Contents

CHAPTER 6

Curriculum responsiveness and student employability: An institutional analysis

Volker Wedekind

Education organisations are under constant pressure from policy-makers, political actors and the public to make their programmes responsive to the needs of the economy and society. In contexts of social change and where broader economic and societal issues such as high rates of unemployment are prevalent, this pressure is heightened, in part because of what Grubb and Lazerson (2004) have dubbed the 'Education Gospel' – that is, the faith that education can solve intractable economic and social problems. Typically, education organisations are expected both to provide a quality educational experience and to make their offerings relevant and informed by the needs of employers. The degree to which they succeed is very often measured in terms of the extent to which students who participate in the programme are deemed to be employable. However, exactly what employability means is widely contested, and there is a debate as to how much education organisations and their programmes can affect student employability (Taylor 2005; Watson 2014).

This chapter contributes to that debate by exploring the ways in which different types of qualifications and programmes lead to different employment opportunities. The focus is not on the educational content and process as much as on the way the various actors in the labour market (specifically the students and the employers) make sense of the qualifications.

This chapter draws on case study data from a project that sought to understand the relationship between student employability, curriculum and organisational responsiveness at a range of different South African education and training organisations.[1] What emerges from the cases is that responsiveness and the way those responses impact on employability vary greatly and are contradictory in some respects. I argue that, to make sense of the diverse ways in which responsiveness works and the ways in which organisations enhance the employability of their students, an analysis is required of the ways in which educational qualifications and processes become institutionalised.

An institutional perspective goes beyond thinking in terms of policies, educational practices or curriculum, but rather examines the ways in which policies, organisations and practices become institutions that have regulatory, normative and cultural-cognitive elements (Scott 2014). I argue, through the analysis of the case studies, that the employability of graduates of education programmes is largely affected by the degree of institutionalisation of the education organisations and their practices, and

1 The final report (Wedekind & Mutereko 2016a) on the research project is available at http://www.lmip.org.za/document/employability-and-curriculumresponsiveness-post-school-education-and-training.

the students' and employers' understandings of those practices. Before discussing the case studies, I briefly outline the concepts of employability and responsiveness, and then provide an overview of the key features of institutional theory and how this can be applied to understanding educational organisations and their interaction within political, economic and educational systems.

Employability and curriculum responsiveness

The concept of 'employability' has become central to debates about education over recent decades. Closely linked to the notion of employment, it places the focus of attention on the individual rather than the systemic or structural features of being in or out of employment. The question as to what makes a person 'employable' focuses attention on the skills and attributes that an individual has that make them an attractive prospect in the labour market, and consequently poses questions about both the individual's responsibilities in gaining and demonstrating these skills and attributes and the role of education or training organisations in imparting the knowledge, skills and values that students need (Frankham 2016; Watson 2014; Wedekind 2014).

A particular focus in the literature has been on expandable sets of transferable and/or soft skills, apparently central to people becoming employed and staying in employment (Taylor 2005). These vary from common process skills, such as problem-solving, to being able to communicate and act collegially in an organisational environment (Curtis & McKenzie 2002).

Problems of unemployment are increasingly attributed to the failure of the individual to be employable, rather than to a structural feature of the economy at a particular moment. Consequently, the success of education organisations in achieving employment outcomes for their graduates is used as a measure of the value of the programme and its curriculum (and by implication the organisation itself) (Cremin 2010). While there is a growing literature that problematises the concept of employability, there are few signs that its central role in shaping education policy is diminishing. Employability is viewed as a measure by which universities should be judged and ranked, and significant resources are focused on ensuring that graduates gain the elusive employability skills (Frankham 2016).

The central concern of the project on which this chapter is based is how education organisations respond to the challenge of employability. It examines the relationships between education organisations and employers, particularly how organisations adjust their curricula to ensure that their students gain the skills that make them employable. The project team developed a notion of responsiveness, building on the work of Gamble (2003) and Moll (2004), that explores the variety of curriculum drivers that education organisations have to engage with in order to shape their curricula. While the dominant pressure on educational organisations is to make their curricula more responsive to the needs of industry and commerce, both Gamble and Moll argue that responsiveness has to be understood as being broader than that. Moll (2004) points to the need to be responsive to factors such as the disciplinary community that generates the knowledge, the needs of the student and wider community needs, while Gamble argues that education providers must assert their role as educational interpreters of the signals from the economy, market and community (2003: 69).

The conceptual framework for the project (Wedekind & Mutereko 2016a) thus understood curriculum responsiveness as interacting with five drivers: (1) employers (as drivers of both demand and supply with regard to labour and education and training); (2) students/workers/job-seekers; (3) policies and regulations; (4) societal and environmental issues; and (5) the internal dynamics and resources of education and training organisations. These drivers of curriculum responsiveness describe a more complex interaction between curriculum and qualifications, on the one hand, and the degree to which these enhance students' employability in the labour market, on the other hand.

However, as will be shown from the case studies, recognising the multiple drivers of responsiveness still did not adequately explain the variation in the ways in which qualifications and other educational programmes were understood in the labour market. The patterns varied greatly from case to case. In order to explain these variations, it is necessary to understand the degree to which these educational programmes or the organisations which offered them were or were not institutionalised. To do this it is necessary to briefly describe key aspects of institutional theory as it has developed in sociology, political science and organisational studies (Lowndes & Roberts 2013; Mahoney & Thelen 2010a; Scott 2014; Thornton et al. 2012).

Institutionalism

The concept of an institution is slippery and there is no single definition that has emerged as the standard. In everyday language, the term 'institution' is often used interchangeably with 'organisation'. Yet it is also understood as something more than, or less than, an organisation, in the sense that a particular practice or pattern of behaviour (such as a tradition) can be referred to as an institution (Dacin & Dacin 2008). This can be a specific practice within an organisation or a wider social practice like the institution of marriage.

In addition, most definitions of institutions emphasise the durable, reproducible and change-averse characteristics of institutions (Palmer et al. 2008). Organisations, on the other hand, are the objective formal structures that are comprised of rules, regulations and procedures. Organisations may also become institutions when they are 'backed up by societal norms and the enforcement capacities related to them' (Streeck & Thelen 2005: 12). Particular practices within organisations can also become institutionalised. In contrast to organisational analysis (which usually focuses on the technical environment – that is, on tasks, functions and regulations), an institutional analysis is broader and encompasses overarching social forces, such as the expectations, norms and standards of the people in the organisation (Kraatz & Zajac 1996).

There are various schools of institutionalism, and the field has developed significantly since the foundational studies of the late 19th and early 20th centuries, but for the purposes of this discussion I draw on new institutionalism and the institutional logics perspectives which have been evolving since the 1970s (Lowndes & Roberts 2013; Scott 2014; Selznick 1996; Thornton et al. 2012). New institutionalism focuses on institutional rules, but also issues of legitimacy, and the degrees to which institutions develop similar structures and patterns in different contexts (Meyer & Rowan 1977). This approach attempts to provide a synthesis of the key strands of institutional theory in sociology, economics, political science and organisational studies.

In particular, I draw on the work of Scott, who defines institutions as follows: 'Institutions are comprised of regulative, normative and cultural-cognitive elements that, together with associated activities and resources, provide stability and meaning to social life' (2014: 48). Scott (2014) describes three pillars of institutions:

- The first pillar is the most commonly understood and studied aspect of institutions, namely the regulative structure or system. Regulative structures or systems are 'generally formal and explicit, legally sanctioned, and indicated by rules and laws, often enforced by the state' (Palmer et al. 2008: 741). Because of their explicit nature, these structures are often assumed to describe the sum total of institutions.
- The second pillar of institutions is labelled as normative structures, which are legitimated through moral codes rather than laws or rules and are based on social obligations. They include both values (what is desirable or undesirable) and norms (how things should be done). Normative systems often give rise to roles, which define expectations for certain individuals. Normative con-

ceptions of institutions do not preclude formal rules, but generally institutional order is based on common beliefs and values.
- The third pillar of institutions is the cultural-cognitive dimension. These are based on shared, often taken-for-granted understandings of social reality. Scott's use of the hyphenated concept points to the interplay between external cultural patterns and how these shape – and are shaped by – internal interpretive processes. In other words, institutions are shaped by, and shape, the patterns of feeling, thinking and acting of individuals, until these patterns appear to take on a solidity and permanence that may be mythical but is also often very stable.

While these three constitutive pillars of institutions can be distinguished and analysed and their varying organising assumptions unpacked, institutions often present overlapping logics. For example, the legitimacy of an institution is significantly strengthened if it finds expression in normative and regulative mechanisms, or if cultural patterns are aligned to normative expectations. Obviously, the opposite is also true, namely that institutions are weakened if there are contesting logics of other institutions at play in the same field.

Neo-institutional theories use the concept of field as 'the domain within which a particular institution operates' (Palmer et al. 2008: 742). In other words, a field consists of the 'space' within which a set of organisations interact with each other around a common meaning or symbolic system. These would not necessarily be similar organisations or actors, but rather actors that collectively make up a societal sector. Fields may overlap (such as the field of production in a particular industry and the field of education and training associated with that industry) and institutions may operate in more than one field.

Institutionalism has evolved into a well-established theoretical and empirical field of study. It has become central to a number of branches of the social sciences, including political science, sociology, economics, policy studies and business studies (Greenwood et al. 2008). Educational studies were foundational to the development of the theory, and focused particularly on the isomorphism of the international education system (Boli et al. 1985; Meyer et al. 1977). More recent work has included a focus on educational management (Meyer & Rowan 2006), and a well-developed body of work has emerged that applies the insights of the 'varieties of capitalism' literature from political science to the differences between different national skills systems (Busemeyer & Trampusch 2011; Mahoney & Thelen 2010b; Soskice & Hall 2001).

These political economy analyses of the differences between different forms of capitalism, particularly Anglo-Saxon deregulated market models and coordinated European and Asian examples, have provided a basis for understanding differences in the structure of occupations, and the relationship between education and training and the labour market (Moodie et al. 2013). In the South African context, this work has influenced researchers examining the skills system and critiquing policy such as the National Qualifications Framework (NQF) (see, for example, Allais 2012c; Kraak 1999, 2004b). This work focuses on the formal, largely regulative level and deliberately avoids non-formal, normative and cultural-cognitive dimensions. Understanding educational processes at a micro-level, from an institutional perspective, is not common in the education research literature.

Before exploring what institutional analysis brings to the understanding of curriculum responsiveness and employability outcomes for students in the case studies, it is necessary to describe the case studies and summarise their findings.

The case studies and general findings

Two sets of linked case studies, conducted by a team of researchers[2], were located in the agro-processing and automotive manufacturing and maintenance sectors of the South African economy. The agro-processing set included studies of

- the role of the South African Sugar Association (Sasa) and Forestry South Africa (FSA) in education and training;
- the training of chemical engineers for both sugar and forestry industries;
- forestry-specific programmes offered at three universities and a specialised engineering programme sponsored by the paper and pulp industry.

The automotive manufacturing and maintenance set included studies of

- the curriculum and delivery of the National Certificate (Vocational) in Automotive Repair and Maintenance (NCV ARM);
- the skills needs of informal sector mechanics;
- the artisan development programme at a prominent automotive manufacturer;
- the mechanical, industrial and electrical engineering programmes at one university of technology;
- a heavy equipment manufacturer that had a well-developed apprenticeship and in-house training programme.

The broad insights from the case studies were synthesised in relation to the five curriculum drivers, and then discussed thematically.

In terms of *employers,* the key finding was that there was no single view as to what makes people employable and what employers' responsibilities are in terms of training. Most critically, employers primarily based their valuing of qualifications on reputation and trust in the education organisation. Newly approved qualifications that were not known tended to be poorly regarded. General concern was raised about poor levels of general education and this was directly related to the 'soft' skills often associated with employability (Williams et al. 2016).

The case studies included a number of positive partnerships between employers and education providers and there was a general willingness by all parties to engage. There was also a question about how closely programmes should be aligned to a specific industry, as this may in fact limit employability and ultimately make the programme unattractive (this issue is discussed in detail in Wedekind & Mutereko 2016b).

S*tudent needs* varied across the cases. Structured programmes of support or simply caring lecturers made a difference. For most students, the greatest obstacles were material issues, such as accommodation, transport and food.

Policy (or lack thereof) framed the curriculum and in some instances constrained what could be achieved. For example, the requirements of the NQF made it difficult to combine different levels of knowledge and purpose in one work-oriented programme. Requirements for work-integrated learning (in the form of work placement) created blockages in the system that were beyond the control of education providers. Policy and regulations also facilitated coordination within a sector or industry, which made it easier to respond to skills needs. Whereas policy or regulations require a response based on compliance and threats of sanction, there are also *social and environmental* pressures and concerns that demand a response on the basis of an ethical and social justice imperative. For example, changing

2 The full team are acknowledged in the final report (Wedekind & Mutereko 2016a)

traditional raced or gendered patterns of recruitment or increasing awareness about wastage or workers' rights might be important issues to include in curricula, but they may at times sit in tension with employer perspectives. However, we found that these issues do offer a vehicle through which wider generic skills can be taught.

The final driver that shaped curriculum was the *organisation* itself. A curriculum is always mediated by the capacities and resources available in the organisation and has to align with organisational procedures. Curriculum decisions are shaped by staffing needs, organisational systems and priorities, and strategic decisions such as cross-programme outcomes. Overall, the analysis of the case studies suggested that responsiveness is a complex interplay of multiple factors and not a simple correspondence between employer needs and programme delivery.

The findings from the case studies can be summarised as follows. Firstly, curriculum responsiveness needs to be understood as going beyond a simple one-way relationship with employers, where their needs are better reflected in the curriculum. Education organisations have to balance the full range of drivers that shape the curriculum and enhance or hinder the potential employability of the graduates. Secondly, however, while there were certain patterns that emerged from the case studies, there was also enormous variation in what types of programmes enhanced opportunities for employment and why. It was true that the cases showed that relationships between employers and education providers seemed to strengthen prospects for the graduates, but the nature of the relationships varied greatly from case to case. Furthermore, as has been found elsewhere (for example Moodie et al. 2013), programmes related to regulated occupations tended to provide students with clearer pathways into employment. However, while this finding was consistent across most instances, it was not always the case. As will be discussed below, some qualifications had no formal status but were nevertheless viewed as highly desirable by employers, while other qualifications that formally met all the criteria for employment and were regulated had no purchase in the labour market.

Similarly, the degree to which employers interact with education providers to influence curriculum varies greatly. Some of the employers provided very little direct input, others played a major role defining the curriculum, and in other cases the curriculum was shaped through dialogue. It is therefore not possible to draw any specific conclusions as to best practice.

Given these somewhat inconclusive findings, how, then, does one analyse what shapes patterns of behaviour? In the next section I will argue that drawing on neo-institutional theory provides a useful lens for making sense of what at times appear as anomalies in the data.

Delving deeper: An institutional lens on the case studies

In this section I will explore in more specific detail some of the examples from the case studies and draw on the three pillars of institutionalism discussed earlier (the regulative, normative and cultural-cognitive) to examine the ways in which the programmes in the case studies can be said to have become institutionalised, and what institutionalisation means for the employability of the students on those programmes.

Sugar

Sasa provides a good example of how a range of organisations and practices have become institutionalised in a way that ensures that actors within the various components of the system understand what is required for someone to be deemed employable in the sugar sector.

Sasa exists as a coordinating structure for the industry and includes the producers of the sugar crop (the farmers) and the producers of the sugar products (the millers) within one structure. Sasa and its affiliated organisations also play a direct role in the production of new knowledge by conducting research on various aspects of the sugar production cycle through the South African Sugar Research Institute (Sasri) and the Sugar Milling Research Institute (SMRI), and these organisations disseminate new knowledge through training programmes. In addition, the Shukela Training Centre (STC) provides direct training in technical skills to people working in the industry.

Over time, Sasa and the various entities and affiliates have become institutionalised at a number of levels. At a regulatory level, Sasa is fairly unusual, as it is a statutory body governed by an Act of Parliament. This ensures that it has the authority to require that all players within the industry participate. Decisions about the industry, its skills needs and the training programmes and qualifications offered by Sasa are all understood and agreed upon by everyone through various formal structures. This regulatory environment is coupled with a shared historical understanding of the value Sasa offers its affiliates. Time and again, in interviews with various Sasa officials and role-players in the industry, the value of Sasa and the particular way the sugar industry is organised were stressed in a manner that went beyond the formal regulatory level. There is a normative dimension to how work roles are habituated within Sasa, and there is a history and culture referred to within the industry that have evolved over decades, since the foundation of the industry.

This shared understanding is reflected in the training processes within Sasa as well as the patterns of skills recruitment from outside the organisation. Central to the common understanding within the industry were the two certificated courses offered by Sasa. We were repeatedly informed in interviews with employers that 'everyone in the industry' understood that the junior and senior certificates offered by Sasa covered everything that people needed to know about the sugar cycle. Regardless of whether you were a farm worker identified by a farmer as a prospective skilled worker, a newly employed scientist with a PhD or a manager, everyone in the industry was assumed to have done the certificate. This even held true for people from sugar-growing regions in other parts of Africa. Yet these certificates had no formal status in the South African education system, as they had not been registered on the NQF. No one we interviewed, whether they were participants on the courses, course teachers or employers, seemed concerned about the lack of formal status. The response was always much the same: 'Everyone in the sugar industry knows and recognises this, what difference does it make?' When Sasa officials were questioned about their decision not to register the qualification on the NQF, it was explained that they had looked into it and had attempted to go through the process. However, a number of factors resulted in their decision not to go this route.

One influential factor was that the junior and senior certificates offered by Sasa do not fit the predetermined qualifications and levels of the NQF. When they tried to align the qualifications to a specific level, they found that their mix of knowledge and skills did not match the outcomes specified at any of the levels. The certificates were introductory, in part, and would therefore have to be at a fairly low level, but the content included some technical and scientific knowledge that went past that level.

Given that the majority of people had extensive experience in the industry or had prior academic qualifications, the student mix was complex. If the qualifications were registered at a higher level, admission could be constrained, as some participants would not have the requisite prior levels; complex recognition of prior learning procedures would therefore be required. If the qualifications were formally set at a lower level, it was feared that the certificates would lose the prestige they hold within the industry, which would undermine their value. Further, the certificate programme could not be neatly aligned to the 120 credits-per-year structure that all qualifications on the NQF followed.

The other alternative was to register the certificates as a series of unit standards, but this would fragment the logic of the sugar cycle that underpinned the curriculum. Ultimately, we were told, the certificate programme would lose more than it would gain if it were aligned, even though this meant that recipients could not carry credits into other qualifications and that the legality of offering the certificates was in question. However, even the certificates' transferability did not seem to be compromised, as examples of students who had moved from sugar to other crop-based industries were cited as evidence that the certificates were recognised by employers outside the sugar industry. In this case, the certificates were not institutionalised through regulations, but were strongly normatively institutionalised.

Not all the courses Sasa offered operated outside the formal legal frameworks. The STC, a semi-autonomous training facility that offered courses in a range of fields, had to comply with the regulatory frameworks because many of the qualifications were not restricted to the sugar industry. For example, the training in trades such as boilermaker or electrician was undertaken at a registered training facility and trade test centre and graduates would have qualifications that met the generic standards, and not the sugar industry's specific needs. However, given the dated nature of the national curriculum and the particular skills required by the sugar industry, the official curriculum was supplemented with modules that 'plugged the gap'. For instance, because lifting equipment relies heavily on pneumatics, the mechanics' training included this as part of the programme, even though the trade test did not require this. The centre director described the prescribed curriculum and assessment system as the minimum that needed to be covered, rather than the limit of what was covered. This enabled students to achieve the national standards, while the STC trained to the requirements of the industry and were able to be responsive. In this case, the institutionalisation functioned through a regulatory and normative process in a mutually reinforcing manner.

Forestry

The forestry industry provides a useful comparative example. FSA is a looser coordinating structure, based on voluntary participation and funded by contributions from its members. While it represents the owners of over 90 per cent of timber plantations,[3] it does not have statutory status. It does not engage with training functions directly, but interacts with the training system to represent the industry on the chamber of the Fibre Processing and Manufacturing Sector Education and Training Authority (FP&M SETA) and directly with key education providers. Higher-level scientific skills and senior managers are trained via a specialised programme in forestry and wood science at Stellenbosch University. FSA is in regular contact with the university department and provides input into their curriculum development processes.

Intermediate-level forestry positions, such as foresters and siviculturalists, are trained in programmes offered at the Nelson Mandela University's (NMU) Saasveld campus, a former forestry college that was incorporated into the Port Elizabeth Technikon in 1985 and subsequently into the Nelson Mandela Metropolitan University (now NMU) in 2005. The forestry programme at NMU has been the main skills pipeline into the forestry industry for decades, so much so that the term 'Saasveld' is a widely understood signifier for a specfic level of training in the industry. In adverts for positions in various companies, Saasveld (and not the actual qualification) is specifically stated as a qualification prerequisite. Stellenbosch and Saasveld have become the institutionalised routes into the forestry industry from a normative and arguably cultural-cognitive basis. They signify a certain educational product that people in the industry know and understand (much like the Sasa certificates in sugar), in part because almost everyone in senior positions within the industry have come through these routes

3 See http://www.forestry.co.za/general-information-about-forestry-south-africa/.

themselves. In this sense it is a value assumption, based on a shared understanding and trust, that is not linked directly to the specifics of the curriculum.

There are a number of other institutions (universities and colleges) in South Africa that offer forestry-related qualifications. These qualifications are technically the same as those that are offered via Stellenbosch and NMU in terms of name and level, and a desktop analysis of the curriculum and learning outcomes reveals very similar programmes. However, students who graduate from other institutions struggle to find work in the industry, while graduates from Stellenbosch and NMU are highly likely to find employment. What accounts for this phenomenon? When questioned about this, senior officials in FSA indicated that they were not properly consulted by the institutions about the need for the programmes, that they were not familiar with their offering and generally could not attest to the quality. Human resource (HR) recruitment officers and managers responsible for recruitment gave similar accounts. Some were not aware that these programmes were on offer and questioned why they were necessary, given that the historical universities provided an adequate supply for the system.

Essentially, the pattern of accessing qualifications from specific universities has become institutionalised through the historical patterns and the recurring interactions between FSA and the universities, and between employers and recruits. Over time, this has become a cultural-cognitive structure that reproduces a practice that is not regulated but is understood by the people working in this industry. The attempt to enter this field by education organisations that are not part of these cultural-cognitive understandings results in the failure of their students to gain a certificate that makes them employable, despite the fact that, at a technical level, this certificate is identical to ones offered elsewhere.

Paper and pulp

A further example from the forestry, paper and pulp industry highlights how institutionalised arrangements do change over time, and how institutionalised practices, such as those described above, potentially could be changed. The paper and pulp industry identified a gap in the supply of mid-level engineering technologists and technicians for the milling component of the industry and entered into a partnership with a specific university of technology to deliver a bespoke programme that trained graduates for these positions.[4] It was felt by the industry that the general chemical engineering programmes at these levels did not focus enough on the specific processes involved in paper and pulp, and that there were benefits to training people in these processes. In many senses this programme was exemplary in terms of partnership arrangements. The curriculum was co-constructed between the industry body and the university, experienced staff were seconded from the industry to the university and paid for by the industry to teach on the programme, workplace experience was available, and students graduating from the programme were thus highly employable – in fact, they were all but guaranteed employment after graduation. In addition, the industry funded the majority of the students with a generous bursary scheme that ensured that they were able to attract the best students.

This arrangement had been in place for more than two decades and in that time had become institutionalised, providing a steady pipeline of skills into the industry. However, during the course of the research it became clear that this arrangement was no longer as stable as it once had been. A number of contextual and organisational factors had resulted in incremental adjustments to various components of the partnership that were starting to undermine its value. To start with, the partnership had been established when the industry was expanding and profitable. However, particularly after the global recession and the decline in the value of the currency, which resulted in increased input costs, the industry looked for

4 This case study is described in detail in Wedekind & Mutereko (2016b).

ways to cut costs. The partnership was expensive and not deemed core. One of the areas where savings were achieved was in the recruitment of students. Bursaries had historically been offered to academically strong students in their penultimate and final years at school. The process of recruiting from schools was dropped and the few remaining bursaries were made available to students after they were enrolled on the programme. This resulted in a gradual decline in the quality of the applicants (as measured by their school results), and so it increasingly became a fall-back option for those students who were not accepted into chemical engineering or those who could not secure other sources of funding.

The external economic circumstances were coupled with changes in the organisational environment of the university itself. The programme was established when the institution was still a technikon[5] and industry linkages were central to the mission of the organisation, and work experience was the primary criterion for staff selection. However, once the technikons became degree-awarding institutions, and particularly after they gained university status, there was a shift in the organisational mission and culture. Staff members came under increasing pressure to engage in research and attain higher degrees, and the focus of student enrolment shifted towards degrees and postgraduate programmes. The status and value of the programme within the university declined and the pressure on staff to focus on research increased, resulting in a gradual devaluing of the programme.

The students' own expectations of the programme had also shifted. In part, because the programme was no longer recruiting the highest achieving students at school level, the students that were enrolling were not necessarily committed to a career in the industry. The students interviewed all indicated that they were not aware of the programme or industry until they arrived at the university to register for other courses and were made aware of the opportunity. None of them had a strong preference to work in the paper and pulp industry. While the programme still ensured that students would have excellent prospects of employment, the fact that this was tied narrowly to one industry was viewed negatively by the students. A critical concern for the students was the fact that the programme, while recognised by the paper and pulp employers, was not recognised and accredited by the Engineering Council of South Africa (ECSA) and therefore did not provide possibilities for employment in occupations in other related industries.

The combination of a number of factors linked to the environment, the organisation and its internal dynamics, strategic decisions taken by the industry itself, and the desire for longer-term mobility by the students had resulted in a shift in the normative and cultural-cognitive pillars of the institution. Thus, while the regulative dimensions remained constant, the shared understandings had shifted over time and weakened the institution.

Automotive repair and maintenance

The final example is from the automotive sector. A new qualification, the NCV ARM, was introduced to provide a foundational qualification for a range of occupations in the repair and maintenance side of the industry. The qualification had been registered on the NQF, was offered through public colleges and was being funded by the national Department of Higher Education and Training (DHET). However, we found that employers were either unaware of or uninterested in employing graduates with this qualification, despite the curriculum covering most of the knowledge and skills required for occupations related to vehicle maintenance. There appeared to be a complete disconnect between the organisations in the field of automotive repair and maintenance and the educational providers, the colleges. Unlike the examples cited above, the industry field was much less coordinated, with

5 Technikons were vocationally oriented higher education institutions that offered industry-linked qualifications, much like polytechnics in the UK and elsewhere. These were changed into degree-awarding universities of technology in 2003.

myriad small- and medium-sized firms, a burgeoning informal sector and a few large multinational organisations loosely interacting.

When employers were asked about how they recruited, the pathways described were very diverse. Informal workshops usually recruited from friendship and kinship networks (Okoye 2018), as did many of the smaller firms. Larger firms continued to value the old apprenticeship pathway linked to a dated curriculum and a trade test. This was based on a normative and cultural-cognitive institutional understanding of how one enters the industry, built on shared understandings from the personal career paths of employers (much like the forestry example). With no regulations governing the field, it seemed that the NCV ARM had little prospect of becoming institutionalised as a route into the industry; consequently, the students were not regarded as employable. However, the large multinational corporations that had franchised service centres had begun to engage with colleges and the DHET around reworking the NCV ARM curriculum to better suit their needs, and there were signs that it might eventually gain acceptance in this sector as a basis for entry into a structured apprenticeship or for some entry-level positions. If this development were to materialise, the qualification could slowly gain recognition, and because many of the people working in smaller firms had received their training in the big companies, this pattern could become the institutionalised norm. However, this is a slow process, with the credibility of the qualification threatened by the lack of employability of graduates not locked into training pathways with the big corporate employers.

Each of the examples above illustrates the diverse ways in which qualifications and employers interact within specific fields. The degree to which the field itself is regulated and organisational actors' interactions are formalised varies greatly. The status of the qualifications varies too, both in terms of their official legal standing and their normative (and cultural-cognitive) standing in the field. To conclude, the next section discusses what this institutional analysis means for thinking about policy and practice in respect of curriculum responsiveness and employability.

Taking the institutional arrangements seriously

This chapter has focused on the mechanisms that strengthen or weaken the ways in which practices become institutionalised. The approach shows some of the diverse ways in which employers, policymakers and education providers interact within a field and what the consequences are for the employability of students in that field.

The case studies highlighted the complex array of drivers that education organisations have to respond to. This signals the importance of recognising that a singular focus on the needs of employers is not necessarily desirable. Even if a curriculum is geared to the needs of employers, this does not, on its own, ensure that students are employable. What the analysis above suggests is that, for a programme or qualification to be successful at making students employable, it needs to be institutionalised in the specific industry or field. The ways in which a programme becomes institutionalised vary. It can happen through the making and enforcement of rules, such as in many professional fields, where a specific qualification is a requirement to practice. Often, over time, the rule becomes norm-based and there is thus little need for enforcement. This is the argument for greater regulation suggested by Moodie et al. (2013) in their examination of Australian vocational education's links to different occupations. However, in a context such as South Africa, where the regulatory and enforcement capacity is weak, attempting to institutionalise through imposition is likely to result in outcomes such as the NCV ARM example.

Strong institutions are built gradually and are mutually reinforced through regulatory, normative and cultural-cognitive institutional processes, resulting in a resilience which is often difficult to change.

A number of the cases in the study point to this, with varying emphasis on institutional pillars. In the case of the sugar industry, the regulatory pillar is weak, but there is a strong normative and cultural-cognitive understanding. In the case of apprenticeships, the regulatory pillar is stronger, but it is also reinforced by deep normative and cultural-cognitive understandings. The nostalgia for the old apprenticeship-linked qualifications has little to do with their relevance today and seems primarily based on shared understandings amongst practitioners based on their own experiences. Attempts to reform this by trying to replace the linked National Accredited Technical Education Diploma (NATED) qualifications have been resisted to such a degree that regulatory decisions had to be reversed.

While resilience is a feature of institutionalised practice, this is not to suggest that institutions do not change (and weaken) over time (Mahoney & Thelen 2010a). Some practices that were institutionalised have become weaker (such as the paper and pulp example), and there are possibilities that qualifications such as the NCV ARM may become institutionalised in due course.

While it is clear that institutionalising a practice cannot be decreed overnight, recognising that the three pillars of institutions are mutually reinforcing suggests that strategies to reform educational programmes and deliver positive outcomes for students should target all three aspects. The drawing up and enforcement of regulations is the first level and is where policy-makers focus their attention. Promulgating new qualifications, putting in place quality assurance structures, encoding activities on qualifications frameworks and standardising curricula are all part of the regulatory machinery used to define an educational field. This is an important and necessary part of the process of building institutions. However, it is unlikely to succeed, or will take much longer to succeed, if this is done without taking the other pillars seriously. Ultimately, one should attempt to build upon existing normative and cultural-cognitive understandings or develop new understandings that ultimately do away with the need for regulation and enforcement. This may require that existing norms be challenged and replaced or reimagined, and that cultural-cognitive assumptions be recognised and challenged. This cannot be done by edict and requires a wider conversation amongst a range of stakeholders, including employers, unions, students and educators. These processes are much less predictable, and the ideas will be contested, but without these levels of engagement regulatory reforms will, at best, produce weak institutions. Because the process of institutionalisation is generally slow, building on existing institutions is likely to be easier than completely changing every aspect of an existing practice. If policy-makers pay more attention to the shared understandings in particular industry fields (recognising, for example, traditions of apprenticeship, the names of qualifications that carry cachet, or which education providers are recognised), they could build on those understandings to strengthen existing institutions or progressively build new institutions.

An institutional analysis reveals a rather messy picture. The natural inclination from the perspective of the state is to attempt to impose order through regulation. In authoritarian and coercive contexts this may be possible, but it almost inevitably has unpredicted and unwelcome consequences (Scott 1998). In democratic, heterogenous and often more fragile states, top-down imposition is also unlikely to succeed, particularly when regulations are tied to short political cycles. Building deeper collective understandings cannot be achieved only at high levels. They require engagement at the level of the firm, union branch and student classroom. This is complex work, but the result will be institutions with resilience and longevity that ensure that training and education deliver real benefits for all.

Much more detailed sector-specific research work is required to understand the range of vocational pathways and how these can be strengthened. I would argue that an institutional perspective that focuses on the regulative pillar as well as the normative and cultural-cognitive pillars offers a more productive lens for thinking about how the field, as a whole, can be strengthened to support education organisations, employers, and – most importantly – young people trying to access work opportunities.