

Linking Knowledge, Education and Work

Exploring occupations



Working Paper

November 2018

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This is a product of the Research Programme on Occupations and Skills at the University of Witwatersrand's Centre for Researching Education and Labour. This research programme forms part of a larger initiative, the Collaborative Research Forum initiated by the Department of Higher Education and Training (DHET) and the Sector Education and Training Authorities (SETAs).

This research programme is funded by BANKSETA.



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Introduction

Debates rage about how education should prepare people for work. One view suggests that to strengthen the relationship between education and the world of work, students need to experience novel situations, in particular those that are marked by ‘uncertainty and indeterminacy’, critically reflect on the world of work and build opportunities for case study research, formal and informal learning (Kinsella & Pitman, 2012; Lave & Wenger, 1991; Schön, 1983). A contrasting view argues that acquisition of systematically organised bodies of knowledge followed by or together with work-based learning is necessary for any educational programme that is intending to prepare students for work (Allais, 2014; Barnett, 2006; Muller, 2009; Wheelahan, 2010; Winch, 2010; Wolf, 2002; Young & Muller, 2014).

We support the second view (Allais & Shalem, 2018). In this publication we will show how this view helps in thinking about the ways in which knowledge, qualification and work are interrelated to support the preparation of skilful employees (henceforth referred to as occupational workers or workers) and to maintain their well-being during work. This publication provides a conceptual interrogation of five key concepts which matter in the question of preparation for work: *occupation, work, knowledge and skill, labour market and qualifications*. This kind of analysis is important because terms can be solidified in policy documents without a clear understanding of what underpins them; similarly, policies can be misleading or poorly implemented because of lack of conceptual understanding.

The publication is thus a conceptual one, which aims at a practical goal of having an holistic approach to thinking about education and work. We chose to engage with the five concepts in this particular sequence because (and this is our main argument) only a true and deep understanding of ‘occupation’ can help understand what is at stake about ‘work’, what needs to be emphasised about knowledge, how broad knowledge informs in situ professional judgement and doing of tasks, why occupations struggle to maintain their power in the labour market, what forces in the labour market shape their formation, what needs to be changed in the labour market to value work and occupations more, what qualifications are intended to signal for employers, why there is qualification inflation and what alternatives are possible in creating a better match between qualifications and occupational work. Thinking about work in the occupational sense is crucial

for how we understand what kind of education we choose for ourselves and what kind of training we develop for our employees, be it formal or informal. Also, the way we think about occupation affects the working environment we create for our employees and the organisation of tasks we furnish them with to do their work properly.

The publication is divided into five sections:

1. Occupation and work
2. Occupational knowledge – *knowledge that* and *knowledge how*
3. Labour market – inter and intra division of labour of occupations
4. Occupations and qualifications
5. Concluding claims

Occupation and work

Society should be moving towards giving everyone the opportunity to pursue ‘occupation’ and promoting ‘occupational citizenship’ conducive to building new forms of civic friendship and social solidarity in the Global Transformation.

(Standing 2009a, p. 10)

Standing (2009a) believed that the notion of occupation is important in terms of the meaningful organisation of people’s lives and reproduction of society. Work organised in occupations provides members with greater autonomy and satisfaction and is more likely to be for the greatest good than commodified and fragmented work, despite the possibilities for unfair monopolies which can arise. Standing argued that humanity has a “predilection for work, which reflects a human desire to be creative, productive and regenerative, for the benefit of self, family and communities” (2009a, p. 8) and that this must happen through reconstructing ideas about career and occupation. Moreover, where labour markets are organised and controlled by occupations, educational preparation and ongoing development are considered essential which brings in the relation between occupation and knowledge. As argued by sociologists and philosophers of work, Andrew Abbott (1988), Elliot Freidson (2001) and Christopher Winch (2010), it is bodies of knowledge that enable the creation of ‘labour market shelters’ for given

occupations and enhancing the ‘occupational capacity’ (Winch, 2013) of their members.

The above points are intended to emphasise the social and normative dimensions of the ways in which occupation can be empowering and satisfying, and the role of accumulated knowledge (of different forms) in exercising occupational tasks.

Some argue that the notion of occupation is obsolete. In developed societies, with the organisation of a post-modern economy, the ‘Firm’ in which a person does almost the same kind of work for much of her life, is no longer the sole organisational structure in which a person works. This development has given rise to at least two contrasting views: the first argues that the stability once enjoyed by employees and their loyalty to a firm are no longer the main characteristics of work. To prepare for these new and unstable working lives, knowledge and learning have to be rethought and so does the idea of occupation. Casey (1995 in Freidson, 2001), for example, argued that instead of occupation we need to promote the idea of flexible skills. The popular version of this idea is ‘employability’. This idea is growing in momentum and is giving rise to talk of preparing people for work with broad generic skills. Other studies argue for the opposite, that people span their career across different organisations and they do this in order to remain invested and loyal to their occupations. Rose (1995 in Anteby, Chan, & DiBenigno, 2016, p. 185) argued that “changing employers become more common than changing occupations”. A person protects lifetime employment by specialising in an occupation which allows her to move between organisations.

This complexity has given rise to debates and contestations of ideas and in the process different meanings of *occupation*, *work*, *knowledge*, *labour market* and *qualifications* have been proposed, which arguably have brought in more confusion. The aim of this publication is to explain these different concepts, bearing in mind that their meanings are complex and contested and to show what is at stake in supporting some of the meanings and not others, for both employers and employees.

Definitions of ‘occupation’

Elliot Freidson has defined occupational specialisation as “people performing only the bundle of tasks connected with a defined productive end in an occupation” (2001, p. 18). When the tasks are simple and repetitive, the specialisation is ‘mechanical’ (2001, pp. 23 and 111) as it

involves no (or hardly any) individual discretion (‘anybody can do it’). ‘Discretionary specialisation’, on the other hand, depends on ‘fresh judgement’ as the tasks cannot be performed in a standard repetitive way. Each individual case has some or other variation. The work performed may include some routines which can be repeated but because of the variation of individual cases, it is expected that the person who performs these tasks will know when and how to vary them and the routines they involve, by applying discretionary judgement. The difference between mechanical and discretionary specialisation lies in the kind of knowledge and thought that is believed to be used in different kinds of work (2001, p. 24).

An occupation involves some combination of forms of knowledge that go beyond conventional notions of skill – abstract, technical, inferential and procedural.

Linda Clarke (2011) defined occupation as a “formally recognized social category, with a regulative structure concerning VET [Vocational Education and Training], qualifications, promotion and the range of knowledge, both practical and theoretical, that is required to undertake the activities and fall within it” (2011, p. 103). Clarke used her definition to explain why bricklaying IS an occupation and analysed the different formation paths of bricklaying in France, Germany, the Netherlands and England.

Guy Standing defined an occupation as an “evolving set of related tasks based on traditions and accumulated knowledge, part of which is unique. An occupation involves some combination of forms of knowledge that go beyond conventional notions of skill – abstract, technical, inferential and procedural” (2009a, p. 11). This view of occupation requires a clear distinction between ‘work’ and ‘labour’. The former refers to productive, reproductive, and creative activity; the latter to jobs or commodified work. By linking occupation with ‘work’, Standing foregrounds the notion of career and the sense of belonging to a community of like-minded people with similar interests and aspirations (ibid., 2009a).

Christopher Winch claimed that occupations “are primarily ways of organizing work for economic purposes, but they are also ways of organizing and acquiring knowledge” (2010, p. 12).

Several points about occupation emerge from these definitions:

1. Since occupation is a social activity, workers do not simply perform their specialised tasks; they often share norms and values and views about society which go beyond their working lives. There is then a **normative dimension** to ‘occupation’.
2. Knowledge required for discretionary specialisation is formal (opposite to everyday knowledge). It is acquired by training and is signalled in the labour market by means of qualifications. **Formal knowledge** in preparation for discretionary specialisation varies but in some or other way it includes conceptual and practical knowledge.
3. The idea of bundle of tasks suggests **labour market organisation** of some sort. There are two aspects to the notion of organisation. The first is division of labour which creates a range of occupations and relations between them. Occupations try to control a slice of the labour market and they use a variety of regulative structures, practices and the rhetoric to do so. They try to control recruitment to the occupation, training and licencing to practice. The second is authority relations which regulates the social relation between people within an occupation, rules of promotion and recognition. Power relations structure the stratification between (inter-occupations) and within occupations (intra-occupations). They differentiate occupational capacity (and discretionary specialisation alongside it) by status, years of experience and permission to perform certain tasks and exclusion from others.
4. The power and status of occupations is signalled by means of **qualifications**, seen as the symbolic expression of sustained study for a designated period in a designated area. Depending on the level of regulation of the labour market and the coordination between key social partners (employers, unions, occupational bodies and government institutions), qualifications will function as symbolic rhetoric of competence or a substantive indicator of the nature of the occupational work involved in the field of practice. The career paths of some occupations are longer and more complex and attainment of qualification is far harder.
5. **Broad social, economic and technological conditions** in society at large influence the development of the bundle of tasks performed by discretionary specialisations. This point is important in view of the sweeping changes which global markets bring into the lives of all citizens but particularly of those down the

social ranking order, in lieu of social policy dumping and increased privatisation of the economy.

‘Occupation’ or ‘profession’

In some of the literature reviewed here ‘occupation’ and ‘profession’ are used interchangeably (Winch, 2010). Some draw a distinction between professional and non-professional occupations (Livingstone, 2014). Freidson argued that the important differentiation is within occupation and not between occupation and profession:

Professions are occupations, and occupations are productive pursuits by which people gain their living in the labor market. One can differentiate among occupations, however, in a number of ways. One can focus variation in the way their relation to the labor market is structured. Or one can differentiate them by the nature of their productive pursuits—that is, the kind of work their members perform and the way they perform it. And one can differentiate occupations by control – who controls or commands the determination of what the work shall be, and how it shall be performed and evaluated. (Freidson, 1989, pp. 424-425)

Only ‘work’ can convey the intimate link between the work we do and how we are seen by society or by ourselves.

For Standing (2009a), the important distinction lies between labour and work and not between occupation and profession. Only ‘work’ can convey the intimate link between the work we do and how we are seen by society or by ourselves. It also conveys a sense of life narrative – of development and growth.

Winch argued for a strong notion of occupation, as a connected set of practices that together constitute a culture and society (2006, p. 65). His position on occupation draws from the German notion of *beruf*, in which “the bringing together of theoretical and practical knowledge, together with social identity, is made explicit” (Winch, 2007, p. 142) (see also Hanf, 2011). This perspective is also explored by Michaela Brockmann (2011) who argued that even the simplest occupations such as bricklaying, have values and history, and in their relation to other occupations they form part of a greater whole.

Why occupation as a frame of analysis?

As argued in the introduction to this paper, there is a move away from the idea of domains of specialised knowledge lined with occupations to generic notions such as core skills, flexible skills, communication skills, creativity and problem solving. It is argued that the rapid pace of social, economic and technological change as well as the eroding away of long-term employment in one firm, render specialised knowledge out of date and so the idea of occupation is unhelpful.

During working life workers will have to attend further training and change jobs on a number of occasions. This means that vocational education must offer a broad base including technical, methodical, organisational, and communicative as well as learning skills. (Onstenk, 2001, pp. 321-322)

However, the problem with these approaches is that “domain-specific knowledge is the basis for professional practice and progression within careers” (Pahl & Rauner, 2009, in Wheelahan & Moodie, 2018, p. 132). In other words, although some of the organisational forms of work have indeed changed and persons move between workplaces and employers, thinking about education in such a generic way will not prepare people for work in any specialised way and in the longer term will reduce their chances for meaningful employment.

The idea of flexible skills and preparation for employability has many weaknesses. Let’s look more closely at the limitations in the notion of skill:

1. The notion ignores that whether in a firm or not, the tasks of occupational workers are not random and so some skills go together with others and other don’t. As Freidson (2001, p. 9) put it “a bundle of multiple skills cannot be composed of just any collection of tasks, from parking cars to programming a computer to lecturing on quantum theory and playing viola in a piano quintet. Those flexible skills must be related to each other”. Skill changes depending on the task or object of activity. There is an internal coherence to a bundle of skills. The bundle of skills related to the task of parking a car is vastly different from the skill needed to programming a computer.
2. Some objects of activity barely resemble what task commonly means – should parenting be referred to as a skill? Could creativity and risk-taking sum up what is involved in innovation in the field of engineering? Is there a core skill to be taught for developing a conducive culture in an organisation? The idea of skill is therefore limited and the assumptions that there are some general skills which could be applied across different tasks and/or task situations is too far from the reality of work.
3. Very often the ways in which skills are used in language conflates skills as a noun (the **methodology** of distributing a management decision) or verb (**exercising** the methodology of distributing a management decision) and as an adjective or a property of the agent (the bank manager’s **ability to distribute management decisions**). The first two forms are mainly descriptive; the last one is far broader and includes an evaluative dimension which refers to character, experience, attention to detail, trust, care for others.
4. If skills are not differentiated according to task types, the use of the word leads to what Winch (2013) calls ‘conceptual inflation’ – from tasks which are bounded in scope to tasks which are very broad:

The concept of skill has its primary use in the performance of relatively restricted types of tasks typically, but not exclusively, requiring hand-eye coordination and/or manual dexterity. Examples would be: planing a piece of wood, drawing a bow, baking a cake, writing a letter. Some skills can also be exercised without overt physical action, such as performing arithmetical calculations ‘in one’s head’. As readers will be aware however, the term ‘skill’ is also used quite promiscuously to refer to the carrying out of very broad tasks (e.g. flying a passenger plane from A to B) or activities that can only with difficulty be described as tasks (e.g. parenting). The term ‘skill’ is often employed for areas of activity which are not explicitly task-related (e.g. communication skills). The argument is that these examples of ‘conceptual inflation’, while not always resulting in overt nonsense, are in fact examples of covert nonsense which can lead to both conceptual and practical confusion. (2013, pp. 283-285)
5. In their study of bricklaying across eight European countries, Brockmann, Clarke, and Winch (2010, p. 15) showed that different linguistic meanings of *know-how* are used when ‘skill’ (and ‘competence’) of bricklaying are described in qualification frameworks. These

range from (in England) a very narrow understanding of ability as carrying out tasks by attaining a bundle of skills related to each specific task, to (in the Netherlands, France and Germany) ‘bringing to bear ... judgement informed by systematic knowledge’ in order to enhance employees’ ability to plan, coordinate and control the labour process. In the second group of countries (which includes Belgium, Denmark and Poland), the qualification framework’s description encompasses broad knowledge because the brick-layer is seen to be situated in an overall industrial structure in which activities and tasks interface across occupations. In Poland, the writers argued, ‘bricklayers are theoretically overqualified’ (2010, p. 79).

So how far one can go with the idea of skills? It sounds attractive but is seriously flawed. Rather, said Freidson, let’s understand the idea of occupation and then look at the various ways it is changing, in terms of preparation for and its organisation in the workplace as well as at its shortcomings.

So, what is work?

If it is accepted that occupational workers perform social functions and not merely productive tasks, ‘labour’ or ‘job’ do not capture the normative dimension of occupation or what work means for individuals’ lives. These terms exclude ‘pride of craft’, a sense of occupational discipline and freedom from the blind following of routine. Work should be seen, he argued, as a set of activities and tasks that together form a vocation because they evolve from ‘traditions and accumulated knowledge’ which convey unique combinations of ways of being and norms of practice associated with the occupation. In its ideal sense, ‘occupation’ has a unique culture, a sense of community where the core value is non-economic. Its social character is in direct opposition to notions of efficiency, bureaucracy and enterprise.

Work and career are related ideas (or should be). ‘Career’ is not only about status, income or power but also, more importantly, about personal development whereby the work one does, provides ‘lasting meaning to people’s lives and in doing so anchors their identity’ (Standing, 2009a, p. 12).

In creating something useful, Winch (2002a) said, one should be able to experience the sense of pleasure which comes from working with others, doing something skilfully and exercising responsibility and autonomy. Experiencing

work in this way helps one fulfil the practical goal towards which the activity is directed and gives joy in doing something which is experienced as worthwhile in itself and for others (2002b, pp. 105-106). Promotion of well-being and intrinsic pleasure and pride in one’s work are integral to the formation of ‘occupational capacity’.

A very different kind of literature, organisational behaviour literature, looks at occupational work through the concept of ‘doing tasks’. Anteby et al. emphasised the agency involved in doing the tasks – the investment, motivation and meaning which occupational workers find in actively doing the tasks as opposed to merely completing them (2016, p. 202). These kinds of analyses also examine the approaches taken by occupational workers when doing ‘dirty tasks’ and ‘necessary evils’. The aim in these organisational analyses is to understand what occupational workers do with the tasks they are obligated to do but which overwork them –

- How do they maintain their sense of dignity?
- Which tasks do they privilege?
- How do they manage to perform a variety of very different tasks?
- Which rhetoric do they use to justify their doing of those tasks and being overworked?
- How do they try to align what they do with their calling? (2016, p. 203)

Having expanded the notion of work, we now try to show what knowledge is involved in preparation for work and in doing tasks at work.

Most professions do not just rely on normative theory which sets out how they should act, they also have at their disposal a body of empirical theory concerning how the world is, which provides the basis for individual judgements as well as general prescriptions about how to act. (Winch, 2004, p. 189)

Occupation knowledge

Christopher Winch (2010, p. 15) argued that there are three key questions raised by the notion of occupation:

1. **What does one need to know in order to be an expert in what one does?** The answer to this examines the relation between conceptual and practical knowledge.

Although one needs to recognise that different kinds of work require different kinds of knowledge, it is very important to recognise that all occupations rely on bodies of knowledge.

2. **How does one grow personally as a result of subject expertise within the occupational context?** The answer to this is linked to the ways in which knowledge from practice permeates and is transformed into research which workers of an occupation gain access to and can use to further their careers.
3. **How does being a member of an occupation contribute to one's being a citizen?**

With these three questions, Winch combines the epistemic, social and normative dimensions of work which together contribute towards the development of 'occupational capacity.' These are three important but very complex dimensions and, in this publication, we will focus on the first one. In response to the first question Winch draws the following knowledge distinction:

- Knowledge *that* or "systematic knowledge, the ability to keep abreast of changes in the occupation and the environment in which it is practised" (2013, p. 296)
- Knowledge *how* which broadly refers to procedural or practical knowledge required for different 'task types' (2013, p. 282)

Below we discuss the meaning of each and the relation between these two knowledge forms but first it is important to add that what matters most in both types of knowledge is "an appreciation of the standards of excellence that apply to the goods and services produced as well as to the way in which these standards are understood in the wider society" (ibid., 2013, p. 296). The idea of standards of excellence in knowledge production and application, and (as will be seen below) in the performance of wider activities (in a range of contexts) is crucial for occupational capacity – it binds work into a seamless societal good. In line with Standing's account of work, Winch's account foregrounds that ANY type of work has standards of excellence.

Knowledge that

Winch emphasised that occupational knowledge controls a deductive set of propositions which are applied to 'classes of cases' (knowledge *that* is generalisable) and with relevant modifications are borrowed for particular situations (Clarke & Winch, 2004, p. 515). To a greater or lesser extent, all occupations enjoy organised

propositional knowledge. To learn a theory, Clarke and Winch insisted 'is to learn a body of knowledge of general application within a recognized subject matter' (ibid., 2004, p. 516). Andrew Abbott, a sociologist of professions, called this type of knowledge a reservoir of *academic knowledge classifications*. Academic knowledge classifications pull together propositions, formally, along consistent rational dimensions, thus producing relations and boundaries between ideas. They are stronger when they refer to subject-matter specific concepts. Concepts such as 'particle interactions' or 'underwriting' provide strong classifications because they can only be explained by a singular discipline (Physics and Actuarial Theory, respectively). Freidson (2001, pp. 157–158) referred to this type of knowledge as 'bodies of knowledge' which in the case of the following different professions can be clustered into three:

- Knowledge which is descriptive and is concerned with analysis of facts (e.g. medicine, engineering). This draws on science and technical scholarship and claims technical authority.
- Knowledge that its primary aim is normative and its main concern is the behaviour and social norms in society (education, law and clergy). This claims prescriptive authority.
- Aesthetic knowledge (the arts). This claims normative aesthetic authority but is not intended to inform the behaviour and morals of persons.

Other classifications of bodies of knowledge can be found in the work of Basil Bernstein (2000), between hierarchical and horizontal knowledge structures, which foregrounds the strengths of different bodies of knowledge in developing conceptual generalisations and in empirically describing facts with greater accuracy. This distinction draws on the famous distinction between natural and social sciences. Its importance lies, however, in the differentiation it enables one to make within the social sciences and the humanities. One example is economics and sociology, whereby the former is stronger than the latter in terms of conceptualisation and empirical analysis.

Tony Becher and Anthony Biglan also offered classifications of bodies of knowledge. They draw a distinction between pure and applied sciences and within each of those between hard and soft sciences. Together they produce 'hard-pure', 'soft-pure', 'hard-applied' and 'soft-applied' (in Muller, 2009). Table 1 below (Vergotine, 2014, p. 37 based on Muller 2009) integrates occupations and the bodies of knowledge associated with them.

Table 1 Occupations and associated bodies of knowledge

Disciplines	Example of occupational fields	Disciplinary distinctions (Biglan)	Type of knowledge (Becher)
Pure sciences (Natural sciences)	Physics	hard-pure	Cumulative; concerned with universals; impersonal; value-free; clear criteria for knowledge verification and consensus over significant questions
Humanities and pure social sciences (Social sciences)	Psychology	soft-pure	Reiterative; holistic; concerned with particulars; personal; value-laden; dispute over criteria for knowledge verification and obsolescence; lack of consensus over significant questions
Technologies (Science based professions)	Engineering	hard-applied	Purposive; pragmatic; concerned with mastery of physical environment; applies heuristic approaches; uses both qualitative and quantitative approaches; criteria for judgment are purposive
Applied social sciences (Social science-based professions)	Teaching	soft-applied	Functional; utilitarian; concerned with enhancement of semi-professional practice; uses 'case' studies and case law to a large extent

It is important to emphasise that academic knowledge classifications (Abbott) into a deductive set of propositions (Winch) or bodies of knowledge (Freidson, Becher and Biglan) are radically different from the contingent and discrete knowledge or everyday knowledge, **yet** they have a necessary role in ensuring that any professional judgement in specific situations which arise in the course of work is both accurate and appropriate (Shalem, 2014; Winch, 2010, p. 103). Hence the complex relations in what is commonly referred to as the knowledge-practice gap. This is the crux of issues of the gap: broad classifications formed by one or more types of disciplinary knowledge, are context-independent and concerned with general applicability. Yet the work that people do every day in any workplace requires situated knowledge, complex or simple as it may be (it is context-dependent). Situated knowledge makes sense in a specific context **if and when** its grounding and relations to bodies of propositional knowledge are made explicit. Although it can be investigated, emulated, and experienced, for the occupational worker in the course of the day-to-day, this knowledge can be trapped within its context of application. According to Michael Barnett (2006, p. 145) “one can learn a set of instructions off by heart, but this will not even approximate to the ‘know-how’ that is crucial for adequate performance”.

The general point here is that to become situationally aware, occupational workers need distinctive concepts that can be shown, with sufficient empirical evidence, to

apply to ‘classes of cases’ (Clarke & Winch, 2004). High degree of specialisation of content are central resources for the exclusivity claimed by professionals and gives them jurisdiction of judgement. In Abbott’s terms, “no one tries to explain particle interactions without mastering the abstract knowledge of physics. More practically, no one offers insurance companies advice on underwriting without having mastered actuarial theory” (2004, p. 103).¹ These concepts are exclusive to the professional knowledge of those specific occupations.

The question of the gap between academic abstractions and situated knowledge has occupied all the above scholars. Each has developed set of concepts to think about the ways in which conceptual knowledge supports practical knowledge or the *know-how* occupations develop over time based on their organisation, goals and stage of development. We now turn to discuss the meanings of and the process involved in producing *know-how*.

¹ A radically different type of classification falls into what is commonly called generic classifications, which Abbott called ‘extreme abstraction’ (ibid. 1988, p. 103). These classifications are much weaker; they refer to many classes interchangeably. Their applicability is so wide that when recruited into practice, they work like a metaphor and not like a concept. They are not able to frame relations in a sequential form between concepts of a specific professional domain. In literature which does not believe in the future of occupation, concepts such as ‘efficiency’, ‘employability’ or ‘problem solving’ are examples of this kind of metaphorical language.

Knowledge how

The idea that with relevant modifications, a deductive set of propositions are borrowed for particular situations needs further elaboration. What needs to be elaborated is the idea of application. *Know-how* is the concept that Winch used to work on this aspect of occupational capacity. Winch classified three types of *knowledge how*, each in relation to very different types of occupational work rather than in relation to different occupations. This is an important difference which is intended to emphasise that all occupations have different kinds of *know-how*, some of which are predictable and routine while some are non-routine and complex. Jeanne Gamble cited a study which found “no necessary relation between the level of skill required and the routine intensity of an occupation. Certain occupations classified as high-skill were also classified as high routine occupations and certain occupations in medium-skill categories were classified as non-routine occupations (Marcolin, Miroudot & Squicciarini, 2016, p. 13; Gamble, 2018, p. 39).

Knowledge which is applied to a situation is actioned onto a task. Depending on the scope and nature of the task, the application of knowledge creates three kinds of *know-how* and each forms a different type of working knowledge (or what is commonly called practical knowledge). Here we borrow the classifications offered by Winch:

1. **Exercising a technique:** the emphasis is descriptive and the object of the activity is relatively bounded and delimited. The boundedness of the task is in two dimensions – the task itself and the range of contexts in which it is practised. Compiling an application for a job is context dependent only to some extent. The task-type remains more or less the same across two different potential workplaces. The same applies to monthly processing a standing order issued by a client. The more the routines of the task have been operationalised and procedures have been agreed, the easier it will be to exercise the task, even across different workplaces.

The focus is on the **actual procedure** needed to be exercised for the task to be completed. But since a procedure is exercised, the reference to the knowledge that is needed to exercise the task goes beyond mere description of technique. *Know-how* here also includes **tacit dimensions** of the technique and to the judgement exercised by the person. It also refers to attitudes displayed by the occupational worker when exercising the task:

The bare use of technique to a threshold level does not count as know-how, even though one could, at a stretch, describe it as a skill in the sense of nothing more than the manifestation of technique. (2013, p. 290)

Arguably this *know-how* which depends on small pieces of information does not require complex deliberations (technical or moral) and is often learned on the job.

2. **Polymorphous abilities:** the emphasis is on a range of abilities which are not connected with a task but rather with longer episodes of agency that are manifested differently in different types of tasks (2013, p. 288).

*For lack of a better term I will call these **projects**, or activities that demand intentional action over an extended period of time, involving the carrying out of articulated sequences of tasks in the pursuit of a larger goal such as the production of an artefact or service. Key forms of know-how here are: planning, controlling, coordinating, communicating and evaluating. (emphasis in original)*

Each of these know-hows can take different forms (polymorphous), is connected with a bigger purpose, changes in form and complexity in different contexts and contains multiple techniques, which are not delimited. For example, planning includes “drawing, discussing, soliloquising, writing notes and so on” (2013, p. 290) and each of these have to include different tasks (and standards of excellence). A bank clerk whose role is to log customers’ inquiries and problems cannot simply follow a standard procedure. She needs to classify the inquiries and problems into particular areas, decide on the specialist best suited to address each query or to answer the questions. And, in order to accumulate this knowledge into future similar undertakings, the bank clerk stores the information gathered from the queries and problems in a clear classified way. Andrew Abbott referred to this complex process as ‘diagnostic classifications’ (1988, p. 53).

How are diagnostic classifications produced: first, occupational workers collect information about a particular case (be it a specific disease, legal case, a building design in architecture, leasing and payment of treasury services, etc.). They assemble this information into a complex picture, according to certain criteria specific to the bodies of knowledge connected with the occupation. Second, workers take the complex picture and refer it to the academic knowledge classifications that are

already known to the profession (for example, a concept in the field of law, a formal theory in architecture or a set of conceptions in a particular area of mathematics linked to financial models), and deduce the type of the case in particular (1988, p. 42). In order to align a specific case with ‘the dictionary of professionally legitimated problems’ (Abbott, 1988, p. 41), occupational workers need to know “what kinds of evidence are relevant and irrelevant, valid and invalid, as well as rules specifying the admissible level of ambiguity” (1988, p. 42). This kind of evaluation cannot be achieved by following a “standard sequence of questions” (ibid., 1988). Some of these deductions are faster and easier, when the problem involved in the task is familiar and its solutions have been worked out before. This is sometime termed as Standard Operating Procedure (Gamble) or mechanical specialisation (Freidson) or routine skills (Clarke and Winch). When the problem is novel, inferential reasoning precedes the selection of the routine before a solution is applied (Clarke & Winch, 2004, p. 517; Freidson, 2001, p. 111; Gamble, 2018, p. 39).

This *know-how* is most challenging and occupational workers encounter it often in their working lives. They resort to task-skills to solve them but the process of selection, collection and organisation of the task-skills requires professional judgement of diagnosis. This *know-how* is particularly challenging for another reason – it is based on conflicting relation: because the diagnosis is in situ but is not bound to a restricted task and must change (adapt) in relation to context, it is expected that one becomes a skilful planner, efficient controller who knows how to adapt a financial model quickly. In other words, diagnostic abilities which are context-bound but are wide and complex, are expected to become, over time, the property of the person.

We cannot, therefore, make any assumptions that the ability of someone to plan, coordinate or assess manifested in one sphere of activity will be manifested in another, let alone in the same way. Nevertheless, there is a sense in which we do expect this kind of transfer and it is, to some extent, reasonable to do so. (Winch, 2013, p. 292)

3. **Project management:** the emphasis is on a division of labour whereby different spheres of activity are allocated to different individual or groups (Winch, 2013, p. 293). The spheres of activity are ordered in sequence and require thought in the broadest sense and careful social interaction between individuals and groups.

Project management is the widest *know-how*, nested in which are skills related to very specific tasks and a variety of groupings of polymorphous abilities, all harnessed in specialised bodies of knowledge. Over time through project management experience, persons develop an expanded sense of self, and an integrated view of their role in the organisation. One’s ability to ascertain the truth and validity of their judgement; to connect ‘subject-dependent warrants’ (Winch, 2010, p. 110) to small and situated pieces of information; to weigh between competing modes of actions; and to attain (often very difficult) some balance between technical and moral considerations, would proclaim a greater degree of project management *know-how*.

Over time through project management experience, persons develop an expanded sense of self, and an integrated view of their role in the organisation.

All three different *know-hows* are about one’s ability to make decisions which could be justified by reference to a chain of reasoning that goes beyond the specific context. Judgement is a central facet of *know-how*. Judgements involve decisions of different sorts and levels of complexity. What is common to all of them, however, is that they depend on knowing conceptual classifications connected with those decisions, which could be called upon, if need be – to change a decision or to account to other team members, for example. Some of these conceptual classifications are about technical knowledge drawn from academic sciences; some are knowledge of procedures derived from particular subjects; others are about operational and organisational knowledge. And, in one or other form, all these decisions involved moral considerations.

In different ways, all of the above work comes to a similar conclusion – that the process of building a case from different information relies on having access, first, to a reservoir of deductive propositions or bodies of knowledge that directs the occupational worker’s attention to specific features of the particular. Access to this reservoir of knowledge enables attention in at least two ways. First, it enables the worker to ‘diagnose away’ (Abbott, 1988, p. 41) what is not relevant for the case, although this is a complex matter, which is

often subjected to a few trials. Secondly, a worker who understands the subject matter they deal with (its academic classifications) would know to distinguish between less or more reliable evidence.

For Abbott, Winch and Freidson, discretionary specialisation depends on having access to a reservoir of knowledge that is tested, trialled and classified. This is what distinguishes professional from ordinary judgement. Logical clarity, Abbott argued, belies the muddle of practice (1988, p. 42). It sets boundaries – within a subject area, about what can be included and what must be excluded, and what counts as conflicting evidence. Put strongly, it is not only that knowledge classifications guide practice; they are a necessary condition for practice. In Winch’s words, “the possession of relevant systematically organized knowledge is not a by-product of the action, but a prerequisite” (2010, p. 104). When academic and diagnostic classifications are aligned, the worker’s inferential ability (understanding relation between concepts) and referential ability (understanding the relation between a concept or an academic and diagnostic classifications and a real-world object – a problem that needs to be solved, a product which needs to be produced, a client which needs to be protected and so on) are coherent and strongly integrated.

Two criticisms are possible here. The first and the most obvious one is that not all occupations have access to this kind of knowledge. Abbott is the first to admit that no occupation, even the stronger and more organised ones (such as medicine or law), has achieved/can achieve a completely airtight classification of cases. His use of the notion *art* to describe discretionary specialisation is apt. Diagnosis, says Abbott, is a form of art.

The information available may be inevitably ambiguous or incomplete.

... There are, moreover, likely to be several plausible colligations. The art of diagnosis lies in finding which is the real one. This holds as much for a financial planner ascertaining a client’s true financial picture as for a doctor divining a patient’s illness. (1988, p. 42)

Second, strict rules of case relevance are not available to all occupations. While a doctor can (in some cases more than in others) disregard what Abbott calls ‘the client’s extraneous qualities’ (for example, emotional, financial, social), a banking clerk cannot.

Occupation and autonomy

Studies on occupation examine the degree of autonomy members of an occupation at a different level of authority and power are able to exercise. The emphasis in these studies is on “the mechanisms that make work coercive and workers less free” (Anteby et al., 2016, p. 194), on consenting to managerial demands of different categories of work, which affect the well-being of the worker. Norms such as ‘calling’ and ‘care’ can be used to “extract effort in exchange for very little material reward” (ibid., 2016) and to demand forms of emotional labour which take away employees’ freedom to express themselves.

In conceptual terms, a distinction should be made between two very different notions of autonomy. The first is a simple notion of autonomy which foregrounds *freedom from* societal constraints. Winch and Gingel (2008, p. 19) called this ‘strong autonomy’ which, they argued, may be tolerated as an individual goal but is unlikely to be endorsed as an educational goal by a social organisation. A different notion of autonomy, termed by Winch and Gingel as ‘weak autonomy’, foregrounds a relation to authority. The emphasis in this notion is on “the substantial knowledge condition” (Winch, 2002a) or the idea that an occupational worker can choose his/her aims and means to achieve them, **but** should be able to justify those in relation to substantial knowledge and social norms sanctioned by society at large, and in our case, by occupational councils and membership in particular occupations. In the words of Durkheim, “liberty is the daughter of authority properly understood... to be free is not to do what one pleases; it is to be master of oneself, it is to know how to act with reason and to do one’s duty” (Durkheim 1956, in Slonimsky, 2016, p. 36). In this understanding of autonomy, for members of an occupation to be able to exercise discretion, they need to have recourse to meaningful and validated knowledge and evidence (Shalem, De Clercq, Steinberg, & Koornhof, 2018).

The idea of weak autonomy being a relation to authority whereby the emphasis is on “the substantial knowledge condition” requires further clarification of two kinds of authority. Peters (1973), one of the founders of the philosophy of education, argued that when analysing the relations between persons within a formal division of labour which regulates the transmission and reception of knowledge-based activities (which we argue is at the heart of occupational work), authority is of particular importance. This is because, as rule-governed occupations, the performance of bundle tasks (which as we showed above is not merely a matter of performance

but also of citizenship) requires a guiding authority which will regulate correct and incorrect ways of following the rules. Rules and procedures, etiquette, rituals, as well as knowledge systems create “a recognizable structure of preferences” (Winch, 2002a). Within this structure, the two types of authority – in and an authority – which Peters identified, play an important role.

In authority

This kind of authority refers to the right to command someone else to follow rules and procedures and other pronouncements about conduct (Peters, 1973, pp. 15 and 54). This would include control over the pace of work, its intensity, division of tasks between people, the raw material required to perform the task/s including the amount of time expended on each task, the criteria for output (scope, quantity) and income (Standing, 2009a, p. 21). The legality of *in authority* makes it official. It includes levels of and layers of management. The normative grounds of this authority lie in the manner in which *in authority* is applied, which can strengthen or weaken it.

‘An authority’

This kind of authority refers to having the right to be believed, which is grounded informal expertise within a particular field of knowledge (Peters, 1973, p. 16). The concept of *an authority* stands in relation to the right of the person who claims to be *an authority* to be believed and the recipient’s embrace of the knowledge proclaimed. The right to be believed does not reside in the person’s personal dispositions – but in “the authority of the rational procedures that are constitutive of the different intellectual enterprises” (Steutel & Spiecker, 2000, p. 328). *An authority* includes knowing why an idea/claim is considered true or not, what methodological rules would need to be followed to establish that a claim is true or false, what is commonly accepted about it, and how best to transmit it to a newcomer. Aptly put by Peters (1973, p. 48), “nothing is true or right just because someone who is an authority says so. In the end it depends on procedures and reasons that are in principle accessible to anyone”. This knowledge condition is substantial because it draws from and relies on systematically organised bodies of knowledge which govern the occupation. What does it mean for the occupational worker? To show the reliance on bodies of knowledge Winch identified three levels of *an authority* (2010): A worker should at least be *acquainted* with key concepts, claims and justifications of her occupational knowledge. At a more advanced level, a worker should be

able to *evaluate* justifications by reference to concepts that others in the occupation hold – specialised knowledge that has been tested and applied in a variety of situations. At a very advanced level, a member of an occupation should be able to *generate* new claims – specialised knowledge of research production.

Autonomy-authority relations are enabled and/or constrained by contextual and historical conditions of possibility. Different occupations are characterised by different work types (crafts, trades, technical occupations, semi-professions and professions), by different preparation for work (different training systems) and by different degrees of knowledge complexity. Different kinds of work organisations (small or middle enterprise or big corporates) subject these occupations to different working conditions and power relations. Some modes in which specialisations are organised in the workplace contribute better to personal development and to productive, worthwhile and meaningful work as well as promote a more just society. Others put these aspects in serious danger.

Relation to labour markets – inter and intra division of labour of occupations

Occupations thrive when they have monopoly of practice, when they establish occupational councils and other labour organisations which regulate their members by means of control over recruitment, training and licensing as well as impose work procedures and modes of self-discipline (Standing, 2009b, p. 11). Strong occupations have control over: entry to occupation; referral networks; induction and training; criteria for performance; nature of work; competitors and evaluators; order of activities in hierarchy of subordination. This can be seen as positive because occupational workers are to a large extent in control of their own work (Freidson, 2001) or negative because other potential occupational workers struggle to gain access to the occupation and prices can be unfairly inflated (Derber, Schwartz, & Magrass, 1990).

Standing summarised occupational labour market control:

Historically, a group performing what it considers similar tasks has emerged as an occupation and developed the capacity to enhance its interests, to determine who may perform the tasks under the occupational title, who may have access to the training and qualifications required in order to be allowed to perform the tasks, what should be evaluated, what penalties imposed if there is deemed to be a failing and what forms of protection should be provided to members. There is also countervailing action taken against employers through control exercised over labour supply by craft and industrial unions. Numerous groups have achieved control in all these respects, from humble crafts such as blacksmiths to professions such as lawyers, engineers, accountants and architects. Occupational control has been pursued by bodies set up by members of the occupation itself, although sometimes a government takes the lead. (2009a, p. 22)

Until this point this publication has examined ‘occupations’, ‘work’ and ‘knowledge and work’ in purely conceptual forms. But occupations exist within a broader context of labour markets which in different societies are structured differently depending on the broader political, institutional, and cultural context or the organisational form of the state. Allais explained that the ability of occupations, in particular the weaker ones, to protect themselves is enabled and/or constrained by “labour market regulation, unionization, the nature and extent of employer organization and the role of industry peak bodies, the broader political, institutional, and cultural context, and the degree of federalism in a country and the relative powers of national governments and states/provinces” (Streeck 2012; Thelen & Busemeyer 2012 in Allais, 2016, pp. 451-452). Put differently, labour markets differ in the degree of regulation and protection of occupations, in the types of workers’ and employers’ organisations and the levels of coordination between them, and in the incentives, they generate for obtaining and furthering education. Respect for occupational categories and for occupational knowledge is not something that can be willed into existence. It depends on social attitudes, some degree of labour market regulation and other economic conditions. This is also the case between education and work:

The nature and structure of the labour market is a key determinant of the structure and quality of education and training for work, the ways education relates to work, and the incentives for individuals to obtain mid-level skills. (Keep, 2012 in Allais, 2017, p. 224)

Freidson (2001, p. 63) provided a very useful classification of three types of labour markets:

- **Free markets** which are controlled by the individual decisions of its participants. Consumers dictate the nature of work as well as how it is remunerated. Consumers with different powers are the main actors in this type of labour market. When a consumer requires a service, she evaluates claims of occupational workers for their competence (including of those who might not have the credential to perform the tasks).
- **Bureaucratic markets** which are organised hierarchically and regulated by administrative authority internal to a large organisation (government or a large firm). Management rather than specialisation is the main actor in this type of labour market. They plan work, change the division of labour by ‘authoritative fiat’ (Freidson, 2001, p. 57) and control promotion within an organisation. The division of work in a large organisation like a hospital fragments the work of nurses for reasons of organisational intensity and management accountability. In Abbott’s terms “professionally impure work may be given to particular members of the profession” (1988, p. 125). When a consumer seeks a service, she approaches a firm.
- **Occupational labour markets** which are regulated by occupational councils. Members of a particular occupation determine qualifications, conditions of service and the nature of work. Of course, not all occupations have the power to control those aspects.

Occupations exist within a broader context of labour markets which in different societies are structured differently.

With this distinction, Freidson argued for the value of occupational labour market regulation for protecting occupations and for enhancing the relation between education and work, which is assumed by the idea of occupational knowledge. What kinds of protections?

- Organised occupation groups negotiate (often through the state) with other groups to determine the scope of their specialisation. They attain jurisdiction to perform certain kinds of tasks and not others (their scope of work). The occupation protects itself against attempts to perform similar tasks by persons who are

not qualified to do it. In some cases, the state enforces this protection by generating licensing criteria.

- Through the use of minimum fees for service and competition rules, occupations protect fair wages for their members.
- Training for the occupation is valued. In some countries apprentice programmes are used to access the labour market. “In these systems, education is embedded in the occupational field of practice and in the educational institution, as learning takes place in both sites. Young people are engaged in an employment contract with the employer and spend substantial time learning at work, as well as in vocational schools or colleges” (Wheelahan & Moodie, 2018, p. 132).
- In an ideal occupational market, the firm designs work around the specialisation of the worker, which means that the worker’s specialisation is protected and can be moved from one firm to another (a worker that is retrenched or dismissed from an organisation is not discharged from the market).

Relations with the public consumer (the clients) also affect the power of their jurisdiction and create internal differentiation as well as coordination between occupations. The point here is that the closer the contact of the occupation is with the client, the more the nature of work of the occupation is subject to clients’ negotiations (Abbott, 1988, p. 119). Abbott gave examples of architectural firms who partner with other architects, albeit, not of the same professional status, whose job is to liaise and negotiate with the client, so that the design and development of high-level architecture (the heartland of its jurisdiction) is protected. The same applies with psychiatry which over time was further differentiated into clinical psychologists, educational psychologists, social workers, clergyman, personal coaches etc. Each of the groupings has ‘a bite of the heartland’, which determines its income, power and prestige (ibid., 1988, p. 120). Abbott called this phenomenon “professional regression”. Computer programming is another interesting example, which had to respond to the expanding demand by clients who could not afford a full customised automation system. System analysts came to the fore whose expertise of “knowing which set of algorithms would operate with maximum efficiency on specific data” developed standardised routine programmes which programmers carried out “much as nurses carry out the treatment plan designed by doctors” (ibid., 1988, p. 127).

Occupations use different strategies to persuade the consumers of their expertise. Standing mentioned

practices which occupations institute to protect their jurisdiction to practice.

Typically they build complex organizations through activities (lobbying, disseminating information, setting up practitioner control groups); professional controls (schools for training practitioners, exams for testing them, licenses, ethics codes, determining methods of recruitment, induction, numbers, standards and communication); and work site controls (legitimatising sites for practice, journals and research institutions that are accepted or required. (2009a, pp. 24-25)

Freidson talked about a set of **rhetorical claims** which occupations promote to secure trust from the public and to perpetuate their social power:

Some rhetorical claims stress the special character of the tasks performed by the profession – their more than ordinary value to civilization, to individuals and their problems, and to the political economy as a whole, and the dangers to civilization, individuals and the political economy should they be permitted to be performed by non-professionals. Others stress the claim that the body of knowledge and skill employed by the profession is so complex and esoteric that lay people are not able to employ it themselves, and are not able to evaluate how well those with professional training use it. Thus, consumers would not be able to protect themselves by their choices in a free market – members of the profession must be trusted to protect them by their own dedication, self-discipline and mutual evaluation. (1989, p. 427)

Historically, service of the public good, altruism, devotion to the good of the client, were used as forms of persuasion to create public trust. But they were also recruited to justify forms of exclusion based on family, class, race, ethnicity or gender. Freidson (2001) was careful to admit that these rhetorical claims contain the danger of creating forms of monopolies of practice.

State-occupation relation

Ideally occupations rely on the state for shaping their scope of practice and/or for protection against competing occupations. Through the state’s legal and bureaucratic apparatuses, state ministries, civil and criminal courts, occupations seek policy legislation of what knowledge and qualifications legitimately belong to the profession, what penalties should be imposed on those who breach

occupational rules, and how to restrain the powers of other occupations which try to prevent the emergence and development of new ones (Freidson, 2001, p. 134; Standing, 2009a, p. 27). It must be acknowledged that the state-occupation relation is complex and somewhat symbiotic because the regulations which the state legislates arose from the exercise of occupational expertise advising state organs in the dual role of regulation of occupations and of advancing the interests of their occupation. For example, the state sets up training systems for occupations, creates labour market shelters, regulates divisions of labour and scopes of practice for varieties of occupations within occupational fields. All of these are a result of the work of civil servants who are members of occupations as well as outside consultants who have come out of the occupation and are recognised as legitimate to represent the occupation (Freidson, 2001, p. 139).

States have different political and economic forms and these shape their power to control occupations.

The second reason for the complexity involved in state-occupation relation is that states have different political and economic forms and these shape their power to control occupations. In **liberal market economies** with weak state institutions and a free labour market philosophy, occupations compete with each other and the stronger ones use the state to strengthen their power in the market or simply deal with their own affairs altogether independently of the state. The role of the state is reactive – state organs react to pressure from occupational associations whereby the stronger ones are able to co-opt state resources and legitimisation procedures to advance their interests. In stronger states, or what Hall and Soskice (2001) call **coordinated market economies**, the relationships between industry, the state and labour is highly coordinated. State institutions are actively involved in forming labour organisations, coordinating tight relations between education and work by advancing and supporting strong apprenticeship systems that prepare young people for work and for citizenship more broadly (Wheelahan & Moodie, 2018). Through both high levels of firm involvement and state commitment, as well as partnerships which often include labour, these states are much more successful in producing a strong supply of certified occupations within a collective framework of skill formation and overtime have achieved a general trust in occupational standards (Allais, 2016).

The above analysis is mostly related to national labour markets, but it is well known global capitalism has changed the structure and role of the state, mainly by weakening its institutions. It has created systemic insecurities particularly for those down the lower scale of occupational ladders. Privatisation of economic activities, social policy dumping, labour migration, casualisation (short term employment) and the growing phenomenon of outside contract hours work (tertiarisation) are only some of the symptoms of globalisation of national markets. Deskilling and proletarianisation which is common amongst manual occupations is reaching white collar occupations such as clerical work and technicians and even in professional work (Wright, 1980). Semi-skilled and mid-level work, and, increasingly, professional and highly skilled work, are undergoing labour casualisation, outsourcing and fragmentation of employment (Collins, 2013; Freidson, 2001). Cultural forces such as technological innovations, changing market demands and state rules unsettle occupational boundaries and complicate occupational regulation (Standing, 2009a, p. 57). These developments certainly raise questions of how society values work and how it organises opportunities for meaningful work (Winch, 2002b, p. 106).

In the light of these changes and particularly the sweeping of economic and social insecurities in people's occupational lives, Standing (2009a) argued that there is a need and a place for a new type of collective body. If national markets are subject to inequities because of global forces and if national institutions have been weakened by privatisation, occupations need to establish, Standing argued, two kinds of bodies – a regulatory body in the form of occupational boards and collective bodies in the form of occupational association and a system of collaborative (associational) bargaining.

Occupational boards should set guidelines for unfair and fair occupational practices between:

- employer-employee (traditional the roles of unions),
- fellow practitioners,
- those in the occupations and other occupations, and
- between practitioners and consumers and society more generally.

The role of occupational associations and of system of collaborative (associational) bargaining is rather different. It is broader, giving collective and individual voice to occupations:

If such bodies are to appeal to the anger and energies of youth, which they must if they are to succeed, they must offer a defence of emerging forms of work and labour, and must struggle for economic and ecological rights. They must offer the prospect of forging an occupational future, where citizens can combine different types of work, labour, leisure and play in flexible, secure ways. (Standing, 2009b, p. 60)

The social message conveyed here goes beyond the familiar protections of licence to practice and accreditation. Collaborative associational bargaining systems are intended to protect ‘work’ against global processes which commodify work into ‘labour’. They are aimed at promoting the occupational dimension of work to all occupations, the strong **and** the weak.

Occupations and qualifications

Often the blame is placed on education institutions for being inflexible and not producing programmes of learning relevant for the workplace. Universities and TVET institutions are pushed to be more demand-driven; the link is weak, bar the regulated occupation and traditional trades (Wheelahan & Moodie, 2018, p. 135). Literature on qualification systems and the matching between qualifications and the labour market deals with this claim. There are a variety of responses to this quandary. First, however, we will explain the notion of a qualification.

A qualification is traditionally seen as the symbolic expression of sustained study for a designated period in a designated area. Qualifications are intended to qualify an individual to do something, which in turn, determines their place in a division of labour in the labour force. Because qualifications are used when persons move between education and the workplace, they are seen as a mechanism for translating something obtained in one area to something desired in another. They have come to be seen as an indicator of the skills people have gained through education which make them more productive, and hence as an indicator of an individual’s economic value in the labour market.

While this is sometimes the case, there are many different ways in which qualifications play a role in the jobs that

people get, and the salaries that they earn. For example, instead of being used as indicators of productive skills, qualifications can function in labour markets as vehicles for social closure. Here qualifications are a mechanism for legitimating inclusion and exclusion, for example, in regulated access to an occupation or profession, and qualifications create labour market shelters for those who possess them (Freidson, 2001).

A completely different way in which qualifications function in labour markets is as positional goods – your qualification buys you a place in the queue (Allais, 2014, pp. 8–10). Here, employers use qualifications as a screening device, and will hire at the highest qualification level they can, regardless of the relationship between the specifics of the job in question and the qualification in question. For many job vacancies, there are surpluses of qualified workers, so employers look for ever higher levels of qualifications, to obtain information about individuals relative to each other rather than as indicators of the attainment of knowledge necessary for the job in question (Collins, 1979; Shields, 1996 in Allais, 2014, p. 9). In other words, the value of a qualification may be dependent on how many other people have it, and not on its intrinsic worth. This phenomenon is referred to as ‘credentialism’ (Freidson, 2001, p. 79).

Wheelahan and Moodie argued that this kind of use of qualification, mainly as a screening device and where the kind of education is not actually related to the knowledge required for the occupational work, is characteristic of unregulated occupations:

Graduates and employers use vocationally-oriented qualifications such as business and social science and academically-oriented qualifications such as humanities and physical sciences in similar ways in accessing the labour market (Wheelahan, Moodie et al. 2015). This is in contrast to the way in which qualifications for regulated occupations are used. Graduates from regulated occupations reported a higher match between their level of education and the level of education required for their job than did graduates from vocationally oriented and academically oriented qualifications. (Wheelahan & Moodie, 2018, p. 135)

What this means is that employers in unregulated occupations (clerical, management consultant, financial analyst, construction project manager etc.) use qualifications as a proxy for knowledge and attributes rather

than as indicators of knowledge of the specific work the candidate applies for. This is less true of regulated occupations (accountant, nursing, electricians, social worker etc.).

The presence of educational credentials dominates increasingly professionalised and formally organised societies, and this role for qualifications has taken on increasing significance over the course of the twentieth century. In the latter half of the century, more and more people started to obtain qualifications (Collins, 1979). In describing this phenomenon, Ronald Dore (1976) coined the phrase ‘diploma disease’, suggesting that credentialism had a distorting effect on education systems. Credentialism is also referred to as ‘qualification inflation’, because the social and economic value of qualifications diminishes while the level of knowledge in the programmes they represent remains the same. This, Dore argued, leads to a vicious circle of more and more people trying to obtain qualifications, which in turn further lowers the value of qualifications. Randall Collins (1979) argued in the late 1970s that this was sustaining a false sense of meritocracy, and had serious negative consequences for people as they felt compelled to obtain higher and higher levels of qualifications, losing money in fees as well as in income while studying to obtain knowledge and skills that they didn’t need and may not have wanted.

Credentialism is also referred to as ‘qualification inflation’, because the social and economic value of qualifications diminishes while the level of knowledge in the programmes they represent remains the same.

Qualification inflation or credentialism is a major contributor to what is perceived as education/labour market ‘mismatches’, because, while the commonsense idea is that qualifications should be indicators of ‘productive skills’, the actual content of learning programmes is seen as having an ever-diminishing relationship with the skills needed for specific jobs. This is part of what policy makers want to address. Angela Little (2000 in Allais, 2014, p. 10), in a review of Dore’s arguments twenty years later, concluded that education systems have become more preoccupied with qualifications and qualification reform as a result of qualification inflation: more qualifications are on offer and more money is spent by public authorities

on administering qualification systems, and by individuals in gaining qualifications.

Qualifications have also become a mechanism for trade in international markets for education (Keith Holmes in Allais, 2014, p. 10). Governments that want to encourage markets in education need common ‘currencies’, or at least ‘exchange rates’ which are reasonably consistent, and which are understood. Allais pointed out that in relation to international trade in qualifications as well as international movement of people, poor countries and small countries are under pressure to get their qualifications recognised internationally.

Transitions systems

Occupational standards

One way in which countries (liberal market economies, mainly English-speaking countries) tried to produce a better match between qualifications and work was by specifying occupational standards, as well as by testing and certifying occupational workers. Standard setting is, in theory, about putting in place a benchmark of the requirements for specific areas of work. It is supposed to be linked to the provision of training in that the standard becomes the measure of the ability of people in a particular workplace to carry out specific tasks, together with specific knowledge underpinnings and understanding. The idea is to ensure that graduates meet the needs of industry, and to build social consensus around the occupational knowledge required in different areas. In some countries, occupational standards take the form of a comprehensive classification system providing categories for monitoring the labour market; in others they are designed as benchmarks for measuring occupational performance, in either a work or an educational context; and in a third group, occupational standards describe the occupation targeted by a qualification and are developed in an integrated process with educational standards (Cedefop 2009 in Allais, Marock, & Molebatsi, 2014, p. 14). In English-speaking countries, the second approach is dominant.

However, because these systems come from policy makers who wish that industry was involved, as opposed to industry itself, and because the focus is narrowly on developing standards without addressing broader labour market and work issues, the standards and tests tend to have low credibility. Because the structures are not really embedded in the culture of employer, worker, and education institutional cultures, the standards have little

credibility, and do not lead to the desired certified and widely recognised occupational knowledge. Further, the serial reform of qualifications in many English-speaking countries, while intending to improve the transparency of qualifications, has in many instances caused confusion about the meaning of different qualifications.

Vocational streams

Wheelahan argued that seeing labour markets in terms of domains of work, which combine educational and occupational progression (upwards and sideways), has the potential to improve the transition from education (in particular from TVET) to work as well as between academic, vocational and professional education. In their work on vocational education and labour market pathways, Buchanan, Marginson, and Wheelahan (2009, p. 29) proposed the notion of ‘vocational streams’ (such as care work, customer service, engineering, business services and information technology). The idea here is to think of an occupation as a member of an occupational area. This seems to be at the backbone of what Winch suggested in the following description of bricklaying:

A bricklayer, is thus not only a member of an occupational category, but works within the construction industry in which the occupation of bricklayer and others, such as that of carpenter, work together. To have an occupational identity is to occupy a social and moral as well as economic position. (Winch, 2007, p. 141)

An expansive notion of occupation requires that social institutions (unions, educational institutions, government and employer organisations) work together to build a common purpose, stability and trust in the system. These forms of partnerships can be found in European countries such as Germany, France and the Netherlands (Clarke, 2011, p. 107). The emphasis in this approach shifts the attention from how to make qualifications more explicit to structuring the labour market, somewhat in line with Standing’s idea of collective forms which can give voice to occupations. Wheelahan and Moodie (2018, p. 139) summed it up: when social partners (employers, unions, professional and occupational bodies, and governments) collaborate to shape occupational pathways, build links between occupations and articulate demand for qualifications, individuals can specialise within a broad field of practice and move laterally into related occupations. The nature of skill formation and the logic between education and the labour are thus more transparent and coordinated.

Concluding claims

1. Occupation and work

Occupation is a social activity and so workers do not simply perform their specialised tasks, they share norms and values and views about society which go beyond their working lives. There is then a normative dimension to ‘occupation’. Christopher Winch said that occupations “are primarily ways of organizing work for economic purposes, but they are also ways of organizing and acquiring knowledge” (2010, p. 12). According to Standing, ‘work’ rather than ‘labour’ conveys the intimate link between the work we do and how we are seen by society or by ourselves. It also conveys a sense of life narrative – of development and growth. The idea of flexible skills and preparation for employability has many weaknesses. It fails to convey the internal coherence of a bundle of skills, which is at the core of discretionary specialisation. Norms, pride of craft, meaning, calling, sense of pleasure, growth are integral to work no less than the actual performance involved in producing a product, administering an office or providing a service.

2. Occupational knowledge

Different kinds of work require different kinds of knowledge; it is very important to recognise that all occupations rely on some or other bodies of knowledge. Occupation are characterised by two kinds of bodies of knowledge:

- Knowledge *that*, or “systematic knowledge, the ability to keep abreast of changes in the occupation and the environment in which it is practised” (Winch, 2013, p. 296), and
- Knowledge *how*, which broadly refers to procedural or practical knowledge required for different ‘task types’ (Winch, 2013, p. 282).

Logical clarity, Andrew Abbott argued, belies the muddle of practice (1988, p. 42). It sets boundaries – within a subject area – about what can be included and what must be excluded, and what counts as conflicting evidence. To become situationally aware, occupational workers need distinctive concepts that can be shown, with sufficient empirical evidence, to apply to ‘classes of cases’ (Clarke & Winch, 2004). A high degree of specialisation of content is a central resource for the exclusivity claimed by professionals and gives them jurisdiction of judgement.

Academic knowledge classifications (Abbott), deductive set of propositions (Winch), bodies of knowledge (Freidson, Becher and Biglan) are radically different from everyday knowledge, yet they have a necessary role in ensuring that any professional judgement in specific situations which arises in the course of work is both accurate and appropriate. Occupations have access to different kinds of *know-how* which they encounter in their working lives. They may resort to task-skills to solve problems and exercise specific techniques but the process of selection, collection and organisation of the task-skills, requires professional judgement of diagnosis. All three different *know-how* are about one's ability to make decisions (autonomy) which could be justified by reference to a chain of reasoning that goes beyond the specific context. Judgement is a central facet of *know-how*. Those judgements involve decisions of different sorts and levels of complexity. What is common to all of them, however, is that they depend on knowing conceptual classifications connected with those decisions, which could be called upon, if need be – to change a decision or to account to other team members.

Reliance on bodies of knowledge and the moral obligation for justification rather than on mere power within a division of labour are central to what count as occupational authority. Hence the interdependence between autonomy and authority, which, at least in theory, can guard against capricious forms of decision-making and unfair and exploitative forms of control over occupational workers at the lower levels.

3. Relation to labour markets – inter and intra division of labour of occupations

Occupations thrive when they have monopoly of practice, when they establish occupational councils and other labour organisations which regulate their members by means of control over recruitment, training and licensing as well as imposing work procedures and modes of self-discipline (Standing, 2009b, p. 11). Organised occupation groups negotiate (often through the state) with other groups to determine the scope of their specialisation. They use different strategies, institutional practices and rhetoric to persuade the consumers of their expertise, to establish their power in the market and to block others from being formed. Through the state's legal and bureaucratic apparatuses, state ministries, civil and criminal courts, occupations seek policy legislation of what knowledge and qualifications legitimately belong to the profession,

what penalties should be imposed on those who breach occupational rules, and how to restrain the powers of other occupations which try to prevent the emergence and development of new ones (Freidson, 2001, p. 134; Standing, 2009a, p. 27).

In specific historical contexts and state formations, these include family, class, race, ethnicity and gender forms of exclusion. Freidson (2001) is careful to admit that at times rhetorical claims contain the danger of creating forms of monopolies of practice.

Respect for occupational categories and for occupational knowledge is not something that can be willed into existence. It depends on “labour market regulation, unionization, the nature and extent of employer organization and the role of industry peak bodies, the broader political, institutional, and cultural context, and the degree of federalism in a country and the relative powers of national governments and states/provinces” (Streeck 2012; Thelen & Busemeyer 2012 in Allais, 2016, pp. 451–452). Although not valued in liberal economies, research in coordinated market economies found that occupational labour market regulation protects occupations and consumers. It also enhances the relation between education and work, which is assumed by the idea of occupational knowledge.

Global capitalism has changed the structure and role of the state, mainly by weakening its institutions. It has created systemic insecurities particularly for those down the lower scale of occupational ladders. Privatisation of economic activities, social policy dumping, labour migration, casualisation (short term employment) and the growing phenomenon of outside contract hours work (tertiarisation) are only some of the symptoms of globalisation of national markets. These developments certainly raise questions of how society values work and how it organises opportunities for meaningful work (Winch, 2002b, p. 106).

4. Occupations and qualifications

Qualifications are seen as the symbolic expression of sustained study for a designated period in a designated area. Depending on the level of regulation of the labour market and the coordination between key social partners (employers, unions, occupational bodies and government institutions), qualifications will function as symbolic rhetoric of competence or a substantive indicator of the nature of the occupational work involved in the field of

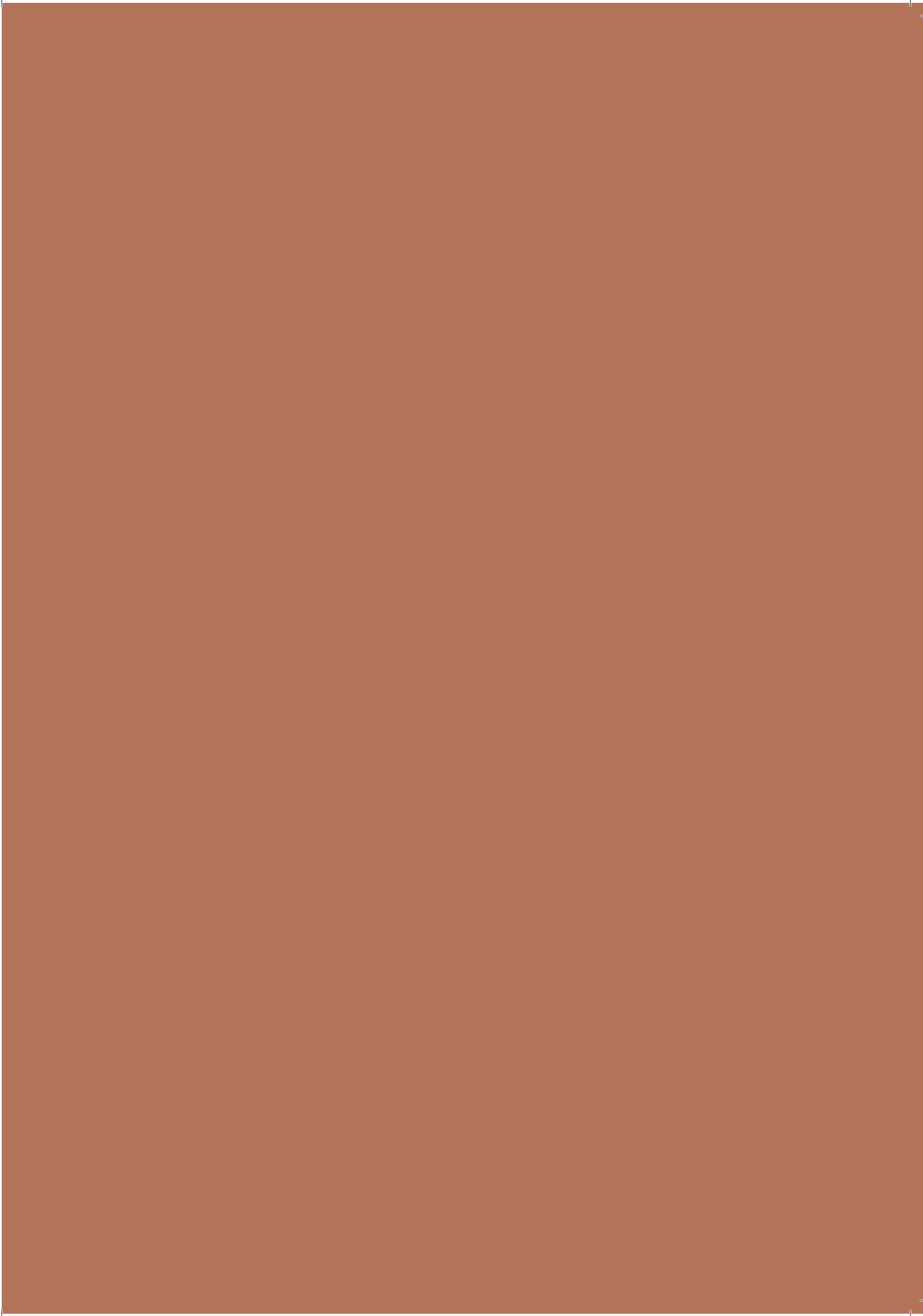
practice. Too often employers in unregulated occupations (clerical, management consultant, financial analyst, construction project manager) use qualifications as a proxy for knowledge and attributes rather than as indicators of the knowledge of the specific work the candidate applies for. This is less true in regulated occupations (accountant, nursing, electricians, social worker).

Countries have tried comprehensive classification systems for different purposes including monitoring the labour market, designing measures for occupational performance and facilitating the design of qualification and curriculum. In this approach, the emphasis is on getting the qualification to structure access to the labour market without addressing the broader labour market and work issues. A different approach to the problem of qualification inflation is vocational streams. The emphasis in this approach shifts the attention from how to make qualifications more explicit to structuring the labour market, somewhat in line with Standing's idea of collective forms which can give voice to occupations.

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