

Apprenticeships

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Apprenticeship is an institution that, for centuries, has successfully effected entry into working life for young people, and has also been responsible for the maintenance of the skills base of many national economies. Apprenticeships began in medieval Europe when young people went to live in their masters' houses to learn trades, over a period of up to 7 years. Although apprenticeships have become less demanding of both master and apprentice, they have survived in many countries over the centuries (Lane, 1996). A typical dictionary definition of an apprentice (*Chambers Twentieth Century Dictionary: 6*) is "one bound to another to learn a craft," an apprenticeship is "the state of an apprentice: a time of training for a trade, or for any activity." There are two key points in these definitions: one is the employment relationship, and the closeness of that relationship. The apprentice is bound to the master, often by a formal contract and by unwritten understandings as well. The other key point in the above definitions is time: the focus is not only on what is learned, but also on the time period over which it is learned.

This article examines the meaning of apprenticeship, perspectives in the apprenticeship literature, the different nature of apprenticeship in different countries, and some challenges with which apprenticeship systems are grappling.

Formal and Informal Meanings of Apprenticeships

The term apprenticeship is used in many contexts. It is often used informally to describe any process of learning a job or a skill from another person, generally in the context of an older or more experienced person mentoring or coaching a younger and more junior person. It is also

used to describe processes of learning at work which are primarily work-based but include elements of formal off-the-job learning. For example, professional occupations such as nursing, accountancy, and law formerly followed this model, although they tend to be university-based these days. However for the purposes of this article we confine the discussion of apprenticeship to formal systems that aim to develop skilled workers, and that are in occupations serviced by the vocational education and training system rather than by university education.

The essential components of a formal apprenticeship are generally understood to be:

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

Apprenticeships are often, but not always, intended for young people rather than older people, and often, but not always, incorporate a close relationship between a novice and a particular expert worker. They normally, but not always, involve the apprentice being actually employed in the enterprise where on-the-job training is carried out.

Perspectives on Apprenticeships

The literature reveals six major ways of looking at apprenticeships. These different viewpoints to some extent reflect the presence of different stakeholders in the

apprenticeship system, such as trade unions, educationalists, training policymakers, and youth commentators, and policymakers. These viewpoints are discussed briefly below.

Apprenticeship as a Passage to Adulthood

Many writers (e.g., [Hamilton, 1990](#), in the United States and [Sweet, 1995](#), in Australia) have been concerned with the uncertain transition from school to work for many young people. For writers with these concerns, apprenticeship is seen as being a safe way for young people to enter employment, providing job security and guaranteed development of skills. The notion of passage to adulthood incorporates the key point of time served. Worries about young people's employment future have become less prominent in some economies (e.g., UK, Australia) that have experienced economic boom during the twenty-first century, but in some countries that still have high unemployment, such as Germany, this issue is still of importance ([Deissinger and Hellwig, 2005](#)).

Apprenticeship as a Means of Industry and National Skill Formation

[Gospel \(1994: 51\)](#) maintains that "apprenticeship has constituted a collective source of skill formation supplying recognised skills to firms of all sizes." Many firms have long-established apprenticeship systems; in Australia and the UK, these systems became less important during the 1980s, partly as the result of economic recession but such systems have become re-established in many major Australian companies over the past decade. Governments have a considerable interest in monitoring and encouraging apprenticeships to assure the maintenance of the skill base of economies. However, not all countries use apprenticeship as a means of national skill formation. In the US, for example, the apprenticeship system is rudimentary and confined to only a few trades; there are fewer than half-a-million apprentices and they comprise only 0.3% of the workforce ([Glover et al., 2007: 477–478](#)). Some authors regard the institution of apprenticeship as outdated and wasteful as a means of skill formation, because of the long time taken for apprentices to become fully skilled (e.g., [Sweet, 1987](#)). It has been argued that apprenticeship training does not coincide with the demand for skills: apprenticeship commencements always fall during periods of recession, but 3 or 4 years later, when apprentices finish their time, the recession may have ended and there is thus a skills shortage. This argument is, of course based on the premise that apprentices do not start doing useful work until the day they qualify, whereas many studies (e.g., the classic English study undertaken by [Venables, 1967](#) and an Australian study by [Smith, 1998](#)) indicate that apprentices perform useful work from their early days.

Occupational Identity and Being a Craftsman

The completion of an apprenticeship is felt to confer a status in society ([Unwin, 1996](#)). An important part of apprenticeship is assuming this status. [Shields \(1992\)](#) maintains that, in the nineteenth century, "membership of the trade carried strong ideological and moral overtones . . . 'the time-served man (was) set apart from 'inferior' workers.'" Therefore, apprentices have traditionally been taught not only the skills involved in the trade but also how to become a member of that trade ([Venables, 1967](#); [Smith, 1992](#)). As [McIntyre \(1996: 44\)](#) puts it, "A person assumes the identity of (a carpenter, for example) and learns both to carry out activities (the practice) and learns the meaning of the practice." Becoming a tradesperson is signified by such rites of passage as acquiring the tools of one's trade and wearing particular types of clothing ([Riemer, 1977](#)). [Winning \(1993\)](#) goes further, suggesting that choosing to become a tradesperson involves the choice of a particular way of life. [Brown \(1997\)](#), however, has argued against assuming that occupational identity is central to all apprentices and tradespeople.

Apprenticeship as a Device for Occupational Restriction

Apprenticeships are often described, particularly in the industrial relations literature, as being a device for restricting the entry to certain trades, to ensure that the price of adult or skilled labor is kept artificially high. To assist this process, the number of apprentices is restricted, the employment of non-apprentice junior labor is prohibited, and there is a lengthy time needed to become skilled ([Shields, 1995](#)). It is often maintained that the skill in apprenticed occupations is socially constructed. Apprenticeship has been seen as a form of ritual servitude that legitimated an illusory division between skilled and unskilled work ([Shields, 1995: 239](#)). Feminist critiques focus on the fact that in Anglophone countries it is mainly male trades which have had the power to construct their trades as skilled while the skill involved in female work is undervalued ([Korczynski, 2005](#)). [Littler \(1982: 10–11\)](#) has provided a seminal discussion of this topic from a labor-process standpoint. During World War II, in Australia as in many other countries, women undertook many of the work roles previously undertaken by men who had been apprenticed. After the War, women were forced out of these roles and those people who had learned some of the job roles without undertaking a full apprenticeship were dismissively described as dilutees ([Ray, 2001](#)).

Economic Arguments about Apprenticeship

According to human capital theory (e.g., [Becker, 1964](#)), apprenticeship is a form of general training, and so the

cost should primarily be borne by the employee not the employer, in the form of low wage rates while in training. Historically, apprentices were often not paid (Lane, 1996), since the master provided all living expenses. Indeed, parents in medieval England often paid substantial sums of money to employers who were willing to train their children in the more desirable trades (Lane, 1996: 19). However, in order to attract people into apprenticeships, apprentices in the modern day generally have to be over-paid in terms of what human capital theory sees as their worth to employers. Without governmental subsidies, it is argued, employers would not employ apprentices. It is also argued that it is for this reason that apprenticeships are so long; employers require a long period of indentured service to recoup some of the loss in the early years. Empirical studies have been undertaken to investigate economic reasons for hiring of apprentices; for example, Dockery *et al.* (1998). Such studies generally conclude in bewilderment that, since there is little economic benefit to an employer in taking on an apprentice, other, non-economic factors must be involved. And, indeed, studies have shown that employers who take on apprentices tend to have a strong normative commitment to the notion of apprenticeships and the maintenance of a supply of skilled workers in the appropriate industries (e.g., Smith, 1998). Thus, it is doubtful therefore whether the level of wages of apprentices is really a serious issue either one way or the other. However, there seems to be more concern about the cost-benefits of apprenticeships in the dual-system countries (Walther *et al.*, 2005; Grollmann and Rauner, 2007).

Pedagogical Issues

Although learning is the basis of apprenticeship, there is relatively little literature on this issue compared with some of the other perspectives. Much of the pedagogical literature on apprenticeship focuses on the relationship between off-the-job and on-the-job learning. It is generally held that on-the-job training provides practical learning while theoretical learning is best undertaken off the job (Uwameiye and Iyamu, 2002). It is sometimes said that it is ideal for on-the-job experiences to enable apprentices to practice the exact skills that are concurrently learned at the training provider, but Australian studies of on- and off-the-job learning (e.g., Harris *et al.*, 1998; Smith, 2002) tend to conclude that apprentices are well able to cope with learning that takes place in different arenas and are able to integrate these into their own practice of the trade. There have been some studies specifically of off-the-job learning in apprenticeships; one interesting but not altogether surprising conclusion is that apprentices tend to prefer hands-on experiential learning rather than theory-based learning (Smith, 2003). Studies of on-the-job learning emphasize the progressive skilling of

apprentices (Smith, 1998), the introduction to a community of practice (Unwin and Fuller, 2003), and the importance of the planning of the work apprentices should do so that they gain a wide range of experiences. Such arrangements are described as expansive rather than restrictive learning environments by Unwin and Fuller (2003).

Different Models of Apprenticeships

Different countries have different expectations of apprenticeships and therefore regulate and manage their apprenticeship systems in different ways. This section provides a discussion of five issues: qualifications, employment status, examination of proficiency, coverage of occupations, and funding regimes. A case study of Australia follows which illustrates how these different issues interrelate to form a system of great complexity.

Qualifications

Earlier in this article, we have included the award of a qualification and/or licence as a common feature of formal apprenticeships in the modern era although in some countries such as Nigeria there is still no qualification involved (Evawoma-Enuku and Mgbor, 2005). In Australia, all apprenticeships and traineeships (see section entitled 'A case study of apprenticeship systems: Australia', for a discussion of traineeships) provide a formal qualification, usually at Certificate III level or higher. The curriculum for qualifications for apprenticeships and traineeships consists of units of competency taken from the sets of competency standards in national training packages (Smith and Keating, 2003). In general, apprentices attend a technical and further education (TAFE) college (TAFE – the public providers) or a private training provider on 1-day-a-week basis or for block periods, for 2 or 3 years. Trainees may also attend college in this way, but it is becoming increasingly common for trainees to be trained 100% on the job. However, even in the latter case, a training provider (known as a Registered Training Organisation (RTO)) must oversee the training and is responsible for the assessment and the award of the qualification. Similar diverse systems apply in the UK, with various ways of gaining the required qualification of a national vocational qualifications (NVQ) (Fuller and Unwin, 2007). In Germany, by contrast, the availability of qualifications is more regulated. Under the dual system, all apprenticeships involve off-the-job training and such training is only provided by public schools. In Australia and the UK, there is not usually any regulation associated with the on-the-job training provided by the employer, but in Germany there is regulation of the on-the-job training (Grollmann and Rauner, 2007).

Employment Status

As mentioned previously, most apprenticeships involve a contract of employment so that an apprentice is primarily a worker rather than a student. In some countries, training providers take a more central role. In the Netherlands, for example, apprenticeships may be training-provider-based or work-based; in training-provider-based apprenticeships, on-the-job training takes place in work placements rather than as a formal employment contract (Onstenk and Blokhuis, 2007). In Australia, would-be apprentices may commence part of the apprentice qualification through a pre-apprenticeship course at a training provider, (Dumbrell and Smith, 2007) but must gain employment before proceeding very far toward the qualification. It is thus assumed in Australia that the qualification is only of full utility when combined with considerable time spent on the job learning at work. In Germany, high unemployment has led to the growth of off-the-job training in full-time vocational schools alongside the dual system route, but the former suffer from a perception of low status (Deissingner *et al.*, 2006).

Examination of proficiency

In Australia, the completion of an apprenticeship formerly involved a trade test administered by the state training authority, along the lines of the final examinations managed by the Chambers in Germany (Grollmann and Rauner, 2007) but generally these days, in Australia, it is assumed that completion of the appropriate qualification negates the need for an additional trade test, although this assumption is not unchallenged. The award of a license to practice a trade is currently, in Australia, a separate process from the award of the qualification, with licensing bodies guarding their prerogative to decide who can practice a trade, although there have been attempts by national governments over the past 20 years to align the qualification-awarding and the licensing processes. In the UK, there has been some controversy over whether an NVQ is sufficient to pronounce an apprentice proficient.

Coverage of Occupations

As Western economies continue to move away from primary and secondary industries toward the service sector (Triplett and Bosworth, 2004; Barnes and Kennard, 2002), the apprenticeship system in some countries has struggled to meet these changing times. In the dual-system countries, apprenticeships have always covered a range of occupations including the service sector, and there is a system in place to incorporate new occupations into the apprenticeship system. But in other countries such as the UK, Australia, and the United States, systems have

needed to adapt and change. In Australia, the introduction of traineeships has addressed the need for apprentice-like arrangements in a wider range of occupational areas. Traineeships are discussed in detail in the Australian case study below. A similar process was undertaken in the UK, where modern apprenticeships (Fuller *et al.*, 2005) were introduced in the early 1990s by the UK government to broaden the reach of apprentice-like arrangements. As in Australia, the UK modern apprenticeships also had roots in the youth training schemes introduced at times of high youth unemployment, particularly in the early 1980s. This made them initially unpopular (Fuller *et al.*, 2005). In both of these countries, the newer apprentice-like arrangements have subsequently been moved under a broad umbrella simply called apprenticeships. In the US, only a limited range of occupations is covered (Glover *et al.*, 2007).

Funding Regimes

In order to support their apprenticeship systems, countries have many methods of funding apprenticeships. These funding arrangements are designed variously to encourage employers to employ apprentices, to provide funds for training providers to undertake the off-the-job training, and (for individual apprentices) to provide a living allowance for apprentices where there are no wages, or to provide supplementation of low wages. For example, in Nigeria, apprentices receive a monthly stipend equivalent to about 15% of the national minimum wage) and employers receive a payment for training an apprentice (Evawoma-Enuku and Mgbor, 2005). In the UK, apprentices who do not have employed status receive a training allowance (Fuller and Unwin, 2007) and funding is given to training providers under contract to the government. The Australian government provides funding to employers and training providers, as described in the detailed case study below, and also provides minor allowances such as tools allowances and living-away-from-home allowances for apprentices who must move to find employment as an apprentice. By contrast, in the US there is little government investment in apprenticeships. The federal government sponsors some minor programs and some state governments provide some funding for off-the-job training; otherwise, all costs are borne by the employer and sometimes trust funds created from a levy of employers (Glover *et al.*, 2007: 478).

A Case Study of Apprenticeship Systems: Australia

This section provides a description of the apprenticeship system in Australia, illustrating the interrelationship

between the six issues discussed in sections 'Apprenticeship as a passage to adulthood' through 'Pedagogical issues' and the additional points raised in sections 'Qualifications' through 'Funding regimes' that mark the differences among countries' systems. In Australia, the institution of apprenticeship is currently very strong. Twenty years ago apprenticeships in Australia were confined to a defined number of occupations, mainly male manual workers, but the advent of traineeships (which are included with traditional apprenticeships under the broad umbrella term Australian apprenticeships) has expanded both the numbers of apprentices and the types of jobs which have contracted training associated with them. This success story has been the product of very conscious planning by the federal government including the introduction of new agencies to promote apprenticeships and manage their quality. These agencies sit alongside preexisting organizations and mechanisms at the federal and state level.

In Australia, the apprenticeship system involving 3- or 4-year contracts of training in the traditional trades has existed since first settlement by Europeans. In 1985, short, 1- and 2-year traineeships (Kirby, 1985) were introduced. Traineeships expanded into many occupational areas that had not previously supported contracted training such as retail, tourism, and hospitality (Robinson, 2001). 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 (Dumbrell and Smith, 2007). The numbers of Australian apprenticeships escalated dramatically from about 120 000 in 1995 to over 400 000 by 2003, fueled mainly by traineeship growth. Around 35% are 4-year apprentices in traditional trade areas while the remainder are trainees (NCVER, 2004). The development of training packages – national sets of competency standards – for these occupational areas also stimulated growth, providing the basis for apprenticeship and traineeship qualifications. Training packages are developed by national industry skills councils, each overseeing a range of industry and occupational areas.

The proportion of workers in Australian apprenticeships represents 3.5% of the working-age population, one of the highest rates of contracted training in the developed world (Walters, 2003). This favorable picture is in part related to the strong Australian economy. However, the high proportion of workers in apprenticeships is also the result of very deliberate government policies over the past 20 years. These have included the widening of apprenticeship opportunities to part-time and mature, aged workers, and the availability of state government funding for off-the-job training by private RTOs as well as by the public provider, TAFE (Smith and Keating, 2003). This process, whereby employers, in conjunction supposedly with the apprentice himself or herself, are able to

select the RTO of their choice, is known as user choice. The availability of such funds to private training providers has enabled massive expansion in areas such as retail and aged care, where TAFE would not have been able to meet the demand. In addition to these policies, the growth of new bodies to manage apprenticeships has been important.

There are a number of regulatory arrangements associated with Australian apprenticeships. Contracts of training must be signed by employers, by employees (and by parents where the employees are aged under 18), and by the training provider (RTO). The contracts are registered with the state or territory training authority. Employment incentives are supplied by the federal government on commencement and completion, and off-the-job training is funded by the state training authority. State training authorities and the federal government alike maintain regional and local offices where staff work to promote apprenticeships and to manage the quality of apprenticeships. In addition to these long-established processes, apprenticeships are now promoted through school education systems (which in Australia are managed by state governments) because apprenticeships can be commenced on a part-time basis while students are still at school.

There have been a number of quality problems associated with the rapid growth of the apprenticeship and traineeship system in Australia (Schofield, 1999; Snell and Hart, 2007). These have been partially addressed by new policies, such as the introduction of the Australian quality training framework (AQTF) which aims to ensure good quality training in TAFE and RTOs by regulating the registration of training providers and the delivery of training (Smith and Keating, 2003). The AQTF, through state training authorities, is responsible for the quality of all vocational qualifications, not just those associated with Australian apprenticeships. The weighting of employment incentives toward completion of apprenticeships, instead of equal payments on commencement and completion, has also tended to improve quality. There is still a perception, however, among some commentators that employers of trainees may be overly influenced by the availability of employment subsidies (Snell and Hart, 2007).

There are two sets of agencies that directly contribute to the apprentice system and a number of others that make an indirect contribution. The two direct contributors are group training organizations (GTOs) formerly known as group training companies (GTCs) and Australian apprenticeship centers (AACs) formerly known as new apprenticeship Centers (NACs).

GTOs act as employers of apprentices, leasing them out to companies and thereby relieving companies both of the risk of taking on an apprentice for a lengthy period and of the paperwork associated with employing an apprentice (Dumbrell and Smith, 2007). There are 180 GTOs in Australia and they receive government funding through the joint group training program scheme whereby funding is

allocated primarily on the basis on numbers of apprenticeships and traineeships commenced and completed. JGTP funding is provided equally by federal and state governments, and around \$20 million a year flows to GTOs through JGTP (Hood *et al.*, 2007). A GTO, as the employer of the apprentice, also receives the normal government employment incentive. GTOs receive payments from the host employers, but this is usually only just enough to cover the wages that GTOs pay to the apprentices.

AACs are newer than GTOs and were set up in the mid-1990s to increase the number of people entering apprenticeships. AACs, acting under contract to the federal government, market apprenticeships to potential employers and apprentices, manage the signing-up process, and make sure that appropriate employment and completion incentives are paid. They also make employers aware of special incentives that may be available for employing apprentices from disadvantaged groups, for example, indigenous or disabled people. AACs also have a role in making sure that the employer–apprentice relationship proceeds smoothly and to report any problems to the appropriate authority, normally the local office of the state training authority (Smith *et al.*, in progress).

Besides these agencies, other agencies have some role in promoting apprenticeships. These are funded by either state or federal government and may also earn income through commercial activities. They include:

- RTOs. They have an interest in employers recruiting apprentices, because they can then access user choice funding by providing the training for the apprentices.
- Job network providers. These agencies provide an employment brokerage service. Often they place their clients in jobs that include a contract of training.
- Industry skills councils (ISCs). There are ten national industry skills councils covering the range of Australian industry, and in some states there are state counterparts. They promote apprenticeships and traineeships to industry because then there will be greater take-up of the training packages which ISCs oversee.

Challenges for Apprenticeship Systems

While only a relatively small number of countries have been mentioned in this article, the broad range of apprenticeship models discussed enables some general points to be made. Apprenticeship systems have been designed to serve many overt purposes: to transition young people into working life, to provide skills to the workforce, to maintain quality of skills, and to reduce unemployment rates. They also perform more covert purposes such as valorizing the status of some occupations above others and restricting access to some occupations. These many purposes are the

reason why there are many stakeholders in apprenticeships. This is a good thing because it means that apprenticeships are supported by diverse groups and are very firmly rooted into economies and societies. However, it is also a bad thing because change to apprenticeship systems can be fiercely resisted for a range of reasons. The number of stakeholders also means that apprenticeships are culturally specific and that it is difficult to read across from one country to another (Deissinger *et al.*, 2006).

Some challenges faced by apprenticeship systems include:

- Their ability to cope with fluctuations in economic prosperity and/or in the rate of unemployment. While apprenticeships are to some extent designed to soften peaks and troughs in employment, their role in this respect tends to be reactive rather than proactive. It is difficult in periods of economic boom for apprenticeships to provide qualified tradespeople at a high-enough rate to meet labour-market demands; and because apprenticeships are usually employment-based, numbers tend to drop when economic times are hard because employers cannot afford to hire them. Fairly robust government intervention is required to address these issues and proffered solutions may not be attractive to all stakeholders. In the end, apprenticeships rely, in most countries, on employers' willingness to employ apprentices, and so governments cannot effect rapid change autonomously.
- The question of 'Who pays?' While in some countries governments accept a considerable amount of funding responsibility for apprenticeship, in other countries this is not so. The Australian experience represents the results of heavy financial investment by the national government, but some argue that employers should take more financial responsibility.
- The extent to which systems embrace changing occupational patterns. While some countries have straightforward means of adding new occupations to the list of apprenticed trades, in others, the addition of occupations, especially where they compete for existing funding, may be resisted by interest groups representing traditional occupations.
- The extent of regulation. Regulatory requirements may apply to qualifications, contracts of employment, requirements for on-the-job training, wage rates, and so on. The high degree of regulation in some systems can be seen as problematic by employers and training providers.
- The invisible ingredient: pedagogy. The regulatory panoply associated with apprenticeships and the range of stakeholders mean that it is all too easy to see apprenticeship as a public policy artifact rather than a pedagogical process. In the end, though, it is the quality of learning that is important, and due attention needs to be paid to pedagogy.

Apprenticeships have shown themselves able to adapt to change over the centuries but some countries have managed change more effectively and with less conflict than others. Flexibility is difficult where stakeholders have firmly entrenched interests. There remains the issue of how much apprenticeships can change while still retaining their essential nature, and this core will always vary from country to country.

See also: Apprenticeship Approach to Learning; Australia; Dual System; Industry Involvement in the Vocational Education and Training System; Planning and Policy Development for Technical Vocational Education and Training Systems.

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