Do Statutory and Professional Bodies in South Africa Threaten Academic Freedom at Universities: a Perspective from the Engineering Profession

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Structured Abstract

BACKGROUND

There is a perception amongst university leaders and leading politicians in South Africa that an increasing influence has been exerted on universities by some professional bodies in determining what can be taught and by whom. As a result, university leaders and academics have become concerned that the nature and extent of some professional bodies' involvement amounts to undue interference, with possible serious consequences for the academic freedom of universities.

PURPOSE OR GOAL

This study, limited to the engineering profession, is aimed at assessing the effect of statutory councils' accreditation visits and requirements on the protection of academic freedom in South African universities, with specific reference to teaching methodologies, the curricula and assessment practices.

DESIGN/METHOD

An exploratory empirical study is reported in this paper. A semi-structured questionnaire was used to elicit perceptions from Deans, Directors of Schools, Heads of Department and senior academic staff members in engineering faculties at universities in South Africa.

RESULTS

Among other observations, it appears that the selection of accreditation visitation panels, which is mostly in favour of academics as opposed to professionals in full employment in the industry, and documentation, a requirement of such visits, impact on academic freedom.

CONCLUSIONS

Accreditation of professional bodies should focus on the quality assurance of programmes, and should allow universities the academic freedom to *inter alia* determine curricula, teaching and learning methodologies and assessment practices.

KEYWORDS

Academic freedom, accreditation, engineering, higher education, South Africa

Introduction

There is a perception amongst university leaders and leading politicians in South Africa that an increasing influence has been exerted on universities by some professional bodies in determining what can be taught, and by whom. As a result, university leaders and academics have become concerned that the nature and extent of some professional bodies' involvement amounts to undue interference, with possible serious consequences for the academic freedom of universities. Some universities have started feeling increasingly uncomfortable with the apparent trend evident in some professional councils in exercising their role and functions in a manner which, in the view of these universities, amounts to excessively prescriptive pronouncements on curriculum content and design, rather than on the demonstration of desired teaching and learning outcomes as a pre-requisite for registration of professional practice. Views of an unacceptable encroachment by professional councils on the principles and practices of academic freedom and institutional autonomy at universities have been expressed (Stumph, 2014).

Literature Review

Academic freedom refers to a civil right of academics to engage in research, teaching and scholarly production free from control or restraint from their university employers (Galambos, 2010). According to Macfarlane (2012), academic freedom is about the freedom of scholars – and students, not just faculty – are scholars too. They are members of a community of scholars. This is an integral part of the Humboldtian tradition, where scholarship is defined in terms of the pursuit of knowledge and understanding as a common goal, necessarily involving both students and teachers.

By "academic freedom" in the present context, more specifically with respect to academics at public universities, Metz (2010) argued that it is the positive and negative abilities of an individual that determine his/her teaching and research, and hence exclude issues of academic rule. In the South African context, this perspective is represented by the views of TB Davie, a former Principal of the University of Cape Town, as articulated in the 1950s. He is often cited as maintaining that academic freedom is *"… our freedom from external interference in (a) who shall teach, (b) what we teach, (c) how we teach, and (d) who we teach"* (Metz, 2010). Furthermore, Rostan (2010) mentioned that, on the one hand, academic freedom is strictly connected with the idea that the pursuit of knowledge for its own sake through research represents the main goal of academic work. On the other hand, academic freedom and peer review are considered as necessary devices to ensure quality; i.e. quality is ensured by the self-steering capacities of academics or their professional autonomy. In the last few decades, several processes have impacted on academic freedom.

Part of the controversy surrounding academic freedom is that it has resulted in a conundrum that produces a paradox for education. In one version of the theory, academic freedom provides faculty members with the freedom to search for the truth. The countervailing view is that academic freedom provides the university, as an institution, with the right to determine who may teach, what may be taught, how it shall be taught, and who may be admitted to study (Placid *et al*, 2013). Volkwein (2010) mentioned that specialised academic and vocational accrediting bodies and professional societies scrutinise and accredit officially recognised academic programmes in an array of specialities. Institutions are eager to meet the standards set by these professional organisations, because accredited programmes attract the best students, as well as obtain federal and state funding (Volkwein, 2010). Every degree programme has aims and expected learning outcomes, and these are normally captured in the programme specifications. The courses comprising the programme are similarly specified in terms of their aims and learning outcomes, and these must be congruent with the aims and learning outcomes of the programme as a whole. One of the primary goals of accreditation is to verify that the aims and learning outcomes of a degree

programme and its constituent components are consistent with the standards expected of a professional engineer (Jaffar *et al*, 2009). Accreditation of undergraduate and advanced engineering education programmes is an important aspect of ensuring quality of education according to national and international criteria and benchmarks. Accreditation involves an evaluation and assessment of undergraduate and postgraduate programmes offered by universities and other educational providers through a well-defined peer review process whereby endorsements based on broadly designated parameters and criteria are rendered (Memon, 2009).

A number of important global consortiums for the accreditation of engineering education at various professional levels were initiated. The Washington Accord, signed in 1989, is an international agreement among professional or statutory bodies responsible for accrediting engineering degree programmes. It recognises the substantial equivalency of programmes accredited by those bodies, and recommends that graduates of programmes accredited by any of the signatory bodies be recognised by the other bodies as having met the academic requirements for entry into the practice of engineering (International Engineering Alliance, 2014). Other global consortiums, such as the Sydney Accord 2001, Dublin Accord 2002, and European Accredited Engineer Project 2005 for global engineering accreditation agencies, are also available (Memon, 2009). The Engineering Council of South Africa (ECSA) is a signatory member of the Washington, Sydney and Dublin Accords for professional engineers, professional engineer technologists, and professional engineering technicians respectively.

The Engineering Council of South Africa (ECSA) was established as a statutory body under the Engineering Profession Act, no.46 of 2000 (Government Gazette, 1 December 2000). The Act empowers ECSA to conduct accreditation visits to universities to evaluate educational programmes. ECSA applies a quality assurance system leading to the accreditation of several types of engineering education programmes. These programmes are currently the BSc (Eng)/BEng, BTech and National Diploma programmes (ECSA, 2012). Accreditation of an academic programme means that the programme is judged to satisfy the prescribed criteria and is able to continue to produce graduates who meet the outcomes criteria for a defined period of up to five years. Should a programme not satisfy all criteria, but evidence exists of commitment and capacity on the part of the provider to achieve full compliance within a stated time, the programme may be accredited for a period not exceeding three years (ECSA, 2006). This study, limited to the engineering profession, is aimed at assessing the effect of statutory councils' accreditation visits and requirements on the protection of academic freedom in South African universities, with specific reference to teaching methodologies, the curricula and assessment practices. As this study is limited to the engineering profession in South Africa, the statutory council in this case is ECSA.

Methodology

An exploratory empirical survey was conducted among engineering academics in the first part of 2014. The sample frame was purposive. Senior academic staff members in universities that offer engineering qualifications formed the sample for the study. Senior academic staff members participated in the study through postal mails and electronic mails. Due to the voluntary nature of surveys, only valid responses that were received at the end of the survey constitute the basis of the findings that are presented in this paper. The study records responses from 43 ECSA-affiliated academics, representing twelve (12) universities out of a total of sixteen (16) that are offering engineering programmes in South Africa. The reviewed literature resulted in the compilation of a questionnaire with closed- and open-ended questions. The questions relate to the relationship between programme accreditation and academic freedom in South Africa. The closed-ended questionnaires comprised Likert-type questions, which sought responses on a scale of 1 to 5. The descriptive statistics were conducted with the computation of a mean score (MS), an

average inter-item correlation used for correlation, and Cronbach's alpha internal reliability test, for each Likert-scale type question. The descriptive statistical tools, as explained by Franklin and Agresti (2007), were used. In brief, the Spearman rank order was used to test the nature and extent of association between variables. The least Cronbach's alpha coefficient recorded in the study is more than 0.80. This observation shows that the Cronbach's alphas of the study are between good and excellent, and as such, the MSs of the Likert scale questions can be combined into a single mean with either a good or excellent internal reliability.

Results

Table 1 indicates the observed responses related to the respondents' perceptions of academic freedom for an idealised community of scholars at a university. The responses, which ranged from "never" to "always", indicate that the freedom to discover and promote new ideas is valued most by the respondents. Although the respondents were of the view that all the variables in Table 1 could be used to describe academic freedom, the freedom to explore and research in an unconstrained area often have a better fit with the description of academic freedom among scholars. The prevention of interference with teaching and learning as well as the freedom to teach in any area without constraint sometimes constitute a description for academic freedom. The correlations among the views that were examined can be regarded as strong.

Table 1: Correlations between certain views and descriptions of academic freedom for an idealised community of scholars at a university

View	MS	Corr.	Alpha	Rank
Freedom to discover and promote new ideas	4.17	0.55	0.75	1
Freedom to do research in an unconstrained area	3.93	0.62	0.74	2
Freedom to explore any area of scholarship	3.73	0.62	0.73	3
Prevention of interference with teaching and learning	3.26	0.52	0.76	4
Freedom to teach in any area without constraint	3.00	0.55	0.76	5
Inter-item Correlation	0.44			
Cronbach Alpha	0.79			

Table 2 reveals that the respondents appear to justify the need for academic freedom within the community of scholars with the discovery of new knowledge that has implications for society. On average, the reason is perceived to be anchored by the propagation of new knowledge, the pursuit of truth, an appeal to a higher societal value and the protection of new knowledge. The findings in Table 2 suggest that the respondents support the idea that academic freedom within the community of scholars should contribute to knowledge generation and proliferation that benefit the society. The correlations in this table can also be regarded as strong.

Table 2: Justifications for academic freedom in a university, and correlations with benefits to society

Justification	MS	Corr.	Alpha	Rank
Discovery of new knowledge	4.26	0.69	0.80	1
Propagation of new knowledge	4.00	0.75	0.78	2
Pursuit of truth	3.85	0.71	0.78	3
Appeal to a higher societal value	3.71	0.51	0.84	4
Protection of new knowledge	3.70	0.62	0.81	5
Inter-item Correlation	0.54			
Cronbach Alpha	0.83			

As shown in Table 3, the inspection of documents and facilities, performance indicator scrutiny, and specially constituted panels have marginal effects on academic freedom when professional bodies embark on accreditation visits to various institutions. The data in Table 3 were based on a response scale of 1 (minor) to 5 (major). The respondents to the survey were requested to rate the extent to which certain accreditation-related activities affects the protection of academic freedom at universities in South Africa.

Table 3: Correlations between the perceived effects of certain accreditation-related activities and the protection of academic freedom at universities in South Africa

Activity	MS	Corr.	Alpha	Rank
Inspections of document and facilities	3.29	0.63	0.88	1
Performance indicator scrutiny	3.15	0.67	0.88	2
Specially constituted panels	3.05	0.78	0.86	3
Peer visitations	2.98	0.72	0.87	4
Document analysis	2.95	0.77	0.86	5
Self-assessment	2.76	0.73	0.87	6
Direct observation of classroom teaching	2.61	0.53	0.89	7
Inter-item Correlation	0.56			
Cronbach Alpha	0.89			

In Table 4, accreditation "focus" areas, which can affect the protection of academic freedom at universities in South Africa, appear to be curricula design and content, quality control and assurance processes, graduate abilities and employability, and pedagogy. It is, however, notable that most of the respondents perceive that within the South African context, they are satisfied with academic freedom in the current setting of programme accreditation by the statutory body in engineering.

Table 4: Areas of accreditation "focus" that were perceived to have an effect on the protection of academic freedom at universities in South Africa

Focus	MS	Corr.	Alpha	Rank
Quality control and assurance processes	3.64	0.76	0.90	1
Curricula design and content	3.60	0.62	0.91	2
Graduate abilities	3.20	0.72	0.90	3
Pedagogy – teaching, instruction, training, tutelage	3.15	0.73	0.90	4
Graduate employability	3.12	0.54	0.91	5
Programme resources	2.98	0.78	0.89	6
Staffing in department	2.83	0.79	0.89	7
Medium of delivery – physical space, ICT and library	2.88	0.80	0.89	8
Inter-item Correlation	0.58			
Cronbach Alpha	0.91			

Table 5 indicates the perceptions of the respondents when they were asked to rate the extent of the importance of certain aspects of academic freedom within the context of university mandates in South Africa. The computed data indicate that the respondents were of the opinion that scholars should enjoy teaching freedom and independence of scholarship in their institutions. The respondents perceive that the freedom to teach research-informed propositions, students' freedom to learn, the avoidance of external pressures that can re-orient universities and freedom related to course design and content are significant considerations for the protection of academic freedom. Furthermore, Table 5 shows that freedom to determine student standards, scholarship not constraint by external pressures, and freedom from accountability to external pressures are all deemed to be important to the existence of universities and their expected contributions to society.

Table 5: Aspects of academic freedom perceived to be critical to the continued existence of universities in South Africa

Aspect	MS	Corr.	Alpha	Rank
Scholars, as lecturers, should enjoy teaching freedom	3.88	0.57	0.82	1
Independence of scholarship	3.88	0.43	0.83	2
Freedom to teach research-informed propositions	3.81	0.62	0.82	3
Freedom to learn is provided to students	3.68	0.55	0.82	4
External pressures must not re-orient universities	3.64	0.61	0.82	5
Freedom-related course design and content	3.63	0.51	0.83	6
Scholarship not constraint by external pressures	3.54	0.48	0.83	7
External pressures should not re-orient curricula	3.51	0.65	0.81	8
Freedom to determine student standards	3.49	0.46	0.83	9
Freedom from accountability to external pressures	3.12	0.48	0.83	10
Inter-item Correlation	0.37			
Cronbach Alpha	0.84			

The open-ended questions that were asked allowed the respondents to tap into their experiences and offer perspectives that were not forthcoming from the closed-ended questions. Firstly, it was observed that most of the respondents had negative perceptions with regard to documentation requirements for accreditation visits. Recurrent comments related to documentation that some of the respondents are unhappy with, include the amount of time that academics have to spend compiling files; in other words, most of the respondents were of the opinion that accreditation creates too much paperwork, with the result that staff members at universities tend to waste too much valuable time on administrative duties and the related additional work.

The respondents describe accreditation-related documentation as cumbersome, burdensome, excessive, and time-consuming. They summarise their view with the assertion that the documentation burden results in an added workload for academic staff members, inadequate attention to academic work, and limited time to conduct research. Secondly, the selection of accreditation panels by statutory councils was highlighted as an area for review.

The written comments of the respondents emphasised the unintentional consequences of using a panel that is dominated by academics from other institutions. According to one respondent, such panels send the wrong signals, in various forms, and the view was expressed that accreditation that is supposed to favour the industry should be led by professionals that are employed full-time in the industry. A profound examination of the emotional comments in this regard indicates that bias may be difficult to remove when perceived competitors in academia are members of accreditation panels.

Conclusions

Programme accreditation, which is important for engineering disciplines, is conducted by the Engineering Council of South Africa (ECSA). The implicit objective of accreditation is to promote continuous improvement in higher education. However, it appears that certain aspects of the accreditation exercise impact on the freedom to teach and to do research, which is the fundamental principle of academic freedom. In broad terms, there were slightly more doubtful than positive responses when the tension between accreditation and academic freedom was examined in this study. This was principally evident from respondents' remarks on the selection of an accreditation panel, and the documentation of accreditation requirements. It should be noted that although most of the respondents perceived that accreditation contributes to improvements in engineering programmes offered at South African universities, they are nevertheless in favour of process changes that must occur through dialogue.

The authors support the view of Galambos (2010), who argues that, as educators in professional degree programmes, perhaps our greatest challenge is finding a way to protect the essence of what remains of academic freedom while ensuring that our accreditation standards support the type of curricula that produces knowledgeable, competent, social work practitioners. How do we lead our academic programmes in such a way that scholarship is enhanced, academic freedom honoured, and our principles at least respectfully acknowledged?

This study supports the views of De Jager (2012) that the focus of professional bodies should be to verify whether academic service providers have achieved the specific outcomes of the qualification concerned (or verify the learning achieved). These bodies should not interfere with the processes followed by universities/departments to achieve those outcomes. The bodies tend to do so, and are sometimes too prescriptive. The positive side is that, for example, ECSA requires a humanities module for the BEng stream, which means that universities are now able to produce a more balanced engineer. ECSA also plays an important role in strengthening collaboration with universities and assisting universities with various challenges, for example academic support mechanisms to improve success rates. One could argue that bodies are restricting curriculum development, but the process of determining generic qualification standards, which include specific outcomes, is usually conducted through the National Standards Generating Body (SGB) for Engineering, which includes all the role players, including academics. In addition, some of the respondents are of the view that ECSA is very supportive of universities' efforts to enhance the profession, and they have readily assisted the universities.

In conclusion, professional bodies are also going through a process of transformation and are faced with many challenges, including capacity constraints. The Council on Higher Education (CHE) and universities need to strengthen their relationship with professional bodies, and at the same time clarify and address various matters that emanated from this study.

Notes:

1. Due to the methodological standpoint, limitations *vis-à-vis* the non-inclusion of the views of ECSA and the reliance on perceptions without hard evidence, the discussion of the findings of this study should be treated as thought-provoking and inconclusive.
2. The entire exploratory study included the quantity surveying and construction management disciplines and the consolidated findings shall be available in the first part of 2015.

Acknowledgement

The authors are grateful to Dr J Pietersen of the Nelson Mandela Metropolitan University (NMMU)'s Unit for Statistical Analysis for his assistance with the statistical analysis of the data in this research project.

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