

NUMSA will carry the very substantial costs of training, accommodation and travel. We are requesting employers to support the project by paying participants their full wages whilst they are attending the programme.

- ☐ Assist elected delegates with gathering information about training at company, local and regional level - the procedure for this assistance to be discussed at plant level.
- ☐ Attend a follow-up meeting in November where NUMSA will present its proposals. At such a meeting employers and NUMSA would discuss the most appropriate forums and procedures for taking discussion, research and development further.

The employers were asked to respond to these four points by 15 June.

This project aims to set in motion a process - the outcome of which could be a training system which puts South Africa on a par with the most advanced economies of the world. It could lay the basis for internationally competitive trade and for domestic economic growth where the majority of South Africans are able to enjoy a civilised standard of living and job satisfaction. We hope the employers give them support. ☆

The training strategies of business and government: new opportunities for unions?

NUMSA's proposal for a training strategy comes at a time when both employers and the state are developing new strategies for training workers. ANDRE KRAAK* and KARL VON HOLDT describe the changing training needs in the metal industry, and the responses of employers and the state. They point to some implications for the union movement.

The government has passed a new law placing the control of training in the hands of employer and worker organisations. Previously training was controlled by the state.

The new Industry Training Boards (ITBs) will be established to control training in each industry, and they will consist of representatives from trade unions and employer organisations in the industry.

This change provides exciting new opportunities for unions. For the first time workers could begin to have a say over how they are to be trained. However, the new training law also holds dangers.

It could give the employers powerful weapons to co-opt or entice workers out of the progressive union movement, or indeed to co-opt the unions themselves.

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Training problems in the metal industry

Every employer needs workers with specific skills. The kind of machines used, the kind of job, as well as the general economic and political conditions, all influence what skills the employers need.

Over the last twenty years a number of factors have combined to create a shortage of skills in the metal industry.

Decreasing profitability and productivity.

The world economic recession, the uncompetitiveness of SA products on the world market, sanctions and disinvestment campaigns, and the growth of worker organisation and militancy, have all contributed to decreasing profits and investment for SA industry. Many employers see education and training programmes for workers as a way of increasing skills and productivity, and therefore profits.

The rise of monopoly corporations.

In the 1950s and 1960s many small companies flourished and competed with each other. But since the 1970s there has been an enormous concentration of economic ownership and power in the hands of fewer and fewer companies.

For example, in 1979 5% of the companies in the iron and steel sector employed 75% of the employees in that sector, and owned 88% of total assets.

The financial power of these companies allowed them to modernise rapidly, impor-

TABLE 1: PERCENTAGE OF EMPLOYEES TRAINED BY OCCUPATION AND POPULATION GROUP

OCCUPATION	WHITE	AFRICAN
Top management	98.0	0.9
Middle management	95.0	2.7
Supervision	75.1	18.6
Engineers	96.8	1.3
Technicians	87.6	6.9
Artisans	92.9	3.1
Machine operators	21.0	71.0
Commercial	63.7	18.3
Clerical	72.1	14.3

ting new machinery and expanding production. A large proportion of production became highly mechanised mass production.

This often meant deskilling skilled jobs as well as requiring workers with new skills.

Deskilling. The differing labour processes (see box on p18) require very different skills from workers. On the one hand many new skills are required (see below). On the other hand, mass production has deskilled many traditional artisan skills.

Machines are introduced to replace the skilled artisans, and this breaks up the artisan's job into a number of less skilled jobs. Thus the skilled artisan is replaced by several semi-skilled machine operators.

In the words of the training officer at Scaw Metals: "It is on the cards that there will no longer be a qualified artisan moulder, because they have deskilled the job by bringing in machine equipment, where there is now very little hand

moulding left."

Employers are very keen to further deskill work in their plants. Deskilling breaks the stranglehold white workers have over skilled jobs. By replacing white artisans with black semi-skilled operators employers can pay lower wages. Artisans can also be upgraded into supervisory and managerial positions.

According to Scaw's training officer: "90% of present artisanal work needs to be broken up into semi-skilled components. The more semi-skilled work you can take off the artisan, the more you can allow him to advance into other skill areas ... for example, allow him to become a better manager, a better organiser, a better planner."

Reskilling. New technology and mass production has not only deskilled work - it has created the need for new skills. The most spectacular reskilling has been the training of hundreds of thousands of black semi-skilled workers. For white artisans this has

Changes in the labour process

The growth of monopoly companies is most often accompanied by large-scale 'mass production' techniques. But this did not happen uniformly throughout the metal industry in South Africa. The industry developed unevenly. In fact, there are three different types of labour process in the metal industry today.

The first type of labour process is 'jobbing'. The Dorbyl-Vecor Engineering plant in Vereeniging, which produces huge pressure vessels, is a typical example of a jobbing plant. Jobbing is a production process which entails limited one-off production runs. Jobbing firms produce short runs of a variety of commodities, rather than mass-producing a few standard commodities.

A Dorbyl representative explained: "This heavy engineering factory will never be automated. Our business is jobbing. We are not making 5 000 small little pieces where we can have mechanised processes. We work with single job pieces, sometimes weighing up to 300 tons, producing one or two units only. They often take us months to produce. The artisan is central to the work done here."

Dorbyl is not a small company. It is a huge jobbing concern, highly dependent on artisanal labour to do the complex work tasks. The work process cannot be easily mechanised or deskilled. There are many other firms in the metal industry, both large and small, that are of the jobbing type.

The second type of labour process found in the metal industry today is mass production. Mass production is quite the opposite of jobbing. Haggie Rand is a good example. This company is based in Germiston and produces steel rope for construction purposes. The mass production of this steel rope is highly mechanised. Most of the productive labour is done by black semi-skilled workers.

According to a Haggie Training Officer: "None of our processes are dependent on artisans. It is all semi-skilled work... There have

been major changes in technology over the last ten years. New machinery has generally produced greater output, eliminating some of the production steps. There has thus obviously been a decrease in skilled numbers, and a reliance on semi-skilled labour."

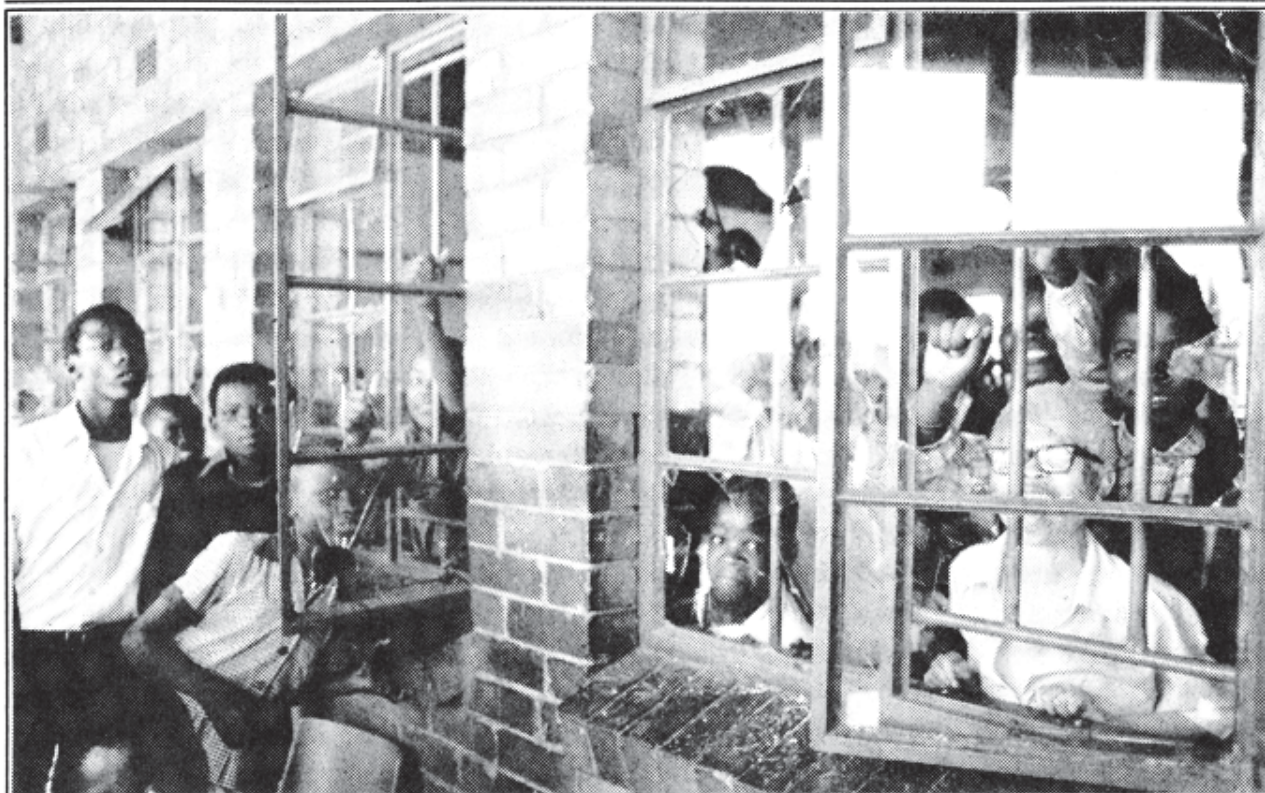
The work process has been broken up into eight distinct operative (semi-skilled) tasks. Each of these tasks requires workers trained in specific operative skills. Haggie employs a much smaller group of artisans, primarily for maintenance purposes. Again, there are many other firms in the metal industry similar to Haggie.

A third labour process in the metal industry is one which involves a mix of the above two: both jobbing and mass production. Scaw Metals in Germiston is an excellent example. Scaw is an iron and steel foundry which was established in 1939. It has undergone three phases of technological change, each introducing a new labour process. The interesting feature is that all three labour processes still co-exist together at Scaw.

In 1939 a manually stoked coal furnace was introduced, involving unskilled workers who would maintain the fire, and artisans who would work the iron ore. In the mid-1960's, a more modern electrical furnace was introduced. The need for large teams of unskilled furnace workers was eliminated. More operators were employed.

By 1979 a very modern furnace had been introduced. Here production is fully computerised and automated. Few unskilled or semi-skilled workers are employed. Most of the employees are computerised-machine programmers and maintenance artisans. All three furnaces operate together, with the 1939 furnace performing 'jobbing' moulding, whilst the 1979 furnace does more 'mass produced' moulding.

These differing labour processes require very different skills from the workforce. On the one hand, jobbing requires well qualified artisans who are capable of doing difficult technical tasks which cannot be automated. On the other hand, mass production has acted to deskill many traditional artisanal skills. ❖



"The real root of the problem lies in the general inadequacy of black basic schooling" - the heritage of Bantu education is a poorly-trained workforce

Photo: Sowetan

been experienced as deskilling their jobs, but for black workers it has meant massive reskilling and an increase in their bargaining power.

A Dorbyl representative describes the new skills required by operators: "They must have the following technical qualities: mechanical insight, mathematical ability, 3-dimensional perception, hand-eye co-ordination, mental alertness. All of these are crucial for the safe and productive operating of expensive and sophisticated machinery."

Operators must read the technical instructions on product order forms, fill in the relevant documentation concerning output per day, and read the automated machine screen instructions. All of these semi-skilled responsibilities require a reasonable

degree of literacy and numeracy.

But there are new skills and reskilling at other levels too, especially when computerised manufacturing is introduced. For example, many trades are being upgraded with skills in pneumatics, hydraulics, electronics and computerisation. New skilled jobs have emerged such as computer programmers, product designers and technologists.

All of these create new training needs.

Skills shortages. The changing mixture of skills needed on the shopfloor has led to a skills shortage.

As outlined above, there has been a massive movement of black workers into semi-skilled and skilled jobs. But employers complain that many

black workers lack the literacy, numeracy and technical understanding they need. For example, only 10% of DET matriculants wrote maths in 1984, and only 20% of them passed.

Employers require workers who can easily be retrained on-the-job in the use of new technologies. Said one: "The introduction of sophisticated and expensive machinery ... is not simply a question now of pushing buttons. You need to know about the machine, its technology, how to intervene, correct any errors etc. We can't leave these expensive machines in the hands of untrained operatives."

Ken Hartshorne, a leading educationalist, strongly stressed the need for flexi-skilling: "The real root of the problem lies in the general inadequacy of black basic

schooling. Having operative labour which hasn't enough numeracy, communicative language and so on...means that there is nothing to build upon. What there is definitely a shortage of, is black men and women who have a sufficient platform of background education, which can enable them to take off and benefit from something more than simply that limited skill. It is a shortage of skills upgrading potential."

White workers also lack the skills needed to handle the new technology. Many white artisans are poorly trained - 50% fail their trade test, but qualify after four years experience. Such artisans are often unable to learn the more advanced skills required by new technology.

Also, many white workers lack the managerial and industrial relations skills needed for their new positions as shopfloor supervisors and management.

Training: employers' record

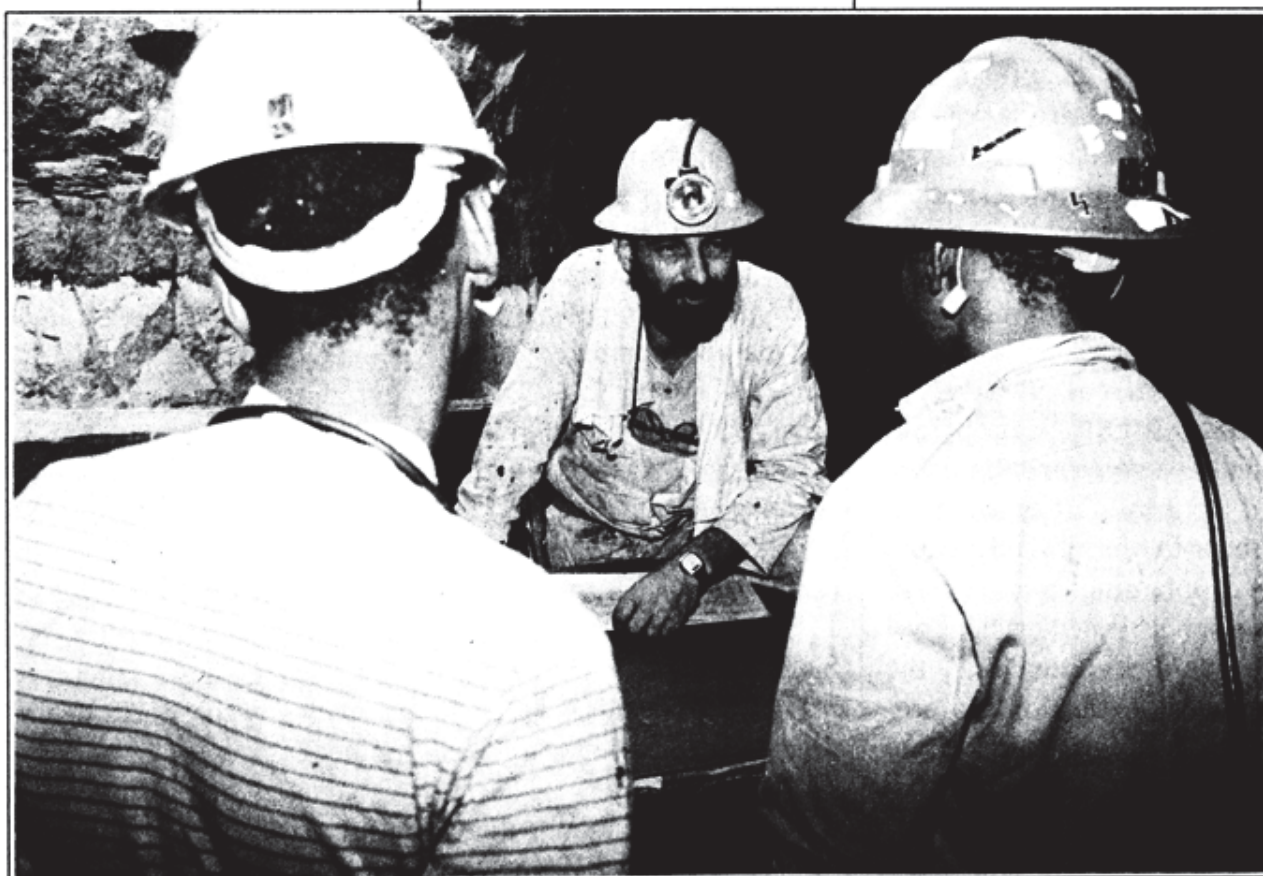
We do not have data for training in the metal industry, but we do have data on training in the private sector generally.

The table on p 17 shows that training is racially determined: in most occupations far more whites receive training. It also shows that at all management and skilled worker levels black workers receive virtually no training. Only in the lower grade jobs - operators, commercial, clerical and supervision - is there any significant training. Very few African apprentices -

741 in 1982, 582 in 1986 - have been recruited.

Most training is done by large companies which can afford it - 69% of large companies, 34% of medium companies and 19% of small companies have some kind of training programme. 'On-the-job-training' refers to training at the workplace. 'Off-the-job-training' takes place at institutions - eg technikons and universities. Most companies use 'on-the-job' training rather than 'off-the-job' training because it costs less. Operator and apprentice training is mostly 'on the job', while middle and upper management training is often 'off-the-job'.

A further important point is that with the chronic economic recession of the mid-1980s,



Training session in a mine - most companies use 'on the job' training as it is cheaper than 'off the job' training

Photo: Paul Weinberg/Afrapix

there has been a drastic reduction in training programmes. While the chairman of the National Training Board has said there is a "training explosion" (a total of 548 000 workers were trained in 1984, 329 000 in 1986), a SEIFSA training officer had a less rosy view:

"The reality of metal company expenditures is that they are spending less than 0.5% of their total expenditure on education and training. This is not

social responsibility. This is merely responding minimally to their training needs. Only 10% of our workforce are getting any form of training. This is very low."

In 1986 the government's National Manpower Commission blamed the private sector for not training black managers, and saw this as detrimental to the task of "integrating black personnel into management structures."

A new approach to training

The training Act of 1990 makes major changes to the training system. The first change is the establishment of Industry Training Boards (ITBs). The ITBs will replace the government's centralised Manpower Training Committee, and place control of training in the hands of employer and employee organisations in each industry. Each ITB will consist of representatives from these organisations, and one official from the Dept of Manpower. This means that for the first time progressive trade unions could begin to influence training policy.

The functions of these ITB's within each industry will be to:

- ☐ accept responsibility for apprenticeship training
- ☐ evaluate the various trades, and make proposals for the

rationalisation and reduction of the number of designated trades

- ☐ introduce a system of modular training, taking responsibility for the development of syllabi and module content. Each industry will be responsible for the setting up of its own training standards
- ☐ take over the evaluation and testing of trade training
- ☐ take responsibility for the financing of training.

Modular training

The ITBs are to establish a system of modular training. This means that the training will be broken down into modules or blocks. After completing the basic modules the worker will be graded as a semi-skilled worker.

After completing more advanced modules, he/she becomes a skilled worker. The skilled worker can upgrade his/her skills by doing specialised modules. In this way modular training provides a clear career path for workers.

It allows workers to continually upgrade their skills. It also enables employers to know exactly what skills a worker has been trained in.

Most of these modular training courses will take place 'off-the-job' in institutions such as the SEIFSA Benoni Training Centre.

Employers are very keen on modular training for three reasons:

- ☐ It will break the stranglehold of white workers over artisan training by providing path for black workers to advance. By breaking artisan training into a number of modules employers can choose how far to train the workers. They can train many workers in specific and limited skills, rather than giving them the lengthy all-round training that artisans currently receive. This will help them to deskill work.
- ☐ It will allow them to reduce the number of trades by streamlining and merging trades with similar skills.
- ☐ A modular system will encourage the training of specialised artisans and technicians. Artisans will be able to study advanced modules for specialist skills or management skills. These could serve as stepping-stones to courses at

technikons or universities.

Assessing the new training scheme

The government reforms of the training system offer new opportunities to trade unions and black workers. But they also hold dangers.

Winning workers to capitalism.

The new training scheme will offer a stratum of black workers access to skilled jobs, management positions and better pay. This could provide a material foundation for employers' ideological attempts to win workers over to loyalty to the company and to free enterprise. This could weaken the union movement.

Conservative employers.

Even the 'enlightened' employers tend to speak loudly and do very little to advance the training of black workers. The majority of companies are very conservative in their approach to industrial relations and training. According to the UNISA Project Free Enterprise report: "Management is generally still guilty of totalitarian and autocratic styles of management that negate or prevent any meaningful participation by workers in basic processes such as performance improvement, productivity enhancement and decision making... Management tends to be satisfied with broad generic statements of intent, rather than implementing specific action steps... Management pays lip-service to some important issues such as black advancement and im-

proved incentives."

These attitudes will be a stumbling block for union participation in training policy.

Racial segregation of training.

The government has consistently rejected proposals for a unitary non-racial education and training system. Currently black and white workers from the same factory have to attend different training institutions! Until this changes, the reforms are doomed to fail. Many employers are critical of the state's inability to do this. Union opposition to racially segregated training may be facilitated by the current political situation, where the government is anxious not to be seen as racist.

Dangers of the certification game.

Trade unions and workers should be cautious about placing too much faith in certificates. It may seem that they open the doors to better jobs. But as more and more workers acquire certificates employers will simply raise the entrance qualifications for new jobs.

Possibilities and dangers of modular training.

The training reforms open the way for union members to advance from unskilled jobs to skilled and even managerial positions. But the employers also intend to use modular training to deskilling work, that is, to reduce the number of skilled jobs and increase the number of semi-skilled jobs. This means that black workers will not be able to advance their position very much. The chal-

lenge for unions is to develop a strategy for using modular training to push its members into more and more powerful production positions, while preventing employers from deskilling work.

Conclusion

Skills training is a site of struggle. Up until now, training has been dominated by the interests of white workers, the apartheid state and the employers. For the first time, black workers and their trade unions have an opportunity to influence training.

If the unions do get involved, they should develop a strategy to upgrade the skills of all their members. This strategy is even more important in the context of the socialist perspectives of the democratic union movement. Union members will need to have the skills, both technical and managerial, to take effective control of production. Those skills must be acquired now.

The unions will have to guard against the training strategies of the employers. Employers will try to create a stratum of highly skilled, highly paid workers and try to divide them from their fellow workers. They will concentrate their ideological efforts on trying to win these workers' support for capitalism. Employers will also try to use the training programme to facilitate deskilling many jobs, so that there are fewer skilled positions. Unions will need to challenge these strategies as they arise. ☆