesson Planning Skills. Amherst
Berenson S R & Massachusetts: Human Resource
Carkhuff R R Development Press
- Blalock Jr H M 1970 Introduction to Social Research.
Englewood Cliffs, New Jersey:
Prentice-Hall, Inc

- Bloom M & Fisher J 1982 Evaluating Practice Guidelines For The Accountable Professional. Prentice Hall-Inc
- Brandes D & Phillips H 1982 Gamesters Handbook. New South Wales: Hutchison & Co
- Carkhuff R R 1974 The Art Of Program Development. Amherst Massachusetts: Human Resource Development Press
- Carkhuff R R 1980 The Art Of Helping IV. Amherst Massachusetts: Human Resource Development Press
- Carkhuff R R 1981 The Skilled Teacher. Amherst Massachusetts: Human Resource Development Press
- Carkhuff R R 1990 Community 2000. Amherst Massachusetts: Human Resource Development Press (In press)
- Carkhuff R R 1982 The Noise. Mclean Virginia: Carkhuff Institute of Human Technology
- Carkhuff R R 1983 Sources of Human Productivity. Amherst Massachusetts: Human Resource Development Press
- Carkhuff R R 1985 The Exemplar - The Exemplary Performer In The Age Of Productivity. Amherst Massachusetts: Human Resource Development Press

- Carkhuff R R & Berenson B G 1981 Learning To Learn. Amherst Massachusetts: Carkhuff Institute Of Human Technology
- Cascio W F 1982 Applied Psychology In Personnel Management. Virginia: Rester Publishing Co
- Crumbaugh James 1973 Everything To Gain A Guide To Self-Fulfillment Through Logoanalysis. Chicago: Nelson-Hall Company
- Davidson A H 1961 Wir Zeichnen Tiere. Stuttgart: Grosset & Dunlapp Inc
- Everly J R & Rosenfeld R 1981 The Nature And Treatment Of The Stress Report A Practical Guide For Clinicians. New York & London: Menum Press
- Ellis R & Whittington 1981 A Guide To Social Skill Training. Croomhelm London
- Frank V E 1975 The Unconscious God. London, Sydney, Auckland, Toronto: Hodder and Stoughton
- Gambrill E 1983 Casework A Competency Based Approach. Englewood Cliffs, New Jersey: Prentice-Hall Inc
- Grimes H C 1984 EAP Research Volume 1. Michigan: Performance Research Press Inc

- Grinnel R M 1981 Social Work Research And Evaluation.
United States Of America: Peacock
Publishers
- Hepworth & 1986 Direct Social Work Practice Theory And
Larsen Skills. Illinois: The Dossey Press
- Hersey P & 1988 Management Of Organizational Behaviour.
Blanchard K H Amherst Massachusetts: Prentice-Hall
Inc
- Klarreich S H & 1985 The Human Resources Management
Francek J C & Handbook. New York: Praeger
Moore C E
- L'Abate Luciano & 1987 Structured Enrichment Programs For
Weinstein Steven E Couples And Families. New York:
Brunner/Mazel Publishers
- Larmott K 1974 Escape From Stress. GPPS
- Mistine J (Editor) 1980 Psychotherapy And Training In Clinical
Social Work. New York: Gardner Press
Inc
- Mostert W C 1978 'n Literatuurstudie Oor Die Logoterapie
Van Victor E Frankl. (IA (SS)) December
- Nilsson W P 1987 Achieving Strategic Goals Through
Executive Development. Massachusetts:
Addison Wesley Publishers

- Paivio Allan 1971 Imagery And Verbal Processes. New York: Holt, Rinehart and Winston Inc
- Parker D A & Brody J A 1982 Occupational Alchholism A Review Of Research Issues. Maryland: National Institute On Alchol Abuse And Alchholism
- Polansky N A 1975 Social Work Research. United States Of America Chicago: The University Of Chicago Press
- Posavac E J 1985 Program Evaluation Methods And Case Studies. New Jersey: Prentice Hall
- Remocker J A & Storsch E T 1977 Action Speaks Louder. Churchill Livingstone
- Rijavec R & Mostert W C 1985 A Skills Approach To Personal Development The Carkhuff Way. Kempton Park: Institute For Human Development Unpublished
- Schuerman J R 1983 Research And Evaluation In The Human Services. New York, London: The Free Press
- Serpell Robert 1976 Cultures Influence On Behaviour. London: Methuen & Co Ltd
- Shain M & Boyle B 1984 Toward Co-Ordination of Employee Health And Assistance Programmes. The Human Resources Management Handbook. Principles And Practices Of EAP's. New York: Praeger Press

- Spicer J 1987 The EAP Solution Current Trends And Future Issues. United States Of America: Hazelden Foundation
- Swil I 1982 Community Work Theory And Case Studies - A Primer. Johannesburg: Juta & Co
- Taljard L 1979 Speletjies Vir Almal. Pretoria: J L Van Schaik
- Tripodi T 1983 Evaluative Research For Social Workers. Englewood Cliffs New Jersey: Prentice-Hall Inc
- Truax C B & Carkhuff R R 1967 Toward Effective Counselling And Psychotherapy. Chicago: Aldine
- Tuma D T & Reif F 1980 Problem Solving And Education Issues In Teaching And Research. Hillsdale New Jersey: Lawrence Erlbaum Associates
- Veroff Joseph & Veroff Joanne B 1980 Social Incentives. A Life-span Developmental Approach. New York: Academic Press
- Johnson V 1979 A Family Affair. Minnesota: The Johnson Institute
- Vitalo R R 1980 Human Resource Development For What? Unpublished
- Ziller R C 1973 The Social Self New York: Pergamon Press Inc

- Zimbardo P & Ebbesen E B 1969 Influencing Attitudes And Changing Behaviour. A Basic Introduction To Relevant Methodology, Theory And Applications. Massachusetts: Addison, Wesley Publishing Company
- Zimbardo P G & Ebbesen E B & Maslach C 1977 Influencing Attitudes And Changing Behaviour (2nd edition) An Introduction To Method, Theory And Personal Power. London: Addison-Wesley Publishing Company

ARTICLES CONSULTED

- Antonovsky A 1984 A Call For A New Question - Salutogenesis And A Proposed Answer - A Sense Of Coherence. Journal Of Preventative Psychiatry 2 (1-13)
- Aspy C B 1986 Robert R Carkhuff Leader. Human Resource Development Education 106, (entire issue)
- Aspy D W
- Kirstein M M 1982 The Economics Of Health Promotion At The Work Site. Health Education Quarterly 27-36
- Rosenbaum M 1989 Individual Differences In Self-Control Behaviours And Tolerance Of Painful Stimulation. Journal Of Abnormal Psychology 581-590

JOURNALS CONSULTED

- 1984 Implementation of the System
Selecting Patients For Treatment
Primary Care Assessment
A System Of Health Care Delivery: Vol
1, 2, 3. Toronto: Addiction Research
Foundation
- 1987 Evaluation Of Training. Fact Sheet 160.
IPB Journal 1987 June
- 1987 News From The Johnson Institute.
Observer Vol 9 No 4, 6, Fall
- 1975 "Home And Health". South African
Temperance Alliance Vol 6, No 5
- De Vos A 1989 Programme, Programontwikkeling en
Programmevaluering. Social Work Vol 25
No 2
- House J S 1979 Occupational Stress And Coronary Heart
Disease. Health And Social Behaviour.
12 - 27, March
- Kemp Norman 1986 Motivation - Is Hertzberg's Theory
Still Valid. IPM Manpower Journal Vol 4
No 12 April
- Moerdijk Alwyn P 1984 Improving Productivity In South Africa.
IPM Manpower Journal Vol 3 No 3 July

- Patel Leila 1987 An Exploration Of The Educational And Training Component In Community Work. Social Work Vol 23 No 2 June
- Snyman Ina 1987 Gaps in Fields of Research. Social Work Vol 23 No 4 October
- Sturgeon S 1989 Bridging the Gap Between Skills Training And Practice Social Work Vol 25 No 1 March
- Strydom H & Thyden H & Ehlers D M M 1988 Die Doel Met Die Gebruik Van Statistiese Tegnieke In Kwantitatiewe Maatskaplike Werk-Navorsing. Social Work Vol 24 No 2 June
- Strydom H & Ehlers D M M Die Doelstellings, Gebruike en Mishruike van Navorsing in Maatskaplike Werk. Social Work Vol 24 No 1
- Van Zyl M A 1989 An Analysis Of Future Roles, Outputs, And Competencies Of Social Workers. Social Work Vol 25 No 4 October
- Zimble Allan 1986 Organization Development. IPM Manpower Journal Vol 5 No 8 December

CHAMBER OF MINES PUBLICATIONS CONSULTED

- 1989 Mine Safety And Health Congress Proceedings. Chamber Of Mine Safety Division.

- 1988 The Role of The In-House EAP
Co-Ordinator And EAP - Action
Committee. Social Services Division
Chamber of Mines
- 1987 Progress Report On EAP. Social Services
Division Chamber of Mines
- 1985 Report on the Feasibility Study of the
Introduction of an Employee Assistance
Programme for the Mining Industry
Social Services Division Chamber of
Mines of South Africa

GOLDFIELDS PUBLICATION



UNIVERSITY
OF
JOHANNESBURG

- 1986 Training Manual For In-House EAP
Functionaries. Social Services Division
Chamber Of Mines

PROGRAMMES

- Opperman I & 1988 Enabling Chamber of Mines Publication
Rijavec R
- Rijavec R 1989 The Implementation Model. Chamber Of
Mines Publication

Rijavec R 1987 Assertiveness. Chamber Of Mines
Publication

M A THESIS

Spruce M F 1980 An Evaluation Of The Micro-Counselling
Technique For Teaching Therapeutic
Skills To Nurses. UNISA, Master of Arts
For Clinical Psychology



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OF
JOHANNESBURG

