Apples and oranges?

Comparing standards of vocational and general courses

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Abstract

This paper makes an argument about the development of a methodology for comparing the relative standards of different courses within the same broad subject areas. The paper argues that different courses can be compared using a clear framework which enables an examination of specified content as well as difficulty levels of examination questions within specified levels of cognitive challenge. It further argues that specified learning outcomes do not seem to be particularly useful in this type of comparison. This is particularly significant in relation to South African education policy that has assumed that outcomes can be the primary vehicle for specifying the level of a qualification or learning programme.

Introduction

The paper analyses research conducted by the author at Umalusi, and published by Umalusi in 2006 as *Apples and Oranges: a comparison of school and college subjects*. The aim of the research was to compare the standards of different courses at the same level. Specifically, the research compared courses between general and vocational education tracks. The paper provides an analysis of the research, and makes its argument based on an examination of the research methodology and a consideration of its implications.

Umalusi is a statutory body with a national mandate to issue certificates at a secondary school level, and monitor standards at both primary and secondary levels. As such, mechanisms for judging the standards of courses are very important to Umalusi. Umalusi awards certificates for learners in schools—the Senior Certificate, or Matric, as well as for learners in colleges—the National Senior Certificate and National Certificates. These two qualifications are supposed to have some degree of equivalence between them, amongst

other reasons because they are both at level four of the National Qualifications Framework (NQF). New courses have been developed against unit standards registered on the NQF, which are also supposed to be at the same level. As Umalusi increasingly starts to certify additional qualifications, making judgements about the equivalence between different courses will become an increasingly important part of Umalusi's work.

This paper considers the implications of the research comparing vocational with general qualifications in terms of Umalusi's future work. I argue that this research demonstrates that it is only through a framework which looks at specified content and evaluates difficulty levels of examinations within specified levels of cognitive challenge that comparisons can be made across courses. A further implication of this is that meaningful comparisons can only be made within the same broad subject area. This is at odds with the notion of standards and equivalence that was introduced through the National Qualifications Framework in South Africa.

Thinking about equivalence and standards

Standards and notions of equivalence have become increasingly important internationally, as qualification inflation has caused senior secondary school certificates to loose their relative value, and there are increasing enrolments at higher levels of education systems. A further contributing factor is greater public pressure on governments to be accountable in terms of how taxpayers' money is spent, and as such, education systems are under pressure to prove that they are providing 'value for money'. A particularly important but difficult area is making judgements about the relative standards of vocational and general or academic education programmes.

South Africa is no exception to these trends. There has been much concern about 'standards' in our education system, particularly focused on the school-leaving examination, which in South Africa is the Senior Certificate, as well as on the relative standards of various vocational and occupational programmes. In South Africa, Umalusi is the body with a statutory obligation to monitor the standards of qualifications and curriculum, as well as to moderate examinations at the senior secondary level. However, there are also other quality assurance bodies operating in specific industrial and occupational areas. A National Qualifications Framework (NQF) is supposed to be the mechanism to ensure equivalence and standards across this entire system.

Standards traditionally have to do with levels of difficulty in education systems—the breadth and depth of the curriculum in the different knowledge fields. Breadth and depth are affected by the number of knowledge fields or subject areas that learners study for the school-leaving examination. Examinations have played a central role in standards setting in most education systems, because the level at which learners are assessed has a backwash effect on the level at which they are taught—the cognitive breadth and depth of the exam will influence the cognitive breadth and depth of the implemented curriculum. During the process of marking examinations, teachers become familiar with what the expected 'standard' is—they get a sense of what is meant by a pass in a different subject area, what is meant by a high achievement, and so on. This then feeds back into the classroom and has a strong influence on teaching in the final phase of schooling.

However, in South Africa the NQF as well as the outcomes-based education curriculum that was developed for the school system were supposed to be significant mechanisms for solving the problem of 'standards'. They were both based on the idea that the specification of learning outcomes is a useful mechanism for determining the cognitive level of a qualification or learning programme, and for ensuring and determining equivalence between different courses within different subject areas. Each of level of the NQF is defined by 'level descriptors' which are supposed to 'describe the nature of learning achievement, its complexity and relative demand at each level of the NQF, distinguishing between the learning demands at each level' (SAQA 2001, p11). Learning outcomes for each qualification and programme are supposed to be designed against these level descriptors. The learning outcomes, often referred to as 'standards' are in turn supposed to ensure that both learners and people who are assessing learners have a clear description of 'what must be assessed, in what contexts, and the standard of performance required' as well as a 'a means of recognising achievements (records of learning and/or competence portfolios will indicate what qualifications and unit standards have been achieved by learners)' (SAQA 2000, p. 17). Similarly, in the outcomes-based curriculum that was developed in the school system, was premised on the notion that if learning outcomes were specified, the curriculum could be developed against them, and this would ensure a clear sense of what it was that learners were supposed to learn, as well as what they were competent to do after assessment.

In particular, one of the aims of the NQF was to raise the status of vocational education in society, by designating vocational qualifications at the same level as general qualifications. Many countries internationally have used qualification reform as a mechanism to try to improve standards, as well as to clarify the relationship between different qualifications at different levels, and, as in South Africa, one important feature of qualification reform at senior secondary levels internationally has been attempts to create equivalence between vocational and academic qualifications. Vocational education is of increasing concern to governments internationally, and the South African government is no exception (Allais 2006). However, in many countries around the world, resolving the relationship between vocational and general education programmes at the senior secondary level has proved fraught with difficulty. Nonetheless, it is increasingly important, if the government is going to achieve its aim of encouraging significantly higher numbers of learners to enrol in vocational programmes. Thus, partly because of the increasing pressure for goverments to expand enrolments in vocational education, as well as because of increasing numbers in secondary schooling, notions of 'standards' and of 'equivalence' have increasingly been under the spotlight.

In the context of the pressure for maintaining and improving standards, as well as providing accurate information about equivalence, research was designed to assist Umalusi in understanding the practical reality in various courses currently on offer in South Africa. The research therefore involved an in-depth look at some of the actual courses offered in general and vocational education programmes. The research was not premised on the idea that equivalence is necessary or desirable, simply that it has been an important policy goal, and that formally, and from the point of view of information provided to learners, the qualifications currently are supposed to have a correspondence.

It is important to note that the research could be seen as badly timed, as both the current Senior Certificate and the current vocational programmes were about to be phased out as the research was implemented. In addition, the current vocational programmes have been the subject of much criticism, and are generally perceived to be of an inadequate standard—it could be questioned, therefore, why such research was necessary. Umalusi felt that, notwithstanding imminent policy change, serious questions and debates will remain about the nature of curriculum change which is needed, particularly in vocational education. A substantive understanding of the exact nature of these courses and potential problems with them will be a significant contribution to future policy reforms. But more importantly for Umalusi's future work and for education policy in South Africa, the research offered possibilities for thinking about standards, and it is this aspect of the research that is the focus of this paper.

A particular concern in this regard was Umalusi's relationship with other quality assurance bodies. Umalusi currently quality assures examinations, and accredits private providers as well as examination bodies, in order to be able to issue certificates for specific qualifications. However, Umalusi is expected to co-operate with quality assurance bodies which are constituted under the Sector Education and Training Authorities (Setas), which operate in a completely different quality assurance model, based on delegated assessment as opposed to examinations. Umalusi is also responsible for monitoring the suitability of standards for the qualifications that it certifies in the General and Further Education and Training Bands of the NQF. As such, the research also aimed to assist Umalusi to be able to engage more meaningfully with debates about pathways within senior secondary education. In short, the research had considerably broader aims than merely making pronouncements on the relative standards of the selected subjects: Umalusi wanted to reflect on its current quality assurance mechanisms, and to develop meaningful ways of co-operating with other quality assurance bodies.

About the research project

The broad aims

This section of the paper provides a very brief overview of the research that Umalusi conducted, including a very brief discussion of the research findings, and some of the conclusions and recommendations.

The research was specifically designed to develop a better understanding of the current nature of vocational courses in South Africa—to determine whether they are in fact equivalent to school subjects at the same level and whether they prepare learners for higher education.

Preparation for higher education was included partly because linkages with higher education is an important way of improving standards of senior secondary programmes. Also, input from higher education institutions can also provide valuable information about the relative standards of different courses. In the United Kingdom, creating vocational qualifications that lead to higher education has played a significant role in encouraging learners to enrol for vocational programmes (Wolf, 2002). Countries with strong vocational programmes at secondary level, such as Germany, Austria, and the Scandinavian countries, tend to have

established pathways into higher education programmes within the vocational area being studied. However, in South Africa learners studying in FET colleges have generally not intended to go to university, and most of the courses were not designed with higher education in mind. The courses were also often designed to cater for learners who had not succeeded in school, which made it even less likely that they would be designed from the point of view of higher education study.

Although preparation for the workplace is a crucial aim of vocational qualifications, it was not possible to include this aspect in this research; it will be the focus of a follow-up research project.

The qualifications in question

There are three main types of certificates that Umalusi issues: the Senior Certificate, for learners in school, and the National Senior Certificate and National Certificates for learners in colleges. In the past in South Africa subjects for Senior Certificate, commonly known as the Matric, were offered on two main levels: Higher Grade which was supposed to be more cognitively challenging, and Standard Grade which was designed as an easier alternative. College or vocational qualifications were seen as the equivalent of the school qualification, but at Standard Grade level. Under the NQF, there is a series of qualifications all designated to be at level four—the level of the Senior Certificate. Various new qualifications and part qualifications (unit standards) have been registered at this level. Currently, these are not issued by Umalusi, although there is pressure on Umalusi to co-operate with other quality assurance bodies with regard to some parts of these qualifications.

For the purposes of the research, a few individual subjects that are taken in the different learning pathways were selected. The subjects selected were Mathematics, Science, and English courses, as well as courses within the broad area of Hospitality. There were three different kinds of courses selected. The first were those taken by learners in high schools. The second were those taken by learners in Further Education and Training colleges—in other words, learners enrolled in vocational programmes. The third type of courses were new courses that had been developed against unit standards registered on the NQF. The intention of the research was to compare courses in the *same* subject areas, as well as to explore the extent to which the different courses prepared learners for higher education. (Note that this is a far more modest investigation than the notion of equivalence introduced through the NQF, which makes a claim across subject areas.)

It is worth noting that research was inevitably incomplete because each course is part of a total package. The location of the course within this package affects what the course is—that is, the role that the course plays in the development of the learner. The standard of the qualification obtained is a product of the combination of the different subjects taken; the subjects should not be looked at only in their own right. The vast majority of learners writing the Senior Certificate are studying six subjects at the same time. In general these subjects are part of a three-year programme—what is examined in the final examination is taught over the second and third years, with the first year in most cases laying the basis for the next ones. Learners writing N3 Engineering in colleges, on the other hand, may study for only one year in total, taking four subjects done in a series of three trimesters each (for N1, N2, and N3 respectively). The final examination for N3 is based on the last trimester only. Learners studying for the National Senior Certificate usually do six subjects over two years; the final

examination is often based on the Grade 11 syllabus as well as the final year or Grade 12 syllabus, and sometimes even tests items taught in Grade 10. In some subjects only the Grade 12 syllabus is explicitly tested. Obviously, for the National Senior Certificate, the National Certificate, and the Senior Certificate, the knowledge tested in the final year is cumulative, and builds on knowledge and abilities taught in earlier courses. From the point of view of preparation for higher education, this is particularly important. It could be possible, for example, that a course which provides training in memorization and organization of knowledge in an area like hospitality, without any conceptual or abstract thinking, could play some role in preparing learners for higher education, as long as the other courses that learners are taking develop the other skills and abilities required. It is thus difficult to make a judgement about a course on its own, in terms of higher education preparation.

The research methodology

Two teams of researchers commissioned by Umalusi examined courses in the different subject groups in order to provide answers to the two research questions. First, a team of four practitioner evaluators for each subject evaluated syllabuses, examination papers, memoranda, and marked scripts for the courses, as well as course packs for some of the new NQF courses. Each team consisted of two Grade 12 educators and two college lecturers who had produced consistently good results. One member of each group had participated in Umalusi's 2004 *Investigation into the Senior Certificate Examination*. Second, a team of four higher education experts, drawn from universities and universities of technology, evaluated the same data, as well as the reports of the practitioners.

Evaluators were asked to analyze the courses using three main categories of comparison: content coverage, key concepts and procedures, and expected outcomes. Criteria and guidelines within each category were developed, and evaluators were asked to rate examination questions on a scale of cognitive challenge. The three categories and the scales of cognitive challenge were used as the basis for judgements about both research questions—the equivalence of the courses, and the extent to which they prepare learners for higher education.

Evaluators worked jointly in workshops and individually to produce analyses of their subjects. A single report was produced by each of the two groups of evaluators in each subject area. Umalusi produced this report on the basis of a synthesis and analysis of the subject reports.

Overview of findings

The evaluators found that, based on the amount of knowledge to be learned and the level of cognitive challenge at which it is examined in the courses, the college courses are seriously lacking. They further found that the unit standards-based courses could not be evaluated.

In Science, Mathematics, and English (Home and Additional Language) there was clearly no equivalence between the school and college subjects—the National Senior Certificate courses were seen as far less substantive and were tested through examinations which contain few challenging questions. The school or Senior Certificate subjects were found to

be broader than the corresponding college or National Senior Certificate subjects, and the examinations for the former certificate were in general considerably more challenging. It was argued that vocational question papers needed to be more challenging and less predictable. In other words, to again work with the metaphor of the title, what was found was that the courses were not apples and oranges, but more like apples and half apples. Apples and oranges would imply that the courses are different in appropriate ways and good in their own terms. What seems to be the case, however, is that, particularly for Mathematics, Science, and English, the college subjects are weaker versions of the school subjects.

There are no formally equivalent courses in Hospitality across schools and colleges, although there is a lot of common content in the courses. However, it was most difficult to conduct a meaningful comparison, and in fact only part of the two courses was compared.

None of the four college subjects examined as part of this research were found to prepare learners for degree study in higher education. However, many of the school subjects were also seen as seriously lacking in the content, skills, and levels of cognitive challenge required to prepare learners for degree study.

Some of the findings were relatively straightforward. For example, for both Mathematics and Science, the college courses are taught over a dramatically shorter period than the Senior Certificate courses, providing learners with insufficient time to master the content in question. This correlated with a general finding that the college courses covered the content in less depth. Further, the Science and Mathematics courses in college were examined through a single question paper, while the school subjects had two. The college courses had a more rigid format, and this, evaluators argued, was likely to lead to more predictable examinations over time. Evaluators also pointed out aspects such as the speed at which learners were expected to work in the different papers, arguing on this basis, for example, that the college Mathematics paper was easier in this respect than the Standard Grade school paper. The time problems in some of the vocational courses is a historical legacy of the trimester system, which was developed for apprentices who would also have been learning in the workplace. It was argued that this system was clearly no longer appropriate, and in particular was seen as limited in terms of learners' chances of mastering a substantive body of knowledge.

Differences in terms of content were more debatable. For example, with regard to Science the college and school courses are relatively similar in terms of the *amount* of content specified, although, due to the shorter time of the college course it seems less likely that learners would be able to master the content, and more likely that topics will be covered in less depth. However, there is a substantial difference is in the nature of prescribed content. The college course consists of Physics only, while the school course includes Physics and Chemistry. The former course does have additional Physics topics and industrial applications not covered in the Senior Certificate course. Some of the evaluators felt that the courses could be seen as different but equal. Others strongly argued that the inclusion of Chemistry in the Senior Certificate courses make them substantially broader, and of a higher standard because different levels of scientific thinking (macro and micro) were being taught.

Similarly, in English there was considerable debate about literature. Some evaluators felt that the exclusion of literature made it very unlikely that learners would have sufficient exposure to extended reading of continuous prose, and as such they would be unlikely to become very good readers. The argument was that literature is the best (or easiest) way of ensuring that learners master complex language forms. Others argued that literature was not important, and that any kind of continuous reading should be seen as adequate. The research itself did not shed light on this question. In the courses under examination, it was only the courses that taught literature that had anything approaching sufficient amounts of reading. Nonetheless, evaluators still maintained that while the other courses in the present study were seriously lacking in terms of reading, a conclusion should not be drawn that literature per se is necessary in an English course.

Another debate in English related to breadth relative to depth. The evaluators found that with regards to writing, the students on the college programme did more writing, but of a far more limited variety.

Evaluators made various comments on the form and presentation of the syllabuses. For example, the Mathematics evaluators felt that both sets of syllabuses were inappropriately compartmentalized. In both English and Hospitality the syllabuses were found to be in a state of some disarray.

Considering the methodology with regards to making judgements about standards

The methodology of this research raises particular points of interest for a discussion about standards and about equivalence. Making judgements about standards and the difficulty level, as well as appropriateness of curricula and examinations, is fraught with difficulty. Nonetheless, benchmarking the breadth and depth of curriculum and assessment is the task that Umalusi is mandated to carry out in South Africa. There were a few key components to the methodology of this research project which could have bearing for future work.

It is common cause that subject experts should make judgements on these kind of questions. However, this particular methodology goes further to guide the nature of the judgements being made. The evaluators were asked to use three different lenses to investigate the different curricula: content, concepts, and outcomes. The intention was to compare all three of these for the intended curriculum (the prescribed syllabus) as well as for the examined curriculum (the examination question papers or assessment tasks). Within these broad categories, evaluators were provided with guidelines and further specifications.

It is important to consider how three different categories were able to assist the evaluators to make their judgements.

Firstly, consider the third category: outcomes. As discussed above, the specification of learning outcomes was introduced in South Africa as a mechanism to ensure that courses were of the required standards, as well as to enable comparisons between courses. This research raised interesting problems with this notion. Consider the following problem faced

by the evaluators: they were confronted with a set of courses developed against learning outcomes registered on the NQF. In some instances, different courses claimed to lead to the same learning outcomes. How were they to judge whether or not these courses achieved the stated outcomes?

Bear in mind that the only thing prescribed, in this model, is the learning outcome. There is no prescribed content. The 'courses' that the evaluators were confronted with were in fact a collection of suggested classroom activities. But how, then, could evaluators make a judgement about the relative standard of different programmes that both claimed to lead to the same outcomes, and consisted of very different suggested activities? How, in the absence of summative assessment instruments, could evaluators make any sense of what level of knowledge and skill was expected from learners? Contrary to claims of outcomes-based qualifications systems, the outcomes themselves did not contain any way of resolving this problem—it was clear from the different courses that the same outcome could be interpreted in very different ways. Because of this problem, the evaluators in fact were not able to conduct a systematic evaluation of these courses.

A few possible concerns were raised. For example, the Mathematics evaluators felt that it was possible that because the contextualized Mathematical Literacy course was so embedded in the context there was a serious danger of losing sight of the mathematical competencies being built. The English evaluators felt that the suggested texts in the course packs were very inadequate. However, what is more significant was the fact that the evaluators were unable to compare these courses, because this implies that an approach to curriculum design in which only outcomes are specified will make quality assurance unreliable or untenably expensive. If quality assurance bodies are to make judgements about courses in which there is no stipulated content and no summative assessment, they will have to physically visit classrooms, moderate individual assessments, and evaluate individual learning programmes. All of this sounds nice educationally, but is completely untenable from a financial point of view in a large education system, particularly in a poor country. Nonetheless, this is the mechanism adopted by many of the other quality assurance bodies (operating under the Sectoral Education and Training Authorities, or SETAs) with which Umalusi must work.

The notion of aims/objectives/outcomes when considered in relation to prescribed content, as part of a syllabus document, proved to be a more useful notion. A consideration of what the course was aiming to do—such as, preparing learners for the workplace, as opposed to preparing them more generally for further education and taking their place in society, enabled fruitful debates and discussions about what kinds of content areas should be prescribed. In other words, prescribed outcomes or aims are a very important component of a syllabus, but are not useful when considered separately from a syllabus.

If outcomes did not enable a meaningful comparison, how was the majority of the evaluation conducted? Through developing tables that outlined the topics covered in the different courses, evaluators were able to create a picture of the relative breadth and depth of the courses. They were able to demonstrate that an examination of the nature and number of topics specified in the syllabuses was a significant mechanism to make judgements about the relative standards of courses. This does not mean that a specification of the key content

areas eradicated the need for debate and expert judgement—as discussed above, there was considerable debate, for example, about the replacement of Chemistry with additional topics from Physics in the Engineering Science course, and about the inclusion of literature in an English course. However, a grid of topics covered enabled a first level of comparison, and also provided the framework for more evaluative discussions and judgements to take place.

However, by only comparing the prescribed content, evaluators were not able to make a judgement about how challenging the course was, what kinds of cognitive abilities were actually expected from learners, and at what levels of difficulty. It was only a consideration of the question papers that enabled this kind of judgement. Evaluators developed tables specifying different levels of cognitive challenge, and providing examples within their subject area. As an example, the table below shows the matrix developed by the Science evaluators.

Table 1: Categories and levels of cognitive demand within Science exams

Category	Level	Descriptions	Examples
Factual recall / rote	**Simple (1)**	State a simple law or equation	State Newton's laws etc.
	Medium (2)	Recall complex content	Process for lab preparation of chemical compounds; testing for presence of diff chemicals; inorganic chemical interactions
Understanding of concept / principle	**Simple (1)**	Simple relationships; simple explanations	Relationship between resultant and equilibrant; explain what is meant by … ;
	Medium (2)	Counter-intuitive relationships; Qualitative proportional reasoning; more complex relationships or explanations	Direction of acceleration for free-fall; effects of changes in circuits; identifying acid-base conjugates, redox pairs etc; simple influences on dynamic equilibrium
	Challenging (3)	Identify principles which apply in a novel context	Identify all influences on realistic motion; identify isomers of organic compounds; complex influences on dynamic equilibrium
Problem solving	**Simple (1)**	Simple procedure; plug into formula with only one unknown; no extraneous information; known or practiced context	Given current and resistance, calculate voltage; etc
	Medium (2)	Construction or interpretation of diagrams; problems with 2 or more steps; basic logic leaps; proportional reasoning; interpretation of table of data	Graphs of motion; force or vector diagrams; concentration or molar calculations; naming of organic compounds; writing and balancing equations for reactions
	Challenging (3)	Complex abstract representation; combination of concepts across sub-fields; complex problems involving insight and logic leaps; formulating new equations (using all unknowns); problem solving in novel context	Interpret complex graphs; translate between various graphs of motion; combine equations for mechanical energy and motion; combine gravitational and electrostatic forces; complex circuit calculations; combination of various factors influencing equilibrium

Note that the tool includes different kinds of cognitive processes that are important for Science. These are divided into different levels of difficulty, with a description of what exactly is meant, and examples. Systematically applying tools like this one to items in the question papers enabled evaluators to make judgements about the relative standards of the

different papers. Again, the tool did not remove the need for debate and discussion—there will always be disagreement amongst subject experts about difficulty levels, and a range of other factors affect how difficult any particular paper is for individual learners. Factors such as predictability of question papers is obviously a major concern here. However, the tools developed enabled evaluators to make informed decisions that were at the same time more accountable, from the point of view of the research (or, the quality assurance body) than simply making statements based on expertise.

Implications for Umalusi's work

In sum, the research provided a much-needed insight into an issue which has been dealt with in overly general terms in South African education policy—the notion of equivalence. It became very clear during the course of the research that it is very difficult to talk about equivalence in generic terms—specific content areas and tested levels of cognitive challenge within content areas need to be investigated. The evaluators found, however, that it was quite possible to compare the different courses within the same broad subject area when a clear framework which looked at specified content and evaluated the difficulty level of examinations within specified levels of cognitive challenge was used. To extend the metaphor of the title, apples and oranges *can* be compared from the point of view of nutritive value—composition and amount of various dietary elements.

For the purpose of future considerations about standards, and the development of systems and processes to deal with standards and equivalence, one of the important outcomes of the research was that it showed clearly the problems of using only outcome statements as an expression of desired standards for a course. Stipulating only learning outcomes is not a viable approach to curriculum if any degree of standardization or equivalence is believed to be important. Dramatically different courses claimed to lead to the same or similar outcomes, and the outcomes themselves did not contain anything which could resolve this problem. As stated above, it was the evaluative framework, which consisted of comparing the breadth and depth of specified content as well as judgements about assessment instruments, that enabled any real understanding of the courses. The specification of outcomes is like the orange peel—there is nothing substantive that can be seen or judged from the outcomes alone. This has serious implications for Umalusi when it considers how to work with other quality assurance agencies, who may base their quality assurance processes on evaluations against learning outcomes.

Probably the strongest message that came from the research was that urgent attention needs to be paid to curriculum development in South Africa—particularly the development of user-friendly syllabuses which provide clear indications to teachers about the key knowledge areas to be covered and the levels of cognitive challenge to be assessed. Syllabuses should also guide teachers with regard to teaching approaches for the key content areas; this was particularly urgent in vocational programmes.

Following from this, what will be essential for Umalusi in terms of its role in monitoring the adequacy and suitability of standards and qualifications is the consolidation of the categories and criteria used in this research into tools which can be used to make judgements about curriculum statements, syllabuses, and examinations. The categories, criteria, and evaluative

scales developed in this research and the 2004 *Investigation into the Senior Certificate Examination* will provide a substantive basis from which Umalusi can develop tools for the evaluation of syllabuses and examinations. From a systemic point of view, Umalusi will also have to engage with other quality assurance bodies to attempt to build a common model.

References

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