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Title: Researching Training in Australia:
                Which discipline and what diversity?

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Abstract

This paper examines the recent Australian research literature on training
in order to understand which disciplines have shaped its research findings
and thereby gain an appreciation of the diversity that currently exists
within this expanding field. The methodology used a content analysis of
research literature and promotional materials for training. In particular,
the findings are drawn from an annotated bibliography of research into
aspects of training, produced with a 'learning group' of twelve students.
It will be argued that the Australian research literature on training
generally fails to provide a critique of training as a strategy for
bringing about real changes in the field of Human Resource Development
(HRD). There is a growing body of literature that provides a wealth of
'how to' succeed in training, without really trying to understand why so
much of it remains critically unexamined in terms of its implicit
assumptions, its underlying research paradigms and its contribution to
changes in people and organizations.

Researching Training in Australia:
Which discipline and what diversity?

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Introduction

This paper reports on a review of recent Australian research literature on training and draws out some of the findings that have implications for researchers in this field of practice. Work-related training is defined here as any training which facilitates the improvement of vocational opportunities whether that training is provided by the employer, Government or private sector agencies. Research in this context includes any form of deliberate inquiry designed to describe, interpret or critically examine Australian training practices which are either work-embedded or work-related.

The problem that is addressed in this paper stems from recent trends in training in Australia. That is, there has been a huge increase in the quantity of training courses provided to industry by a wide range of public and private providers, but only limited research has been done to evaluate its effectiveness.

Karen E. Watkins (1991) has critically examined human resource development in the U.S. by means of six different 'characterisations' of trainers which she summarised as: human resource developer; developer of human capital; toolmaker; adult educator; researcher-evaluator and leader-change agent. What she found in this US literature on HRD was that different disciplines (e.g. psychology, economics) emphasised different roles and each sought to impose their 'definition of the situation' on the field of practice. She called her study, "Many voices : defining human resource development from different disciplines."   The question that is raised in the Australian context is to what extent there is similar diversity and are there really 'many voices' or only a few voices asking critical questions about training?

1 Contexts for Research on Training

In recent years there have been various interests at work in the development of a national research-based view of vocational education and training: the Department of Employment, Education and Training (DEET); the National Centre for Vocational Education Research (NCVER); TAFE colleges and universities with specialist centres; Industry Training Advisory Boards and private foundations and consultants such as the Dusseldorp Skills Foundation. Part of their national perspective on training that is emerging is a set of shared assumptions about the link between research and development and the need to implement models of competency-based training (CBT). The recently completed Strategic Review of Research in Education (McGaw et. al., 1992) recommended among other things, the establishment of an Education and Training Research Board that could focus on education, training and work - at a national level. Research and Development models

are traditionally popular at national levels.

The most convincing Australian evidence of the need for a national research effort in vocational education and training has recently been provided in No Small Change (McDonald, Hayton, Gonczi and Hager, 1992). The proposals that they offer for a research and development strategy for vocational education and training in Australia are supported by some startling statistics. For example, only about half as much is spent on research in vocational education and training (as a proportion of recurrent expenditure) as is spent on research in the other categories of education. Furthermore, the proportion of total funding allocated to research in vocational education and training is extremely small, at 0.22% of total recurrent expenditure for the sector (McDonald et. al., 1992, iii). Change in funding is needed at a national level.

The boom in fee-paying training courses, (partially stimulated by the Australian Training Guarantee Act ,1990), raises a number of critical questions as to what kind of research is being done into the training industry, its courses, the training of the trainers and the outcomes from such training. A larger set of questions relates to whose interests are being served by the nature and kind of existing training research which is (or is not) being conducted in Australia.   This paper focuses on the Australian research literature because it would appear that the critical questions are not yet being addressed. For example: (i) what kinds of research are being conducted here that inform training practices that lead

to micro-economic reforms? (ii) what research paradigms and which disciplines underpin Australian research into training? and (iii) what contextual factors explain the lack of 'diversity' of this research in our society today?

In order to locate the Australian research in both time and place, the first section of the paper defines the contexts for research in the field of training and attempts to delineate it from vocational education. The Australian research on training reviewed here, has been located within a simple matrix comprising the three research paradigms applied to adult education research by Candy (1989) (positivistic, interpretive and critical). The research literature was sampled by means of four current research issues in the field of training practice (e.g.access to training; training accreditation; training effectiveness of labour market programs and Competency Based Training;).

The methodology that was used for collecting the data and the subsequent production of an annotated bibliography as a form of group learning, is described briefly in the next section .

The final part of the paper summarises the findings from a search of potential sources of Australian research literature on training. Although the search was limited in time and scope, it nevertheless highlighted the paucity of research in this field generally, but also indicated where significant developments were taking place in some fields and within some disciplines.

The Field of Training

In reviews of the limited research that are available, it is not easy to

delineate vocational education from industry-based training. Generally speaking, vocational education refers to all formal post-school education which prepares students for (or further develops their skills in) a specific vocation.   Training on and off-the-job may be seen to over-lap with vocational education, but in this paper will focus primarily on the non-accredited, informal and short term provisions in skill development offered by a wide range of private and public providers under the Training Guarantee Act.

Training is simply a way of helping people learn a variety of skills that are either work-embedded or work-related. Such a general definition fails to differentiate it from vocational education which focuses on the long-term, holistic development of the person for a specific occupation - up to the para-professional level.. More recently, competency-based training has focused on the acquisition of knowledge, skills and attributes that are required to bring a person to an agreed standard of proficiency or competence in the work-place (or in sport). Training is often characterized by its short-term nature, highly specific content and as the by-product of intervention in the work-place, usually by management.

Training, unlike vocational education, is primarily conducted on site, is often informal and until recently, is seldom accredited towards formal qualifications.

Workplace trainer training as a field of research, linked to a field of practice needs to be further classified by the kinds of questions that are perceived to be pertinent by trainers themselves, as distinct from the questions asked by academic researchers, the training industry and others who have a stake in marketing their 'knowledge' products to trainers. Unfortunately, the competencies expected of workplace trainers does not include any elements that are called 'research', even though any one of the seven units of competence (see appendix A) could become the basis of an action research process in the workplace. In fact most work-place trainers have little time for doing research even though they have the potential to integrate participative action research methodologies into their work-life (see Collins and Chippendale, Vol. 2, 1991). As more and more training is done 'in-house', the challenge will be to also train the trainers in conducting action research in the workplace into their own practices (Schaafsma, 1992), or encouraging others to participate.

Research into the effectiveness of trainers and their programs is therefore a significant, related issue when combined with the fact that award restructuring decisions may be made in conjunction with some form of competency-based assessment.

The field of training in Australia has in recent years expanded significantly, partly through government intervention (such as the Training Guarantee Act, 1990) as well as a recognition by unions (Australia Reconstructed, 1987, the 'Carmichael' Report, 1991) and the pressure of employers (e.g. C.A.I. paper, Proposals for the Australian Vocational Education and Training System, 1991) that a better trained workforce is essential for Australia's industries in a world economy. Unfortunately,

not all employees have equal access to training opportunities. The research into who has access to training was examined by a group of adult educators who recognised that groups targeted under EEO provisions are most vulnerable to being excluded from appropriate training opportunities in the workforce.

Finally, it needs to be recognised that the definitions of training that are used in the research literature are embedded in a set of taken-for-granted assumptions and research paradigms that are seldom made explicit. The hypothesis that emerged from a preliminary search of the literature suggested that too often the research on training will tend to reflect the dominant (empiricist) research paradigm and moreover, will draw its research methodology from the disciplines of psychology and human resource development or management. That is, the positivistic assumptions and the empirical methodologies that are used in the available research on training have become an integral part of the unexamined nature of training in Australian society. One of these assumptions stems from the way that training is conceptualised and the often, taken-for-granted models of training adopted by industry.

National Models of Training

In a recent review of competency standards for industry trainers, Garrick and McDonald (1992) examined four national models of competency training standards - the Canadian, the American, the U.K. and the Australian models. Although they found similarities in the underlying assumptions about the central tasks a workplace trainer performs (e.g. training needs analysis, design, development of training programs, delivering training programs and evaluating programs against stated workplace objectives), there were also three important differences that have implications for research into training in Australia.

First, the competency standards for work-place trainers in Australia have been described by the National Training Board in terms of two sets of standards - for Category 1 who are part-time trainers "who provide training in the workplace but for whom the training function is not a major part of their job" and Category 2 trainers who are full-time, professional trainers and " for whom training is a large part of their job." (Competency Standards Body, p. iv).   It is of course too early to expect major research into the implementation and impact of these training standards on Australian industry, however, it is not too early to begin a critical examination of the underlying value system that determines which assumptions, which theoretical perspectives and which research paradigms underpin what the NTB considers 'appropriate' training practices in Australia. That is, the Australian model raises a number of broad questions about research into training which are seldom found in the current literature.

One such question relates to the vision of workplace trainers in Australia's future. On the basis of the the NTB model, this vision is very much restricted to maintaining the status quo by a narrow focus on competencies that do not challenge the existing power relationships in the firm, the enterprise or in society.   Training in this context is a reactive strategy that can be manipulated by economic forces in the market place and which is researched as but one 'variable' in the economic

equation. A review of the research on competency-based training , in the following section suggests that where it is so narrowly defined, the research itself will become narrowly focused.

Second Garrick and McDonald (1992) note that the Australian training standards are less atomised than the British because they combine tasks with performance criteria, however, "they miss the strengths of the American and Ontario models by not more comprehensively addressing issues related to progression to higher order competencies" (p. 11). Although this has not directly impacted on to the research literature into training

as yet, it will no doubt influence future evaluation studies of training competencies. Client-funded research into CBT in future also raises the need to research the appropriateness of the training models-in-use. Assessors' standards of training competencies could be linked to the rigidities of mechanical lists of performance criteria that may usher in a new Behaviourism.

Meanwhile, trainers in the workplace need to be empowered to find research-based answers to their own questions which still tend to focus on the pragmatic issues of: "Does this work? What new methods work better? Where are the data that support this form of training as a means of achieving these corporate goals? or Does this kind of training produce the results that I want ?"

The Australian research literature in training does not yet reflect participatory models of action research even though there is a growing overseas literature about its efficacy and value (Whyte, 1991; Colins and Chippendale (1991). The second International Congress on action research and action learning (Brisbane 1992) highlighted the great interest in action research and training, but did not dispel the impression that trainers are more interested in doing it than critically analysing it in a wider context. Critical action research, as professed by one keynote speaker at the conference (Stephen Kemmis), is still a relative novelty in research on training.

2. Methodology

A group learning project was set up for a team of twelve practising adult educators and trainers who were undertaking a research methods Masters in Education course. Through an iterative process of clarifying what constituted 'research into training', four smaller teams were set up around their current research interests as practitioners. Because it was not possible to cover all research topics, this iterative process became a means for sampling the research literature in four areas of training research: (access to training by EEO target groups; training accreditation for trainers ; training effectiveness of labour market programs and competency-based training). Nevertheless it will be argued that the sample used in this report is sufficiently representative of research in the field to permit wider inferences to be drawn.

Arising out of an informal 'search conference', the group explored a set of three conventional research sources. These included: (i) 'desk' or library sources such as: data bases (A.E.I., APAIS, VOCED); relevant Australian journals, published reports, papers and documents including ABS data

sources; (ii) personal contacts in the training industry and (iii) reports. The paucity of published research led some team members to utilise their own networks of contacts in the training and vocational education field. For those with appropriate networking skills and access to relevant sources, the 'findings' produced a very rich picture indeed. For others, this process of accessing information through a friend-of-a friend network (see e.g. Boissevain, 1974, 1979), was not so successful.

Meanwhile the author examined a non-random sample of eighty-three brochures on training which were direct-mail marketed during 1992. A content analysis revealed that the overwhelming majority of the training opportunities, workshops, conferences etc. that were advertised made no direct reference to the research basis for the package being marketed. Where reference to 'research findings' were made, the claims were generally U.S. or U.K. research- based and related to psychological dimensions of learning outcomes or economic cost-benefits to management in the organisation. The data supporting these claims were of a most general (empirical) nature that supported the self-evident belief that more training was better for all.   Implicitly, research (to demystify this belief) was not necessary nor encouraged.

The collective work of the group was collated into an annotated bibliography as well as a general bibliography, which represents a useful resource into the kinds of Australian research literature being conducted into four aspects of workplace training. More importantly, the methodology of the literature search highlighted the importance of using informal networks in gaining access to difficult-to-get research literature.

3. Findings from a Review of Literature

The review of the research literature into training that has been undertaken here is currently incomplete. Within the four topics covered here, major themes are already emerging that have significance for trainers, researchers and funding agencies at the national and state levels.

(i) Research into the training of EEO target groups

The majority of research studies into the training of EEO target groups (females, persons of non-English-speaking backgrounds, disabled persons and persons of Aboriginal and Torres Strait Island descent), were located within the dominant, empirical paradigm (e.g. Birch, 1987; Ellis, J.K., 1987; ACT Vocational training Authority, 1992;).   A great deal of this 'research' that has been done under the EEO topic, falls into the category of statistical returns from employers and often lacks a critical or interpretive framework.

There is, however, a growing research literature on women and training that exhibits far greater diversity, both in the range of issues being researched and the research methodologies used. The research findings support what is now almost common knowledge - that Australian women (many of whom are from NESB backgrounds), continue to remain in low skill jobs in industry (Davies, 1989) and, like their overseas counterparts in England, Sweden and Germany, they are over-represented in service, clerical and

retail industries (Pocock, 1987, 1988). Pocock's study involved interviews with 500 people throughout TAFE as well as a survey of all TAFE principals (60% replied) supported by extensive statistical data collected by the Department during 1984-'85. What is significant is her interpretation and critique of the data on skills training. According to Pocock, the domain of skilled work has been 'highjacked' by men. This analysis is reinforced by in-depth studies of specific industries such as electronics (Windsor, 1989; and the DEET study, Against the current: career paths for women in the electronics industry).

A recent study by the Women's Bureau in the Department of Employment Education and Training, New Brooms, Restructuring and Training Issues for Women in the Service Sector provides evidence for the emergence of a new kind of labour market which is no longer based on a stable, permanent workforce, but is increasingly a more mobile, flexible, dispensible 'contingent' workforce.   Case studies in Banking, Insurance and Computing , together with data from the Retail, Hospitality and Community Services industry provide detailed data on some alarming trends in women's work that suggest that training alone will not overcome problems of segregation of the workforce into less-skilled women workers and more (technologically) skilled male workers who have access to career paths and further training. Much of the recent research into women's work, training and restructuring has been sponsored by federal departments such as DEET (e.g. Women's Research and Employment Initiatives Program of DEET, 1991; Women's Standing Committee of VEETAC, 1991). The interests supporting change in industry become apparent in reporting and the publication of key facts - e.g. that there is a less than 20% female representation in industry training boards and no female representation in automotive, road transport, timber/forests and furnishing industries. Such 'discussion papers' have a general tendency to describe what is happening so that the reader is left to interpret the 'research data' and draw conclusions that can only point to the need for a radical critique of the underlying assumptions of both the research findings and sometimes its methods. For example, a study of the Women's Adviser's Unit in the South Australian Department of Labour found that while 8% of male workers are in part-time employment, 45% of female workers are part-time (Taking Account of Women, undated). These facts require an explanation and should be considered in the context of any training needs analysis; neither were considered.

The absence of research into training EEO target groups by private providers or by industry councils or philanthropists, is a commentary on the way research is generally sponsored in Australia - by and through and often in government agencies. The EEO research data, obtained through the annual reports of the Director of Equal Opportunity in Public Employment, still provide only a superficial analysis while many others reveal that little progress has been made in addressing the employment and training needs of any target group, except women.

The focus on empirical, statistical data in this body of research literature also seems to be closely linked with econometric models of research that make the assumption that training is an economic 'cost'

rather than an investment in people. Throughout this literature there is
a shared assumption about the need for 'human resource development' and
training, that locates the research not only in the dominant empirical
paradigm but also implies the dominance of an economic rationalism which
form the discipline base for much of this kind of research.

(ii) Research into training the trainers in industry
The research question raised by this topic initially focused on "Who trains
the trainer?" Through discussion, this question raised the related issues
of : accreditation, training effectiveness research, recognition of prior
earning and who are the main providers of Train-the-Trainer programs,
particularly since the introduction of the Training Guarantee
(Administration) Act of 1990?
The field of training also includes the current provisions for the
education and training of trainers. Although there is an extensive
research literature on teacher training in Australia (e.g. Turney, 1978;)
there is as yet very little research into the effectiveness of training-
the-trainer programs offered throughout Australia by private providers,
TAFE and universities.   The second topic for a literature review, the
accreditation of trainers for the workplace, was perceived of major
concern to this group , particularly in those labour market programs that
require persons of high calibre skill and competence.
The use of existing data bases (ERIC, APAIS, Austron and AEI) produced
only three research-based articles on accreditation standards for
trainers. Chataway (1991) investigated award restructuring and the
implications for training (in TAFE) in the textiles and metals industry.
The use of case study methodology to supplement empirical data, helped to
locate this study within an interpretive research paradigm.
Two other researchers, who examined the issue of accreditation of trainers
(Hawke, 1990 ; Schaafsma, 1991), approached their task quite differently.
While Hawke provided a discussion paper on the role adult basic educators
should play in the development of criteria for accreditation of programs,
Schaafsma focused on the development and evaluation of the trainer's
competencies in using specific training packages. Both papers focused on
evaluating aspects of adult learning without critically examining the wider
contextual and ideological factors surrounding the accreditation process
for trainers.
Section 27 (2) of the Training Guarantee (Administration) Act 1990
requires that for a course to be an eligible training program then it must
be presented by an 'appropriately experienced and trained trainer'.
Interestingly, the experience or training required to be an approved work-
place trainer is either three years experience as a trainer or attendance
at a two or three-day train-the-trainer course. There is as yet no
substantive evidence that Certificates of Attainment, issued after a two or
three-day Train-the-Trainer workshop, do in fact predict effective
performance on the job.
The new, commercially published National Training Directory (1992-93) lists
those training providers by state and by training category, who have paid
for this listing service. In NSW alone there are 52 providers of general

Train-the-Trainer courses - this list includes universities, Adult Migrant English Service, community colleges, employer groups and private consultants. In addition, TAFE and some university providers are now offering two-year, part-time Associate Diploma courses for trainers. Some universities such as UTS, UNE also offer two-year post-graduate diplomas, three year under-graduate degrees or one-year graduate certificate courses which purport to be competency-based. Unfortunately, there is no published research available on the relative effectiveness of these providers of training programs - a conclusion also echoed by the Director of Training and Development at UTS.

There appears to be very limited published research into the effectiveness and evaluation of training programs conducted throughout Australia (Irvine, 1979;Burns, 1984; Geering, 1985;). If this is so, then it is

possible that research into training effectiveness is either ad-hoc and not published, or it is primarily published in-house and not accessible to outside researchers. More research is obviously needed if this research 'gap' is to be addressed properly.

(iii) Research into Labour Market Training (LMP)

There are currently three LMP programs offered through TAFE : Jobtrain (a state government initiative); Start to Life - Get Skilled and the Australian Traineeship system, funded by the Commonwealth. All three programs provide vocationally oriented training courses that are closely linked to the labour market and industry.

Research undertaken by TAFE into DEET sponsored LMP courses is predominantly of a descriptive and statistical nature. At the college level these statistics are used for tender purposes. TAFE-sponsored research is limited to some case studies and reports on student demographics, however, TAFE investigates and reports on the employment success of graduates only for a two week period after course completion. What is apparent from consultation with LMP staff at various levels of the organisation - is the dearth of any evaluative, qualitative research into these programs. Part of the explanation is to be found in existing funding strategies (supporting statistical data gathering) but part of it resides in the limited training role of LMP course coordinators and managers - they are not expected to become researchers into their own practices.

The reliance on statistical economic indicators, (rather than social indicators) to evaluate research into training, is reflected in the discipline base for the more broadly-based research is articles published in the Journal of Social Issues , e.g.Koller, Gosden, & Wade, (1980). Coleman (1985) uses ABS demographic data profiles to examine the effectiveness and 'true' target population served by labour force programs. Studies by Toner (1984) and Smith (1983) into the Special Youth Employment Training Programs (SYETP) confirm the general impression of poorly designed and reported research reports that fail to acknowledge their taken-for-granted, empiricist research paradigm. More importantly, the 'research '

findings that are used tend to support the self-fulfilling prophecy that this kind of training had some benefit (42%) for short-term employment opportunities. A finding supported by the Bureau of Labour Market Research (Moy, 1983; AGP 1985). What is lacking is a critique of the SYETP program, its underlying assumptions and its failure to provide for adequate evaluation research.

There is a wealth of research information available on DEET funded training programs such as Skillshare, however, it is not always accessible in one place. DEET Program Co-ordinators are responsible for gathering information and evaluating the success of the particular Skillshare Program. With more than 30 program coordinators in Canberra alone, the research task is somewhat daunting. However, what is published (e.g." Skillshare: its working") provides useful statistical data on the program's success; no mention is made of methodology.

In summary, the review of the literature dealing with research into training for Labour Market Programs strongly suggests that there is a significant research gap in the extent and type of program evaluation studies currently being undertaken. Any doubts about the dominance of the economic rationalists who fund DEET program research, can be swept aside by this research evidence from these LMP programs that rely so heavily on statistical analysis, questionnaire and survey methods and the almost total absence of any case study or participant-observation research that reflexively or critically examines the training process in context. However, there is one important proviso.

Given the rate at which the training agenda is being created and 'systematised', the traditional sources of research literature (texts, reports, journal articles etc.) are no longer able to provide the most recent research in this area. What became apparent to this group of researchers was the need to have extensive personal contacts in the field of practice who could provide verbal reports of what was really happening. Other significant factors that made research reports less accessible was the growth of inter-departmental committees at state and federal levels; the mushrooming of consultancy services (both internal and external); and the plethora of specialized conferences that address issues of research on training as an adjunct to other aspects of HRD or Industrial Relations.

(iv) Research into Competency Based Training

Training may also be defined in terms of competence or 'competencies'. In Australia, the National Training Board has recently endorsed a set of basic competencies for workplace trainers prepared by the Competency Standards Body (CSB-Workplace Trainers).   The focus for CBT training is on what people can do (the outcomes from learning) and this represents an important shift from the traditional focus on inputs, objectives and the process of training. This CBT framework encompasses research into the identification of skills, the development of competency standards and the means for assessing these in a variety of work contexts.

The new language of competencies is now being supported by governments at the federal, state and even at some local levels.   Widespread support for CBT by unions, employers and governments ensures shared commitment and a high priority for funding CBT; it does not assume that research in this field will necessarily reflect this.

It is important to re-emphasize the current political and economic context
in which CBT has emerged. The nature of the research being undertaken and
the research methodologies used, do reflect a process of contestation and
conflict that is associated with the Structural Efficiency Principle, award
restructuring and the current economic climate of downsizing organisations

as the preferred route to being more competitive. To what extent this will
be reflected in the greater diversity of research sponsorship, research
methods and variety of research into CBT, remains problematic.

The values that are attached to doing research into CBT are reflected in
the wide range of research 'outputs' that have recently become available
through a variety of sources.

The research on CBT reflects three value positions, namely an uncritical
acceptance of CBT, critical acceptance of CBT, and a rejection of CBT.
Much of the work being done in industry on the development of competency
standards and methods of assessment we would asserts falls into the first
group. The lack of a critically reflective work at this level can in large
part be attributed to the aggressive approach to CBT implementation being
pursued by State and Commonwealth governments. The trade union movement
has embraced CBT with the same uncritical zeal. (Devos, Reich, Simmons &
Sinclair-Parry, 1992, p. 17 (forthcoming).

The literature on training and vocational education is still fragmented and
lacks a well developed critique of both policies and programs (Gonczi, et.
al., 1992: 29). There is at present only a small body of research
literature which rejects CBT (and its underlying assumptions) on
educational and industrial grounds. Brown (1991a) examined competency-
based training development and delivery with particular reference to the
work of a TAFE college designated by DEET as the National Centre for
competency-based training. The main criticism is that CBT in this context,
developed characteristics of 'classroom Taylorism' which were antithetical
to the interests and intentions of the learners and the stakeholders.
Indeed the CBT debate has raised questions about the appropriateness of
this form of training in some contexts such as social and community
services (Brown, 1991b) or in dealing with higher education competencies
(Hager, 1992).

The bulk of the research that has been done on training, draws its
quantitative research methods from the dominant positivist paradigm. As
with other research in adult education, the research in training has been
significanty influenced by the discipline of psychology (Merriam, 1991:47).
A good illustration of this is to be found in the work of the CBT National
Secretariat which is compiling a pilot project data base. Since 1989 more
than 171 projects on CBT have been completed or are works-in-progress.
Although not all can be designated as 'research', it is apparent that the
projects (which must be supervised by a tripartite steering committee),
tend to reflect practical interests in the compilation of statistics and in
the forms of the evaluation studies being undertaken.

Support for CBT is growing, as evidenced by a number of evaluation studies,
using case study methodologies (Harris, et. al., 1985; Magean, P. 1988;
and Emery, 1992). There is also greater diversity in the kinds of research

studies being undertaken in a wide variety of contexts, for example, Rudling's (1991) practical study of Westrail Midland Workshop contrasts's markedly with the works of academic researchers such as Stevenson's (1991) comprehensive analysis entiled 'Valuing cognitive dispositions and cognitive structures in vocational curriculum development' and Watkins (1988) Marxist critique of vocationalism .

Progress in the implementation of many CBT projects is much slower and more complex than initially anticipated. In a major report, using consultation with a wide range of 'stakeholders' the Working Party on Skills Formation and Recognition of the NBEET (1991). Using what might be loosely decribed as an interpretive research design, this paper found, not surprisingly, that implementation of CBT was still problematic.   However, this report is important because it is in fact the first major review of progress on CBT and skill formation and recognition.

In contrast to the many published reports and monographs, the research group also discovered that there were a large number of works in progress that dealt with in-house developments of CBT using an action learning or a participatory action research mode. For example, a pilot study of the Patrol and Cleansing section of one major university, provides a longitudinal case study of change that may well have implications for the implementation of CBT throughout this sector. Unfortunately most trainers and HRD staff are either too busy to publish their findings, or as in one case, the organisation imposes strict controls over its staff that prevents

them from doing any research on site.   Such a situation leaves the field open to private consultants or university-based researchers who are employed to provide research expertise that is mainly of the instrumental rather than the critical or interpretive type. In CBT research, as in so many other funded research projects, the piper still calls the tune.

In summary, the research into CBT is much more diverse than in the other three topics, covered in this paper. Part of the explanation stems from the almost unanimous support this initiative is receiving from government funding agencies. However, there is also evidence of diversity in methodology when there is a paradigm shift that includes research where the participants have a voice (e.g. Cox & Leonard, 1991).

Conclusion

The limited research that has been done into workplace training illustrates at least two major gaps in the Australian training literature: (i) the kind of research into training currently being conducted in Australia is too often merely descriptive and located within the dominant empiricist paradigm; and (ii) the narrow discipline base of training research (human resource management and psychology) tends to serve limited sectional interests. The place of training in changing Australian society , now needs to be critically re-examined so that it does not remain wedged between the rock of psychological reductionism and Taylorism and the new, hard place epitomised by CBT.

Although this review has found some optimistic signs that research into training in some areas is becoming more methodologically diverse and critical, the reality is that research into training does not yet loom

large on the national training agenda. It is hoped that this paper will contribute in a small way to the emergent national debate into training and the kinds of research now needed. A critical review of this field of practice is also needed to tackle the larger issues of changing values and unexamined assumptions in training for workplaces that are themselves changing dramatically.

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