Apprenticeship Management at National and Company Levels: Research Based 'Good Practice' Principles

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HRD professionals are often involved closely with apprenticeship systems. Apprenticeships operate within companies but are almost always linked to a national apprenticeship system which provides legislation and regulation around aspects of apprenticeship. Most countries around the world have a formal apprenticeship system, although systems vary widely in their nature, their relative size and their sophistication.

The paper aims to provide a contribution to both policy and practice. It draws together and analyses three pieces of research undertaken between 2007 and 2013 by the author: one international comparative study on national apprenticeship systems, and two Australian projects on the ways in which companies manage their apprentices. The paper shows how the findings about good practice in apprenticeship management can be used at both national and company levels. The international study was funded by the International Labour Organization and the World Bank, and the Australian studies were funded by the National Centre for Vocational Education Research.

Introduction

Apprenticeships have been undergoing a revival for the past decade (Rauner and Smith, 2010) accelerated by the Global Financial Crisis of 2008 and its effects on youth unemployment. Countries have been revising their apprenticeship systems (e.g. in Ireland [Doran, 2015]), often looking to international comparisons in order to adopt practices that have worked elsewhere. As apprenticeships are, in almost all countries, employment-based, the system depends on employers being willing and able to offer jobs to would-be apprentices. A large proportion of companies in many countries therefore have an involvement with the apprenticeship system, ranging from employing one or two apprentices at any one time, to managing systems for hundreds of apprentices at multiple sites in the home country and sometimes overseas.

In order to gain maximum value from this common model for training and employment, it is helpful for both policy-makers and employers to examine good practice across the world. The international comparative research reported here involved eleven countries and a team of international researchers. The enterprise-level research studies were confined to Australia and focused on larger companies that had apprenticeship management systems in place. They were undertaken as part of national projects related to quality in apprenticeships and traineeships. For both national and company-level apprenticeship systems, principles of good practice, derived from the data, were proposed, and this paper draws together and further analyses these principles.

Because of the nature of the topic — systems which involve national governments, millions of companies world-wide, and many millions of apprentices — it is difficult for research to capture either the diversity or the complexity of apprenticeship systems, or to extract good practice principles that can be applied by companies. This paper makes a contribution by providing

analyses drawn from both system-level and company-level research. In the projects reported here, country case studies and company case studies alike were produced in a structured way, allowing comparisons to be drawn in a systematic manner. Moreover, the initial reports of all three projects were peer-reviewed, helping to ensure that the data are trustworthy.

Context and Background

The term 'apprenticeship' can be interpreted in many different ways, but a formal apprenticeship system is generally understood to have the following characteristics (Smith, 2010):

- A training regime set up by, or with the approval of, governments.

- A combination of off and on the job training.

- The assumption of responsibility by the employer for the development of the apprentice.

- The award of a qualification and/or licence and/or some other recognition that enables an occupation to be practised independently once the apprenticeship is successfully completed.

The German 'dual' system is commonly regarded as the 'gold standard' for apprenticeship (Pilz and Li, 2014). However, as has been pointed out (e.g. Deissinger, 2004) the system faces some challenges and has been in need of modernization. 'Dual' refers to the inclusion of 'school' or institution-based learning as well as company learning; in Germany, apprenticeships are normally undertaken by teenagers in a particular stream of the secondary school system, as opposed to the U.K. and Australia, for example, where apprentices have normally left secondary schooling. However, in both of the two latter countries, apprenticeships can now be commenced while at school (e.g. Clarke, Klatt, Dulfer and Cruikshank, 2015) and in some instances in the U.K. may include higher education qualifications (Bentwood and Baker, 2013). The German model is also utilized in Austria and Switzerland, although there are some differences among the systems, as Deissinger and Gonon (2015) point out in a comparison between Germany and Switzerland. In some countries, such as India, there is no compulsory off-the-job training, and in other countries, there are large informal apprenticeship systems.

Smith (2010) notes that apprenticeships are often expected to fulfil multiple functions, including (but not limited to) the following: a passage to adulthood for young people, a means of industry and national skill formation, and a means of developing occupational identity in a trade. While apprenticeships perform many useful functions, there is also a darker side; they are used as a means of restricting entry to occupations and in the past, access to apprenticeships has been denied to certain groups in some countries. For example Wedekind (2013) notes that black people were not allowed to undertake apprenticeships under apartheid in South Africa. It has also been pointed out by many commentators (e.g. Cockburn, 1981) that there are gender issues too; in some countries apprenticeships have traditionally been confined to a small number of 'trades' and by the nature of those occupations involved, have been available mainly to men.

Quality in apprenticeship is a perennial concern. Lucas and Spencer (2014) remind us that quality in apprenticeship should primarily relate to the nature and extent of learning, both on and off the job, but this can be forgotten in policy debates, which focus on system-level issues. The latter are certainly important, often involving issues around funding, reporting and accountability.

Concerns seem to be particularly evident when apprenticeship systems are being expanded rapidly, a reasonable concern because new employers and/or new training providers without experience become involved (Smith and Brennan Kemmis, 2013). Quality concerns that relate to traineeships (a newer form of apprenticeship) in Australia (e.g. Schofield, 2000) are mirrored in criticisms of the expansion of the apprenticeship system in UK, from the introduction of Modern Apprenticeships (e.g. Fuller and Unwin, 2003) to the more recent expansion of the U.K. system announced in 2015, to involve many more occupations and a range of qualification levels. Fuller and Unwin (2013) argue that apprenticeships should be closely linked to occupations and that they are deficient where this is not the case. More generally, in the U.K., apprenticeships outside traditional trades are often believed to be of lower quality than those of the pre-expansion period, and there is frequent reference to 'diluting the brand', as Lucas and Spencer (2014) point out.

As it becomes increasingly commonplace for companies to become global in their operations, the interactions of companies with local apprenticeship systems becomes a complicated matter. Pilz and Li (2014) find two different models for multi-national companies: one where companies adopt local apprenticeship systems ('divergence') and the other where companies implement the German system as far as possible throughout all countries of operation ('convergence'), but note that there has been little research into the topic. Pilz and Li (2014) also remind us that the German apprenticeship system is 'exported' to other countries in a more general manner, as many countries in Africa and Asia utilize the advice of German (or Swiss or Austrian) apprenticeship experts in setting up their own apprenticeship systems (Smith, 2014). The German model has even been trialled in the United States (Wyman and Gedge, 2015).

In the paper, the international project is discussed first, followed by the two Australian projects that investigated apprenticeship at company level. In each section, the method for that section is followed by the findings. The Australian section also contains additional literature specifically relating to the Australian system.

International Comparison

Research method

Project 1: 'Towards a model apprenticeship framework: a comparative analysis of national apprenticeship systems' (Smith, Brennan Kemmis et al., 2013) was carried out in 2012 and was undertaken to provide data on good practice in apprenticeship systems internationally, to assist with the redesign and expansion of the Indian apprenticeship system. Eleven highly-structured country case studies, some in developed countries (e.g. Canada, Germany) and others in less-developed countries (e.g. Indonesia, Turkey), were included in the international comparative phase. The choice of countries was guided by the funding bodies. Each case study was required to be validated by two in-country experts: one a senior government official, and the other a senior academic in the area. A cross-case analysis was undertaken to draw out the key features of these case studies as a preliminary step to identifying recommendations and principles for a model apprenticeship system that might inform the further development of India's apprenticeship system.

The cross-case analysis was informed by a number of international documents (INAP Commission, 2012; Smith, 2010; and European Commission, 2012). As part of the analysis, examples of good practice were derived. Case study authors provided responses to a section on issues, strengths,

weaknesses and learning from policy developments. A 'model apprenticeship framework' was then developed. This framework consisted, among other features, of a set of principles in specific domains. In this paper, the set of principles is the main focus of the international data.

The findings of Research Project 1 (Smith, Brennan Kemmis et al., 2013) relate primarily to structural matters associated with national apprenticeship systems. The cross-case analysis undertaken in the research project showed that there were a number of differences among apprenticeship systems internationally. For example, some apprenticeship systems were large, with over 1.5% of the workforce employed as apprentices (e.g. Australia, Germany) and some were very small for the country's size (e.g. India, Turkey, United States). Some countries, despite the small size of their systems, had a high policy focus on apprenticeships (e.g. South Africa, Turkey). Some countries (e.g. Germany, France) restricted apprenticeships predominantly to young people and/or to certain occupations; others (e.g. England, Australia, Indonesia) routinely included adults as well as young people; others made apprenticeships available mainly to adults (e.g. Canada, United States). Some counties required apprentices to be paid a wage; others did not, paying a stipend or allowance only e.g. Egypt, Indonesia).

Despite these major differences, countries had similar policy thrusts for their apprenticeship systems. At the time of the study, they were all aiming at increasing participation by employers, and increasing participation by individuals, including targeting specific learner groups, for example, women, ethnic minorities and people with disabilities. Many were working on aligning apprenticeship systems with national and/or international qualifications frameworks. All were attempting to address youth unemployment with specifically youth-targeted initiatives under the umbrella of apprenticeships. Most were trying to increase the range of apprenticeable occupations, and to improve the status of apprenticeships. Most were grappling with the issue of harmonization of apprenticeship regulations across State or Provincial boundaries. There were also concerns to align the systems with the changing structure of economies, for example to ensure that apprenticeship systems covered growing industries, and that there were methods for adding new occupations to lists of apprenticeable occupations.

Following further analysis of the data, including those issues that the country experts had identified as strengths and weaknesses, a set of principles were proposed as those that should underpin a national apprenticeship system. It was recognized that not all principles could in practice be adopted in all countries. It was also cautioned that apprenticeship systems grew from historical and cultural roots and that one country's system could never be transported wholesale to another country; nonetheless, individual features could be adopted. Table 1 summarizes these principles.

Domain	Associated Good Practice Principles
1. System's coverage of occupations	• Apprenticeships available in all industries. • Apprenticeships available in a range of occupations, particularly those that are typically undertaken by women as well as men.
2. Participation by individuals as apprentices	• Apprenticeships open to people of either gender and all ages. • Apprenticeships available in rural and regional as well as urban areas. • Clear pathways for school-leavers; pathways for disadvantaged people and for people without necessary entry qualifications. • Availability of off-the-job programmes to facilitate entry to an apprenticeship. • Pathways into apprenticeship (and beyond) are clear and well-publicised in ways that reach all potential candidates.

3. Comprehensive national governance structures	• National policy emphasis is both on training aspects and on employment aspects of apprenticeship. • Good liaison between government agencies responsible for different aspects of the apprenticeship system. • Where responsibilities lie with states and provinces as well as national governments, relative responsibilities are well-defined and publicised. • Rigorous qualifications that are regularly updated. • Collection of appropriate data about apprenticeships. • Systems are not inherently biased towards particular geographical areas (e.g. urban versus rural).
4. Involvement of stakeholders	• All major stakeholder groups (employers, training providers, employer groups and employee associations/trade unions) are involved in the development and maintenance of apprenticeship regulation and structures. • A commitment to collaboration among the various stakeholders. • Regulated system for adding new occupations to the apprenticeship system according to specified criteria.
5. Strength of quality systems	**Quality systems for training providers** • Training providers are subject to quality regimes including audits. • Content of qualifications is viewable on the internet. • Requirements for qualifications/training for teachers in training providers. • Trade testing at the conclusion of the apprenticeship, managed externally to the enterprise and the training provider (e.g. national 'Red Seal' examination system in Canada and local examination boards in Germany). **Quality systems for employers** • A registration scheme for enterprises/employing organizations offering apprenticeships, with requisite criteria; proportionate criteria (i.e. less stringent) developed for small and medium enterprises (SMEs), especially micro-businesses. • Supervision ratios in companies, which are communicated and enforced as part of maintenance of registration. • Requirements for qualifications/training for in-company trainers. • On-the-job training subject to some form of overseeing. • Continuing upskilling programmes for company trainers and teachers. • Industry bodies communicate with employers about apprenticeships.
6. Simplification of apprenticeship systems	• Harmonization across State/Provincial jurisdictions to enhance mobility and improve understanding of systems. • Consistency of contract periods for completion of apprenticeships (or at least no more than two or three allowable choices of length, as in Turkey). • Clear delineation of responsibilities of the employer, the training provider and the apprentice. • Removal of parallel systems within one country where feasible; or if not, clear communication processes.

7. Incentives for participation	• Financial incentives for enterprises to participate, subject to monitoring of satisfactory performance including audits. • Additional incentives for employers to employ disabled or disadvantaged people as apprentices. • Public funding for training providers. • Discounted wages for apprentices (either a lower overall rate or non-payment while at off-the-job training). • Payment of social contributions for apprentices by the State. • Financial incentives to apprentices to complete their contracts and to employers who continue to employ their apprentices after completion.
8. Support for apprentices and for employers	**Support for apprentices** • Assistance in meeting entry requirements and/or learning support once employed. • Employed status within an enterprise. • A combination of on and off the job learning with around 20% of time at a training provider and attainment of a recognized qualification. • A training plan within the company. • Opportunities to experience different workplaces if in a limited environment and a chance to mix with apprentices from other enterprises. • A 'case manager' to oversee progress in off and on the job training (e.g. 'pedagogical referent tutor' in France). • Opportunity to switch employers for good reason. • An increase in pay over the period of an apprenticeship and a higher rate of pay on completion. • A chance to progress further to higher level employment or self-employment. **Support for employers** • Provision to enterprises of suggested workplace curriculum and advice on cohort management systems for enterprises. • Support for small and medium enterprises, through structured arrangements, by specified bodies. • Support for employers rather than punitive measures for non-compliance. • Easily-available information about the system for would-be apprentices and employers (e.g. available via the 'Ellis chart', a comparative chart of apprentice training programmes across Canada[1]). • Fall-back system for apprentices whose employer can no longer afford to employ them (e.g. Group Training Organisations in Australia, or interim 'out of trade' arrangements).

Table 1: Model apprenticeship framework for national
apprenticeship systems — domains and principles

The principles are all drawn from existing practices in the case study countries, and some national systems displayed many of them already. They are, of course, more easily achievable in countries with higher levels of resources allocated to the training system. Countries with well-developed apprenticeship systems, however, may find it more difficult to adapt because interests are so well entrenched. This challenge was noted, for example, in the German case study in this project.

Company Level Research Projects: Australia

Background on the Australian system

A brief overview of the Australian system follows. The formal apprenticeship system in Australia was established soon after the Second World War and was confined to a defined number of occupations, mainly undertaken by male manual workers. The system remained relatively static until the mid-1980s, when traineeships were introduced (Knight, 2012). Traineeships expanded apprentice-like arrangements into many occupational areas that had not previously supported contracted training, such as retail, tourism and hospitality. In 1997 the traditional apprenticeship and the traineeship systems were brought together under the umbrella of the 'New Apprenticeship', now called 'Australian Apprenticeship', system, although in common usage they are usually referred to separately. Traineeships tend to be shorter than traditional apprenticeships, typically one to two years, and are often in industry areas which have not previously had accredited training. There has been some controversy around the availability of government funding for this purpose (e.g. Schofield, 2000), although the funding is no greater, and often less, than that for traditional apprenticeships. In some industry areas, traineeship qualifications have been used for initial training for 'shop floor' type occupations with large numbers of workers, with companies reporting that the availability of such training is a good recruitment and motivational tool (Smith, Comyn, Brennan Kemmis and Smith, 2009). At the height of the Australian apprenticeship system, in 2011, there were almost 449,000 apprentices and trainees in training (National Centre for Vocational Education Research [NCVER], 2012). This constituted 3.7% of the working population of just over 12 million people, proportionately on a par with the German system. However, funding cuts for traineeships since 2012 have led to a rapid decline, so that the number of apprentices and trainees decreased by 10.3% in 2013 alone, from 346,600 to 311,000 students (NCVER, 2015). The decline was almost entirely in traineeships rather than traditional apprenticeships.

In Australia, some intermediary organizations, partly funded by government, are involved in apprenticeships and traineeships. These include Australian Apprenticeship Centres (since mid-2015, known as Apprenticeship Network Providers), which manage the contractual arrangements between employer and apprentices/trainee. In about 12% of apprenticeships and traineeships, Group Training Organisations (GTOs) are involved. These act as the actual employer of the apprentice/trainee, with the employer paying a fee to the GTO to cover wages and administrative arrangements (Bush and Smith, 2007)'. This removes some of the risk of employing an apprentice/trainee, as the latter can be 'returned' to the GTO if unsuitable or in the event of a business downturn. As with most other countries, a training provider (known as a Registered Training Organisation [RTO]) is responsible for the off-the-job training and the award of the related qualification. Finally, it needs to be explained that in Australia, apprenticeships and traineeships can in theory be delivered entirely 'on the job' meaning the students need not be required to attend a training provider (Smart, 2001). However, RTOs are required to visit students for specified number of hours annually, and maintain regular contact by phone and email, and are responsible for the assessment of learners.

Research method

The Australian section of the paper draws on data from two studies (Table 2).

Project No.	Project Title	Date of Research	Overall Method
2	Identifying the characteristics of high quality traineeships (Smith, Comyn, Brennan Kemmis, and Smith, 2009).	2007-8	Studies of six industry areas, each comprising six specified interviews at industry level and two company case studies (each involving 7 interviewees including 2 apprentices, managers and trainers); 13 high-level policy interviews.
3	Understanding the psychological contract in apprenticeships/ traineeships to improve retention (Smith, Walker, and Brennan Kemmis, 2011).	2009-10	Surveys of apprentices/trainees and employers in two States; nine company case studies (67 case study participants); 12 high-level policy interviews.

Table 2: Australian research projects utilized in this paper

There are some limitations to the method in these studies. In Project 2, the selection of the six industry areas could have affected the outcomes of the study, although the areas were selected carefully in conjunction with the project reference group and spanned manufacturing through to service industries. Project 3's nine company case studies, as with Project 2, represented a range of industry areas and size of company; but were necessarily a small sample. However, the survey, carried out with a large population of apprentices/trainees and employers from two State databases, helped to provide a broader picture. In both projects the inclusion of high-level stakeholder interviews and, in the case of Project 2, industry-level interviewees too, helped to ensure a wider perspective as these interviewees were people with decades of experience in the field, guarding against drawing inappropriate conclusions from the data.

Findings about good practice

As explained earlier in this paper, there have been quality-related concerns about traineeships in Australia, following what was at the time perhaps a too-hasty expansion of the system (Smith and Keating, 2003). However Research Project 2 showed a number of high quality practices in Australian companies and training providers which belied the 'bad press' received by traineeships. These practices are described below and it was concluded that most could be applied to traditional apprenticeships as well.

For this paper we focus on the findings of the project about good practice in the four phases of the 'traineeship lifecycle' — recruitment, sign-up and induction; training delivery and assessment; support during the traineeship; and completion and beyond. The findings are drawn both from the industry case studies, each comprising company examples as well as industry-level interviews, and the high-level national stakeholder interviews. The industry areas that were studied were: financial services, children's services, asset management (cleaning), construction, retail and meat processing (abattoirs).

The characteristics of a high-quality traineeship that emerged from the data analysis are described below, phase by phase. In the report of Project 2 (Smith, Comyn, Brennan Kemmis and Smith, 2009), characteristics were classified by whether the characteristics were considered necessary, or were 'ideal'. For reasons of space, only the 'necessary' are listed below.

Phase 1 of traineeship: Recruitment, sign-up and induction

Prior to recruitment, the registered training organization and intermediaries learn about the organization's workplace and business issues and try to ensure that the traineeship adds value to the enterprise as well as to the individual. The registered training organization works with the employer and the supervisor to select the qualification and units of competency for the traineeship, ensuring they are relevant to the enterprise and the future career intentions of the trainee. The qualification provides the potential for advancement to a higher qualification or pathways to other education and training options and is designed to develop occupational loyalty within the trainee.

Once the trainee has been selected, the registered training organization and intermediaries meet with the employer, supervisor and trainee to establish a partnership and provide advice to the enterprise and the trainee. The employer and immediate supervisor demonstrate a strong commitment to the success of the traineeship; the employer clearly regards the traineeship as an investment in their workforce and as a way to attract and retain staff. The employer considers traineeships to be part of the organization's overall workforce development strategy and is clear about the purpose of traineeships. The trainer, trainee and supervisor are in no doubt about the expected outcomes and processes to be delivered through the traineeship and each party's relevant responsibilities. All parties are aware of the frequency of contacts from the registered training organization, the means of communication available (SMS, email, phone) and the dispute-resolution processes in place. The employer conducts an induction/orientation session for the new trainee or trainees.

In larger organizations, the human resource team develops comprehensive guidelines for the business units which take on trainees. This team ensures consistent treatment of trainees and safeguards the organization's training standards. Where possible, a person is given responsibility for managing all trainees in the organization.

Phase 2 of traineeship: Training delivery and assessment

The registered training organization and employer agree on a programme that includes the mixture of on- and off-the-job training that will ensure the highest quality outcomes in the traineeship. The training organization does not impose a single delivery model on the employer but offers a tailored delivery and assessment solution suited to each workplace. The training organization works with the employer to ensure that any in-house employer training is embedded in the traineeship and to provide opportunities for integrating the trainee's learning and assessment with workplace practices.

The employer ensures that time is set aside for training — on the job, in the workplace or off site. The employer makes sure that the trainee is given opportunities for practice, accepts the likelihood of mistakes and provides skilled and empathetic trainers and supervisors to encourage quality learning experiences. The employer ensures that all worksites operate according to good working practices and conditions, particularly in relation to OH&S, and that good practice is modelled in the workplace to provide a consistent message for the trainee. The employer ensures that the trainee is closely supported by mentors or buddies and that supervisors spend time with trainees to mentor and encourage their learning.

Both the registered training organization and the employer utilize trainers with skills, knowledge and experience of a high standard. They aim for high-quality training that will extend the trainee's skills and encourage their attachment to the occupation, rather than focusing only on completion. Trainers are enthusiastic about the field of study and keep up with rapidly evolving technology and work practices. The training organization uses high-quality and current learning materials with a strong emphasis on OH&S and relevant to the trainee's workplace. Both the training organization and employer ensure that training and assessment materials are customised to the specific workplace activities rather than being generic workbooks. Materials are adapted to suit trainees with particular

language, literacy or numeracy needs. Assessment is as holistic as is compatible with rigour and relevant to the workplace, while avoiding over-customization. Underpinning knowledge extending beyond the immediate workplace is delivered.

Phase 3 of traineeship: Support during the traineeship

Intermediaries develop good ongoing relations with employers and build trust with managers, supervisors and trainees. They provide accurate, current, and appropriate information. Registered training organization staff undertake frequent visits to ensure on-the-job trainees are satisfied with their learning and their daily work. During visits, training organization staff reinforce the relationships between theory and practice and deal with any employment, motivational or relationship issues, or alert appropriate intermediary staff. For traineeships involving off-the-job training, training organization staff contact employers regularly to discuss the trainee's progress and ensure that off-the-job training takes account of the type of workplace in which the trainee is located.

Employers and supervisors provide regular and ongoing feedback to trainees. The employer provides a dedicated mentor for the trainee. The mentor meets with the trainee regularly to check and ensure progress through the learning materials and the employer evaluates the mentoring relationship. The training organization, supervisor and trainee participate in an ongoing review process to monitor issues and progress.

Phase 4 of traineeship: Completion and beyond

Both training organization and intermediary staff work with the employer, supervisor and trainee in an effective and timely manner to ensure effective completion of the traineeship. They make sure that all assessment tasks are completed and that the trainee feels confident in each area covered. The parties participate in a comprehensive evaluation of the traineeship and review findings collectively to ensure continuous improvement purposes. (Extracted from Smith, Comyn, Brennan Kemmis, and Smith, 2009: 32-34).

Research Project 3 (Smith, Walker, and Brennan Kemmis, 2011) encompassed apprenticeships and traineeships, and focused on the importance of the psychological contract in these contracts of training. The research started with the premise that the success of apprenticeships/traineeships and the satisfaction of the parties (employers and apprentices/trainees) are affected to a considerable extent by the expectations of both parties, their beliefs about their obligations, and the extent to which expectations are met. The research framework for this project drew on psychological contract theory (e.g. Dabos and Rousseau, 2004). In the following discussion, the term 'apprentices' is taken to include 'trainees' as well.

The project found that expectations of apprenticeships were high on both sides of the employment relationship (i.e. the employer and the apprentice). The survey results showed that compared with previous studies on non-apprenticed occupations (e.g. Hutton and Cummins, 1997) expectations were high and also each party's expectations of their own obligations was higher. This indicates that there is a need for companies to pay particularly close attention to their management systems for apprentices, compared with other workers.

Case study and survey data alike indicated some good practices that could be adopted more widely to improve the satisfaction of both parties and higher quality outcomes. Employers who retained their apprentices and trainees had instituted sound human resource management procedures including providing extensive information to would-be applicants, instituting performance management systems for apprentices, and devizing early intervention strategies for

'at-risk' apprentices. They had clear lines of communication both within the organizations and externally with other parties to the apprenticeship. They provided rewards and recognition for good performance, and paid careful attention to both on and off the job training.

Companies did less well, in their own view, about providing 'specific time for training' and 'a range of training methods' (these were survey items that companies self-rated lower than other items); but knew that they needed to improve. Improvements in training practices required very close liaison with the relevant registered training organizations, and this sort of dialogue was evident in some of the case studies. The best employers among the case study companies showed active and continuous learning about the management of apprentices and trainees.

Two examples of company case studies are provided below[2]. Both companies were heavily involved in the national apprenticeship system, one employing traditional apprentices and one employing trainees. They provide examples of some of the practices mentioned above.

Case 1: Power Co

PowerCo (employing apprentices) was a government-owned electricity distribution corporation in Queensland covering regional and remote areas. PowerCo employed 4,500 people of which 340 were apprentices. At the time of the case study around 75 apprentices were recruited each year from an applicant pool of between 1,200 and 2,000 (including internal applicants). There was a 90% completion rate. Most of PowerCo's apprentices worked as distribution linesperson/ electrical powerline linesperson (about 70% were in this category), systems electricians/electrical fitter mechanics, and communications technicians and completed Certificate III level qualifications. PowerCo was a company with a long and proud tradition of training apprentices. The industry was heavily apprenticed; managers had come up through the ranks. These factors helped to ensure that those responsible generally had a strong commitment to ensuring the apprentices were trained well. The large size of the company assisted in some ways, as apprentices were rotated among departments and sites, but in others created difficulties; apprentices could be provided with a wide range of experiences but on the other hand could get 'lost' for a while with a poor supervisor. The company had compensated for the latter problem by setting up a system almost like a Group Training Organisation, appointing geographical area field officers with a caseload of around 50 people and with a quarterly reporting system involving the apprentice and his supervisor/workgroup leader. These practices were extremely resource-intensive but resulted in a high completion and retention rate. The other major features, also made possible by the resources available within the company were a highly selective recruitment procedure involving a number of different steps, and an industrial relations agreement that provided a level of pay for mature-aged apprentices that was likely to attract high-quality applicants.

Case 2: RestaurantCo

RestaurantCo (employing trainees) was a quick-service food company holding a State franchise for fried chicken. The traineeship programme, designed for customer service staff in the stores who completed a Retail Certificate II qualification, had commenced 11 years prior to the research, as a result of collaboration between the Human Resource Manager and an Australian Apprenticeship Centre. Over 1000 people had completed traineeships at RestaurantCo since the programme had commenced; this represented a completion rate of over 90%. The programme was a large-scale human resource strategy that embedded progressive gaining of qualifications within the store-level promotions processes. Originally, the programme was 100% on-the-job, but when that proved 'a disaster', a proportion of off-the-job raining was introduced. While the trainees who were

interviewed were satisfied with their traineeships, it was evident from reports of other stores and other trainees that problems could arise when store managers were not fully committed to the programme. Risk was lessened by two major factors: confining entry to the programme to existing workers recommended by store managers and building long-term relationships with the Australian Apprenticeship Centre and the RTO which both played a major part in the programme. The close involvement of the major players in the programme was advantageous to some extent, but could be a problem as the fulfilment of the trainees' expectations was distributed among those parties, over which the company had no direct control.

This final point in respect of Case 2 illustrates a major finding of the project which was that, to a much greater extent than in ordinary employment contracts, many parties were important in affecting the psychological contract between the individual apprentice and the employing company. Figure 1 illustrates these parties and shows how communication occurred between the external parties as well as between the company or apprentices and the external parties. The training provider (Registered Training Organisation) was integral to the success of the apprenticeship. It was found that the importance of the role of the Australian Apprenticeship Centre varied among companies, and Group Training Organisations were involved in only a proportion of apprenticeships. The other organizations and people which affected the psychological contract — shown in the background of the figure — were not researched directly but were mentioned by many interviewees. For employers, these other influences, both direct and indirect, meant that their apprentices' satisfaction was affected by many other factors over which they did not have control.
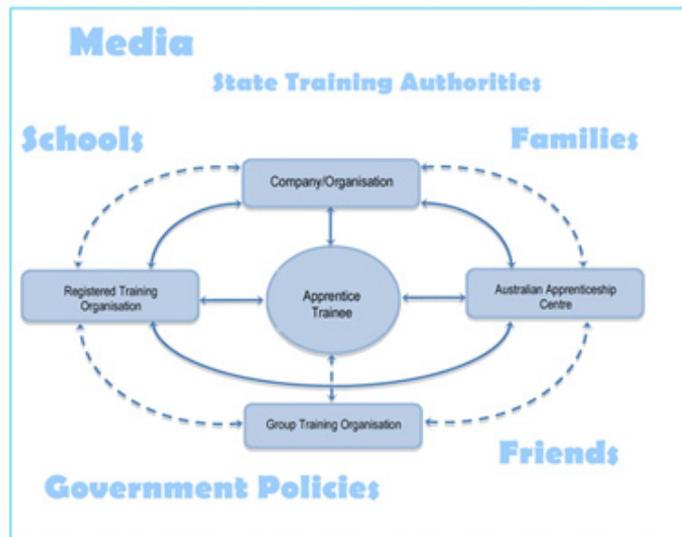

Fig. 1: The interdependent relationships among apprentices/trainees
and their employers, RTOs, Australian Apprenticeship Centres,
and Group Training Organisations

Meta-Analysis

The meta-analysis for this paper was designed to illustrate the method by which the good practice principles could be used in different countries and in individual companies, and proceeded as follows. Firstly the international principles for a model apprenticeship system (Project 1) were mapped, in a general way, against the Australian system, using a process earlier used for the Indian system (Smith and Brennan Kemmis, 2013) and also subsequently employed by Doran (2015) for the Irish system. Secondly the findings of the two Australian company-level projects (Projects 2 and 3) were mapped against those international principles that related specifically to company-level matters. And finally, the two company case studies were analysed in relation to the Australian findings.

Step 1

In this step, the Australian system, as the site for Projects 2 and 3, was mapped against the international principles for national systems (Table 1), using the domains as sub-headings. The Australian information is taken primarily (with some updating) from Smith (2010) which included a case study of Australia in an entry on apprenticeships in the International Encyclopedia of Education. In this discussion, the term 'apprenticeship' is taken to mean 'traineeship' as well.

System's coverage of occupations. In Australia apprenticeships are available in all industries and in a range of occupations, particularly those that are typically undertaken by women (generally traineeships) as well as men. However, funding structures at both Federal and State level favour masculinised occupations (Guthrie, Smith, Burt and Every, 2014).

Participation by individuals as apprentices. Apprenticeships are open to people of all genders and ages, and in rural as well as urban locations. There are clear pathways for school-levers and there are no entry-level qualifications, in most cases, except those that may be required by individual employers. Apprenticeship programmes are well-publicised in schools and on government web sites at both national and State level. There are off-the-job programmes to facilitate entry ('pre-apprenticeships', or more generic programmes) but these are not available in all occupations.

Comprehensive national governance structures. There is liaison among agencies responsible for different aspects of the system, as well as liaison between Federal and State agencies. The policy emphasis is on training as well as employment aspects. Qualifications are updated by the relevant Industry Skills Councils and are required to adhere to the Australian Qualifications Framework. State governments collect data from employers and training providers. There is no inherent bias towards particular geographical areas.

Involvement of stakeholders. Major stakeholder groups are routinely consulted in relation to apprenticeship regulations and structure. There is not always a commitment to collaboration among the parties. There is no clear system for adding new occupations to the apprenticeship system. Employers have the opportunity to be involved in development of qualifications through Industry Skills Councils.

Strength of quality systems. Training providers are subject to audit. However, there are well-known quality issues among private training providers which the regulatory body acknowledges are not readily addressed (Harris, 2015). The content of qualifications is readily available on the internet. There is no trade testing at the conclusion of apprenticeship; the system relies on the

training provider assessing to the qualification. There are no requirements for teaching/training qualifications for workplace supervisors of apprentices; and teachers in training providers are enquired only to have a Certificate IV level qualification which is acknowledged as being one of the least-well delivered in the system (Smith, Hodge and Yasukawa, 2015). Employers are not required to undergo any type of vetting to employ apprentices and are not monitored on their performance in training apprenticeships. There are no required supervision ratios (except in a few industrial relations agreements). In some industries, there is extensive communication from employer bodies about apprenticeships.

Simplification of apprenticeship systems. Elements of the system are managed at a State level, but there is increasing harmonisation across State boundaries and only one system. The respective responsibilities of the different parties to apprenticeships are reasonably well-defined, with employer responsibilities least clear. There is no consistency of contract periods, as a relatively new so-called 'Competency-Based Completion' system (which is different from the curriculum meaning of competency based training) allows apprentices to complete at any time, subject to being signed off by the employer and the training provider. The latter system is reportedly causing difficulties.

Incentives for participation. There are financial incentives for employers to take on apprentices, and funding for training, although both varies across occupations. Apprentices have employment contracts and a rate of pay that rises each year and on completion. The vast majority of apprentices are retained by their employing companies at the end of their apprenticeship. Apprentices are required to be issued with a training plan. Apprentices are allowed to switch employers, but arrange that themselves unless they are employed by a Group Training Organisation. Apprentices do not necessarily receive any off-the-job training, and may not be offered the chance to experience different workplaces. Employers may receive support through employer associations, but this varies among industries. Employers do not generally receive any advice on workplace curriculum.

This analysis shows that Australia performs reasonably well against some of the eight principles but less well against others. Employer-related issues are the weakest areas of the system. Employers need not be vetted to take on apprentices; their work with apprentices is not monitored; their staff need not be qualified; they need not have appropriate supervision ratios for apprentices; they are not advised on workplace curriculum; and they are not required to offer their apprentices off-the-job training. In addition, Australia fares badly in gender equity in the sense that the system favours masculinised occupations, while there is no direct discrimination against women. Quality of training is also a problem in the system.

Step 2

This step in the analysis maps company-level findings of the two Australian projects (Projects 2 and 3) against the model apprenticeship framework using the two company case studies summarised above. The discussion focuses on the employer-related weaknesses of the Australian system that were identified in Step 1. Both organizations were multi-site and had set up their own systems for trying to maintain quality, that were able to some extent to address some but not all of these deficiencies. Both companies offered off-the-job training. Also, in both companies, a suggested workplace curriculum was developed within the company. Both companies have provided oversight of on-the-job training, via the field officer in the case of PowerCo, and the

RTO in case of RestaurantCo. These people provided a variant of the 'case manager' system mentioned in Table 3. PowerCo instituted rules about supervision of apprentices and trainees, in the absence of national requirements. Only PowerCo provided the opportunity to experience different workplaces, although RestaurantCo did allow the chance to mix with trainees from other sites (but only other sites within the company). While there was no system for switching employers in either case, RestaurantCo allowed reversion to a non-trainee status for trainees who decided they did not want to continue with the programme. In both instances, progression to higher-level work on completion of the apprenticeship or traineeship was an integral part of the whole system.

The companies also addressed further shortcomings in the Australian system. They attempted to deal with well-known quality issues among training providers by choosing their providers carefully, and, in the case of RestaurantCo, maintain constant liaison with the RTO. However, neither company addressed the deficiencies in national requirements for teacher qualifications either in the RTO or the company itself. No reference was made by either company to any upskilling programmes for the in-company training staff. Finally, the multiplicity of players within, and also outside the company (in the case of RestaurantCo), which is a feature of apprenticeship systems worldwide, was a challenge in both companies. In both instances, the presence of multiple people with responsibilities for apprentices and trainees helped to ensure that issues did not go unnoticed. On the other hand managers pointed out that sometimes staff avoided responsibility by passing problems onto other departments or personnel, and also that the number of bodies meant that additional monitoring was required.

Step 3

In this final step of the analysis, the company case studies were mapped against relevant parts of the overall findings of Projects 2 and 3. This step shows how company's apprenticeship systems can be benchmarked against national good practice. For both companies, a comparison with Project 2's characteristics of high-quality traineeships showed clear alignment with the characteristics listed under Phase 1 (recruitment, sign-up and induction). Support during the traineeship (Phase 3) was well-represented in both company case studies, although in both cases it was noted, in different ways, that immediate supervisors did not always give sufficient feedback to the apprentices/trainees. Both companies were focused on completion (Phase 4) and on ensuring the apprentices/trainees were confident in their work. As the apprentices/trainees were expected to move onto senior roles in the companies, this was clearly of importance.

Project 3's overall findings provide a useful benchmarking for the company case studies. Both companies had comprehensive recruitment and performance management strategies in place, characteristics of good practices found in the project as a whole. PowerCo had early intervention strategies but RestaurantCo did not have any clear procedures for this. Lines of communication were not made entirely clear within the companies, with line managers and those responsible for managing the apprenticeship/traineeship systems both, perhaps inevitably, playing roles whose boundaries could shift according to particular cases. Close liaison with external bodies was a major feature at RestaurantCo but not so much at PowerCo which seemed to be more self-sufficient in its apprenticeship system; the role of the RTO and of the Australian Apprenticeship Centre was barely mentioned at PowerCo.

Conclusions

This paper has described agreed good practice in apprenticeship systems, a 'model apprenticeship framework, derived from a systematic analysis process across eleven countries. It has illustrated how these principles of good practices could be utilised for benchmarking purposes both at a national level and by companies that employ apprentices. In the case of the article the company-level analysis has been undertaken using previously-completed research projects undertaken by the author.

The three-step analysis process employed in the meta-analysis is not merely a scholarly exercise; it is readily translatable for practitioners. The model apprenticeship framework developed in Project 1 is by no means the only one available for countries' apprentice governance systems. A CEDEFOP-funded project (Hauschildt and Wittig, 2015) has recently developed a similar framework, albeit only in relation to governance and financing and only derived from European country case studies (n=5), unlike Project 1 in this paper which covers countries in other continents. The CEDEFOP-funded project provides an indication of potential practical application of the model apprenticeship framework. In that project, workshops were held in each country with major national stakeholders where the results for that country are fed back and discussed with a view to system improvement (Hauschildt and Wittig, 2015).

This paper also goes beyond the national policy level. It incorporates analysis of company systems, not only against national good practice, but also against international good practice principles. The analysis undertaken in the paper in Step 2 indicates that there are possibilities for companies to make internal provisions that can help to address deficiencies in national systems. In order to do this, HRD practitioners need to have a good awareness of international policy and practice in apprenticeships. This enables them to identify weaknesses in their countries' systems which they can address, in a similar manner to Step 1 in the meta-analysis. While this may be particularly important where companies operate across national borders, as it can be done for the multiple international settings, it is also helpful for companies with a purely national focus.

Notes

1 http://www.ellischart.ca
2 Full case study report for these and for the other seven case studies can be found at: http://www.ncver.edu.au/publications/2432.html in "Support Documents".

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