

# Mine management by objectives

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## DISCUSSION

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Mr Hazell is to be complimented on a thoroughly down to earth analysis of the uses to which work study can be put and the benefits of properly applying it in the management of underground production.

Some of the results he quotes are truly outstanding and postulated in my mind not only a very high standard of operation in the stopes, but a high standard of back-up organisation covering the whole operation including supply of stores, material, water, air and in short, all the logistics of production. It is perhaps more than mere coincidence that the mining group he represents has traditionally, in my recollection, achieved very high outputs per European and Native labour unit. There was a time many years ago when a certain mine on the East Rand was known as the "Gold Factory" because of the unfailing regularity with which its stopes produced extraordinarily good results quite unobtainable by those of its contemporaries on nearby properties.

I found myself reading with particular interest the paragraph on "stope Bantu training and productivity objectives". It describes how work studies were used to set standards for the component operations of stoping, and how these are related to output targets to obtain labour complements. The output targets are fixed by an examination of all the various factors affecting the configuration of the stope and their relevance to production.

In this pattern of events, has the shift boss in fact any voluntary decision as to his objectives as implied by the title of the paper? Isn't it more a case of the Management saying to him, "You can use any objectives you like, so long as they're mine." The setting of output standards in stopes is as old as stoping itself. Are we not perhaps dignifying an old and well tried practice by the new title of "management by objectives"?

Having posed this question, I next came to the author's penultimate paragraph dealing with the development of officials. He points out that training of officials is often done on a Group basis through learner official courses, and that usually this training covers various aspects such as standard practices, human relationships, technical factors, and more recently (my inverted commas) "management". He then points out that fewer officials are completing the learner official courses, and he says it would seem necessary to develop officials on the job by the practice of "management". I wonder what exactly the content would be of this "management", which the author says has only more recently been added to learner official courses, and presumably excludes the other subjects listed separately as contained in the earlier courses.

Certainly the actual content of the author's recommended management training is not very clear. For instance, it is suggested that a training mine overseer should be appointed, who would take over presumably, say, two stopes, or more, from an existing mine overseer's section, and proceed to train the shift boss whose responsibility comprised both stopes. Does the author anticipate no practical difficulty arising perhaps from some disagreement on policy, or method between the two mine overseers with overlapping responsibilities for the same stopes? But apart from this practical detail, I wonder if the author is in fact proposing the method most likely to succeed, and I wonder whether this failure, if it is a failure, is because he hasn't postulated exactly what the skills are in which he wishes to train his learner shift bosses.

It seems to me possible that there are two areas towards which the author might with profit address further attention: Should there not be some concentrated 'off-job' training of shift bosses and secondly, should training underground not in fact be done by the normal mine overseer. If he has too many shift

bosses under him to train, then either they come to him insufficiently well versed in their tasks, or the general standard of organisation in his section is such that perhaps no shift boss could succeed however good he was. In suggesting that training is the responsibility of the line executive, I am of course assuming functional assistance from the training branch in the normal way in which specialist services are made available to an executive.

Perhaps the author in his reply could also give some thought to defining what the skills are that it is intended to train the shift bosses in, under the heading of "management". Exactly what does management comprise in the working environment and where does its training lie between the extremes of on the one hand a "sit by me" situation, and on the other hand postulating that underground managers who went to Harvard are better at their jobs than those who didn't.

It is these areas I think that are so interestingly opened up by the author's paper, and upon which he might like to shed some more light. For instance, one could visualise an imaginative series of case studies presented in writing, with film and other visual aids, depicting the type of situation normally confronting a shift boss. The generation of some interesting discussion across the table on what should be done would certainly be instructive and apart from anything else, would differentiate the sheep from the goats. Standard practices and the reasons for them; developing the working plan; why work study; what to do when sheer frustration seems the order of the day; how to give an instruction, . . . . The possible subjects are endless.

In conclusion, I think the paper makes a most valuable contribution to a study which must continually develop new facets though its practice is literally as old as the management of the quarrying and construction which produced the pyramids.