

USER-FOCUSED EVALUATION OF TRAINING
PROGRAMME EFFECTIVENESS IN A SOUTH
AFRICAN INDUSTRIAL COMPANY

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DECLARATION

I declare that this dissertation is my own, unaided work. It is being submitted for the degree of Master of Education in the University of the Witwatersrand, Johannesburg. It has not been submitted before for any degree or examination in any other University.

M. B. L. C.

29th day of January, 1987

The views expressed in this dissertation are those of the author and are not necessarily shared by the management of the company, although consensus was sought by both parties.

(iii)

SYNOPSIS

The dissertation is on private sector training in South African companies and is of particular relevance to the Sullivan signatory companies. There were two main research aims: to identify an improved approach to industrial training evaluation, and to identify significant issues concerning training effectiveness, both of which will be applicable to most South African companies. The general method was holistic, inductive research, which embodied action and contract research.

The nature and scope of private sector training and training evaluation is described at international, national and company-specific levels. The research is based on an in-depth case study derived from the contract evaluation in one company of three industrial training programmes - induction, technical and management training. Triangulation of methods was used. The evaluation literature is reviewed to identify in theory the improved approach to evaluation which had been adopted and to prescribe requirements for good training evaluation. The training findings of the contract evaluations are synthesized to highlight aspects of training effectiveness. Standards and procedures for monitoring training evaluation and training effectiveness are then provided.

The training evaluation findings show that a client focused approach to evaluation is clearly identifiable in the literature as user-or utilisation focused-evaluation. The training effectiveness findings show that training needs to be better integrated with the company if it is to be effective, particularly for black advancement. The conclusions and recommendations can be summarised that the company shares with training and training evaluation in South Africa and the United States, features which are significant for training effectiveness at national and company levels. Existing training evaluation practises, are unlikely to provide feedback which will improve training effectiveness. A user-focused approach to training evaluation is recommended to ensure greater integration of training within a model for strategic human resource management.

The research therefore represents a synthesis of the user-focused approach to training evaluation with the strategic human resource management concept, through the application of the technical organisation learning change strategy. Such a synthesised view of training effectiveness is of particular importance in a complex, cross cultural country like South Africa.

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1. THE PROBLEM AND ITS SETTING

1.1 Introduction

This dissertation concerns a study of the evaluation of company based training in South Africa. The research is topical in the evaluation context, the company training context and the South African context.

In the evaluation context, the research is representative of the new paradigm of evaluation research (Alkin, Daillak & White, 1979; Brinkerhoff, 1981; Patton, 1978, 1980a & b, 1981, 1982, 1986; Smith, 1981a & b, 1982a & b; & Weiss, 1980) which has emerged since 1975. In this paradigm, the audience for evaluations is defined as clients in specific programmes, and the first priority is for evaluations to be directly useful to this audience. This means that evaluation research follows norms and standards which are different from traditional research.

In the training context, the research addresses the more difficult problem of transfer of training to the job, or training effectiveness. Previously, training evaluation has been directed mainly at the more limited level of training efficiency, providing internal feedback to the training function. In view of the newly emerging importance of strategic human resource management, the research makes a limited but nevertheless significant evaluation of the problems of functional integration of training within a company.

In the national context, education and training at work, provided by the private sector, has become as important as pre-employment education and training by the State. For this reason alone, it is attracting attention as a field of study, particularly in the United States. However, in South Africa, this form of provision is now under the spotlight, particularly because of private sector attempts to promote political and economic reform by compensating for previous State failure to provide an adequately educated and trained workforce. For reasons of demographics and skills availability, and for reasons of political pressures emanating from outside South Africa, the evaluation of training effectiveness, particularly with regard to black advancement, has become one of the most sensitive issues of the day.

1.2 Research Aims

The study took place over a five-year period from 1982 to 1986. Actual contract evaluations of three industrial training programmes in a company took place in 1982 and 1983. The writer was invited to evaluate the effectiveness of training in an induction, technical and management training programme. The industrial company was Carlton Paper of S.A. (Pty) Ltd. The company hoped that approaches and procedures developed for its own use would be applicable to and useful in other South African companies as well.

A university research project was consequently based upon the evaluation contract. The University of the Witwatersrand and Carlton Paper of South Africa (Pty) Ltd. signed a Memorandum of Agreement (Carlton Paper/University, 1982) whereby the University, through its Centre for Continuing Education would establish a Research Project on Evaluation of Training in Industry (ETIP) which would be financed by Carlton Paper. The writer was appointed Co-ordinator of the project. A Steering Committee was set up to direct the project and consisted of the Professor of Adult Education, the Managing Director of Carlton Paper, the Group Personnel Manager of Carlton Paper and the Project Co-ordinator, who also acted as the Evaluator.

Evaluation research was conducted in order to:

- review private sector training and training evaluation in South Africa to establish its nature and scope
- identify an improved approach to training evaluation for use by the company and in other South African companies (a process aim)
- assess aspects of the nature and purpose of training effectiveness in industry in South Africa of relevance to the company and other South African companies (a content aim)
- prescribe a model(s) for monitoring training evaluation and integration on an on-going basis (a meta-evaluation/strategic Human Resource Management aim).

Evaluators do research under difficult circumstances, and the undertaking described above presented several considerable challenges to the evaluator cum researcher cum author. It has been pointed out by Weiss (1972a) and others that evaluation research differs from other research: it is intended for use; the research problem is defined by the client; it takes place in the action setting of the programme to be evaluated; and, because it contains an element of judgement, it inevitably becomes a political matter for programme staff. These special features of evaluation research constituted a hidden predetermined blueprint for this research undertaking, which the author was to progressively discover and explore.

1.3 Background

1.3.1 Introduction to Background

The background to the study is addressed at three levels -- international, South African and company specific, and is viewed from the more general angle of training and the more specific angle of training evaluation, in each case.

1.3.2 International Private Sector Training and Training Evaluation

1.3.2.1 Introduction

The review of the international background to training and training evaluation is confined to the United States of America for two reasons: because the United States has the most developed system of private sector training; and because it also has the most prolific evaluation activity. Both private sector training and training evaluation are concisely overviewed in two published surveys which form the basis of this background study. They are preceded by a brief discussion of human capital, a concept which is the basis for investment of capital, in the form of training, in the human resource for production.

1.3.2.2 Human Capital

The involvement of industry in training concerns the role of the human factor in production -- what economists call 'human capital'. This is a concept which has become increasingly fashionable and has significant implications for the role of industrial training programmes as Carnevale (1982, p42) explains:

So long as economic policy ignored the economic importance of human capital, there was little hope that the fundamental importance of private training to the overall performance of the economy would be recognized.

A different view has arrived. An emerging and expanded view of economic policy recognizes the nation's public and private training systems as a full partner in economic policy. New economic thinking recognizes the necessity for education and training infrastructure in the development of human economic capital. Proponents of a new economics assert that as a matter of course, we need to improve the productive quality of the American workforce, expediting its continuous integration with new technologies and the rate at which we respond to the changing relative prices between labor and other factors of production. The future of private training lies with this expanded vision for economic policy.

In spite of this new view of the importance of industrial training activities to the economy, state policy makers know comparatively little about the scope of private sector training activities. Three recent best-selling books on corporate strategies for success neglect corporate education and training. Instead, In Search of Excellence (Peters & Waterman, 1982), The 100 Best Companies to Work for in America (Levering, Moskowitz & Katz, 1984) and The Change Masters (Kanter, 1983) merely compound the silence surrounding this partner in the nation's learning enterprise. The best evidence of this ignorance about training is the apparent inability to measure private training even just in financial terms. Estimates of the economic value of private training in the USA range from \$30 billion to \$100 billion with \$40 billion the generally accepted figure (Carnevale, 1982).

1.3.2.3 International Private Sector Training

A report by the Carnegie Foundation for the Advancement of Teaching (Eurich, 1985) confirms that to train and educate their employees, corporations are spending huge amounts of money estimated at from \$40 billion upward. This is an outlay approaching the total annual expenditures of all of America's four-year and

graduate colleges and universities. The number of employees involved in corporate education may equal the total enrollment in those same institutions, nearly 8 million students (Eurich, 1985).

Programmes offered by industry and business increasingly overlap with those offered by universities, colleges and schools. They range from remedial English to the PhD and from short-term intensive training to long-term graduate research study. Courses are even being evaluated for college equivalency credit (Eurich, 1985). Corporate education thus gains an academic legitimacy of its own, entering into partnership with the traditional system of education. It is therefore important to understand how this arm of the total education enterprise works.

In the United States, there are four forms which corporate learning takes:

In-house educational programmes

These cover a wide range of training programmes and seminars offered in the workplace. There is a growing emphasis on basic skills training necessitated by the fact that employees lack an adequate fundamental education. Consequently, in-house educational programmes are not only becoming more frequent and systematic, but increasingly include general education.

Education and training facilities (e.g. Xerox Centre, RCA Campus, Holiday Inn University)

In addition to instruction in the workplace, American corporations are building their own training facilities for employee education.

Degree-granting institutions (e.g. Rand Corporation PhD, Arthur D Little, and Wang MSc)

A growing number of corporate colleges now grant their own degrees. At present, 18 such institutions are gaining recognition from the same bodies which are responsible for accrediting higher education.

The satellite university (IBM, Westinghouse, Hewlett-Packard, Digital Equipment, NCR, RCA, Control Data and universities)

The National Technological University (NTU) operates from Fort Collins, Colorado and instruction will soon go by satellite to corporate classrooms across America and around the world. NTU represents a merger of corporate and university concerns.

Traditional schools and colleges therefore no longer have a monopoly on education. What, then, are the implications of this sector of American education Eurich (1985) asks. Business-based education should not operate in isolation, without reference to concerns beyond the organisation. Corporate education is a publicly supported enterprise on account of tax incentives for training and training costs which are passed on to the customer. Corporate employees are also citizens. Education at the workplace should therefore be viewed in a larger educational and social context. Close collaboration with the rest of the education system is essential, and more openness and public accountability is needed.

With more than \$130 billion spent annually on public education, it is unacceptable that corporate America must offer remedial education and teach basic skills. The quality of public education needs to be improved. There is a growing use of video cassettes, microcomputers and other audio-visual aids by industry and business and the duration of courses is determined by educational purpose. The question arises how colleges and schools can benefit from these innovations and traditional educators are being challenged by the business world to give more thought to research. What is happening in corporate education contributes to a vision of permanent education providing for constant renewal through training and re-training of people for work and for all other aspects of their lives.

These implications of corporate education point to an urgent need for co-ordinated planning and Eurich (1985) suggests the creation of a national Strategic Council for Educational Development. The ultimate goal is to find ways to effectively use all of the nation's education resources - schools and colleges, labour unions, governmental agencies, and business and industry.

The importance of such co-ordination is highlighted by the amazing claim of Carnevale (1986, p24) that "...econometric studies have consistently shown that only 15% of the variation in income among Americans can be accounted for by formal education. The remaining 85% is accounted for by learning in the workplace."

According to this claim, access to jobs with a high training and development content is the key determinant of lifetime economic success! Carnevale (personal communication, 1986) states that: "an analysis of 1983 census data shows that those who received informal training on the job improved their earnings by 5% more than those who did not receive training and those who received formal training improved their earnings by 13% more than their peers".*

He also shows that between 1980 to 1990 learning in the workplace will have contributed more than 1% of the growth in the national product which is more than any of the other inputs of education, health, composition of the workforce, population size, resource adaptation or capital (Carnevale, 1986, p24). Workplace learning, or on the job training, both formal and informal, therefore provides substantial benefits to individuals, in the form of increased earnings, and to institutions, in the form of increased productivity. Clearly, corporate, or private sector training is therefore of considerable importance. Carnevale (1986) provides several interesting cross-sectoral comparisons of various aspects of private sector training in the United States (See Fig.1.1).

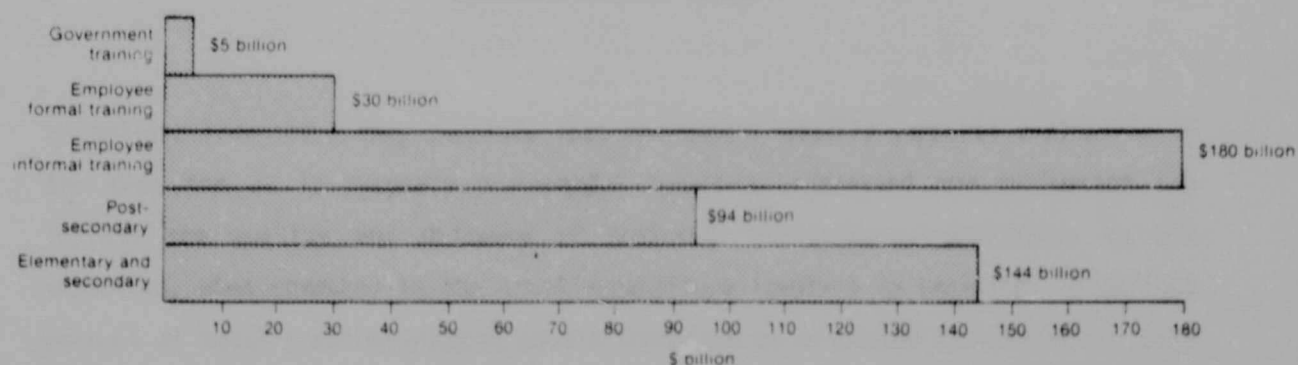
1.3.2.4 International Private Sector Training Evaluation

As Eurich (1985) points out, corporations define education and training programmes as a regular cost of doing business. This makes corporate learning a vital public policy issue which requires evaluation, because the public is indirectly paying for corporate education and training through taxes and the price of its purchases. Zenger and Hargis (1982, p11) claim that conversations with members of management confirm they also want evidence regarding the effectiveness of training: "With expenditures on training in the private sector now surpassing that of the public sector, it is not unreasonable that management wants justification for the return

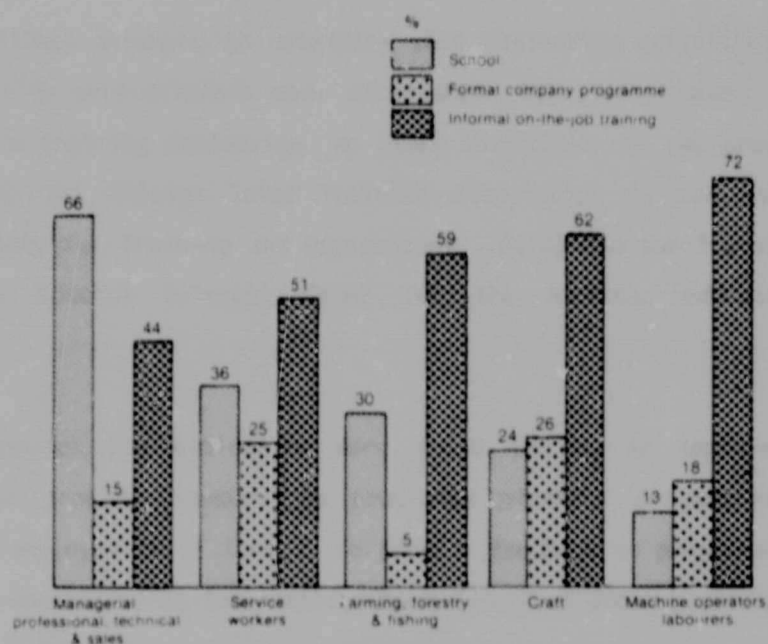
* Owing to a typographical error on page 23 of Training and Development Journal, January, 1986, the corrected statement, as provided by the author, Carnevale, is provided here.

FIGURE 1.1

**Cross Sectoral Comparisons of Education and Training in the
United States of America**

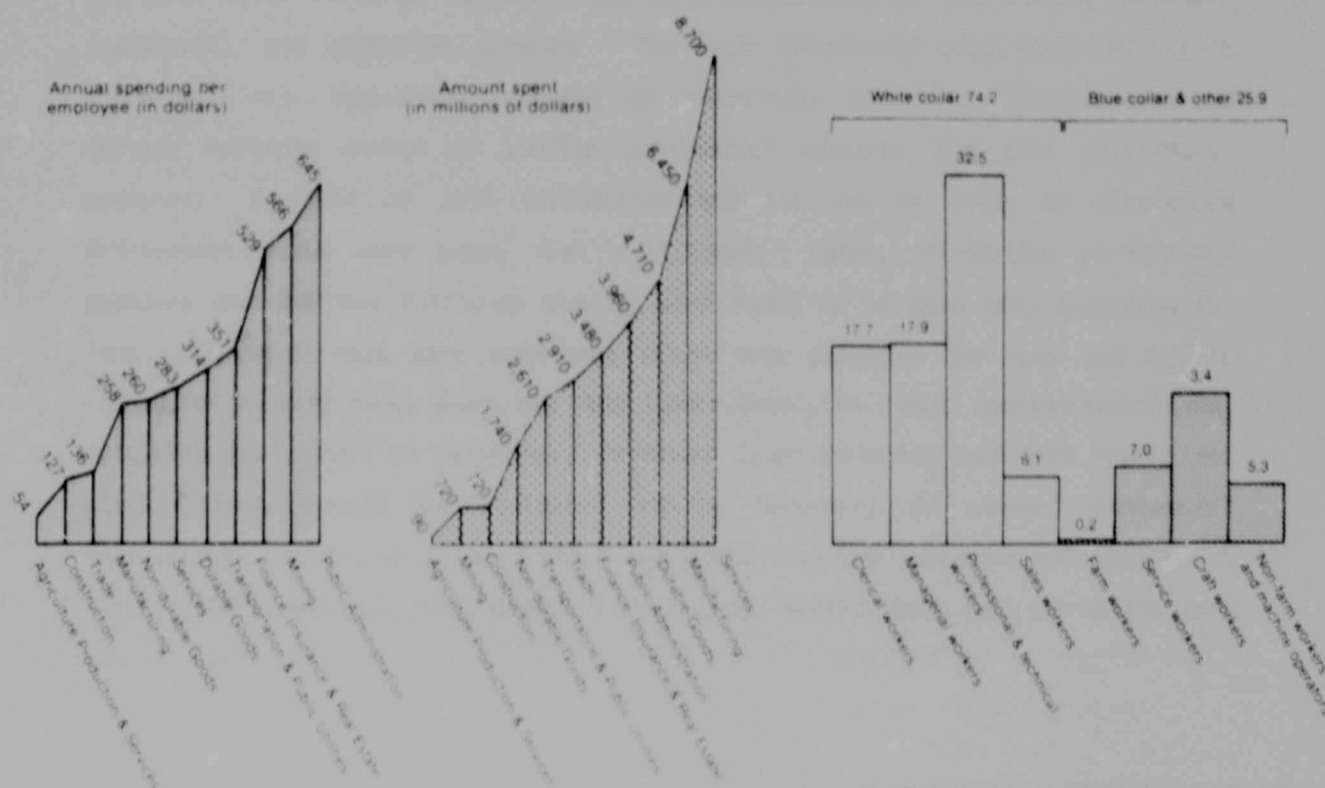


A Expenditure on training by source



Note: All columns are non-additive - many workers reported more than one source of training

B Sources of training by occupational group



C Employee training by industry, 1984

D Distribution of trainees by occupation, 1981 (in percent)

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