Training in the mining industry

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SYNOPSIS

After defining training and discussing the present level of training in the South African Mining Industry, the paper proposes the adoption of a centralized training system for the Industry and suggests several ways in which this should function. The finance required for the implementation and running of such a system should be obtained from State aid and from the institution of a levy and grant system for the whole Industry.

SAMEVATTING

Na 'n omskrywing van opleiding en 'n bespreking van die huidige opleidingspeil in die Suid-Afrikaanse mynboubedryf, stel die verhandeling voor dat 'n gesentraliseerde opleidingstelsel vir die bedryf aanvaar word en doen verskeie maniere aan die hand waarop dit behoort te funksioneer. Die finansies wat nodig is vir die invoering en bedryf van so 'n stelsel, moet uit staatshulp en die instelling van 'n heffing- en toelaestelsel vir die bedryf as 'n geheel verkry word.

INTRODUCTION

Individual mining groups and companies have for some time now attempted to improve the productivity of their labour force by instituting appropriate personnel practices, of which training is perhaps the most widely spread. The quality of this training, aimed mostly at equipping employees in the lower job categories to perform safely with a reasonable degree of competence, ranges from the rote teaching of 'mtetos' to a sophisticated approach in which a variety of methods and techniques are being used to assist employees in discovering for themselves the principles, skills, and attitudes needed for their jobs.

Apart from a few areas in which the Chamber of Mines has instituted effective training schemes to meet the common needs of the industry, individual groups and companies work in isolation, at times competing with one another and outside the Industry for scarce training expertise and often losing the products of their training schemes to outside concerns who offer higher wages but contribute nothing towards training.

This paper suggests a number of ways that could be investigated in an attempt to improve the quality of the training needed within the Mining Industry if productivity is to be improved.

A DEFINITION OF TRAINING

In a mine training centre hangs a framed statement that I have always regarded as giving a reasonably accurate definition of the role of training. It says, 'Training is that process which under company auspices, seeks in a planned, co-ordinated and continuous manner, to develop in all its employees those understandings, skills and attitudes which will maximise individual present and future efficiency and the effectiveness of the overall company operation'[1]. The training policy based on this definition has as its aim: 'To ensure that there are available at all times, adequate numbers of suitably qualified competent men at all levels of the organisation to ensure the company's continued effective and efficient operation'.

The implications of this definition of training are as follows:—

(a) The company assumes responsibility for providing the finance, human resources, and facilities needed for developing competence in its labour force.

(b) Training, like any other important function within the company, is managed in a manner that will ensure its effectiveness, i.e., the company's developmental needs are carefully assessed, and plans and their implementation are co-ordinated on an ongoing basis to meet these needs.

(c) To ensure its most effective operation, all employees from operator to manager are trained to be competent in their present jobs, and, where potential and opportunity allow, provision is made for planned career development.

(d) The knowledge, skills, attitudes, and habits to be developed in employees are aimed at maximizing their competence and, in this way, their productivity. This implies a process by which the requirements of all jobs are accurately determined and skilfully incorporated into learning programmes, use being made of the methods and aids most appropriate to the skills to be learnt and to the level of the adult trainees, who are allowed to progress through such programmes at the rate best suited to themselves. This does not necessarily mean a large formal training organization. With the assistance of one professional trainer, on a full-time or part-time basis, line supervisors can be assisted to provide a successful training service as described in the excellent article by Terry Farnworth[2], which I recommend to all line managers and professional trainers.

(e) The reason for embarking on this process of employee development is to ensure the effectiveness, i.e., the optimal profitability, of the overall company operation. This implies that training, like any other function in the company, must render proof of its effectiveness. Thorough manpower planning and development, in the long run, it is hoped, will result in an experienced, proficient, well-managed, self-motivated, reasonably stable, and highly productive organization. John Patten, president of John Patten Management Engineering Firm, is reported[3] to have said, 'The ingredient I find in excellent companies has a potential that overshadows the productivity increase achievable through industrial engineering techniques. When we learn to manage people, the increased productivity will

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be likened to the relationship of the waterwheel to nuclear energy'.

The mining groups and their associated companies, as well as some independent companies, have been active in the training field for many years with varying degrees of success. Some groups invest millions of rands per annum in the development of their manpower, often to lose such men on the completion of their training to other mining companies, which is bad enough, but, worse still, to outsiders who make no attempt to develop their own training, but rely on a slightly higher salary to attract the one or two people they need.

I assume that the concept of training contained in the definition above no longer needs to be actively sold to the mining industry, since the mines have long been regarded as leaders in the field, and, although many mining companies lack formalized in-company training activity, no manager employing African labour will disagree with Doctor Biesheuvel when he says, 'I believe there is no area of management where the need for a sound technically based personnel approach is more important than in the motivating of African labour'[4]. Where such personnel services do not exist, their lack can be ascribed to factors such as the following:

(a) The size of the company, which does not justify the expenditure involved in setting up such a service,
(b) a misunderstanding on the part of management of the size of the investment necessary to establish a competent training and personnel function, and
(c) the difficulty in obtaining staff of a sufficiently high standard to undertake this activity.

PRESENT LEVEL OF TRAINING

The quality of training varies tremendously over the Industry and even within groups. On some mines, a level of professionalism has been reached that could serve as an example to recognized institutions of learning, whilst at others the novice is placed on the job without even being taught to communicate in Fanakalo. Little attempt has been made by the Mining Industry to put training on a sound footing. Where serious need, such as the lack of trained ventilation officials has forced the Chamber of Mines to set up a training programme, it operates very successfully. The larger groups, who have the resources to establish their own training organizations, have done so, but this is not always possible for the smaller companies. An urgent need therefore exists for the Mining Industry to see how basic training and development resources can best be expanded and co-ordinated so that they can provide the competence needed at the various operational levels in the Industry.

NEED FOR CENTRALIZED TRAINING

In view of the anticipated expansion of mining activities, it appears essential that the industry should, as a matter of urgency, set up a manpower-development organization whose main function will be to determine the training needs in common job categories, and provide the facilities for the training of those categories that can be undertaken economically on a centralized basis. The Chamber is already doing this effectively in its Winding Engine Driver scheme and its training of apprentices and miners for Transvaal collieries. The most important areas in which training should be undertaken immediately on a centralized basis are outlined below.

Professional Instructional and Personnel Staff

The effective utilization of our human resources will become increasingly dependent on in-company training and development. Although line should in no way abdicate its training responsibility, there is a need for the training of large numbers of instructional staff from the level of job instructors (who will guide people to learn quickly and effectively and so reach experienced work standards) to trainers well-qualified in conducting in-company team-building and organizational activities. Such trainers must be skilled in building measures into their programmes to gauge the effectiveness of their training activities. They should be able, on a regular basis, to assess the attitudes of employees within the company, and to determine from time to time whether the value of the organization's human assets is increasing or decreasing and the reasons for such changes.

Although it is envisaged that extensive use will be made of existing training programmes such as the Institute of Personnel Management's Personnel and Training diploma courses, a core of full-time professional instructors will be required in the central organization to develop the practical skills that will enable trainees from individual companies to operate effectively as instructors in the classroom situation, and more important, as managers of training resources.

I cannot stress strongly enough the immediate need to undertake this process of developing instructional staff. Every Sunday paper carries a number of advertisements for training staff from apprentice instructors to group training managers, offering up to R12 000 per annum negotiable, a car, and other perquisites. Over the past few years, some of the groups who have developed fairly extensive personnel and training organizations have lost some of their ablest personnel and training men to other mining and industrial companies. This practice will increase as the need for theses kills becomes more fully appreciated.

The core of instructional staff undertaking the development of the training staff within the Industry should be sufficiently large to allow them to visit their trainees in the individual companies, and to assist them with the practical implementation of their training. There should be sufficient of these instructors to enable a company that is too small to afford full-time instructors to bring one of these in for short periods to assist in the establishment of good training practices. Where required by companies, these instructors should be available to do audits on the existing training, to provide a feedback on its effectiveness, and, if necessary, to help in improving it.

An additional function of the centralized instructors will be to evaluate from time to time the effectiveness of the current training schemes within the Industry.

The importance of the in-company

trainer, whether full-time or part-time, cannot be stressed sufficiently. Experience has shown that, even where line officials are more than willing to carry out their share of the training activity, production pressures hardly ever allow them more time than is required merely to assist in determining training needs and priorities; establishing what the indicators of training effectiveness are likely to be; critically scrutinizing training manuals, methods, and strategy; vetting the most important aspects of the programme during a short appreciation course; then formally opening the first training session, and at the end assisting with the final passing out of the candidates.

In the final analysis, it is the task of the trainer to proceed step by step from the established need, through the painstaking process of task listing, task detailing, subdividing the material to be learnt into easily assimilable lessons, arranging the lessons into the most economic learning sequence, deciding on the objectives for the overall course as well as for individual lessons, and determining efficient methods and aids to ensure sustained motivation, active participation, rapid understanding, and a sufficient level of retention to meet the predetermined measurable objectives. For an indication of what is involved, see Appendix I.

Surveyors

There is an urgent need for the training of mine surveyors to be undertaken on a centralized basis. This training would include the same learner-controlled method as used at present, plus short full-time seminars as now practised in the Chamber's successful scheme for ventilation officials. This approach could perhaps be improved by the incorporation of other aspects of the teletuition method so effectively used by the University of South Africa's School of Business Leadership (for details see Appendix II). Some groups at present need substantial numbers of certificated surveyors, and, judging by the small pass rate in the Survey Certificate of Competency examinations, present training schemes are virtually ineffective.

Technicians

There is a need for the training of technicians in the engineering skills peculiar to the Mining Industry, for example, electronic winder technicians, mechanical winder technicians, instrument technicians, non-destructive testing technicians, and refrigeration technicians. Often this type of training needs costly mock-ups and simulators because, for obvious reasons, trainees cannot be instructed on live operating equipment. The numbers of technicians required by any one company are too small for the training to be undertaken other than on a centralized basis.

Apprentices and Artisans New to the Industry

The Industry should integrate, expand, and perhaps control the standard of training of engineering apprentices and artisans new to the industry, as is already successfully done by some groups and by the Chamber for the Transvaal collieries. Where groups have effective training centres, the trade-test passes for electricians and boiler-makers are virtually 100 per cent and, for fitters, approximately 80 per cent. The national average in 1972 was 20 per cent and less. Training times for these trades have been reduced from 5 years to between 3 and 3½ years, resulting in considerable savings for the groups concerned. Again, unfortunately, newly qualified artisans, on the completion of their training, are offered slightly higher rates by outside contractors who do no training but use these artisans on a highly profitable basis to do work that the mines cannot do for themselves because of the shortage of trained artisans.

Common Technical and Supervisory Training Programmes

As a result of the recent negotiations with the Unions, there is a need at the first White level for training in more-advanced technical and supervisory skills. To enrich and upgrade the skills at this level, it is essential that appropriate technical courses should be provided; for example, for the miner, on such topics as 'the use of explosives' or 'hanging wall control', and, for the metallurgical official, on the chemical processes he is to supervise. In addition, ongoing programmes are needed in which supervisory skills, greater understanding of and better utilization of his Black workers, etc. are developed in these men. There are some programmes of this type, but they are available only to the group or company who has developed them. Other programmes have still to be developed. Far closer co-operation in these areas is essential. The need is an urgent one, for, if the white man at the lower level is to feel sufficiently secure to yield further concessions, we must immediately provide him with adequate training for his new role.

Similar training is obviously required at the shiftboss, foreman, and mine-captain levels, as well as at the higher-management levels. The British Coal Board provides a valuable service to its member companies in staging, on an Industry-wide basis, supervisory and management courses that could normally be provided only by the most affluent companies. Whether such courses should be conducted for our Mining Industry as a whole is a matter that merits careful consideration.

Research by the Human Sciences Laboratory has indicated that it is not only mining graduates and diplomates, but officials at other levels as well, who become disenchanted with a style of management that allows the individual little scope for initiative and self-fulfilment in a challenging, worth-while job. Unless supervisors and managers are aware of the needs, expectations, and perceptions of the men in their teams, and are skilled in providing as far as is practicable, meaningful and rewarding work for them, the most efficient job-training scheme will yield little benefit. A great deal of work must be done immediately to give managers and supervisors the skills they need to ensure effective communication, to build their men into effective work groups, and to create mutual trust and understanding, not only between individuals at the different hierarchical levels, but especially between the race groups.

Onsetters

For years, the turnover rate for onsetters has been in the vicinity of 400 per cent per annum. A large

portion of their training lends itself to self-instructional and group-learning techniques, for example, the learning of Fanakalo, ringing the bells, mastering the law, and viewing standard methods of slinging long material, etc., which can be portrayed on a film or closed-circuit television. Such training needs to be standardized, to be improved by incorporation of the most efficient instructional aids, and then to be presented on a centralized basis.

CENTRALIZED TRAINING OF BLACKS

Although most companies have been training their black workers for many years, much can be done to improve the methods and standard of training. A need is arising, however, for consideration to be given to the centralization of training of the following categories of black workers.

Artisan Aides

The concession for the training of engineering aides is an important one, which, if implemented correctly, should bring about considerably improved artisan productivity. Most companies have realised this and are selecting as good a calibre of man for training as is possible under the circumstances. The periods for the training of these categories in one group are given in Table 1.

TABLE I

PERIODS OF TRAINING

	Gold	Coal
Electrician aides	24 shifts	21 shifts
Fitter aides	24 shifts	52 shifts
Boilermaker aides	24 shifts	14 shifts

To meet their immediate needs, many mining companies have set up their own facilities for the training of these men. The collieries of one group have centralized this training in the Witbank area. The training of engineering aides is expensive and will become more so if further concessions be made. The success of these aides in doing more-advanced work will depend eventually on their ability to understand the principles underlying the technology of their trade.

The Industry should attract to itself a share of the educated South African Blacks looking for a worthwhile career in the mines. If the rate and prospects for this job category become more attractive, if good-quality training is offered, and if the subsequent trade certificate is generally acceptable throughout the Industry (subject, perhaps, only to an in-company trade test to detect the shortcomings on the particular company's equipment), the industry is in a strong position to attract people having a standard-six or higher education.

The industry should therefore now embark on a programme of building and equipping a number of regional engineering training centres, on the same basis as is being done for secondary industry by the State, who are establishing eight such centres at a cost of R2 million. The operating costs of the scheme are to be borne by the industries concerned, but will be subsidized to the extent of R750 000 per annum by tax exemptions. On completion of its training establishments, the Mining Industry should embark on a programme of recruiting, selecting, and training sufficient numbers of men of good calibre to cater for the needs of its members.

Black Team Leaders

As with the artisan aide, the industry needs good-quality Black men to fill the positions of team leaders.

The Industry should therefore consider instituting a recruiting, selection, and training programme for men of standard-six or higher education, who, on much the same basis as our present student mine officials, are signed on by individual companies at a fixed rate of pay and are placed on a specific training programme aimed at making them into competent team leaders over a period of two to four years. Like the artisan aide, the team leader should eventually achieve certification that is acceptable to all companies and that will allow him, like his White counterpart, to move freely in the Industry without having to start each time on the lowest rung of the ladder. The technical part of his training, as well as specialized instruction in supervisory skills, should be given either in approved group or centralized training centres. To ensure that the same high level is maintained right through the Industry, the final passing out and certification should be monitored by the Industry's own training officials.

Industrial Education for Senior Blacks

To keep faith with the black men who are team leaders or in other senior positions at present, but who are uneducated and still relatively young, we need educational programmes that will raise them quickly and reasonably painlessly to a standard-six level in one or both of the official languages, as well as in arithmetic. With the advent of closed-circuit television, it is possible for a programme of excellent quality to be produced and used as the most important adjunct to the instructional process. The NDMF, in collaboration with the Bureau for Language and Literacy, is producing such programmes in English and arithmetic. I recommend that the Industry should seriously consider supporting the production of these and the other programmes that the NDMF intends producing. Should the Industry decide to standardize on one programme, men at that level who are forced by circumstances beyond their control to move from company to company can continue to progress.

THE NEED FOR AN AUDIO-VISUAL UNIT FOR THE INDUSTRY

With the coming of closed-circuit television, a powerful, flexible, and relatively inexpensive instructional medium has been added to the trainer's arsenal. Several mining companies have already invested in the equipment for closed-circuit television. It is ideal for the type of programme mentioned in previous paragraphs, such as the use of explosives, supervisory techniques, languages, arithmetic, methane, etc. It is useful in the training of instructors for providing feedback, as well as in programmes where difficult skills such as performance appraisal, counselling, etc. are being learnt. With the possible advent of the five-day week, the need will arise for additional recreational and educational material in hostels.

A constant need exists for the production of effective recruiting material for distribution to overseas and local universities and schools. Because of its flexibility and inexpensiveness, closed-circuit television

readily lends itself to programmes being produced by individual companies to meet their particular needs. Their instructional staff will have to be taught television production skills. Senior mining officials will increasingly have to face television cameras, and provision must be made well in advance to give them practice in this skill. Engineering training can be improved by the use of single-concept loop films and other visual aids. The general use of audio-visual aids in the industry can be improved considerably. Apart from the J. S. Erasmus Language Laboratory Course, which teaches Fanakalo to newcomers in from 14 to 40 hours depending on the level and ability of the candidate, little has been done in the Industry to exploit the new educational technology. The sponsorship of an existing organization and/or the setting up of the Industry's own unit should improve the overall effectiveness of the instructional process and add to its professionalism.

NEED FOR RESEARCH

Without constant feedback on the efficiency and effectiveness of its methods and activities, no training can remain effective for any length of time. The Industry is fortunate in that such an institution already exists and is doing some of the needed research. What is required now are effective operating units in the field to implement the findings of their research and provide opportunity for further controlled experiments by research workers and by training officials, who should be encouraged to undertake such research for themselves.

CO-ORDINATION OF TRAINING

Companies are at present working virtually in isolation. There is need for a quarterly training and developmental journal within the industry, which should contain the following:

- reports of training and development programmes, successful or otherwise, being undertaken in the industry or in the country,
- reports on training research here and elsewhere,
- critiques of publications in the training and personnel field,
- abstracts of current literature,
- advisory service on the quality of the latest audio-visual and other aids to training, and
- a list of the training programmes scheduled over the next quarter, and an evaluation of likely effectiveness, etc.

In addition to the journal, quarterly and annual training meetings and conferences should be held to serve as a forum for the exchange of ideas, reviews of progress, and planning of new projects.

SUMMARY

There is a need within the Mining Industry for a central organization that will complement and help to improve the manpower-development activities at present undertaken with varying degrees of skill and success within the Industry.

This central organization would function as follows.

(a) It would undertake, on behalf of the Industry and at the request of individual companies, assessments of manpower-training needs at various levels and plans of how best to meet those needs.

(b) It would provide a training and development function of a high professional level. To achieve this, it would require a strong core of highly skilled training staff, whose main tasks would be as follows:
  (i) to recruit, select, and train adequate numbers of instructional staff at the various levels of skill required in member organizations (as far as possible, mining and engineering officials no longer able to operate effectively underground but in all other ways suitable would be trained to meet this need);
  (ii) to assist such trained staff in establishing and maintaining an efficient and effective training function within their particular organizations;
  (iii) to provide those companies unable to afford a full-time training function with the advice and service needed to enable their line managers to carry out this function;
  (iv) to do audits when requested by companies, on existing training activities, and to improve the function where required;
  (v) to assist, when the need arises, with the production of training programmes to meet individual or common training needs;
  (vi) to initiate, experiment with, or do research on methods to improve training efficiency.

(c) Where required, the central organization would establish and maintain, integrate, complement, and co-ordinate or control training programmes, training centres, and levels of proficiency necessary for certification. These would include
  (i) job training programmes for surveyors, onsetters, draughtsmen, etc.,
  (ii) new engineering training centres for apprentices, artisans, and technicians,
  (iii) training schemes for advanced job categories for Blacks, such as engineering aides and team leaders,
  (iv) language and arithmetic programmes for senior Blacks, and
  (v) literacy programmes for illiterates.

(d) The central organization would sponsor an existing audio-visual unit or establish and maintain its own so that it would
  (i) provide tailor-made training, recruiting, educational, and recreational programmes,
  (ii) advise on and train instructors in the use of learning laboratories employing closed-circuit television and other technical aids to training,
  (iii) train senior officials in the skills required in television interviews.

(e) Liaise with State and private training institutions, both here and elsewhere, to ensure that the best possible use is made of the services provided by them.

(f) Be responsible for co-ordinating

the activities of training establishments within the Industry and for enhancing its professionalism by quarterly meetings and annual conferences and by the publication of a journal.

(g) Where possible, profitably market effective programmes or services outside the Industry and plough the funds back into the organization.

FINANCE

If the foregoing proposals, or some of them, merit implementation, the following are the sources of funding that should be investigated.

(a) During an address at Kempton Park on 1st November, 1973, the Honourable M. C. Botha, M.P., Minister of Bantu Administration and Development, mentioned the building of eight centres at the cost of R2 million to provide technical training for Black scholars, as well as R2 million for establishing another eight technical training centres for secondary industry. He went on to say, 'Great interest was displayed by the commercial, agricultural, services, building and mining sectors to which attention would be given as soon as circumstances permitted'. A comprehensive plan on how the Industry envisages meeting its myriad training responsibilities should be prepared, and equitable financial support should be negotiated with the State.

(b) The Industry should give serious consideration to instituting, as done by SEIFSA and the S.A. Federation of Civil Engineering Contractors, a levy and grant system for the whole Industry. It is important that the Mining Industry should fall in line with this practice, for it is only when all major industries cater for their training needs by means of the provisions of the Industrial Conciliation Act that truly effective measures will be applied right across the nation and so ensure a high level of productivity.

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4. Address by Dr S. Biesheuvel.

APPENDIX I

A BRIEF SUMMARY OF THE PROCEDURE USED IN THE COAL DIVISION FOR PREPARING TRAINING CONTENT

1. *Listing all the steps in a task or job.*

All the steps in the performance of a task are listed by the trainer:

(a) observing the experienced worker(s) performing the task, and
(b) discussing with immediate supervisors.

2. *Task detailing*

Each of the listed steps is analysed so that the knowledge and skills required to perform a step effectively are identified. For example, if the step reads 'Applies grease to grease nipples', a further analysis of this step will probably show that the learner should have

a knowledge of:

(a) where the grease nipples are situated,
(b) what type of grease to use,
(c) how to grease effectively,
(d) what to do when a grease nipple is damaged, etc., etc.

skill to:

(a) identify all the grease nipples,
(b) identify the correct type of grease,
(c) replace a grease nipple, etc., etc.

This analysis is done through discussion with:

(a) the worker,
(b) his immediate supervisor, and
(c) higher levels of supervision, e.g., shiftboss, mine overseer, section manager, in order to obtain confirmation.

Before preparing the final draft, the assistant manager or mine manager must approve it.

It often happens that supervisors, even at section manager level, will argue at length over exactly what knowledge and skills should be given to the worker. A good comment, which always has great impact on them at such a time, is that, if they as supervisors or senior officials do not agree about what should constitute the training content, the need for a clear analysis in terms of knowledge and skills is obviously essential.

The completed analysis forms the syllabus content, and the indicators of training effectiveness are listed on the index page. This will form the basis for subsequent evaluation of training effectiveness.

3. *Determining the lessons*

After all the steps in a task have been analysed, the lesson units are determined and sequenced.

4. *Lesson preparation*

Each lesson unit is then prepared for effective presentation.

APPENDIX II

TELETUTION TRAINING METHOD AS DESCRIBED BY THE SCHOOL OF BUSINESS LEADERSHIP, UNIVERSITY OF SOUTH AFRICA

The entire structure of the SBL educational system is geared to teletuition—'training at a distance'. The staff of the SBL is experienced at structuring programmes to effect management training of students who are not residential, but scattered throughout the country.

The fundamental prerequisite is that the students MUST be members of a study group. THE PROGRAMMES WHICH OUR EXISTING STUDENTS MUST FOLLOW ARE DIFFICULT AND THE WORKLOAD IS HEAVY. Since the student has infrequent personal contact with his lecturers he MUST have some outlet for discussion of personal difficulties which he experiences with the study material, otherwise he rapidly becomes frustrated and completely demotivated. This problem, particularly of the very busy student, was realised when the SBL was constituted, and led to the study group method, which has turned out to be an exceptionally effective means of training managers. (So much so that Prof. Edgar Schein of the Sloan School of Business Management, MIT, who visited the SBL in 1969, has stated in his Carnegie Report on Higher Education that our SBL course is the most innovative in the world.)

The SBL regards any move towards a training programme based

on individual study as a retrogressive step and goes so far as to say that unless management training by teletution can be done by the study group methods, the effectiveness of the training will NOT be significant for a large proportion of the students. We are therefore extremely loath to undertake any type of training programme which does not incorporate the study group method.

This leads to the second major strength of the SBL's methods of management training-expertise in the Study Group Method.

Expertise in Study Group Training

The SBL has had eight years experience in developing training courses by the study group method. Training via study groups is not a matter of saying: 'Let there be a group', and leaving the matter at that. Such a study group must be given structured assignments, which systematically lead the group through the study material, and a balance must be struck between GROUP work and INDIVIDUAL assignments.

A well-planned training programme based on the study group method will achieve the following results:

1. The expertise of ALL members of the study group is utilised—generally the group is interdisciplinary, containing, say, engineers, accountants, mining and personnel managers. The result is that the more expert participants in a particular subject FORMALLY assist the inexpert group members. This effectively removes many of the frustrations of individual study.
2. A much larger workload can be handled as a result.
3. Particularly if the group comes from a single company, a significant cross-fertilisation of ideas takes place and mutual understanding is enhanced. Group members come to really understand the difficulties under which their peers work and to appreciate where they can assist one another. Furthermore, the relevance of the theory which the group members learn is seen and appreciated in the context of the work situation as a whole, and not in the contetx of a functionally isolated department.
4. The members of the group are compelled to work as a management team in solving problems. This is carried over into the work situation.
5. The existence of the group acts as a powerful motivation booster to persist with the course. The existence of the group disciplines the group member to stick to his studies, since other group members depend on him and vice versa. The competition BETWEEN groups means that each group as a whole puts in a great more effect than they would do if they studied individually.

Contribution to the above paper

by R. T. Muller* (Visitor)

Demands are being made and pressure is being brought to bear on employers in South Africa to narrow or eliminate the wage gap between their White and Black employees. Few thinking people will dispute the fact that a constant improvement in the wages of Black personnel is essential, but this cannot be done merely by a redistribution of income in South Africa. If this were to happen, some of the Bantu at present employed may become unemployed so that those remaining in employment can earn considerably better wages. What is required is constant and rapid economic growth, but this will be possible only if there is an equivalent increase in the productivity of personnel.

The enhancement of the productivity of Black, as well as White, workers means, among other possibilities, the restructuring of jobs. It means that jobs more advanced in content than those at present done by Bantu will have to be done by Black employees, and it calls for an organizational structure that will allow better job opportunities for Blacks.

The role of training in increasing productivity is reflected by the fact that any employee faced with a job of which the content has been changed will, if he is to be used effectively, have to be trained so that he can handle all aspects of his newly structured position.

The use of more or better machines and new or better systems for bringing about increased productivity emphasizes the fact that new knowledge, new methods of operating, and insight into maintenance will be required.

The better and more efficient use of our Black labour force necessitates efforts on our part to get more and more of them literate and to a stage where they can at least speak English or Afrikaans. This means that much attention will have to be given to training in communication. Fanakalo is limited and inadequate for communication in management and technical concepts other than on a very elementary level.

People who have been used to having money just to meet their daily needs may find, with the gradual increase of salaries, that they have more than they require for their daily subsistence. By the time Black employees reach this stage, they should have received tuition so that savings accounts, fixed deposits, and insurance mean something to them. They should be at the stage where they see the need for providing for the education of their children. They should understand concepts like

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