
Professional qualifications for the insurance industry: Dilemmas for articulation and progression

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ABSTRACT

In South Africa, the lack of articulation between vocational college programmes and those of universities has long been a source of frustration for college learners seeking vertical progression pathways. The introduction of a National Qualifications Framework in 1995 appeared to offer hope of bridging the divide between occupational, practically focused qualifications and traditional academic qualifications, but, some 20 years later, the stumbling blocks are still evident in spite of concerted national policy efforts. This article reflects on a project conducted over a five-year period that intended to 'create a progression pathway for TVET candidates into university' in the insurance industry and the lessons learned in that process. What at first glance might have appeared to be simply a hostile environment for articulation and institutional intransigence, on further reflection revealed deep-seated curriculum issues associated with qualifications that were understood to differ fundamentally in function and therefore in form. The article draws, *inter alia*, on Bernstein's (1999) theorisation of practical and disciplinary learning to show how a curriculum has an impact on pedagogies, assessment and quality assurance structures. After examining why college candidates who had succeeded in the first-level occupational qualification with its large workplace component struggled to complete subsequent university levels, the article concludes that divergent curricula and pedagogies will need serious attention if aspirations for more seamless articulation and easier progression are to become reality.

KEYWORDS

curriculum; workplace qualifications; disciplinary learning; articulation; employers; TVET colleges

Introduction

The introduction of legislation for an overarching National Qualifications Framework (NQF) in 1995 was one of the first education policies implemented in the aftermath of South Africa's transition to democracy. In seeking to overcome its former racially fragmented education policies, South Africa attempted, through the NQF, to align all education and training provision within a single framework that emphasised redress and equity intentions. Formal general school qualifications and university qualifications have been clearly defined and tend to be specific to particular institutions. However, vocational qualifications span at least three institutional types: schools, universities and technical and vocational education and training (TVET) colleges. As a result, they do not sit comfortably within the South African NQF, particularly from a quality assurance perspective. Subsequent NQF iterations (RSA, 2009) therefore resulted in three quality-assured 'sub-frameworks': for general academic and general vocational qualifications, for occupational qualifications, and for university qualifications. Qualifications offered by public TVET colleges – which could be both general vocational or broadly within an occupational field, and occupationally specific or tailored to specific industry jobs – are situated at the nexus of these sub-qualification frameworks and overlap with both school and university qualifications.

To illustrate: within the insurance industry, qualifications that prepare students for work in the sector are located at the higher end of the TVET college range of offerings and consist of both theoretical and practical learning. The qualifications are primarily occupational in that formal certification for the entry-level qualification, offered at a public college or by a private provider, enables candidates to undergo examination towards a professional designation. Such examinations are usually taken by employees already in the insurance industry. In this respect, these qualifications could be described as 'demand-led'. For higher-level designations, candidates would have to obtain higher-level qualifications such as those typically offered at a university.

The problem that propelled our research project was that successful candidates who had completed a qualification at a TVET college, even though their exit level overlapped with that of a university first-year commerce programme, were not able to proceed seamlessly into the university and continue with a higher-level qualification there. The reason for this was essentially that the university system was not ready to recognise a TVET college qualification for entry to its programme.

In view of the barriers to progression that TVET college students faced, an 'articulation' project was embarked upon that intended to create the environment for college students undertaking an occupationally recognised qualification in the insurance industry to continue with a higher-level qualification at university. It is in this context that the implementation of the project is reflected upon in this article, in particular the difficulties arising from the qualification in its pedagogy and practices.

For the purposes of convenient differentiation, the TVET college insurance qualification is referred to in this article as an 'occupational qualification', since it is a qualification recognised

for work in the industry. The associated programme at the university, being aimed at a typical university qualification, is referred to as an ‘institutionally based qualification’.

The discussion which follows is intended to highlight the issues that surfaced in bringing these two qualification worlds together so that a pathway into the industry could be created for students. We consider some of the dominant theoretical frameworks in respect of learning a discipline at a tertiary institution and practical workplace learning, as well as the modes of learning and teaching that characterise the two qualification types at their sites of delivery. The article concludes with an analysis of why learners who embarked upon this occupational qualification route at the TVET college had limited success in completing it at the university.

Locating the articulation project – workplace and institutional sites of learning

Significant policy work has been done in recent years on articulation within South Africa’s post-school education and training sector. A definition of articulation used in the National Committee for Articulation Policy (RSA, 2014) is taken from a World Bank study of higher education differentiation and articulation in 12 African countries in 2007:

Articulation refers to the mechanisms that enable student mobility within and among the institutions that comprise the tertiary system, for example academic credit accumulation and transfer, recognition and equivalence of degrees, recognition of prior learning, and so forth (N’gethe, 2008:xvii).

The National Committee for Articulation Policy document notes the need to broaden this definition to South Africa’s post-school education and training system and quotes the Minister of Higher Education and Training:

A well-articulated system is one in which there are linkages between its different parts: there should be no silos, no dead ends. If a student completes a course at one institution and has gained certain knowledge, this must be recognised by other institutions if the knowledge gained is sufficient to allow epistemological access to programmes that they want to enter (RSA, 2017:18).

The South African Qualifications Authority (SAQA) notes that articulation can be both ‘systemic and specific’ in that:

[S]ystemic articulation is based on legislation, national policy and formal requirements within the education and training system. Specific articulation ... is based on formal and informal agreements within the educational and training system, mostly between two or more education and training sub-systems, between specific institutional types, and guided by guidelines, policies and accreditation principles. Specific articulation also refers to institutional accommodation of individual needs (RSA, 2014:23).

Both policy documents, however, acknowledge that qualifications within South Africa's post-school education and training system do not articulate easily. The National Committee on Articulation Policy observes that:

[T]he South African Post-School Education and Training (PSET) system is riddled with conceptual and systematic challenges and incongruities. Users of the PSET system experience a lack of coherence and articulation between and within the sub-frameworks that constitute the NQF. Moreover, the system is perceived to be incessantly producing and reproducing gender, class, racial and other inequalities in access to PSET opportunities and to success in PSET programmes (RSA, 2014:7).

The policy document refers to debates on vocational education and training and notes with concern that vocational education is increasingly defined as the 'exclusive acquisition of a relatively narrow band of employment-related or job-specific skills and competencies' (Anderson, Brown & Rushbrook, 2004:11). SAQA also introduced a Credit and Accumulation Policy in 2014, which calls for the recognition of credits across learning institutions to increase the portability of qualifications registered on the NQF. Despite the publication of these articulation policies by the state, the articulation of qualifications between TVET colleges and South African universities remains minimal. It should be noted that the finalisation of these policies took place only after the research project intervention described in this paper had been concluded.

Most TVET colleges have historically been engaged in offering traditional state-funded vocational programmes, some of which have a practical component, and fewer programmes with actual workplace training, given the decline in the apprenticeship system in the 1980s (Kraak, 2008). There was therefore considerable enthusiasm on the part of the insurance sector's quality assurance body when the project was mooted in TVET college programmes that have a link to employment. This explains this body's interest in colleges offering an NQF-registered occupational programme directed specifically at workplace designations in the insurance industry. Furthermore, the first targeted students of the programme to be offered by the TVET colleges would be candidates already in employment, which would ensure a direct relationship between theory learned at college and practice in the workplace. In order to achieve the professional designation recognised by the insurance industry, candidates had to attain the accredited qualification and then write a board examination set by the relevant professional body. From the outset, therefore, the project had the full support of the industry's quality assurance body.

Negotiations with a receptive research university resulted in an agreement to pilot a project in which five public TVET colleges would be prepared to implement a college-level qualification that would afford candidates access to the next level in the commerce faculty at the university. The commerce faculty, in turn, gave its in-principle agreement that students who completed the entry-level qualification at the five TVET colleges would be permitted to enter their two-year diploma programme and then proceed to a postgraduate diploma that would enable them to sit the examination for the highest professional designation in their field.

The professional body for the insurance industry also supported the pilot and agreed both to make their existing curricula available to the five TVET colleges and to update these curricula regularly as necessary. The professional body’s curricula gave insight into the professional board examinations and comprised substantially more material than that required by the quality assurance body for the insurance industry qualifications. The examinations leading to designations recognised by the insurance industry are depicted in the table below, which also shows their links to formal institutional academic qualifications.

TABLE 1: Professional designations aligned with formal academic qualifications

Qualification	Board examination leading to designation	Workplace requirement	Regulatory requirement
Certificate at first-year university level	Registered financial planner	One year of work experience	Minimum requirement to practise as an insurance broker
Advanced diploma at second- and third-year undergraduate university levels	Associate financial planner	Two years of work experience	
Postgraduate diploma at fourth-year university level	Certified financial planner (internationally recognised designation)	Three years of work experience	

The state-funded sectoral body for the insurance industry subsequently approved funding for 100 candidates to be enrolled at five public TVET colleges for this ‘articulation route’ into university. Candidates were required to have a school-leaving certificate in order to satisfy minimum university entry requirements and had to have worked in the insurance industry for at least one year to qualify for the funding.

The qualification offered by the TVET colleges, which was effectively a first-year university level programme, differed from traditional first-year university programmes in that it was accredited by a sectoral body for the insurance industry and was designed in the manner of occupational programmes as an outcomes-based qualification aimed at achieving competence in the workplace. A mandatory 70% of the learning and assessment had to take place within the workplace, with 30% of the learning time spent attending classes at the college. The qualification was broken down into fundamental, core and elective components, each of which had a number of unitised standards with credits allocated to them. Learners were required to demonstrate competence in all areas of the qualification; if they were assessed as ‘not yet competent’, they could undergo repeat assessments until competence was achieved. Learners also had to complete a logbook of their workplace activities that would demonstrate their practical competence in the insurance industry.

Traditional university qualifications, on the other hand, are quality-assured by a national statutory body for universities, and qualifications are specified in terms of very broad exit-level

outcomes rather than being unitised into smaller competencies. The diploma and postgraduate diploma qualifications in the commerce faculty were entirely theory-based, offered in university lecture halls, and assessed by means of academic assignments and formal written examinations.

Against this backdrop, of the 100 students enrolled in TVET colleges for the first-level programme, 77 students passed and attained the certificate. Of these, 23 students proceeded to the university faculty of commerce for the two-year, part-time, two-diploma qualification and 18 students managed to pass their first university year and continue into the second year of the diploma. However, only 12 students completed the second year and were awarded the diploma qualification, of whom six diplomates entered the postgraduate certificate and were successful. This achievement made them eligible to take the professional board examination for their highest designation, that of certified financial planners.

In view of the high attrition rate of this cohort at university, this article seeks to explain why so few students succeeded in their university studies in spite of the high pass rate of the group that started out at the TVET college in the first-level occupational qualification.

Part of the explanation appeared to be divergences in the ways that occupational and institutional or disciplinary qualifications were understood by those offering them in the different sectors, and also in their pedagogies and practices. These differences can be traced to paradigms that characterise the different purposes of learning and of the institutions where they are offered, and we therefore attempt to locate these in the brief overview of the literature that follows.

Paradigms and practices at work

In this brief review we focus on the apparently divergent views on the nature and underpinnings of occupational or workplace qualifications, and those of university disciplinary qualifications.

To begin with, the purpose of vocational education has been widely debated according to a range of perceived outcomes, namely: vocational education as skills development for quality citizenship (Garrat, 1999; Winch, 2000); to address (youth) unemployment (Leney & Green, 2005); and to boost economic growth, competitiveness, and social inclusion. However, a number of research outputs have been pessimistic about these outcomes on the grounds that the global economy increasingly supports a low skills equilibrium for the secondary labour market in a segmented labour market (De Freitas, 1995). These studies point to the disjuncture between policy rhetoric and reality, and between broader educational purposes and the political economy.

Various critiques have emerged that question the empirical and conceptual validity of human capital theory (Brown, 1999; Fevre, Rees & Gorard, 1999; Winch, 2000; Rikowski, 2001; Lloyd & Payne, 2002; Flores-Crespo, 2007; Valley & Motala, 2014); the skills mismatch thesis (Handel, 2003; Powell & Snellman, 2004); and skills shortages and the knowledge economy (Brown, 2001; Guile, 2002; Low, 2002; Brown, Hesketh & Williams, 2003; Miller & Hayward, 2006; Warhurst & Thomson, 2006; Wheelahan, 2007).

Other research results have pointed to the growing culture of credentialing and diploma inflation of existing work (Brown et al., 2003; Warhurst & Thompson, 2006); the politics of employability (Brown et al., 2003); the increased privatisation of education; the intensification of work, and, ultimately, the increasingly direct dominance of business over educational processes (Avis, 2004; Cornford, 2006) as the underlying defining features of vocational education.

Clearly, the education–work relationship is contested and neither neutral nor value-free. Stone (2002), on the one hand, suggests that vocational education should be *for* work, *through* work and *about* work, while, on the other hand, the realm of vocational education is expanded to include general education (using work as a context) and education for democratic participation or citizenship education.

There is a growing body of literature, inter alia, Engestrom (1987), Raizen (1994), Guile and Griffiths (2001), Schuetze and Sweet (2003) and Hodkinson (2005), which advocates close intra-relationships and interrelationships between institutional and workplace learning. Nevertheless, the dichotomy between the types of learning that take place in discipline-focused qualifications, and in learning focused on occupations, is acknowledged. In the latter instance, the workplace is seen as the primary learning site (see Lave & Wenger, 1991; Billett, 2001; Boud & Middleton, 2003), whereas, in the former, the academy is the site of learning (eg Bathmaker, 2005; Young, 2005; Allais, 2007), leading to divergent views on the kind of learning that occurs in these different locales.

The workplace as a site of learning

Billett (2001) disagrees with the naming of workplaces as ‘informal learning sites’, arguing that such a view is ‘negative, inaccurate and ill-focused’ and part of a discourse on learning that uncritically privileges formal academic education. For Billett, learning needs to be understood as a participatory practice, an engagement with the social world and an ‘inter-psychological process’ (between individuals and social practices of knowledge). He cites cognitive and sociocultural constructivist psychological perspectives (Anderson, 1993; Rogoff et al., 1995) that link engagement in goal-directed activities to learning in support of this view.

Furthermore, Lave and Wenger (1991) hold that work practices are often intentionally organised to facilitate. Hodkinson (2005) agrees with critiques of learning as either ‘formal’ or ‘informal’ when referring to learning in academic and workplace settings, respectively. He argues that, in both institutions and workplaces, attributes of formality and informality exist in learning. Hodkinson uses Lave and Wenger’s (1991) theories of cognitive situated learning as well as Bourdieu and Wacquant’s (1992:527) concept of ‘habitus’ to argue that all learning is an ‘ongoing relational and reconstructive process’.

The industry qualification model that candidates in our research project undertook, in which 70% of the learning had to be conducted in the workplace, aligns with scholarship on the

workplace as a site of learning. This research posits the learner as being more than the input of learning and learning as a social practice, whether in an institution or at work, and the importance of understanding these different contexts as a basis of learning progression. Guile and Griffiths (2001) argue for the:

‘[C]onnective model’ of work experience as a basis for a more productive and useful relationship between formal and informal learning, since it addresses how work experience can enable students to take explicit account of ‘*the learning which occurs within and between the different contexts of education and work*’ [original emphasis] (Guile & Griffiths, 2001:128).

Their argument therefore posits learning as contextually bound and calls for strategies to make learning about these different contexts of work and education explicit.

Discourses evident in the debates on vocational learning are concerned with how and where knowledge and learning are best transmitted and acquired. Proponents of institution-based disciplinary knowledge query the extent to which workplaces can be sites of vertical knowledge and draw on Bernstein’s (1999) distinction between horizontal and vertical forms of knowledge to argue that the knowledge of disciplines acquired in educational institutions offers the most viable route for acquiring specialised knowledge. Bernstein’s (1999) theorising on these issues is evident in many of the scholarly debates about institution-based disciplinary learning; therefore, we take a closer look at the underpinnings of those discourses here.

Bernstein (1999) defines a vertical discourse as:

A coherent, explicit, and systematically principled structure, hierarchically organised, as in the sciences, or it takes the form of a series of specialised languages with specialised modes of interrogation and specialised criteria for the production and circulation of texts, as in social sciences and the humanities (Bernstein, 1999:159).

He asserts further that learning is achieved through the re-contextualisation of ‘symbolic structures of explicit knowledge’ in vertical discourse (as opposed to ‘segmentation’) or in horizontal discourse contexts (Bernstein, 1999:161). Vertical knowledge is therefore characterised by general propositions and theories ‘which integrate knowledge at lower levels, and in this way shows underlying uniformities across an expanding range of apparently different phenomena’ (Bernstein, 1999:162). A further characterisation of vertical knowledge is one of ‘greater and greater integrating propositions, operating at more and more abstract levels’, by which vertical knowledge structures are produced by an ‘integrating code’ (Bernstein, 1999:162). He notes that vertical knowledge structures are hierarchical and that for these structures ‘it is the theory that counts and it counts both for its imaginative conceptual projection and the empirical power of the projection’ (Bernstein, 1999:165).

In comparison with vertical discourse, a horizontal or ‘common sense’ discourse is characterised as:

[O]ral, local, context dependent and specific, tacit, multi-layered, and contradictory across but not within contexts ... the crucial feature is that it is segmentally organised (Bernstein, 1999:159).

Whereas Bernstein’s work on horizontal discourse is mostly contextualised within higher education, he does refer to ‘craft’ as a close approximation of a horizontal discourse (Bernstein, 1999:168). In this regard, he notes that each horizontal knowledge structure makes its own assumptions about what counts as a legitimate text, but the transmission of knowledge in ‘everyday’ life is essentially oral in character (Bernstein, 1999:168).

A key feature of workplace learning is the often tacit, embedded ways in which learning is transmitted within the workplace context (Bernstein, 1999:168). According to this perspective, knowledge, competencies and literacies are:

[C]ontextually specific and ‘context dependent’, embedded in on-going practices, usually with strong affective loading, and directed towards specific, immediate goals, highly relevant to the acquirer in the context of his/her life (Bernstein, 1999:161).

Hence, knowledge within a horizontal discourse is often serially acquired and the language used to define each segment or context is not easily translatable across contexts (Bernstein, 1999:163). Pedagogy and teaching practices will therefore vary between different contexts, since the two knowledge types are acquired differently and will need to be assessed differently, depending on the type of competence required. This perspective, though, needs to be tempered by the views of other theorists such as Guile (2010). They caution that theoretical knowledge and tacit knowledge should not be seen as separate knowledge types but rather as interdependent, the relationship between the two being mediated to successfully address professional learning.

Young (2005) argues further that outcomes-based frameworks undervalue the extent to which institution-based learning guarantees the quality of a qualification. His concern is with unitised qualifications where the learner selects different unit standards to make up a qualification, and where the sequencing of these units may undermine the process needed to acquire knowledge and skills. His argument here is that:

[M]any kinds of knowledge in general education (such as physics), and many skills (such as cabinet-making) that are important in vocational qualifications, depend on a particular sequencing of learning defined by subject specialists, and are not amenable to unitization (Young, 2005:25).

Young maintains that, for developing countries, emphasis should be placed on an institution-building process rather than on outcomes-based qualification frameworks. Allais (2007) agrees that a unitised, standards-based approach tends to atomise learning, making conceptual learning difficult, more particularly assessment of such qualifications which have led to managerialist practices by some quality assurance bodies.

Gamble (2006) cautions that theory and practice in vocational education represent fundamentally different forms of knowledge, and that privileging practical knowledge could lead to 'downward rather than upward vocationalisation and block possible progression to higher education' (Gamble, 2006:12). In contradistinction, many further education colleges in the United Kingdom have received accreditation in order to offer undergraduate degree programmes, resulting in the dilution of the more practical occupational focus of This outcome has led Bathmaker (2005) to observe that:

... over the past decade there has been considerable academic drift, so that these (vocational) qualifications now have more in common with their academic counterparts than with occupational qualifications (Bathmaker, 2005:85).

Crudely stated, some scholars tend to view disciplinary learning as being primarily about promoting codified learning that enables progression to vertical academic knowledge and further learning rather than to proficiency within the workplace. Such divergences of perspective about the purposes and value of traditional theoretical programmes offered mostly in academic institutions, on the one hand, and occupationally directed learning programmes undertaken largely in workplace settings (such as the NQF-registered insurance industry programme), on the other, proved to be key stumbling blocks in the research project described in this article. Those same divergences of perspective led to critical differences in pedagogy and practices that ultimately affected learner performance.

The impact of competing discourses on implementation¹

In spite of TVET colleges' primary focus being vocational training, traditional programmes have led to largely theory-based qualifications that had little practical or workplace experience as a component of the qualification. The qualification to be offered in the pilot project at TVET colleges was therefore a new 'demand-led' programme that had not previously been offered in these institutions. This entry-level qualification offering access to the insurance industry designations was an NQF-registered, unit standards-based occupational programme. A large proportion (70%) of the learning on this programme was intended to take place in the insurance workplace and only 30% of the learning by means of the usual didactic delivery.

¹ The evidence presented below stems from a detailed research study conducted by a university research institute on the articulation of professional qualifications for the insurance industry.

The mode of delivery was prescribed by the sectoral body responsible for the quality assurance of this qualification; it was defined as a 'learnership' similar to the apprenticeship model which entailed a tripartite agreement between the learners, a training provider and an employer. A learnership is defined by the South African Qualifications Authority (SAQA) as:

A work-based learning programme that leads to an NQF-registered qualification. Learnerships are directly related to an occupation or field of work, for example electrical engineering, hairdressing or project management. Learnerships are managed by sector education and training authorities (SETAs) (SAQA, 2014).

Whereas in-house industry training providers are often able to offer both workplace training and the theoretical learning, this was not the case with public TVET colleges. South Africa's Labour Relations Act 66 of 1995 and the Compensation for Occupational Injuries and Diseases Act 130 of 1993 have specific provisions that prevent non-employees from working or training in the workplace, as non-employees are not covered by insurance should any accident occur in the workplace. This meant that the TVET colleges participating in the project provided the theoretical training only, while the insurance companies used their own staff trainers to provide the workplace learning component.

One hundred employed insurance candidates undertook the NQF Level 5 qualification in financial planning at public TVET colleges. The qualification consisted of 80 discrete unit standards, ranging from 2 to 15 credits and totalling a minimum of 120 credits to be achieved. To illustrate the way the standards are written, one of the unit standards intends the learner to 'Adapt and verbally communicate financial information to a range of audiences' (SAQA ID No. 242614) and is assigned a total of 2 credits or 20 notional hours of learning. This unit standard has 14 assessment criteria according to which a learner's competence can be assessed.

The qualification is divided into fundamental, core and elective components. Fundamental knowledge for this qualification focuses on economic knowledge and the financial sector, and is closely related to the occupation of a financial planner. In this programme, this learning identifies closely with Bernstein's (1999) notion of a 'horizontal discourse', where the primary aim of the qualification was to ensure that learners followed a tightly prescribed curriculum that focused on their ability to act as insurance brokers. No provision was made in this qualification for acquiring the fundamental disciplinary knowledge that would enable learners to engage in further academic study. The fundamental unit standards for the financial planning qualification are as set out below.

TABLE 2: Fundamental unit standards for the financial planning qualification

Fundamental	Apply basic economic principles to the financial services sector	Level 5	Level TBA: Pre-2009 was L5	5
Fundamental	Demonstrate insight into current affairs in the financial services sector	Level 5	Level TBA: Pre-2009 was L5	10
Fundamental	Demonstrate knowledge [of] and insight into the changing nature of the financial services industry and its consumers	Level 5	Level TBA: Pre-2009 was L5	6
Fundamental	Demonstrate knowledge and understanding of risk in a financial services environment	Level 5	Level TBA: Pre-2009 was L5	5
Fundamental	Describe the financial life cycle of an individual and how this influences financial decisions	Level 5	Level TBA: Pre-2009 was L5	8
Fundamental	Present an informed argument on a current issue in a business sector	Level 5	Level TBA: Pre-2009 was L5	5

While all the stakeholders provided support and there was certainly the political will for the articulation project to succeed, the lack of foundational knowledge at the first-year level of the NQF-registered qualification proved highly detrimental to learners' progression at the university once they had succeeded in attaining the first level.

The university had commissioned a study that could provide a mapping of the first-level TVET college qualification onto the university-level qualification. Using a contextual and conceptual mapping tool that drew on research from Muller (2008) and Gamble (2009), based on Bernstein's (1999) theoretical approach, it was found that only 12 credits offered in the first-year-level programme offered at TVET colleges could be awarded towards the university Bachelor of Commerce degree. The tool developed by two universities devised knowledge typologies that distinguish between 'conceptual' and 'procedural' (or contextual) knowledge, and, for each of these types, further distinctions between principled and procedural were made, consequently creating a four-part knowledge typology, as follows:

- conceptual knowledge;
- procedural conceptual knowledge;
- principled procedural knowledge, and
- procedural knowledge.

Both conceptual and procedural (or contextual) knowledge can therefore be principled, but with an important difference: in principled procedural knowledge the principles emerge from

the procedures themselves; in other words, they emerge from the codification of practice. In procedural conceptual knowledge, 'the principles emerge from the conceptual domain or from the theory' (Palframan, Nel & Baduza, 2012).

The reason cited for there being so few recognised credits was that the university provided foundational knowledge in the first year of the degree to prepare learners for the complex mathematics and economics concepts that students would need in the second- and third-year levels of the undergraduate degree, which was not the case in the college-delivered programme. The university was therefore unable to accredit any of the fundamental knowledge provided in the NQF-registered qualification because it did not match the disciplinary knowledge in the courses provided by the university.

Another factor to consider is that graduates of the NQF-registered qualification struggled with the academic level of the economics and mathematics taught in the university diploma. This largely accounted for the high dropout rate experienced by students once they reached university. The faculty view was that an intervention was needed that would build the candidates' foundational knowledge of mathematics, communication and economics, as this clearly needed strengthening. The envisaged bridging programme to prepare learners for university study after their graduation from the college programme did not materialise, as it had not been built into the funding.

In addition, the workplace learning component of the college-level qualification proved to be highly problematic. Despite assurances from the sectoral body responsible for insurance qualifications that it would provide a logbook to monitor workplace activities, this was delayed by nearly a year from the start of the project. Learners were not allowed to include their previous workplace experience (as they were employed candidates) for credit-bearing purposes in the logbook and could record only their current on-the-job learning; neither were employers reimbursed for providing workplace mentors to quality-assure the learners' logbooks. Furthermore, many of the employed learners who were working in insurance call centres struggled to get released by their line managers for the purposes of training in other divisions of the insurance company. Many workplace mentors viewed the logbook as a 'checkbox' exercise where workplace learning tasks were signed off with minimal evidence having been presented that these tasks had been completed. Through the mediation of the sectoral body, a compromise was eventually reached that candidates could focus on specific workplace tasks that enabled them to complete their workplace portfolio of evidence.

A further finding was the difficulty encountered by the university and the TVET colleges in providing adequate learning materials that encompassed all of the content prescribed in the qualification. Public TVET colleges had minimal experience in developing curricula because the mainstream programmes used prescribed learning material funded by the national education department. While the professional body had made their curricula available to the project, the insurance sectoral body felt that the learning materials were deficient, an issue that remained a source of tension throughout the project. The sectoral body held, further, that the learning

material for the college programme should be mapped against the 80 unit standards and 144 assessment criteria of the qualification.

Furthermore, a prescribed textbook used by all universities offering financial planning qualifications at undergraduate levels was deemed ‘insufficient’ by the sectoral body in the light of the atomised learning content of the occupational programme. And, although additional funds were able to be sourced and allocated to the university to develop customised learning materials that addressed the unit standards and assessment activities, the university academics had little understanding of such outcomes-based materials and instead outsourced the materials development to industry experts. This, in turn, led to copyright issues, as some of the industry experts appeared to resort to materials that had previously been developed for other private training providers. To resolve the impasse and the learning delays this had led to, the professional body commissioned a private provider to develop the requisite learning materials for the university programme.

Another major tension that surfaced in the project and most certainly disadvantaged the candidates, was that of the difference in approach to assessment and quality assurance adopted by the TVET college under the sectoral body regulations and that of the university as an institution with a lot more autonomy in curriculum matters. Learners following the first-level, outcomes-based and unitised qualification at TVET colleges were allowed to repeat their formative and summative assessments up to three times in order to reach the required level of competence in the specified outcomes and assessment criteria. While grades were provided for these assessments, the aim of the assessment structure was to measure competence rather than academic excellence. When these learners progressed into the university diploma, however, they encountered a very different assessment regime which did not permit learners to repeat assignments as part of their continuous assessment or formal examinations. Assignments at university also required them to source texts independently from libraries or the Internet as opposed to being provided with a set of learning materials that contained all the content required for the qualification.

The university curriculum was organised into 8 × 20 credit modules, delivered part-time to the employed students after hours. The exit-level outcomes for the content of the university diploma were far less specific, and the faculty had considerable autonomy about the content and methodology needed for students to meet the broader outcomes. Examples of such exit-level outcomes are these:

- Able to identify and solve management problems using some judgement across a range of functional areas.
- Able to collect, analyse and organise theoretical and practical information across a range of functional areas of management, and critically evaluate information if an area of specialisation is selected.
- Demonstrate an understanding of the organisation as a set of related functions by applying holistic approaches to strategic business problems.

As can be seen from these outcomes, the students would be required to engage both practically and theoretically with the subject matter, the emphasis being on acquiring broader self-directed learning skills.

In the following section we return to the theoretical framing employed in this article to illustrate critical differences in the learning discourses that had a seminal impact on the success of the articulation project.

What were the learning approaches of the project?

The attempted articulation route into professional qualifications in the insurance industry revealed fundamental differences in learning approaches between standardised outcomes-based qualifications in the workplace and disciplinarily ‘whole’ qualifications offered at universities.

Both types of qualification offered in the project contained elements of Bernstein’s (1999) horizontal discourse, in that they included practical and tacit knowledge related to the occupational tasks of insurance brokers. But the occupational qualification underwritten by the sectoral industry body was tightly prescribed and sequenced in terms of specific segmental knowledge and competencies required by the workplace. On the other hand, the university qualification focused primarily on the theoretical and disciplinary knowledge needed to satisfy the academic requirements of academic undergraduate and postgraduate qualifications. This difference in understanding of the purpose of the qualification led to the foundational knowledge of the workplace qualification being seen by the university as adequate to prepare learners for further academic study, whereas the TVET colleges understood the purpose to be preparing learners to be competent in the insurance industry. Assessment and quality assurance processes and procedures for the insurance occupational qualification appeared to be too tightly prescribed and unable to incorporate the broader disciplinary knowledge outcomes that would enable learners to progress in higher education studies.

Conclusion

The project starkly revealed the difficulties of combining, in a single articulation route, a unitised qualifications approach as employed in the workplace-directed occupational programme with the traditional disciplinary-based qualifications approach of universities. While the occupational programme embarked upon at the TVET college focused on the immediate short-term skills needs of the insurance industry, it did not lay the foundation needed by candidates who might wish to progress to higher qualifications at university for the purposes of acquiring the higher professional designation.

The project therefore indicated that future interventions aimed at articulating academic and occupational qualifications in South Africa will need to take account of the curriculum development, learner support and lecturer capacity-building required for integration of horizontal and vertical knowledge constructs, and how these manifest in institutional pedagogies and practices.

We hope that the findings of this articulation research can be used by policy-makers to inform the recently developed qualifications frameworks for the training of TVET college lecturers so that sufficient capacity can be built to ensure effective articulation generally between TVET colleges and universities.

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